

**TAMIL NADU TEACHERS EDUCATION UNIVERSITY**

**Chennai-600 097.**

**Course Material for B.Ed. (Second Year)**

**(2016-2017)**

**Course: 9 ASSESSMENT FOR LEARNING**

**Prepared by**

- Unit I** : Basics of Assessment  
**Dr.V.Sharmila, Assistant Professor**
- Unit II** : Assessment for Learning in Classroom  
**Dr.V.Sharmila, Assistant Professor**
- Unit III** : Tools and Techniques for Classroom Assessment  
**Dr. R. Boopathi, Assistant Professor**
- Unit IV** : Issues in Classroom Assessment  
**Dr. R. Boopathi, Assistant Professor**
- Unit V** : Assessment in Inclusive Practices  
**Dr. M. Kanmani, Associate Professor**

**Department of Educational Technology**  
**Tamil Nadu Teachers Education University**  
**Chennai 600 097**

## **COURSE- 9: ASSESSMENT FOR LEARNING**

### **UNIT -1 BASICS OF ASSESSMENT**

#### **COURSE OBJECTIVES**

- To describe the meaning and role of assessment
- To know the principles of assessment practices
- To understand the assessment practices in various approaches of teaching
- To Differentiate different types of assessment
- To understand how to prepare report for assessment findings

#### **WHAT IS MEASUREMENT?**

Suppose there is a basket full of fruits. Let us count the fruits. There are 22 apples, 12 oranges, 16 papayas, 4 pine apples and 8 mangoes. In all there are 62 fruits in the basket. This counting is called enumeration.

Now, if someone asks “what is the total weight of the basket?” When the basket is weighed, we find that that is 5.8 kg. This weighting answers the question “How much”. So when we are trying to answer the question “How much” i.e. how much height, how much time, how much area, how much volume, how much pressure, how much water, how much electricity etc., we are dealing with measurement. Measurement answers the question “how much”. In education, student’s progress is measured in terms of marks or grades, teacher’s effectiveness as improvement and modification of the behaviour of his students etc.

In every measurement, three things are involved, Firstly a set of objects i.e. the thing, object or person to be measured, secondly a set of numbers and thirdly a rule or rules for the assignment of a number to each object.

Measurement may be defined as the assignment of one of a set of numbers to each of a set of persons or objects according to certain established rules.

#### **DEFINITION**

Measurement refers to the process of assigning numerals to events, objects etc. according to certain rules (Tyler, 1963).

Measurement consists of rules for assigning numbers to objects in such a way as to represent quantities of attributes (Nunnally, 1970).

Measurement of any kind is matter of determining how much or how little, how great or how small, how much more than or how much less than (Micheels& Karnes, 1950).

Measurement may be defined as the assignment of one of a set of numbers to each of a set of persons or objects according to established rules.(Lindeman and Merenda, 1979).

Measurement is the assigning of numbers to things according to rules (Glass and Stanley, 1970).

## **ASSESSMENT**

### **MEANING**

Assessment plays a number of roles in the life of a student, some of which they may be more aware of than others. It's widely accepted that students' learning patterns, educational focus, and allocation of time will be directly influenced by assessment.

Educational assessment is the process of documenting, usually in measurable terms, knowledge, skills, attitudes and beliefs. Assessment can focus on the individual learner, the learning community (class, workshop or other organized group of learners), the institution, or the educational system as a whole (also known as granularity).

### **DEFINITION**

Assessment does more than allocate a grade or degree classification to students – it plays an important role in focusing their attention and, as Sainsbury & Walker (2007) observe, actually drives their learning.

Gibbs (2003) states that assessment has 6 main functions:

1. Capturing student time and attention
2. Generating appropriate student learning activity
3. providing timely feedback which students pay attention to
4. Helping students to internalise the discipline's standards and notions of equality
5. Generating marks or grades which distinguish between students or enable pass/fail decisions to be made
6. Providing evidence for other outside the course to enable them to judge the appropriateness of standards on the course. That may be relied on for making decisions.

According to Evangeline Harris Stefankis (2002), "The word assess comes from the Latin *assidere*, which means **to set beside**. Literally then, **To assess** means **to sit beside the learner**".

According to Fenton (1996), "Assessment is the collection of relevant information

Assessment for Learning focuses on the opportunities to develop students' ability to evaluate themselves, to make judgements about their own performance and improve upon it. It makes use of authentic assessment methods and offers lots of opportunities for students to develop their skills through formative assessment using summative assessment sparingly.

## **EVALUATION**

### **MEANING**

Evaluation = measurement + judgment

It refers to the value or judgement (the quality or worth) we attach to the magnitude or quantity of the achievement of the student. It answers the question “what value that how much is”. It is thus qualitative. Measurement tells “how much” and evaluation tells “what value or worth that how much is”. Measurement tells quantity, and evaluation refers to quality.

In education, we never measure or evaluate people i.e. students or teachers. We measure or evaluate characteristics or properties of people, their scholastic potential, knowledge of algebra, honesty, perseverance, ability to teach and so forth.

## **DEFINITION**

To evaluate something is to appraise its quality, a determination of its worth (Popham, 1988).

Evaluation is meant appraisal or assessment with respect to some standard (Singh).

Evaluation is a process wherein the parts, processes or outcomes of a programme are examined to see whether they are satisfactory, particularly with the reference to the programme, stated objectives, our own expectations, our own standards of excellence (Tuckman, 1975).

Evaluation is the process of delineating, obtaining and providing useful information for judging decision alternative (Stufflebeam).

Evaluation in education is a process by which we form judgment about the value of the educational status or achievement of students (Hill and Dressel).

## **ROLE OF ASSESSMENT IN LEARNING**

Assessment plays a major role in how students learn, their motivation to learn, and how teachers teach.

Assessment is used for various purposes.

**Assessment *for* learning:** where assessment helps teachers gain insight into what students understand in order to plan and guide instruction, and provide helpful feedback to students.

**Assessment *as* learning:** where students develop an awareness of how they learn and use that awareness to adjust and advance their learning, taking an increased responsibility for their learning.

**Assessment *of* learning:** where assessment informs students, teachers and parents, as well as the broader educational community, of achievement at a certain point in time in order to celebrate success, plan interventions and support continued progress.

Assessment must be planned with its purpose in mind. Assessment *for*, *as* and *of* learning all have a role to play in supporting and improving student learning, and must be appropriately balanced. The most important part of assessment is the interpretation and use of the information that is gleaned for its intended purpose.

Assessment is embedded in the learning process. It is tightly interconnected with curriculum and instruction. As teachers and students work towards the achievement of curriculum outcomes,

assessment plays a constant role in informing instruction, guiding the student's next steps, and checking progress and achievement. Teachers use many different processes and strategies for classroom assessment, and adapt them to suit the assessment purpose and needs of individual students.

## **FORMATIVE AND SUMMATIVE ASSESSMENT**

Formative assessments are commonly said to be for learning because educators use the results to modify and improve teaching techniques during an instructional period, while summative assessments are said to be of learning because they evaluate academic achievement at the conclusion of an instructional period. Or as assessment expert Paul Black put it, "When the cook tastes the soup, that's formative assessment, when the customer tastes the soup, that's summative assessment."

## **DEFINING FORMATIVE AND SUMMATIVE ASSESSMENTS**

The terms "formative" and "summative" do not have to be difficult, yet the definitions have become confusing in the past few years. This is especially true for formative assessment. In a balanced assessment system, both summative and formative assessments are an integral part of information gathering. Depend too much on one or the other and the reality of student achievement in your classroom becomes unclear.

**Summative Assessments** are given periodically to determine at a particular point in time what students know and do not know. Many associate summative assessments only with standardized tests such as state assessments, but they are also used at and are an important part of district and classroom programs. Summative assessment at the district/classroom level is an accountability measure that is generally used as part of the grading process. The list is long, but here are some examples of summative assessments:

- State assessments
- District benchmark or interim assessments
- End-of-unit or chapter tests
- End-of-term or semester exams
- Scores that are used for accountability for schools and students (report card grades).

The key is to think of summative assessment as a means to gauge, at a particular point in time, student learning relative to content standards. Although the information that is gleaned from this type of assessment is important, it can only help in evaluating certain aspects of the learning process. Because they are spread out and occur *after* instruction every few weeks, months, or once a year, summative assessments are tools to help evaluate the effectiveness of programs, school improvement goals, alignment of curriculum, or student placement in specific programs. Summative assessments happen too far down the learning path to provide information at the classroom level and to make instructional adjustments and interventions *during* the learning process. It takes formative assessment to accomplish this.

**Formative Assessment** is part of the instructional process. When incorporated into classroom practice, it provides the information needed to adjust teaching and learning while they are happening. In this sense, formative assessment informs both teachers and students about student understanding at a point when timely adjustments can be made. These adjustments help to ensure student's achieve, targeted standards-based learning goals within a set time frame. Although formative assessment strategies appear in a variety of formats, there are some distinct ways to distinguish them from summative assessments.

One distinction is to think of formative assessment as "practice." We do not hold students accountable in "grade book fashion" for skills and concepts they have just been introduced to or are learning. We must allow for practice. Formative assessment helps teachers determine next steps during the learning process as the instruction approaches the summative assessment of student learning. A good analogy for this is the road test that is required to receive a driver's license. What if, before getting your driver's license, you received a grade every time you sat behind the wheel to practice driving? What if your final grade for the driving test was the average of all of the grades you received while practicing? Because of the initial low grades you received during the process of learning to drive, your final grade would not accurately reflect your ability to drive a car. In the beginning of learning to drive, how confident or motivated to learn would you feel? Would any of the grades you received provide you with guidance on what you needed to do next to improve your driving skills? Your final driving test, or summative assessment, would be the accountability measure that establishes whether or not you have the driving skills necessary for a driver's license—not a reflection of all the driving practice that leads to it. The same holds true for classroom instruction, learning, and assessment.

Another distinction that underpins formative assessment is student involvement. If students are not involved in the assessment process, formative assessment is not practiced or implemented to its full effectiveness. Students need to be involved both as assessors of their own learning and as resources to other students. There are numerous strategies teachers can implement to engage students. In fact, research shows that the involvement in and ownership of their work increases students' motivation to learn. This does not mean the absence of teacher involvement. To the contrary, teachers are critical in identifying learning goals, setting clear criteria for success, and designing assessment tasks that provide evidence of student learning.

One of the key components of engaging students in the assessment of their own learning is providing them with descriptive feedback as they learn. In fact, research shows descriptive feedback to be the most significant instructional strategy to move students forward in their learning. Descriptive feedback provides students with an understanding of what they are doing well, links to classroom learning, and gives specific input on how to reach the next step in the learning progression. In other words, descriptive feedback is not a grade, a sticker, or "good job!" A significant body of research indicates that such limited feedback does not lead to improved student learning.

## **PURPOSES OF ASSESSMENT**

### **Assessment drives instruction**

A pre-test or needs assessment informs instructors what students know and do not know at the outset, setting the direction of a course. If done well, the information garnered will highlight the gap between existing knowledge and a desired outcome. Accomplished instructors find out what students already know, and use the prior knowledge as a stepping off place to develop new understanding. The same is true for data obtained through assessment done during instruction. By checking in with students throughout instruction, outstanding instructors constantly revise and refine their teaching to meet the diverse needs of students.

### **Assessment drives learning**

What and how students learn depends to a major extent on how they think they will be assessed. Assessment practices must send the right signals to students about what to study, how to study, and the relative time to spend on concepts and skills in a course. Accomplished faculty communicate clearly what students need to know and be able to do, both through a clearly articulated syllabus, and by choosing assessments carefully in order to direct student energies. High expectations for learning result in students who rise to the occasion.

### **Assessment informs students of their progress**

Effective assessment provides students with a sense of what they know and don't know about a subject. If done well, the feedback provided to students will indicate to them how to improve their performance. Assessments must clearly match the content, the nature of thinking, and the skills taught in a class. Through feedback from instructors, students become aware of their strengths and challenges with respect to course learning outcomes. Assessment done well should not be a surprise to students.

### **Assessment informs teaching practice**

Reflection on student accomplishments offers instructors insights on the effectiveness of their teaching strategies. By systematically gathering, analyzing, and interpreting evidence we can determine how well student learning matches our outcomes / expectations for a lesson, unit or course. The knowledge from feedback indicates to the instructor how to improve instruction, where to strengthen teaching, and what areas are well understood and therefore may be cut back in future courses.

## **Role of grading in assessment**

Grades should be a reflection of what a student has learned as defined in the student learning outcomes. They should be based on direct evidence of student learning as measured on tests, papers, projects, and presentations, etc. Grades often fail to tell us clearly about “large learning” such as critical thinking skills, problem solving abilities, communication skills (oral, written and listening), social skills, and emotional management skills.

## **When student learning outcomes are not met**

Accomplished faculty focus on the data coming out of the assessments they complete before, during and at the end of a course, and determine the degree to which student learning outcomes are or are not met. If students are off course early on, a redirecting, reteaching of a topic, referral to student learning centers, or review sessions by the instructor may remediate the problem. Through careful analysis it is possible to determine the challenges and weaknesses of instruction in order to support student learning better. Some topics or concepts are notoriously difficult, and there may be a better approach to use. Perhaps a model, simulation, experiment, example or illustration will clarify the concept for students. Perhaps spending a bit more time, or going over a topic in another way will make a difference. If the problem is noticed late in the course, an instructor may plan to make any instructional changes for the next time the course is taught, but it is helpful to make a note of the changes needed at the time so that the realization is not lost.

Assessments are used for a wide variety of purposes in schools and education systems:

- **High-stakes assessments** are typically standardized tests used for the purposes of accountability—i.e., any attempt by federal, state, or local government agencies to ensure that students are enrolled in effective schools and being taught by effective teachers. In general, “high stakes” means that important decisions about students, teachers, schools, or districts are based on the scores students achieve on a high-stakes test, and either punishments (sanctions, penalties, reduced funding, negative publicity, not being promoted to the next grade, not being allowed to graduate) or accolades (awards, public celebration, positive publicity, bonuses, grade promotion, diplomas) result from those scores.
- **Pre-assessments** are administered before students begin a lesson, unit, course, or academic program. Students are not necessarily expected to know most, or even any, of the material evaluated by pre-assessments—they are generally used to (1) establish a baseline against which educators measure learning progress over the duration of a program, course, or instructional period, or (2) determine general academic readiness for a course, program, grade level, or new academic program that student may be transferring into.
- **Formative assessments** are in-process evaluations of student learning that are typically administered multiple times during a unit, course, or academic program. The general purpose of



formative assessment is to give educators in-process feedback about what students are learning or not learning so that instructional approaches, teaching materials, and academic support can be modified accordingly. Formative assessments are usually not scored or graded, and they may take a variety of forms, from more formal quizzes and assignments to informal questioning techniques and in-class discussions with students.

- **Summative assessments** are used to evaluate student learning at the conclusion of a specific instructional period—typically at the end of a unit, course, semester, program, or school year. Summative assessments are typically scored and graded tests, assignments, or projects that are used to determine whether students have learned what they were expected to learn during the defined instructional period.

## **PRINCIPLES OF ASSESSMENT**

1. Assessment should be valid Validity ensures that assessment tasks and associated criteria effectively measure student attainment of the intended learning outcomes at the appropriate level.
2. Assessment should be reliable and consistent There is a need for assessment to be reliable and this requires clear and consistent processes for the setting, marking, grading and moderation of assignments.
3. Information about assessment should be explicit, accessible and transparent Clear, accurate, consistent and timely information on assessment tasks and procedures should be made available to students, staff and other external assessors or examiners.
4. Assessment should be inclusive and equitable As far as is possible without compromising academic standards, inclusive and equitable assessment should ensure that tasks and procedures do not disadvantage any group or individual.
5. Assessment should be an integral part of programme design and should relate directly to the programme aims and learning outcomes Assessment tasks should primarily reflect the nature of the discipline or subject but should also ensure that students have the opportunity to develop a range of generic skills and capabilities.
6. The amount of assessed work should be manageable. The scheduling of assignments and the amount of assessed work required should provide a reliable and valid profile of achievement without overloading staff or students.
7. Formative and summative assessment should be included in each programme Formative and summative assessment should be incorporated into programmes to ensure that the purposes of assessment are adequately addressed. Many programmes may also wish to include diagnostic assessment.
8. Timely feedback that promotes learning and facilitates improvement should be an integral part of the assessment process Students are entitled to feedback on submitted formative assessment tasks, and on summative tasks, where appropriate. The nature, extent and timing of feedback for each assessment task should be made clear to students in advance.

9. Staff development policy and strategy should include assessment All those involved in the assessment of students must be competent to undertake their roles and responsibilities.

## **PRINCIPLES OF GOOD PRACTICE FOR ASSESSING STUDENT LEARNING**

### **1. The assessment of student learning begins with educational values.**

Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only what we choose to assess but also how we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.

### **2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.**

Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.

### **3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.**

Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations—these derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.

### **4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.**

Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way—about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

#### **5. Assessment works best when it is ongoing, not episodic.**

Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the progress of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

#### **6. Assessment fosters wider improvement when representatives from across the educational community are involved.**

Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus, understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

#### **7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.**

Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

#### **8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.**

Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.

**9. Through assessment, educators meet responsibilities to students and to the public.** There is compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation-to ourselves, our students, and society-is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

## **PRINCIPLES RELATED TO SELECTION OF METHODS FOR ASSESSMENT**

There is a wealth of assessment methods used in higher education to assess students' achievements, but how to choose?

The primary goal is to choose a method which most effectively assesses the objectives of the unit of study. In addition, choice of assessment methods should be aligned with the overall aims of the program, and may include the development of disciplinary skills (such as critical evaluation or problem solving) and support the development of vocational competencies (such as particular communication or team skills.)

Hence, when choosing assessment items, it is useful to have one eye on the immediate task of assessing student learning in a particular unit of study, and another eye on the broader aims of the program and the qualities of the graduating student. Ideally this is something you do with your academic colleagues so there is a planned assessment strategy across a program.

When considering assessment methods, it is particularly useful to think first about what qualities or abilities you are seeking to engender in the learners. Nightingale et al (1996) provide eight broad categories of learning outcomes which are listed below. Within each category some suitable methods are suggested.

### **1. Thinking critically and making judgements**

(Developing arguments, reflecting, evaluating, assessing, judging)

- Essay
- Report
- Journal
- Letter of Advice to .... (about policy, public health matters .....
- Present a case for an interest group
- Prepare a committee briefing paper for a specific meeting
- Book review (or article) for a particular journal
- Write a newspaper article for a foreign newspaper
- Comment on an article's theoretical perspective

### **2. Solving problems and developing plans**

(Identifying problems, posing problems, defining problems, analysing data, reviewing, designing experiments, planning, applying information)

- Problem scenario
- Group Work
- Work-based problem
- Prepare a committee of enquiry report
- Draft a research bid to a realistic brief
- Analyse a case
- Conference paper (or notes for a conference paper plus annotated bibliography)

### **3. Performing procedures and demonstrating techniques**

(Computation, taking readings, using equipment, following laboratory procedures, following protocols, carrying out instructions)

- Demonstration
- Role Play
- Make a video (write script and produce/make a video)
- Produce a poster
- Lab report
- Prepare an illustrated manual on using the equipment, for a particular audience
- Observation of real or simulated professional practice

### **4. Managing and developing oneself**

(Working co-operatively, working independently, learning independently, being self-directed, managing time, managing tasks, organising)

- Journal
- Portfolio
- Learning Contract
- Group work

### **5. Accessing and managing information**

(Researching, investigating, interpreting, organising information, reviewing and paraphrasing information, collecting data, searching and managing information sources, observing and interpreting)

- Annotated bibliography

- Project
- Dissertation
- Applied task
- Applied problem

## **6. Demonstrating knowledge and understanding**

(Recalling, describing, reporting, recounting, recognising, identifying, relating & interrelating)

- Written examination
- Oral examination
- Essay
- Report
- Comment on the accuracy of a set of records
- Devise an encyclopaedia entry
- Produce an A - Z of ...
- Write an answer to a client's question
- Short answer questions: True/False/ Multiple Choice Questions (paper-based or computer-aided-assessment)

## **7. Designing, creating, performing**

(Imagining, visualising, designing, producing, creating, innovating, performing)

- Portfolio
- Performance
- Presentation
- Hypothetical
- Projects

## **8. Communicating**

**(One and two-way communication; communication within a group, verbal, written and non-verbal communication, arguing, describing, advocating, interviewing, negotiating, presenting; using specific written forms)**

- Written presentation (essay, report, reflective paper etc.)
- Oral presentation
- Group work

- Discussion/debate/role play
- Participate in a 'Court of Enquiry'
- Presentation to camera
- Observation of real or simulated professional practice.
- 

## **COLLECTION OF ASSESSMENT INFORMATION**

The process of collecting, examining and using information about what students know and can do is the basis of effective teaching and learning.

The relationship between assessment, teaching and learning is dynamic and interactive. The act of gathering, analysing and using assessment information is integral to the teaching and learning process – without worthwhile assessment information teachers can only be certain that they have taught. They cannot be certain that their students have learned what they set out to teach, or that the teaching is relevant to the students' learning needs and interests.

When teachers have rich information about what their students know, can do and need to do next, they are able to involve students as active participants in their learning and assessment of their own learning. They are also in a position to consult parents and the school's communities about students' progress.

### **Assessment processes**

Assessment information is collected to determine students' achievement and their learning needs. It provides a basis for the analysis of progress and achievement of students over time and assists the diagnosis of individual learning needs.

### **The collection of assessment information**

Assessment includes information gathered from a wide range of sources and at different points in time. These sources can include:

- knowledge gained from parents about their child;
- teachers' knowledge drawn from their day-to-day interactions with students;
- results from teacher-designed classroom and school-wide tests;
- assessment at school entry or transition points;
- results from national standardised assessment tools such as PATs (Progressive Achievement Tests), as TTLE (assessment tools for teaching and learning) or the national exemplars;
- examination results; and
- national qualification results such as those from NCEA (National Certificates of Educational Achievement).

## **JUDGING AND SCORING OF STUDENT PERFORMANCE**

A rubric is a multi-purpose scoring guide for assessing student products and performances. This tool works in a number of different ways to advance student learning, and has great potential in particular for non-traditional, first generation, and minority students. In addition, rubrics improve

teaching, contribute to sound assessment, and are an important source of information for program improvement.

Various grading and reporting methods are used to: (1) communicate the achievement status of students to their parents and other interested parties; (2) provide information to students for self-evaluation; (3) select, identify, or group students for certain educational paths or programs; (4) provide incentives for students to learn; and (5) document students' performance to evaluate the effectiveness of instructional programs. Unfortunately, many schools try to use a single method of grading and reporting to achieve all of these purposes and end up achieving none of them very well.

Letter grades, for example, offer parents and others a brief description of students' achievement and the adequacy of their performance. But using letter grades requires the abstraction of a great deal of information into a single symbol. In addition, the cut-offs between grades are always arbitrary and difficult to justify. Letter grades also lack the richness of other, more detailed reporting methods such as narratives or standards-based reports.

Grading is a process of professional judgment—and the more detailed and analytic the grading process, the more likely it is that subjectivity will influence results. This is why, for example, holistic scoring procedures tend to have greater reliability than analytic procedures. However, being subjective does not mean that grades lack credibility or are indefensible. Because teachers know their students, understand various dimensions of students' work, and have clear notions of the progress made, their subjective perceptions can yield very accurate descriptions of what students have learned.

## **SUMMARIZATION AND INTERPRETATION OF RESULTS**

### **Methods of interpreting the results**

#### **1. Norm-referenced Interpretation**

It describes student's performance or progress in relation to others of the same peer group, age or ability. It may involve ranking or scaling a pupil to help with streaming classes. It may look at cross-school achievements to compare achievement in particular groups, subjects and years with local and national levels of attainment.

#### **Examples:**

1. Diya's score in the periodical exams is below the mean.
2. Ram ranked 5th in the unit test in Physics.
3. Sheela's percentile rank in the Math achievement test is 88.

#### **2. Criterion-referenced Interpretation**

It describes about the student performance according to a specified domain or clearly defined learning tasks e.g. divide three-digit whole numbers correctly and accurately, multiply binomial terms correctly. It is concerned with national examination and other assessment bodies. It is used in the assessment of vocational and academic qualifications. Results are given



on a pass/fail, competent/not competent basis. Results are conclusive and usually open to review.

Examples:

1. Helen can construct a pie graph with 75% accuracy
2. Heera scored 7 out of 10 in the spelling test
3. Riya can encode an article with no more than 5 errors in spelling

## **REPORTING OF ASSESSMENT FINDINGS**

Assessment is an ongoing and integral part of the teaching and learning process. Through this process schools are able to provide easy-to-understand reports to parents about individual student learning outcomes.

The type of assessment and report varies at different times during a student's school life. Formal reporting to parents will occur at least once every semester. Parents are encouraged to discuss their children's progress and needs with teachers at any time.

### **Purposes of Assessment Reports**

Historical Record

Support for planning and decision

Making for improvements

Public relations

Information dissemination

Document your contributions to the learning environment

To see how your efforts mattered

## **OVERVIEW OF GOOD PRACTICE IN COLLECTING AND USING ASSESSMENT INFORMATION**

‘Assessment in education is the process of gathering, interpreting, recording and using information about students’ responses to an educational task’. The assessment of student achievement (i.e. examining and using information about what students know and can do) is

the basis of effective teaching and learning. Unless teachers are knowledgeable about their students’ achievements and interests, they cannot be confident. Their teaching is supporting students to achieve their potential. ‘Overall the purpose of assessment is to improve standards, not merely to measure them.’

Effective assessment systems help schools to monitor students' progress and achievement, and enable them to design effective programmes. It is not a case of schools assessing more, but of using assessment information in a more planned and thoughtful manner.

Schools that demonstrated good practice:

- made certain that teachers had a shared understanding about the purpose of assessment;
- expected teachers to be knowledgeable about their students' achievements and interests;
- made certain that school managers, teachers and students were aware of the rationale for the decisions being made about assessment;
- gave teachers the opportunity for professional development in assessment;
- encouraged their teachers to use data effectively to improve their teaching;
- expected assessment information to be drawn from a wide range of sources: day-to-day interactions with students; analysis of students' work and from more formally designed and administered assessment tasks;
- made sure teachers were able to analyse both numeric and narrative assessment information and interpret the results so they were understood by all potential users of the information;
- encouraged teachers to use formative assessment strategies that ensured the purpose of activities was understood, and that students received effective and useful feedback;
- identified groups of students who needed extra assistance and what specific assistance was needed; monitored the students' progress; and gathered comprehensive school-wide data on their achievements;
- identified trends and patterns in students' achievements and compared the achievements of groups of students within the school;
- established clear expectations for achievement and assessment, including making collation and reporting easier so comparisons could be made to agreed achievement targets;
- promoted the philosophy that student learning drove assessment practices, not credit acquisition;
- established clear lines of communication and easily accessed support between school and home; and
- provided students and their parents with booklets and held information evenings to explain the NQF(National Quality Framework) requirements and assessment procedures, including appeals and opportunities for reassessment.

## **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. Define evaluation
2. What is the role of assessment in learning?
3. What is summative assessment?
4. What are the principles of assessment practices?
5. How will you prepare a report for assessment findings?

## **REFERENCES**

Amarjit Singh (2007), 'Classroom Management' Kanishka publishers, Distributors, New Delhi.

John Gardner, 'On the Relationship between Assessment for Formative and Summative Purposes'

Bhatia, K.K. (1985), 'Measurement and Evaluation in Education, Prakash Brothers, Ludhiana.

[www.assessmentforlearning.edu.au/research\\_background/bibliography](http://www.assessmentforlearning.edu.au/research_background/bibliography)

[www.edb.gov.hk/en/curriculum/assessment/assessment-for-learning](http://www.edb.gov.hk/en/curriculum/assessment/assessment-for-learning)

## UNIT-2 : ASSESSMENT FOR LEARNING IN CLASSROOM

### COURSE OBJECTIVES

- To know the principles of assessment practices
- To understand the types of assessment
- To describe about grading
- To understand the constructivist approach in assessment
- To point out the formative use of summative tests

### ASSESSMENT IN CONSTRUCTIVIST APPROACH

Three constructs emerge from the literature regarding constructivism and have implications for the learning environment. They are (1) learning is an active process, (2) the learner has prior knowledge, and (3) the learner takes responsibility for their own learning (Yager, 1991; Cobb et al 1992, Magoon, 1977; Hewson&Hewson, 1988).

These ideas can be operationalized by the following statements:

1. Assessments are in a meaningful context that is relevant or has emerging relevance to students (Brooks & Brooks, 1993).
2. The process of learning does not shut down during assessment (Brooks & Brooks, 1993).
3. Assessments are tailored to specific modules and teaching situations (Zahorik, 1995).
4. Assessments include higher order thinking skills, i.e., application, evaluation, analysis, synthesis (Burry-Stock, 1995; Yager, 1991).
5. Assessments include application of knowledge and comprehension (Zahorik, 1995).
6. A range of techniques is used in assessments (Burry-Stock, 1995; Zahorik, 1995).
7. Assessments focus on the big pictures on concepts and on issues and their accompanying facts and evidence (Zahorik, 1995).
8. Assessment includes inquiry (Brooks & Brooks, 1993; Yager, 1991).
9. Students go beyond initial information levels (knowledge and comprehension) through elaboration doing in-depth analysis of big ideas, issues and concepts (Brooks & Brooks, 1993).
10. Students solve problems in which they extend and re-conceptualize (accommodation) knowledge in new contexts (Brooks & Brooks, 1993; Osborne & Wittrock, 1983; Zahorik, 1995).
11. Students generalize (synthesis) experiences from earlier concrete experiences to understand abstract theories and applications (Brooks & Brooks, 1993; Osborne & Wittrock, 1983; Zahorik, 1995).
12. Students exhibit knowledge through application (Yager, 1991).
13. Students interact with each other in all circumstances including during assessments (Zahorik, 1995).

Assessment can be used to build understanding through reflection and iteration. There is great promise for deeper understanding and appreciation of the creative, generative process we call learning when a student is aware of scholastic expectations and understands how to effectively review and critique his or her own work. This process has three steps:

1. The teacher must help students understand from the outset the criteria by which their work will be judged.
2. Students must document their work process for the duration of the project or unit.
3. Through performance and feedback, students come to understand the complex nature of judging and improving upon one's work.

### **Assessment and constructivist classroom**

Constructivism is basically a theory - based on observation and scientific study - about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know.

In the classroom, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. Constructivist teachers encourage students to constantly assess how the activity is helping them gain understanding. By questioning themselves and their strategies, students in the constructivist classroom ideally become "expert learners." This gives them ever-broadening tools to keep learning. With a well-planned classroom environment, the students learn how to learn.

Constructivism transforms the student from a passive recipient of information to an active participant in the learning process. Guided by the teacher, students construct their knowledge actively rather than just mechanically ingesting knowledge from the teacher or the textbook. In the constructivist classroom, the focus tends to shift from the teacher to the students. The classroom is no longer a place where the teacher ("expert") pours knowledge into passive students, who wait like empty vessels to be filled. In the constructivist model, the students are urged to be actively involved in their own process of learning. The teacher functions more as a facilitator who coaches, mediates, prompts, and helps students develop and assess their understanding, and thereby their learning. One of the teacher's biggest jobs becomes asking good questions.

As is the case with many of the current/popular paradigms, you're probably already using the constructivist approach to some degree. Constructivist teachers pose questions and problems, then guide students to help them find their own answers. They use many techniques in the teaching process. For example, they may:

- prompt students to formulate their own questions (inquiry),
- allow multiple interpretations and expressions of learning (multiple intelligences),
- encourage group work and the use of peers as resources (collaborative learning).

## **Characteristics of assessment**

In the context of constructivist approach, assessments need to gauge the progress of students in achieving the three major learning outcomes of constructivist approach: conceptual understanding in science, abilities to perform scientific inquiry, and understandings about inquiry.

All learners come to a learning tasks with some relevant knowledge, feelings and skills. Meaningful learning occurs when the learners seeks to relate new concepts and propositions to relevant existing concept and propositions in her/his cognitive structure (Mintzes, Novak, Wandersee, 2000).

Constructivist approach to assessment is a formative rather than a summative. Its purpose is to improve the quality of student learning, not to provide evidence for evaluating or grading students. Assessment has to respond to the particular needs and characteristics of the teachers, students and science content. Assessment is context-specific: what works well in one class will not necessarily work in another.

Assessment is on-going process. Teachers get feedback from students of their learning. Teachers then complete the loop by providing students with feedback on the results of the assessment and suggestions for improving learning.

## **CONTINUOUS AND COMPREHENSIVE EVALUATION (CCE)**

C–Continuous

C–Comprehensive

E–Evaluation

Continuous stands for assessment of a student throughout the year, not just at the end of a term. It may be done formally or in an informal way using different techniques of evaluation . Comprehensive takes care of assessment of all round development of a child's personality. A child will be assessed not only in terms of his knowledge about a subject but his participation in other activities also. Broadly, we assess a child's growth in two areas – Scholastic and Co-scholastic. The term Scholastic refers to those aspects , which are related to intellect or the brain. It is related to the assessment of learners in curricular subjects. It includes assignments, projects, practical etc.

Continuous and Comprehensive Evaluation (CCE) refers to a system of school-based evaluation of students that covers all aspects of students' development. It is a developmental process of assessment which emphasizes on two fold objectives. These objectives are continuity in evaluation and assessment of broad based learning and behavioural outcomes on the other.

In this scheme the term `continuous' is meant to emphasise that evaluation of identified aspects of students' `growth and development' is a continuous process rather than an event, built into the total teaching-learning process and spread over the entire span of academic session. It means

regularity of assessment, frequency of unit testing, diagnosis of learning gaps, use of corrective measures, retesting and for their self -evaluation.

The second term `comprehensive' means that the scheme attempts to cover both the scholastic and the co-scholastic aspects of students' growth and development

### **Need of continuous comprehensive evaluation**

Continuous and Comprehensive Evaluation is intended to provide a holistic profile of the learner through assessment of both scholastic and non-scholastic aspects of education spread over the total span of instructional time in schools.

It helps to identify those positive attributes of the learner which are not usually assessed during the examinations conducted by the Board

As it is spread over a period of two years in class IX and X it provides several opportunities for the school to identify the latent talents of the learners in different contexts.

This document is supportive to the statement of marks issued by the Board after the examinations conducted by it.

### **Essential aspects of continuous comprehensive evaluation**

1. To provide a holistic profile of the learner through assessment of both scholastic and non-scholastic aspects of education
2. To identify the latent talents of the learners in different contexts.
3. To identify strategies for raising Student Achievement
4. To plan a Comprehensive Evaluation Program to Improving Schools
5. To suggest suitable tools and techniques for achieving continuous comprehensive evaluation.
6. Use Evaluation for Continuous School Improvement
7. Using evaluation as a tool for continuous improvement of the school and the students.
8. To suggest ways of strategies of sensitizing school administrators.

### **PROJECTS**

Project is a method of building a comprehensive unit around an activity which may be carried on in the school or outside.

A project is a whole hearted purposeful activity proceeding in a social environment.

- Use of Projects for assessment

- Assessment of:
  - Clear Planning and framework
  - Critical thinking and Reasoning
  - Execution
  - Creativity
- Assessment of understanding level of concept
- Assessing how students visualizing real objects and decision making
- Students' ability of engaging and building new knowledge.
- Assessing how student is cooperating with other students.
- Assessment of self- confidence and self-discipline
- Daily progress
- Assessment of teamwork
- Accuracy of report writing

## **SEMINARS**

What is a Seminar?

A seminar may be defined as a gathering of people for the purpose of discussing a stated topic. Such gatherings are usually interactive sessions where the participants engage in discussions about the delineated topic. The sessions are usually headed or led by one or two presenters who serve to steer the discussion along the desired path.

### **Purpose of a seminar**

A seminar may have several purposes or just one purpose. For instance, a seminar may be for the purpose of education, such as a lecture, where the participants engage in the discussion of an academic subject for the aim of gaining a better insight into the subject. Other forms of educational seminars might be held to impart some skills or knowledge to the participants. Examples of such seminars include personal finance, web marketing, real estate, investing or other types of seminars where the participants gain knowledge or tips about the topic of discussion.

## **ASSIGNMENTS**

Assignment refers to tasks assigned to students by their teachers to be completed outside of class. Common homework assignments may include a quantity or period of reading to be performed,



writing or typing to be completed, problems to be solved, a school project to be built or other skills to be practiced.

#### Assignment as Assessment Device

- Concept understanding
- Content organization
- Content presentation
- Analytic ability
- Synthesis of material
- Formulation of ideas
- Use of arguments
- Content accuracy
- Content quality (originality)
- Clear conclusion
- Overall clarity
- Grammar and Spelling
- Footnotes and Bibliography

### **PORTFOLIOS**

Portfolios are purposeful, organized, systematic collections of student work that tell the story of a student's efforts, progress, and achievement in specific areas. The student participates in the selection of portfolio content, the development of guidelines for selection, and the definition of criteria for judging merit. Portfolio assessment is a joint process for instructor and student.

Portfolio assessment emphasizes evaluation of students' progress, processes, and performance over time. There are two basic types of portfolios:

- A process portfolio serves the purpose of classroom-level assessment on the part of both the instructor and the student. It most often reflects formative assessment, although it may be assigned a grade at the end of the semester or academic year. It may also include summative types of assignments that were awarded grades.
- A product portfolio is more summative in nature. It is intended for a major evaluation of some sort and is often accompanied by an oral presentation of its contents. For example, it may be used as an evaluation tool for graduation from a program or for the purpose of seeking employment.

In both types of portfolios, emphasis is placed on including a variety of tasks that elicit spontaneous as well as planned language performance for a variety of purposes and audiences, using rubrics to assess performance, and demonstrating reflection about learning, including goal setting and self and peer assessment.

### **Portfolio characteristics:**

- Represent an emphasis on language use and cultural understanding
- Represent a collaborative approach to assessment
- Represent a student's range of performance in reading, writing, speaking, and listening as well as cultural understanding
- Emphasize what students can do rather than what they cannot do
- Represent a student's progress over time
- Engage students in establishing on-going learning goals and assessing their progress towards those goals
- Measure each student's achievement while allowing for individual differences between students in a class
- Address improvement, effort, and achievement
- Allow for assessment of process and product
- Link teaching and assessment to learning.

## **GRADING**

Grading in education is the process of applying standardized measurements of varying levels of achievement in a course. Another way the grade point average (GPA) can be determined is through extra-curricular activities. Grades can be assigned as letters (generally A through F), as a range (for example 1 to 6), as a percentage of a total number of questions answered correctly, or as a number out of a possible total (for example out of 20 or 100).

In some countries, all grades from all current classes are averaged to create a Grade Point Average (GPA) for the marking period. The GPA is calculated by taking the number of grade points a student earned in a given period of time of middle school through high school.<sup>[1]</sup> GPAs are also calculated for undergraduate and graduate students in most universities. The GPA can be used by potential employers or educational institutions to assess and compare applicants. A *cumulative grade point average* is a calculation of the average of all of a student's total earned points divided by the possible amount of points. This grading system calculates for all of his or her complete education career.

### **Evaluation and Grading System**

#### **Grades and the Basis for Assessment''**

---

### Letter Grades and Grading Standards

“A” (80-100%)

“B” (70-79%)

“C” (60-69%)

“D” (50-59%)

“F” (0-49%)

---

**“A” indicates Exceptional Performance:** comprehensive in-depth knowledge of the principles and materials treated in the course, fluency in communicating that knowledge and independence in applying material and principles.

**“B” indicates Good Performance:** thorough understanding of the breadth of materials and principles treated in the course and ability to apply and communicate that understanding effectively.

**“C” indicates Satisfactory Performance:** basic understanding of the breadth of principles and materials treated in the course and an ability to apply and communicate that understanding competently.

**“D” indicates Minimally Competent Performance:** adequate understanding of most principles and materials treated in the course, but significant weakness in some areas and in the ability to apply and communicate that understanding.

**“F” indicates Failure:** inadequate or fragmentary knowledge of the principles and materials treated in the course or failure to complete the work required in the course.

**“I” indicates Incomplete.**

**“W” indicates Withdrawal with permission.**

#### Aegrotat Standing

Aegrotat standing (credit granted with incomplete course work) will be considered only in exceptional circumstances (usually only in cases of very serious illness) and if term work has been of high quality.

#### Determination of Final Grades

- a. A student's grade in each course will be based upon the year's work and the final examination (if required);
- b. The instructor will discuss with the class the basis for assessment specifying the relative weight of each examination, test, in-class activity and written assignment;
- c. The instructor will also specify which assignments must be completed in order to receive a grade in the course; penalties for late assignments should be clearly stated in each course;
- d. The method of determining final grades is to be discussed with students within the time frame Senate has approved for late course registration;
- e. The instructor must inform students of their standing prior to the date for honourable withdrawal from the course. If no written term work has been evaluated by that date, the information shall be given in the form of a written statement of the student's standing;
- f. The instructor is required to return to students all written work, other than final examinations, which has been submitted for evaluation purposes. Students may discuss with their instructor the work presented, the comments made, and the grade assigned;
- g. Final evaluation submissions are not returned to students but are kept on file by the Office of the Registrar for six months after the publication of Grade Reports;
- h. For each course, faculty will enter their final grades into the Student Information System (SIS) within seven (7) days of the date a final exam was written for an on-campus course, and within fourteen (14) days of the date the final exam was written for alternative delivery courses. For courses where no final exam was scheduled, final grades must be submitted within seven (7) days of the last day of classes in the term. Once the Dean has approved the marks submission, grades will be available for viewing on the SIS. The Dean's signature of approval indicates that the marks submission is consistent with existing practices and policies of the Faculty. Revisions to any previously assigned grade are submitted in writing for the approval of the Dean, together with the reasons for such revisions. Grades are not official until they have been approved by the Dean and released by the Office of the Registrar;
- i. The final marks issued by the University are the only ones accepted as binding.

### **Incomplete Grades**

In exceptional circumstances, a student may request consideration for an Incomplete grade (I). Such request must be submitted, through the Instructor to the Dean, together with the reasons for the request.

Any student assigned an Incomplete grade must normally complete all course requirements within 30 days after the end of the examination period or the last day of the course if there is no final examination for that course. If after that period the course is not completed, a grade of zero will be assigned to those components not completed.

## TYPES OF ASSESSMENT

### PERFORMANCE BASED ASSESSMENT OR ALTERNATIVE ASSESSMENT

Performance-based assessment is similar to summative assessment, as it focuses on achievement. It is often aligned with the standards-based education reform and outcomes-based education movement. Though ideally they are significantly different from a traditional multiple choice test, they are most commonly associated with standards-based assessment which use free-form responses to standard questions scored by human scorers on a standards-based scale, meeting, falling below or exceeding a performance standard rather than being ranked on a curve. A well-defined task is identified and students are asked to create, produce or do something, often in settings that involve real-world application of knowledge and skills. Proficiency is demonstrated by providing an extended response. Performance formats are further differentiated into products and performances. The performance may result in a product, such as a painting, portfolio, paper or exhibition, or it may consist of a performance, such as a speech, athletic skill, musical recital or reading.

Alternative assessment, often called authentic, comprehensive, or performance assessment, is usually designed by the teacher to gauge students' understanding of material. Examples of these measurements are open-ended questions, written compositions, oral presentations, projects, experiments, and portfolios of student work. Alternative assessments are designed so that the content of the assessment matches the content of the instruction.

Effective assessments give students feedback on how well they understand the information and on what they need to improve, while helping teachers better design instruction. Assessment becomes even more relevant when students become involved in their own assessment. Students taking an active role in developing the scoring criteria, self-evaluation, and goal setting, more readily accept that the assessment is adequately measuring their learning.

Authentic assessment can include many of the following:

- Observation
- Essays
- Interviews
- Performance tasks
- Exhibitions and demonstrations
- Portfolios
- Journals
- Teacher-created tests
- Rubrics
- Self- and peer-evaluation

### EVIDENCE BASED ASSESSMENT

**Evidence-based assessment** (EBA) refers to the use of research and theory to guide the selection of constructs to be used for a specific **assessment** purpose and to inform the methods and measures used in the **assessment** process.

## **EXAMINATION BASED ASSESSMENT**

A **test** or **examination** (informally, **exam**) is an assessment intended to measure a test-taker's knowledge, skill, aptitude, physical fitness, or classification in many other topics. A test may be administered verbally, on paper, on a computer, or in a confined area that requires a test taker to physically perform a set of skills. Tests vary in style, rigor and requirements. For example, in a closed book test, a test taker is often required to rely upon memory to respond to specific items whereas in an open book test, a test taker may use one or more supplementary tools such as a reference book or calculator when responding to an item. A test may be administered formally or informally. An example of an informal test would be a reading test administered by a parent to a child. An example of a formal test would be a final examination administered by a teacher in a classroom or an I.Q. test administered by a psychologist in a clinic. Formal testing often results in a grade or a test score. A test score may be interpreted with regards to a norm or criterion, or occasionally both. The norm may be established independently, or by statistical analysis of a large number of participants.

### **Types of tests**

#### **Written tests**

Written tests are tests that are administered on paper or on a computer. A test taker who takes a written test could respond to specific items by writing or typing within a given space of the test or on a separate form or document.

In some tests knowledge of many constants or technical terms is required to effectively answer questions, like Chemistry or Biology.

A test developer's choice of which style or format to use when developing a written test is usually arbitrary given that there is no single invariant standard for testing. Be that as it may, certain test styles and format have become more widely used than others. Below is a list of those formats of test items that are widely used by educators and test developers to construct paper or computer-based tests. As a result, these tests may consist of only one type of test item format (e.g., multiple choice test, essay test) or may have a combination of different test item formats (e.g., a test that has multiple choice and essay items).

#### **Multiple choice**

In a test that has items formatted as multiple choice questions, a student would be given a number of set answers for each question, and the candidate must choose which answer or group of answers is correct. There are two families of multiple choice questions. The first family is known as the True/False question and it requires a test taker to choose all answers that are appropriate. The second family is known as One-Best-Answer question and it requires a test taker to answer only one from a list of answers.

There are several reasons to using multiple choice questions in tests. In terms of administration, multiple choice questions usually requires less time for test takers to answer, are easy to score and grade, provide greater coverage of material, allows for a wide range of difficulty, and can easily diagnose a test taker's difficulty with certain concepts. As an educational tool, multiple choice items test many levels of learning as well as a test taker's ability to integrate information, and it provides feedback to the test taker about why distractors were wrong and why correct answers were right. Nevertheless, there are difficulties associated with the use of multiple choice questions. In administrative terms, multiple choice items that are effective usually take a great time to construct. As an educational tool, multiple choice items do not allow test takers to demonstrate knowledge beyond the choices provided and may even encourage guessing or approximation due to the presence of at least one correct answer.

### **Alternative response**

True/False questions present candidates with a binary choice - a statement is either true or false. This method presents problems, as depending on the number of questions, a significant number of candidates could get 100% just by guesswork, and should on average get 50%.

### **Matching type**

A matching item is an item that provides a defined term and requires a test taker to match identifying characteristics to the correct term.

### **Completion type**

A fill-in-the-blank item provides a test taker with identifying characteristics and requires the test taker to recall the correct term. There are two types of fill-in-the-blank tests. The easier version provides a word bank of possible words that will fill in the blanks. For some exams all words in the wordbank are used exactly once. If a teacher wanted to create a test of medium difficulty, they would provide a test with a word bank, but some words may be used more than once and others not at all. The hardest variety of such a test is a fill-in-the-blank test in which no word bank is provided at all. This generally requires a higher level of understanding and memory than a multiple choice test. Because of this, fill-in-the-blank tests[with no word bank] are often feared by students.

### **Essay**

Items such as short answer or essay typically require a test taker to write a response to fulfill the requirements of the item. In administrative terms, essay items take less time to construct. As an assessment tool, essay items can test complex learning objectives as well as processes used to answer the question. The items can also provide a more realistic and generalizable task for test. Finally, these items make it difficult for test takers to guess the correct answers and require test takers to demonstrate their writing skills as well as correct spelling and grammar.

The difficulties with essay items are primarily administrative. For one, these items take more time for test takers to answer. When these questions are answered, the answers themselves are usually poorly written because test takers may not have time to organize and proofread their answers. In turn, it takes more time to score or grade these items. When these items are being scored

or graded, the grading process itself becomes subjective as non-test related information may influence the process. Thus, considerable effort is required to minimize the subjectivity of the grading process. Finally, as an assessment tool, essay questions may potentially be unreliable in assessing the entire content of a subject matter.

## **FEEDBACK THROUGH MARKING**

### **Feedback**

Feedback is the central function of formative assessment. It typically involves a focus on the detailed content of what is being learnt, rather than simply a test score or other measurement of how far a student is falling short of the expected standard. Nicol and Macfarlane- Dick, synthesising from the literature, list seven principles of good feedback practice:

1. It clarifies what good performance is (goals, criteria, expected standards);
2. It facilitates the development of self-assessment in learning;
3. It provides high quality information to students about their learning;
4. It encourages teacher and peer dialogue around learning;
5. It encourages positive motivational beliefs and self-esteem;
6. It provides opportunities to close the gap between current and desired performance;
7. It provides information to Teachers that can be used to help shape teaching.

Internal assessment is set and marked by the school (i.e. teachers). Students get the mark and feedback regarding the assessment. External assessment is set by the governing body, and is marked by non-biased personnel. Some external assessments give much more limited feedback in their marking.

## **PEER AND SELF ASSESSMENT**

### **Peer Assessment**

One of the ways in which students internalize the characteristics of quality work is by evaluating the work of their peers. However, if they are to offer helpful feedback, students must have a clear understanding of what they are to look for in their peers' work. The instructor must explain expectations clearly to them before they begin.

One way to make sure students understand this type of evaluation is to give students a practice session with it. The instructor provides a sample writing or speaking assignment. As a group, students determine what should be assessed and how criteria for successful completion of the communication task should be defined. Then the instructor gives students a sample completed assignment. Students assess this using the criteria they have developed, and determine how to convey feedback clearly to the fictitious student.

Students can also benefit from using rubrics or checklists to guide their assessments. At first these can be provided by the instructor; once the students have more experience, they can develop



them themselves. An example of a peer editing checklist for a writing assignment is given in the popup window. Notice that the checklist asks the peer evaluator to comment primarily on the content and organization of the essay. It helps the peer evaluator focus on these areas by asking questions about specific points, such as the presence of examples to support the ideas discussed.

For peer evaluation to work effectively, the learning environment in the classroom must be supportive. Students must feel comfortable and trust one another in order to provide honest and constructive feedback. Instructors who use group work and peer assessment frequently can help students develop trust by forming them into small groups early in the semester and having them work in the same groups throughout the term. This allows them to become more comfortable with each other and leads to better peer feedback.

## **SELF ASSESSMENT**

Students can become better language learners when they engage in deliberate thought about what they are learning and how they are learning it. In this kind of reflection, students step back from the learning process to think about their language learning strategies and their progress as language learners. Such self- assessment encourages students to become independent learners and can increase their motivation.

The successful use of student self- assessment depends on three key elements:

- Goal setting
- Guided practice with assessment tools
- Portfolios

### **Goal setting**

Goal setting is essential because students can evaluate their progress more clearly when they have targets against which to measure their performance. In addition, students' motivation to learn increases when they have self-defined, and therefore relevant, learning goals.

One way to begin the process of introducing students to self-assessment is to create student-teacher contracts. Contracts are written agreements between students and instructors, which commonly involve determining the number and type of assignments that are required for particular grades. For example, a student may agree to work toward the grade of "B" by completing a specific number of assignments at a level of quality described by the instructor. Contracts can serve as a good way of helping students to begin to consider establishing goals for themselves as language learners.

### **Guided practice with assessment tools**

Students do not learn to monitor or assess their learning on their own; they need to be taught strategies for self -monitoring and self- assessment. Techniques for teaching students these strategies are parallel to those used for teaching learning strategies. The instructor models the technique (use of

a checklist or rubric, for example); students then try the technique themselves; finally, students discuss whether and how well the technique worked and what to do differently next time.

In addition to checklists and rubrics for specific communication tasks, students can also use broader self-assessment tools to reflect on topics they have studied, skills they have learned, their study habits, and their sense of their overall strengths and weaknesses. An example of such a tool appears in the popup window.

Students can share their self-assessments with a peer or in a small group, with instructions that they compare their impressions with other criteria such as test scores, teacher evaluations, and peers' opinions. This kind of practice helps students to be aware of their learning. It also informs the teacher about students' thoughts on their progress, and gives the teacher feedback about course content and instruction.

## **FORMATIVE USE OF SUMMATIVE ASSESSMENT**

Both formative assessment (assessment *for* learning) and summative assessment have vital roles to play in the education of students, and although on the surface they may not seem to have much in common, there are identified ways they can work together to improve student learning.

Making formative use of summative assessment means using information derived from summative assessment to improve future student performance. For the teacher it involves:

- providing a range of assessment tasks and opportunities to make certain that a range of student learning styles are catered for
- teaching students to prepare more efficiently for summative assessment by making use of knowledge about themselves as learners
- making use of the results of summative assessment so that learning is emphasised.

For the student it involves:

- developing the ability to identify 'where I am now' and 'where I need to be'... and to prepare for summative assessment accordingly
- recognising that summative assessment experiences are an opportunity for further learning and a chance to improve future achievement.

## **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. What is continuous and comprehensive evaluation?
2. Define portfolio
3. What is peer assessment?
4. What is project?
5. What is formative use of summative tests?

## REFERENCES

Amarjit Singh (2007), 'Classroom Management' Kanishka publishers, Distributors, New Delhi.  
John Gardner, 'On the Relationship between Assessment for Formative and Summative Purposes'

Bhatia, K.K. (1985), 'Measurement and Evaluation in Education, Prakash Brothers, Ludhiana.

[www.assessmentforlearning.edu.au/research\\_background/bibliography](http://www.assessmentforlearning.edu.au/research_background/bibliography)

[www.etfo.ca/Resources/ForTeachers/Documents/Assessment%20for%20Learning](http://www.etfo.ca/Resources/ForTeachers/Documents/Assessment%20for%20Learning)

[www.edb.gov.hk/en/curriculum.../assessment/...assessment/assessment-for-learning](http://www.edb.gov.hk/en/curriculum.../assessment/...assessment/assessment-for-learning)

## UNIT - 3: TOOLS AND TECHNIQUES FOR CLASSROOM ASSESSMENT

### OBJECTIVES:

- To understand the importance of teacher observations
- To know the impact of affective domain in learning
- To know the characteristics of Attitude Scales
- To develop skills on Checklists, Rating Scales and Rubrics
- To understand the principals of constructing test items

### OBSERVATION

Teacher observation is capable of providing substantial information on student demonstration of learning outcomes at all levels of education.

Teacher observation can be characterised as two types: incidental and planned.

*Incidental observation* occurs during the ongoing (deliberate) activities of teaching and learning and the interactions between teacher and students. In other words, an unplanned opportunity emerges, in the context of classroom activities, where the teacher observes some aspect of individual student learning. Whether incidental observation can be used as a basis for formal assessment and reporting may depend on the records that are kept.

*Planned observation* involves deliberate planning of an opportunity for the teacher to observe specific learning outcomes. This planned opportunity may occur in the context of regular classroom activities or may occur through the setting of an assessment task (such as a practical or performance activity).

### Arguments for Valuing Teacher Observation:

Teacher observation is an important but underutilised assessment technique. It is sometimes argued that teachers are unable to make appropriate and dependable assessment judgments from observations of students in natural settings.

An important argument in support of teacher observation is that teachers have access to a rich and diverse range of evidence on student learning outcomes from observations of their students; and that the capability of teachers to collect and interpret this range of evidence should be respected.

Otherwise, a rich source of evidence on student learning outcomes is being ignored. In any case, the issue is not whether teacher observations should be used — since they are necessarily used informally during teaching — but how teacher judgments can

be strengthened and improved so that they can be used for formal purposes, especially for reporting and certification

### **Collection and Recording of Evidence:**

All assessment requires the collection and recording of evidence of student learning. For the implementation of Council syllabuses, it has been recommended that the evidence focus on the demonstration of learning outcomes. Evidence is documentation that records, illustrates or confirms student demonstrations of learning outcomes.

Accountability and verification are key factors in assuring the quality of assessments.

**Accountability** (justification) means being able to explain and defend assessment judgments to students, their parent(s) and other teachers.

**Verification** (confirmation) means being able to revisit the foundations for assessment judgments being able to check their completeness, relevance and veracity.

Teacher observations are primarily directed at the observation of events, performances and activities. In some cases, an artefact may be produced as a consequence of the event, performance or activity. In other cases, no artefact is produced and the event, performance or process itself is the sole focus of attention. An artefact is something constructed by the student, for example, a worksheet, a piece of writing, a design, a painting, a composition, a webpage — in other words, a product of some kind. Teacher observation is not primarily concerned with the artefact itself but with the way in which the artefact was produced, that is, with the process.

### **Planning For Teacher Observation:**

Teacher observations cannot be useful without planning. Different types of evidence require different types of planning.

An essential requirement for all types of evidence is anticipating the kinds of learning outcomes that may be demonstrated. This is particularly important where observation is incidental and where judgments (rather than descriptions) are recorded. Council syllabuses provide a framework of learning outcomes that serve as the perceptual reference points for recognising the characteristics of student performance.

The framework of learning outcomes makes available to the teacher concepts and language for recognising and describing what a student knows and can do. Learning the structure, language and concepts of the framework therefore is a key aspect of planning for teacher observation, as it is too for teaching.

### **Factors Affecting Validity of Teacher Observations and What to Do About Them:**

Teacher observations will be valid to the extent that the evidence is appropriately recorded and interpreted, that is, whether: the recorded evidence accurately represents the observed student performance and the interpretation (judgment) of this evidence is justifiable.

### **SELF-ASSESSMENT**

Self-assessment could mean that students simply check off answers on a multiple-choice test and grade themselves, but it involves much more than that. Self-assessment is more accurately defined as a process by which students 1) monitor and evaluate the quality of their thinking and behaviour when learning and 2) identify strategies that improve their understanding and skills. That is, self-assessment occurs when students judge their own work to improve performance as they identify discrepancies between current and desired performance. This aspect of self assessment aligns closely with standards based education, which provides clear targets and criteria that can facilitate student self-assessment.

### **The Self-Assessment Process:**

Self-monitoring, a skill necessary for effective self-assessment, involves focused attention to some aspect of behaviour or thinking. Self-monitoring students pay deliberate attention to what they are doing, often in relation to external standards. Thus, self monitoring concerns awareness of thinking and progress as it occurs, and as such, it identifies part of what students do when they self-assess.

### **Implications for Practice:**

For classroom teachers, student self-assessment develops an awareness of which metacognitive strategies to use and when to use them. Teachers and students learn these skills when they establish clear learning goals and articulate evaluative criteria that enable students to assess their own work. Those practices engage students as they actively participate in the learning process and become more connected and committed to the learning outcomes. Student self-assessment also

mandates that teachers learn to pass the evaluative responsibilities to their students by scaffolding and modeling goal setting, evaluation, strategy adjustment, and reflection.

## **ANECDOTAL RECORDS**

Anecdotal records are systematically kept notes of specific observations of student behaviors, skills, and attitudes in the classroom. Anecdotal records provide cumulative information regarding progress, skills acquired, and directions for further instruction. Anecdotal notes are often written as the result of ongoing observations during the lessons but may also be written in response to a product or performance the student has completed. Systematic collection of anecdotal records on a particular student provides excellent information for evaluation of learning patterns and consistency of student progress. Well-kept anecdotal records provide a valuable, practical, and specific reference about a student.

Anecdotal notes are used to record specific observations of individual student behaviours, skills and attitudes as they relate to the outcomes in the program of studies. Such notes provide cumulative information on student learning and direction for further instruction. Anecdotal notes are often written as the result of ongoing observations during the lessons but may also be written in response to a product or performance the student has completed. They are brief, objective and focused on specific outcomes. Notes taken during or immediately following an activity are generally the most accurate. Anecdotal notes for a particular student can be periodically shared with that student or be shared at the student's request. They can also be shared with students and parents at parent-teacher-student conferences.

The purpose of anecdotal notes is to:

1. provide information regarding a student's development over a period of time
2. provide ongoing records about individual instructional needs
3. capture observations of significant behaviours that might otherwise be lost
4. provide ongoing documentation of learning that may be shared with students, parents and teachers.

## **CHECKLISTS, RATING SCALES AND RUBRICS**

Checklists, rating scales and rubrics are tools that state specific criteria and allow teachers and students to gather information and to make judgements about what students know and can do in relation to the outcomes. They offer systematic ways of collecting data about specific behaviours, knowledge and skills.

The quality of information acquired through the use of checklists, rating scales and rubrics is highly dependent on the quality of the descriptors chosen for assessment. Their benefit is also dependent on students' direct involvement in the assessment and understanding of the feedback provided.

The purpose of checklists, rating scales and rubrics is to:

- provide tools for systematic recording of observations
- provide tools for self assessment
- provide samples of criteria for students prior to collecting and evaluating data on their work
- record the development of specific skills, strategies, attitudes and behaviours necessary for demonstrating learning
- clarify students' instructional needs by presenting a record of current accomplishments.

### **Developing Checklists, Rating Scales and Rubrics**

- Use checklists, rating scales and rubrics in relation to outcomes and standards.
- Use simple formats that can be understood by students and that will communicate information about student learning to parents.
- Ensure that the characteristics and descriptors listed are clear, specific and observable.
- Encourage students to assist with constructing appropriate criteria. For example, what are the descriptors that demonstrate levels of performance in problem solving?
- Ensure that checklists, rating scales and rubrics are dated to track progress over time.
- Leave space to record anecdotal notes or comments.
- Use generic templates that become familiar to students and to which various descriptors can be added quickly, depending on the outcome(s) being assessed.
- Provide guidance to students to use and create their own checklists, rating scales and rubrics for self-assessment purposes and as guidelines for goal setting



Checklists usually offer a yes/no format in relation to student demonstration of specific criteria. This is similar to a light switch; the light is either on or off. They may be used to record observations of an individual, a group or a whole class.

Rating Scales allow teachers to indicate the degree or frequency of the behaviours, skills and strategies displayed by the learner. To continue the light switch analogy, a rating scale is like a dimmer switch that provides for a range of performance levels. Rating scales state the criteria and provide three or four response selections to describe the quality or frequency of student work.

Teachers can use rating scales to record observations and students can use them as self assessment tools. Teaching students to use descriptive words, such as always, usually, sometimes and never helps them pinpoint specific strengths and needs. Rating scales also give students information for setting goals and improving performance. In a rating scale, the descriptive word is more important than the related number. The more precise and descriptive the words for each scale point, the more reliable the tool.

Effective rating scales use descriptors with clearly understood measures, such as frequency. Scales that rely on subjective descriptors of quality, such as fair, good or excellent, are less effective because the single adjective does not contain enough information on what criteria are indicated at each of these points on the scale.

Rubrics use a set of criteria to evaluate a student's performance. They consist of a fixed measurement scale and detailed description of the characteristics for each level of performance. These descriptions focus on the quality of the product or performance and not the quantity; e.g., not number of paragraphs, examples to support an idea, spelling errors. Rubrics are commonly used to evaluate student performance with the intention of including the result in a grade for reporting purposes. Rubrics can increase the consistency and reliability of scoring.

### **Developing Rubrics and Scoring Criteria**

Rubrics are increasingly recognized as a way to both effectively assess student learning and communicate expectations directly, clearly and concisely to students. The inclusion of rubrics in a teaching resource provides opportunities to consider what demonstrations of learning look like, and to describe stages in the development and growth of knowledge, understandings and skills. To be most effective, rubrics should allow students to see the progression of mastery in the development of understandings and skills.

Rubrics should be constructed with input from students whenever possible. A good start is to define what quality work looks like based on the learning outcomes. Exemplars of achievement need to be used to demonstrate to students what an excellent or acceptable performance is. This provides a collection of quality work for students to use as reference points. Once the standard is established, it is easy to define what exemplary levels and less-than-satisfactory levels of performance look like. The best rubrics have three to five descriptive levels to allow for discrimination in the evaluation of the product or task. Rubrics may be used for summative purposes to gauge marks by assigning a score to each of the various levels.

### **ASSESSMENT TOOLS FOR AFFECTIVE DOMAIN**

The affective domain is a part of a system that was published in 1965 for identifying understanding and addressing how people learn. This describes learning objectives that emphasize a feeling tone, an emotion, or a degree of acceptance or rejection. It is far more difficult domain to objectively analyze and assess since affective objectives vary from simple attention to selected phenomena to complex but internally consistent qualities of character and conscience. Nevertheless, much of the educative process needs to deal with assessment and measurement of students' abilities in this domain.

### **ATTITUDE SCALES**

An attitude scale is a special type of questionnaire designed to produce scores indicating the intensity and direction (for or against) of a person's feelings about an object or event. Attitude scales are often used in attitude change experiments. One group of people is asked to fill out the scale twice, once before some event, such as reading a persuasive argument, and again afterward. A control group fills out the scale twice without reading the argument. The control group is used to measure exposure or practice effects. The change in the scores of the experimental group relative to the control group, whether their attitudes have become more or less favorable, indicates the effects of the argument.

#### **Some Important Characteristics of Attitude Scales**

- A questionnaire is prepared; by the items in the questionnaire assess the attitude of an individual towards a matter, thing, an object or system and score is allotted for each item.
- The individual is asked to express his response towards an object or system, on the basis of his responses, he is assigned a score which indicates the position.

- Some relevant and indirect statements can also be used to reveal the attitude.
- The scale also specifies the crucial shades of opinions.
- Most of the scales used are ordinal in nature, though there is attempt to treat the resulting data as intervally scaled.
- The simplest possible type of such scale has the respondent classifying the object/issue/product/himself into one among two dichotomous categories.
- The attitude measurement scales can be categorised into those which are unidimensional in nature and those which are multidimensional. The different type of single dimensional attitude measurement scales which are available are graphical and numerical scales, summated scales, paired comparisons, equal-appearing intervals.

## **MOTIVATION SCALES**

The Motivation Assessment Scale (MAS) is a rating scale that assesses functions of problem behavior in individuals with developmental disabilities through informant responses. It includes 16 questions and is comprised of four subscales that each represents a possible function of the behavior: attention, escape, sensory, and tangible. Each question has six response options (0 = never, 1 = almost never, 2 = seldom, 3 = half the time, 4 = usually, 5 = almost always, and 6 = always). Scores are calculated by summing the item ratings within a particular subscale/function and calculating the mean rating for that subscale. High scores for one or more of the subscales suggest that those functions may be maintaining the individual's problem behaviour although the authors of the instrument do not specify what constitutes a high score.

## **PRINCIPLES OF TEST ITEMS CONSTRUCTION**

### **Planning for the test:**

- Outline subject matter content to be considered as the basis for the test.
- identify learning outcomes to be measured by the test.
- Prepare table of specifications.
- Choose appropriate type(s) of test items for evaluation of learning outcomes as
- summarized in the table of specifications.

### **Preparing the test:**

- Write test items according to rules of construction for the type(s) chosen.
- Select the items to be included in the test according to table of specifications.

- Review and edit items according to guidelines.
- Arrange items: decide on a) grouping of items, b) sequence of items within groups, c) sequence of groupings.
- Prepare directions for the test; if necessary, prepare directions for individual items (e.g., matching type) or for sections (e.g., negative form of onebest response type).
- Decide on method of scoring.

**Analyzing and revising the test:**

- Perform test analysis to determine difficulty, discrimination and reliability.
- Retain, edit as necessary, or discard items on basis of analysis outcomes.
- Revise the test as a whole if necessary.

**QUESTIONS FOR DISUCSSION AND REFLECTION**

1. Explain the importance of teacher observations.
2. Give a brief note on anecdotal record.
3. Describe the characteristics of Attitude Scales.
4. Explain Rubrics with suitable examples.
5. List out the principals of constructing test items.

## UNIT - 4: ISSUES IN CALSSROOM ASSESSMENT

### Objectives

- To understand the major issues and commercialization of assessment
- To under about the poor test quality
- To know the reforms in assessment
- To know about open book and online examinations
- To know examination reforms reports

### MAJOR ISSUES AND COMMERCIALIZATION OF ASSESSMENT

#### POOR TEST QUALITY

##### Validity

Validity is arguably the most important criteria for the quality of a test. The term validity refers to whether or not the test measures what it claims to measure. On a test with high validity the items will be closely linked to the test's intended focus. For many certification and licensure tests this means that the items will be highly related to a specific job or occupation. If a test has poor validity then it does not measure the job-related content and competencies it ought to. When this is the case, there is no justification for using the test results for their intended purpose. There are several ways to estimate the validity of a test including content validity, concurrent validity, and predictive validity. The face validity of a test is sometimes also mentioned.

##### Reliability

Reliability is one of the most important elements of test quality. It has to do with the consistency, or reproducibility, of an examinee's performance on the test. For example, if you were to administer a test with high reliability to an examinee on two occasions, you would be very likely to reach the same conclusions about the examinee's performance both times. A test with poor reliability, on the other hand, might result in very different scores for the examinee across the two test administrations. If a test yields inconsistent scores, it may be unethical to take any substantive actions on the basis of the test. There are several methods for computing test reliability including test-retest reliability, parallel forms reliability, decision consistency, internal consistency, and interrater reliability. For many criterion-referenced tests decision consistency is often an appropriate choice.

##### Fairness

The fairness of an exam refers to its freedom from any kind of bias. The exam should be appropriate for all qualified examinees irrespective of race, religion, gender, or age. The test should not disadvantage any examinee, or group of examinees, on any basis other than the examinee's lack of the knowledge and skills the test is intended to measure. Item writers should address the goal of fairness as they undertake the task of writing items. In addition, the items should also be reviewed for potential fairness problems during the item review phase. Any items that are identified as displaying potential bias or lack of fairness should then be revised or dropped from further consideration.

### **Legal Defensibility**

For an exam program to have legal defensibility there must be evidence as to the test's quality that would stand up in a court challenge. You will need to be able to provide evidence that sound, professionally recommended guidelines were followed throughout the design, development, and maintenance of the exam program. Professional guidelines for testing are offered by the American Psychological Association (APA), American Educational Research Association (AERA), and the National Council on Measurement in Education (NCME). Studies should also be conducted to investigate and confirm that the test has reasonable degrees of validity, reliability, and fairness. Among the most important elements that courts look for are a well-conducted job analysis and strong content validity (that is, the items need to have a high degree of "job relatedness"). Finally, good documentation of the design, development, and analysis of the exam program should be collected and maintained.

### **OPEN BOOK AND ONLINE EXAMINATION**

#### **Open Book System Advantages and Disadvantages Advantages:**

Students are not required to engage in parroting of concepts, if they understand the concept they would answer correctly. This will remove tension of examination which has become integral part of normal education system. Those students who are intelligent but don't like to put in extra hard work in memorizing the concepts, facts and other data would enjoy this system. It is highly likely that more and more students would continue their education as the passing percentage would go up.

#### **Disadvantage:**

The students would stop studying and simply copy from the open book provided at the examination hall. It would be really tough to control the secret discussions between students who would cheat their way to success. The number of pass outs would increase and the students who pass out the exam of 12th board through open book would demand similar type of arrangement in higher studies and later on even in jobs they would demand the provision of open book. Simply imagine a surgeon who turns the pages of the book while performing surgery on his patients. Board examinations would lose their importance and no one would like to assess the ability and competence of an individual on the basis of marks or grade of the CBSE board.

## **ADVANTAGES AND DISADVANTAGES OF ONLINE TESTING**

### **Advantages**

- Although creating online tests is labor-intensive, once a test is developed in Blackboard, it is relatively easy to transfer it and repeat it in other Blackboard courses.
- Blackboard allows for a high degree of customization in the feedback students get in response to each answer that they submit. As an instructor, you could leverage this tool as another way to engage with students about course content.
- Online tests are asynchronous and can be accessed on a variety of devices. If students buy the Blackboard mobile app, they can even take a test from their smartphone. The flexibility offered by online testing can be a great solution for learners with busy schedules or when unexpected class cancellations occur.
- While it is hard to prevent cheating, Blackboard tests do offer many settings for instructors to randomize questions, impose test taking time limits, and restrict attempts. However, make sure to explain all the settings to students before they begin taking the test.
- Testing in an online environment can be a lot more interactive than traditional paper and pen tests. Instructors can embed multimedia in test questions to provide more engaging assessments. For example, students may be asked to identify a particular area of an image by directly clicking on it instead of having to answer in written form.
- In all likelihood, students are already using online tools as study aids for their courses. Instructors can better serve students by providing them with custom made study aids like online practice tests, rather than entrusting students to rely on outside resources that may not be valid sources of information.
- For objective question types like multiple-choice, Blackboard will automatically grade student responses, saving time for the instructor and providing more immediate feedback to students.

- Online tests can be more accessible to students with disabilities who have assistive technologies built into their computers than hand written tests are.

### **Disadvantages**

- Unlike collaborative, project-based online assessments, multiple choice or essay tests online can feel even more impersonal than they do in the classroom which may contribute to an online student's sense of isolation.
- While it is tempting to use the multiple choice quizzes provided by the textbook publisher, these types of assessments lack creativity and may not be suitable to the specific needs of your learners.
- Creating online tests in Blackboard can be very tedious and time-consuming. It is not as easy as simply uploading the Microsoft Word version of your test. Instead, instructors have to copy and paste each question's text and each individual answer's text into Blackboard, mark the correct answers, and customize feedback and setting options.
- Some students will not be accustomed to taking quizzes and tests online, and they may need some hand-holding early in the semester before they feel comfortable with the technology.
- Cheating on an online test is as simple as opening up another window and searching Google or asking a classmate for the correct answers. Furthermore, cheating on online multiple choice tests is near impossible for the instructor to prevent or catch.
- Though the technology that makes online tests possible is a great thing, it can also cause problems. If you do online testing, have a back-up plan for students who have technical difficulties and be ready to field some frantic emails from students who have poor internet connections or faulty computers.

### **EXAMINATION REFORMS IN INDIA**

“If we are to suggest one single reform in University Education, it should be that of examinations.”-Radha Krishnan Commission, 1948. Problem of examination is the most taxing problem of education. The unfortunate consequences of the present system of examinations are before our eyes. If we can solve it satisfactorily, there will be a great relief to the students and the very face of education will be different.



In order to reform the examination system in our country, the Mudaliar Commission laid stress on the use of objective type tests and internal assessment. Kothari commission too repeated these reforms. This Commission boldly suggested that the certificate of the student should bear his complete performance but there should be no remark to the effect that he has passed or failed in the whole examination. This is very good suggestion and can be easily implemented.

As the first practical step in changing the present pattern of examinations, the All India Council for Secondary Education was set up by the Central Ministry of Education in October 1995. It gave top priority consideration to resolve the problem of examination system. The well-known International Commission on Education sponsored by UNESCO in 1992, gave their valuable comments and suggestions for reforming the system of examination.

The National Policy on Education, 1986 emphasized on continuous and comprehensive evaluation and the introduction of semester system from the secondary stage.

The National Policy on Education, 1986 recommended a new approach to examinations in the following words:

1. "Assessment of performance is an integral part of any process of learning and teaching. As part of sound educational strategy, examinations should be employed to bring about qualitative improvement in education.
2. The objective will be to recast the examination system so as to ensure a method of assessment that is a valid and reliable measure of student development and a powerful instrument for Improving teaching and learning; in functional terms, this would mean:
  - (i) The elimination of excessive element of chance and subjectivity;
  - (ii) The de-emphasis of memorization;
  - (iii) Continuous and comprehensive evaluation that incorporates both scholastic and non-scholastic aspects of education, spread over the total span of instructional time.
  - (iv) Effective use of the evaluation process by teachers, students and parents
  - (v) Improvement in the conduct of examination;
  
  - (vi) The introduction of concomitant changes in instructional materials and methodology;
  - (vii) Instruction of the Semester system from the secondary stage in a phased manner, and
  - (viii) The use of grades in place of marks.
3. The above goals are relevant both for external examinations and evaluations within educational institutions. Evaluation at the institutional level will be streamlined and the predominance of external examinations reduced. A National Examination Reform Framework would be prepared to serve as a

set of guidelines to the examining bodies which would have the freedom to innovate and adapt the framework to suit the specific situations.”

The Programme of Action (POA) suggested several specific short- term and long-term measures for carrying out examination reform at the school level as well as at the university level. It also suggested that, “to formulate a national examination reform work the Department of Education would, inter-alia, constitute an inter institutional Committee with representations from UGC, NCERT, AICTE and state level organisations including Board of Secondary Education. ” the POA has also made some strategies for implementation

**(A) ELEMENTARY STAGE:**

1. The Minimum levels of Learning (MLLs) in language Tongue), Mathematics and Environmental Studies for classes 1 to V have been developed by MHRD at the national level. Similar exercise to develop these in the remaining area and classes of elementary curriculum will be carried out.
2. Since no detention policy is envisaged at the primary stage, the main function of evaluation will be diagnostic in nature so as to provide remedial help to the pupils.
3. The concerned agency in each state will prepare a flexible scheme of Continuous Comprehensive Evaluation (CCE) at the elementary stage, so as to make the evaluation process an integral part of teaching and learning at this stage.

**(B) SECONDARY STAGE:**

1. Each State Board will lay down expected levels of attainments at classes IX to XII and prescribe appropriate courses, of studies to accomplish these levels in terms of knowledge and / or comprehension, communication skills, understanding, application, analysis, synthesis, judgements etc.
2. In each state, the concerned agency will prepare a flexible scheme of continuous comprehensive Examination for the secondary/ senior secondary stage to suit a variety of specific situations obtaining in different regions and types of schools. Certain models have been developed by NCERT and other agencies which could be looked into for guidance.

**(C) HIGHER EDUCATION STAGE:**

1. Selection tests for admissions to all professional and technical courses will be conducted on an all-India basis.

2. Each University will prepare broad guidelines for grading to be followed by individual colleges/ institutions and departments under its jurisdiction. Orientation programmes may be organised to familiarize the teachers with the grading system.

3. The movement towards entrance tests for admission to institutions of higher education will be encouraged and promoted by UGC and State Government. The services of the National Evaluation Organisation (NEO) should be utilized by the university system for developing, designing and administering entrance tests for admission.

Besides the above strategies for different stages, the POA (1986) has also envisaged the following strategies which are common for all stages:

1. The emphasis will be laid on testing of expected levels of achievement of a variety of learning objectives in order to ensure due importance to higher abilities of understanding, application, analysis, synthesis, judgement and parallel parameters and not only to memory.

2. The Semester system introduced at the secondary stage and onwards should provide for flexibility in the combination of courses and accumulation of credits to enable the pupils to proceed at their own pace resulting in upward and horizontal mobility of the students across the country.

3. Appropriate courses in examination reform will be developed by Indira Gandhi National Open University through distance education mode in collaboration with NCERT for large scale training of different kinds and levels of personal.

4. An Examination Reform Centre will be established at the UGC for coordination, documentation and dissemination of information on examination reforms in higher education. Similarly, NCERT would perform this function at school stage.

5. Some laws will be introduced in the legislation regarding various malpractices connected with examinations. Such laws will make provision to prescribe the nature and type of punishment for various offences under the law.

6. A strong and coordinated effort should be made by the Centre and State Government regarding the monitoring and evaluation of the reforms in examinations and evaluation. Following up on NPE, 1986, NCERT conducted a National Seminar on Examination Reforms and issued certain guidelines to the States, principally covering the subjects of scaling and grading, continuous comprehensive internal evaluation, setting up of balanced question papers etc.

Examination reforms having been recommended consistently by various Committees and Commissions over the years, steps for the same have been taken differently in different states. Regarding examination reforms, the National Policy on Education Review Committee (NPERC) under the chairmanship of Acharya Ramamurty in 1990, exhaustively reviewed the observations and

recommendations made by different Committees and Commissions. During the course of the review, the NPERC also referred to the provision of NPE in regard to evaluation process and examination reforms. The NPERCA also presented the status of the examination reforms in different states at the University and school levels.

The NPERC states that “Examination reform cannot be construed as an isolated activity to bring about process orientation. It has to go as a package along with reform in the structuring of courses and flexibility for students to avail of the restructured courses according to their convenience. ”

Following were the recommendations of nperc regarding the examination reforms:

1. The examination reform should be construed as a package.
2. The packages as a whole should be implemented instead of in piecemeal and ad hoc implementation of individual elements.
3. Implementation of the package suggested by the NPERC, bristled with practical problems such as the vast diversities in the education system and the wide spread apprehensions about the credibility of the internal evaluation process.
4. The need to constitute a high level National Examination Reforms Commission to coordinate and monitor and progress, in Examination Reforms at various levels. The NPERC came to the conclusion that the elements of examination reforms were implemented piece-meal and without due coordination and consequently the system of examination was dictating and distorting the character and quality of education.

The Central Advisory Board of Education (CABE) under the chairmanship of Sri N. Janardhan Reddy, former C.M. and Minister of Education, AP in 1991 reviewed the implementation of various parameters of NPE, taking into consideration the report of the NPERC and stated that. “Examination reforms have necessarily to be contextual and evolutionary. The essentiality of examination reforms cannot be overstated. We do feel that rather than leaving examination reforms to the individual initiatives and inclinations of the examining bodies, a strong and coordinated effort should be made by the Centre and the State Governments in this area. The ideal underlying the constitution of an Examination Reforms Commission is appealing. However, rather than creating yet another institution, we suggest that the NCERT and the UGC should play a lead role in promoting and guiding examination reforms in school and higher education systems respectively. Inter alia, the following measures are suggested “.

- (i) Preparation of status report of examination reform measures under/ taken by the examining bodies.

(ii) Preparation of a National Examination Reform, Framework to serve as a set of guidelines to the examining bodies which would have the freedom to innovate and adopt the framework to suit the specific situation.

(iii) Developing an effective mechanism for coordination, monitoring and evaluation of the implementation of the examination reforms by the different examining bodies.

(iv) Documentation and dissemination of innovations and measures for examination reforms.

From the above discussion, it is found that after the dawn of independence, when the slogan of reorientation of education came from all quarters, the case for examination reform received proper place. So reforms in examination have been a subject of serious discussion for long. Examination reform has been a subject of almost consistent consideration by various committees and commissions appointed by the Government of India from time to time.

The justification for examination reforms arises from academic considerations. “Examination along with teaching and learning, in fact, constitute the trinity of functions in the educational process. Examinations over the year have tended to be an instrument for testing memory. Learning has become a rather mechanical process of acquiring skills and teaching has been largely a process of coaching for examinations. The relationship between examinations and standards of teaching and learning are intimate. Improvement in any one of these aspects results in improvement of other aspects as well. Therefore, the objective of examination reform is to make it an instrument of good education.”

Again the NPERC states that “Examination reforms also have their justification from the point of view of equity and social justice. The examination system tilts heavily in favour of the privileged, who have access to certain facilities; such as special teaching learning material, special coaching etc. It is inter alia, to rectify this inequitable tilt that examination reforms have been suggested.”

The recommendations of various Committees and Commission focused attention on reforming examination. But most important is the review of the implementation of various parameters of NPE taking into consideration the report of the NPERC particularly in relation to examination reforms. Still then, the disease is too acute to find remedy in piece-meal reforms. Some revolutionary changes, as suggested by National Policy on Education, 1986 is the only solution.

### **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. Discuss the major issues and commercialization of assessment.
2. List out advantages and disadvantages of open book examination.
3. Describe the important of reforms in assessment

4. Explain the procedure for online examinations.
5. Describe the various reports on examination reforms.

## **UNIT - V- ASSESSMENT IN INCLUSIVE PRACTICES**

### **OBJECTIVES**

The student-teachers will be able

- i. to acquire knowledge about differentiated assessment and culturally responsible assessment.
- ii. to understand the uses of tests for learner appraisal.
- iii. to know, understand, and construct the achievement test and diagnostic test.
- iv. to ensure fairness in assessment and to enhance confidence in learning.
- v. to gain knowledge about scoring key and marking scheme.

### **DIFFERENTIATED ASSESSMENT**

- Is not just a test at the end of a unit. It is ONGOING. Its purpose is to screen and identify those who need assistance or to help plan instruction. It provides feedback for both teacher and student.
- Reflects students learning, achievement, motivation and attitudes on instructionally relevant classroom instruction.
- Provides multiple ways for students to demonstrate their learning: test (individual as well as partner/group tests), observation, interviews, self-evaluations, and many other formats to be discussed in this section.

Identifies both what is right and what is wrong, and suggest how to fix what is wrong.

### **Assessment should be linked to**

- The method of performance
- Student learning styles
- The level of cognitive ability (Bloom's or another)
- Student skill level

## **Pre-Assessment**

Pre-Assessment: A formal or informal test administered to pinpoint what the learner knows about an upcoming standard, skill, topic or concept. The teacher analyzes the data to identify each student's background knowledge, prior experiences, abilities, interests, and attitudes in relation to the new learning.

The most useful pre-assessment data is gathered 1-2 weeks prior to planning the unit. This gives the teacher time to analyze each student's strengths and needs for the upcoming unit. The type of assessment is crucial because the results are used to plan lessons for individuals in the differentiated classroom. By identifying strengths and weaknesses ahead of time, the teacher works smarter, not harder.

### **Instructional Benefits of Using Pre-Assessment**

- Reveals the student's knowledge base related to the upcoming topic or skill .
- Pinpoints the learner's knowledge on standards, concepts and objectives.
- Reveals specific needs for re-teaching, grade-level instruction, or enrichment.
- Reveals student's interests, talents, attitudes, likes/dislikes, feelings/emotions.
- Guides the teacher in selecting or designing the most appropriate instructional strategies to accommodate identified individual and group needs.

### **Teacher's Role**

- Pre-assess students 1-2 weeks prior to new unit of study.
- Decide how pre-assessment tools will optimize planning for individual needs.
- Plan lessons and activities for individuals and small groups based on their current knowledge levels.
- Use pre-assessment as a promo for an upcoming topic or skill.
- Develop a repertoire of formal and informal pre-assessment tools, and let the data needed determine which tool to use in any given situation.

### **Student's Role**

- Show what you know and what you do not know so you can learn more.
- Search your memory bank to reveal experiences to link to the lesson
- Share personal knowledge and experiences related to the topic on the assessment.
- Realize any negative experience you had with a topic or skill in the past can be replaced with a positive experience.
- Identify areas of interest to explore during the upcoming study.

## **Formative Assessment**

### **Formative Assessments are**

**For Learning** – The purpose of formative assessment is to enhance learning not to allocate grade. Summative assessments are designed to allocate grades. The goal of formative assessment is to improve; summative assessment to prove.

**Embedded in Instruction** – Formative assessment are considered a part of instruction and the instructional sequence. What students and taught is reflected in what they are assessed.

### **They produce**

Non-threatening Results – Formative assessments are scored but not graded. Students mark their own work and are encouraged to raise questions about the assessment and the material covered by the assessment.

**Director and Immediate Feedback** – Results for formative assessments are produced on the spot; teachers and students get them immediately, Teachers get a view of both individual and class performances while students learn how well they have done.

**Structured Information** – Teachers can judge success and plan improvements based on the formative results. Students can see progress and experience success. Both teachers and students learn from the assessment results.

**Ways to Improve** – Summarized formative results provide a basis for the teacher to re-visit topics in the unit if necessary. Individual student response provides a basis for giving students additional experiences in areas where they performed less well.

### **Summative Assessment**

**Summative Assessments** are given periodically to determine at a particular point in time what students know and do not know. Many associate summative assessments only with standardized tests such as state assessments, but they are also used at and are an important part of district and classroom programs. Summative assessment at the district/classroom level is an accountability measure that is generally used as part of the grading process. The list is long, but here are some examples of summative assessments;

- Performance Tasks/Demonstrations
- Portfolio Review
- State assessments
- Districts benchmark or interim assessments
- End-of-unit or chapter tests
- End-of-term or semester exams
- Scores that are used for accountability for school(AYP) and students (report card grades)

Summative Assessments....

- Should reflect assessments that precede it
- Should match the material taught
- May determine a student's exit achievement
- May be tied a final decision, grade, or report.

The key is to think of summative assessment as a means to gauge, at a particular point in time, student learning relative to content standards. Although the information that is gleaned from this type of assessment is important, it can only help in evaluating certain aspects of the learning process. Because they are spread out and occur after instruction every few weeks, months, or once a year, summative assessments are a tool to help evaluate the effectiveness of programs, school improvement goals, alignment of curriculum, or student placement in specific programs. Summative assessments happen too far down the learning path to provide information at the classroom level and to make instructional adjustments and interventions during the learning process. It takes formative assessment to accomplish this.



## Summative Assessment Ideas

“Good summative assessment-tests and other graded evaluations –must be demonstrably reliable, valid, and free of bias” (Angelo and Cross 1993). As a greater number of provinces begin placing emphasis on summative assessment (Activities which assess the students’ mastery of a larger unit of material), there is a great opportunity for teachers to be creative. Summative assessments can not only evaluate the students’ knowledge base, but also tap into their creativity and allow for extra research.

Remember that many activities (such as creating a brochure) can be used at any grade level as long as the expectations are adjusted accordingly, or extra resources made available for the younger grades.

### Arts-Based Assessments

- Create a collage
  - Docudrama
  - Story board/Commercial
  - Brochure
  - Poster
  - Bulletin board design
  - Scrapbook
  - Encyclopedia of definitions, historical references, and images
  - Model-making/scale model
- Music. (Compose a pieces of music based on the topic  
Design and create a CD (choose music and design the CD cover) of the topic’s music)

### Activity-Based Assessments

Debate

- Recreate a historical debate
- Debate on the pros and cons of the topic

### Thinking skills assessments

Concept mapping

- Create a concept map of the terms and concepts learned in this unit

Map making

- Create a concept map of the terms and concepts learned in this unit.

Media analysis

- Comment on the portrayal of the topic in the media (articles, advertisements)  
Visual/Graphics organizer

Creative writing

- Write a work of fiction
- Creative writing

Reading response

Read an article on a given topic and write a response

Technology & Media- Based Assessments  
Multi-media presentation

Create a power point presentation based on research topic  
Create a presentation which includes visual effects, audio effects, and a physical demonstration.

### **What is a Grade?**

#### **From a learner's perspective, we should seek to ensure that grades**

Keep the success to effort ration in balance. Grade contribute to the student's sense that when they work hard, something good generally comes out of it.

Ensure that students develop a growth mindet. Grades, in conjunction with tasks and experiences, contribute to student trust that sustained effort and hard work make most things possible.

#### **From a parent's perspective, we should seek to ensure that grades**

Communicate clearly. A parent can trust that the grade is a very accurate representation of just what a student knows, understands and can do in a given subject, at a given time, based on clearly understood criteria.

Support the parents in supporting learning. Grades guide parents in what to do next to encourage student growth.

#### **From a measurement perspective, we should seek to ensure that grades are**

**RELIABLE.** If we were to use the same measure a couple of days, weeks, or months later, the results would be relatively the same for a given student.

**VALID.** We actually measured what we meant to measure.

(Ten Practices That Dilute a Grade's Validity and Effectiveness): Avoid!

1. Penalizing student's multiple attempts at mastery
2. Grading practice/home work as students come to know concepts. Feedback; not grades.
3. Withholding assistance (not scaffolding or differentiating) in the learning when it is needed.
4. Group grades
5. Incorporating non-academic factors(behavior, attendance, and effort)
6. Assessing students in way that do not accurately indicate student's mastery. Student responses are hindered by the assessment format.
7. Grading on a curve
8. Allowing extra credit
9. Defining supposedly criterion-based grades in terms of norm-referenced descriptions(above, average, average, etc.,)
10. Recording zeros for work not done.

#### **Achievement, Diagnostic and prognostic Tests in Mathematics**

The process of instruction involves three important tasks namely teaching, learning and evaluation continuous evaluation has become an integral part of instruction so as to continually assess the achievements of the instructional objectives by the students the effectiveness of the learning experiences provided and the instructional strategy used by the teacher. A teacher has to devise and administer a variety of tools and techniques for evaluation. Though a teacher may have to use techniques and tools such as interview, observation, case study cumulative record, rating scale, and checklist for a variety of purposes, tests and examination constitute important means to evaluate the students performance. Test can be used with different objectives.

- I. For measuring achievement
- II. For diagnosis and
- III. For prediction

Based on the function served by tests, they can be broadly classified as achievement tests, diagnostic tests and prognostic test.

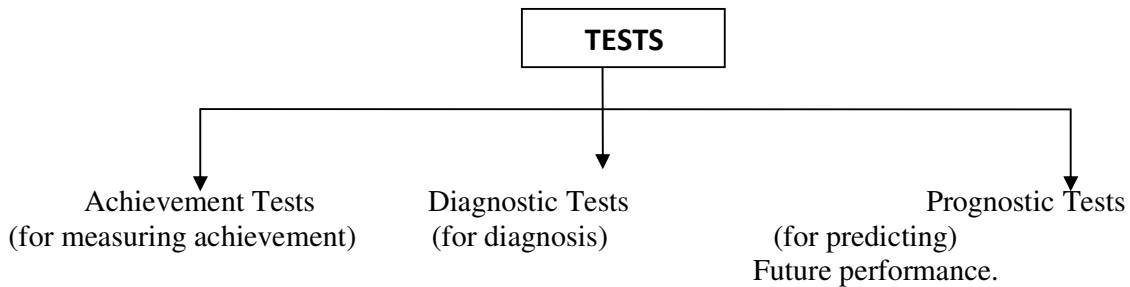


Fig 1 **Classification of Tests**

### **Achievement Tests**

The term achievement is often naively understood in terms of pupil's scores on a certain school subject. If for instance, a student is tested in two school subjects say Mathematics and Biological Science and in the former he gets 80% while in the latter he gets 60% marks, it is understood that his achievement in Mathematics is better than his achievement in biological science. In other words achievement means one's learning attainments, accomplishments, proficiencies etc. According to Denis Baron and Harold W. Bernard, the concept of achievement involves the interaction of three factors namely, aptitude for learning, readiness for learning and opportunity for learning. Achievement in education precisely speaking, implies one's knowledge, understanding or skills in a specified subject or a group of subjects.

Achievement test constitute an important tool of evaluation. It is necessary for the teacher to know how far the pupils have attained in a particular subject area the school evaluation programme, various forms and achievement test are used to measure the accomplishment of the pupils.

### **Definition**

According to Downie “Any test that measures the attainments or accomplishment of an individual after a period of training or learning is called an achievement test” Super D. E

### Types of Achievements Tests

Achievement tests as used in schools are of two types;

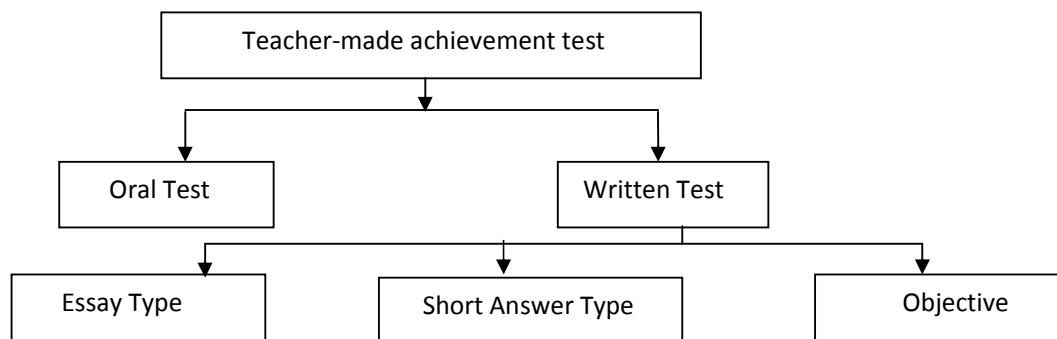
- Teacher-made achievements tests.
- Standardized achievement tests.

Teacher-made achievements tests are two types.

- Oral tests.
- Written or paper and pencil tests.

Written test can still further be classified as:

- Long answer or Essay type
- Short answer type
- Objective type



### Oral Tests

Oral tests are used extensively in the lower classes as well as in the high school. Most mathematical teachers make use of oral tests to develop the mental skills necessary for increasing speed and accuracy and habit formation.

### Advantages of Oral Tests

In the past, the classroom teacher relied very heavily on the oral work of his pupils in order to arrive at an estimate of the extent to which they mastered the work of his course. The value of the oral examination is quite apparent. Unlike the situation with written examination, which assumes that the examinee understands the questions, the oral examiner can pose a question and modify the same if it is not understood. Because of this flexibility, the examiner can probe the depth of student's understanding better through an oral test.

The probing results not only in a more specific answer but also gives some indication of the thought process used by the students in answering the questions. The teacher can ask for clarification, is needed oral tests help the teacher to evaluate how well a pupil can synthesise, integrate and organize

the materials that he learnt. It becomes a valuable tool for the diagnosis of pupil's difficulties. Skilful questioning by the teacher to may help the pupil to apply known mathematical principles and formulae to a new situation. Oral tests are very valuable for a teacher of mathematics.

### **Disadvantages**

Nevertheless there are serious of oral examination which in habit its use. Probably the most prominent weakness is the unreliability of the oral tests. Such factors as lack of precision in actually conducting an oral examination. Failure to pre-plan the questions, prejudices of the teachers and so on serve to detract from the usefulness of this technique. Moreover, it is time consuming and it may be difficult to test each student over the entire are under study.

### **Written Tests**

Written test used by teachers for measuring pupil achievement may be classified as essay examination or short answer examination. The latter are often referred to as "objective" or "new type" tests.

### **Essay Type Tests**

The essay type examination may be defined as a relatively free written response to a problem situation or situations in which the written answer intentionally or unintentionally reveals evidence regarding the functioning of the pupil's mental powers as they have been modified by the particular acts of learning experience. Hence, the essay examination, when properly analysed by the scorer, reveals information regarding selected aspect of organization and functioning of the pupils to discuss, compare, give reasons and the like, requires the formulation of an extended verbal answer to the question. The essay examination has survived the continued criticism of the experts in educational measurement and remains an approach widely used by classroom teachers in achievement testing.

The relative popularity of the essay examination is not difficult to understand. The most widely used tests are those which are prepared, administrated, scored and interpreted by the classroom teacher. They are generally constructed for use only with those pupils enrolled in the course taught by the teacher who prepares the tests. He may have many purposes in mind in administering the tests- tom motivate the pupil, to determine the success with which he has taught a unit of subject matter, to encourage additional reading and so on.

### **Advantages of Essay Examination**

Higher mental processes such as application, analysis, synthesis, evaluation, formulating hypotheses, problem solving etc. can be easily tested by easy type examinations. It is rather impossible to test mental processes by objective type test. For example, a multiple choice type can serve only as a means for collecting evidence concerning how well the pupil can judge the tests of several alternative hypotheses such a higher mental process as formulating hypotheses through an objective type item. The student's ability to organize and express is ideas effectively is another objective possible for the teacher to direct the attention of the pupil to large segments and integrated units of the subject matter.

Essay examinations may be used to arrive at an estimate of the creative ability of the pupil

The pupils response to essay examination has also been looked upon as a source from which the teacher could gain some insight into his personality.

### **Limitations of Essay Type Examination**

Lack of objectivity and Reliability is Scoring

One of the important characteristics of any test is the consistency with which competent examiners evaluate the responses of the examinees. The principal criticism of the essay examination has been directed to this point that the evaluation of the answers to essay questions is not objective (i.e marked variability in the marks or grades allotted to the same paper by two or three examiners). This may be because the scorers disagree concerning the objective which is being measured, selection and presentation of facts, interpretation or use of language etc.,

Influence of other extraneous elements (subjectivity)

Extraneous elements like the moods of the examiners, impressions created by the examinee, use of flowery and attractive language, comparison of the answer scripts by the examiners et, can affect the scoring resulting in greater subjectivity.

### **Limited Sampling of the Content**

The essay examination has also been criticized on the grounds that the sampling of content or range of information tested is narrower than it is in objective examination.

### **Emphasis on Rote Memorisation**

Another criticism leveled against essay examinations constructed by teachers is that emphasis is placed upon the recall of more or less specific information which can be validly and reliably measured by objective type test items than by a free response essay examination. These type of tests rather encourage rote memorization.

### **Danger of Bluffing**

There is a danger of bluffing in the essay examination as the examiner can be easily misled by other extraneous elements such as flowery language, neat presentation etc, without presenting any substantial information as required by question.

### **Difficulty of Scoring**

Since the answers are not specific and uniform, scoring of essay type examination is a difficult task.

### **Selective Learning**

Essay type examination encourages selective learning as the sampling of the content is limited and it covers only a few selected content areas.

## **Suggestions for improving Essay Type Examination**

- Define the objective of tested by each easy
- Prepare structured questions instead of preparing one long answer question
- Use of scoring key
- Indicate clearly the direction and scope of the responses expected.

## **Short Answer Type Tests**

A question which can be answered in less than four steps may be called a short answer question. For example, the following questions will be treated as short-answer ones.

### **Advantage of short answer type tests**

- Short answer questions can be easily related to the objectives
- It can be more stimulating for pupils than essay type tests.
- Scoring is reliable and objective
- As the responses are of free response type, they give insight into student's thought process and can be used for diagnosis
- It can cover a wider content area and can achieve a more extensive sampling of the content than the essay type tests.

## **Objective Type Questions**

The easy examination requires formulation of an extended verbal answer to the questions objective type tests on the other hand consist of questions to which a pupil responds by the selection of one of several given alternative, or by giving or filling in a word or a phrase or by some other device which does not call for an extensive written response.

### *Advantage of Objective type Questions*

The objective type tests in comparison with essay examination, possess certain definite advantages.

*Samples:* objective type tests generally show much better coverage of total course content than do essay examinations.

*Reliability and Objectivity of Scoring:* In view of the fact that the objective type questions generally have only one acceptable response, objectivity of scoring is reliable. The objective type tests scoring by different competent examiners would result consistently in the same score.

*Difficulty in construction:* The preparation of objectives type test generally require considerably more time and resourcefulness than the development of an essay type test.

*Testing complex process:* In many classroom situation, the teacher is concerned not only with the correctness of the pupils' answers to a questions, but also with the correctness of the thought process involved in arriving at the correct answer. This and other higher mental abilities like

organization, expression, problem solving etc. cannot be measured through objective type tests. A comparison of objective type test and essay type examination is given in table 14.2.

#### Comparison of objective type test and Essay type Examination

<i>Aspects</i>	<i>Objective Type Test</i>	<i>Essay Type Examination</i>
Outcomes measured	Good for measuring learning outcomes of knowledge, comprehension and application-Inadequate for higher mental abilities and skills.	Inefficient for measuring knowledge, good for the assessment of comprehension, application and analysis. Best for the appraisal of synthesis and judgment.
Sampling of the content	The use of large number of items results in broad coverage which make representative sampling of the content feasible	Use of relatively small number of items results in limited coverage and sampling of content
Preparation of items	Difficult and time consuming	Relatively easier to construct
Scoring	Objective, easy and highly reliable	Subjective difficult and less reliable
Factors distorting student's scores	Distorted by reading ability and guess work	Distorted by writing ability and bluffing.
Probable effect on learning	Encourages students to remember, interpret and analyse the ideas of others	Encourages students to organize, integrate and express their own ideas

#### Forms of Objectives Type of Test Items

Objectives type test items can be broadly categorized into supply type and suggested response type. In supply type items, the testee is required to supply a free response to the test items whereas in suggested response type, as the name implies, alternative responses are suggested to the testee, requiring him to select the right response from the given responses. Table.14.3 shows the classification of the objective type test items.

**Table. 2 : Classification of the Objective type test items**

Supply type	Suggested response type
Completion type of fill in the Blanks	Alternative response type (True or False/ Right



	or Wrong/ Yes or No)
Very short answer	Multiple Choice
Question asking for a one word answer	Matching

### **Completion Type**

The completion type requires the pupil to complete the thought or a sentence by filling in the word or words that have been left or it directs him to respond to a question by writing his answer in the blank space provided. Because the pupil needs to decide upon his answer and then write it out, a test composed of completion items takes longer time to administer than the other forms of objective test.

The completion item, however offer a natural form of questioning. It can be used readily with material calling for specific information. These items are particularly useful for use in Mathematics and Science where the results of complex reasoning processes can be represented by a law, symbol or number.

Suggestions for writing completion type questions

- If possible, use a direct question, rather than the complicated declarative sentences.
- The blank must call for a single specific response or the question that can be answered by a unique word, number or symbol.
- Avoid using statements lifted directly out of the book, since this tends to overemphasize rote learning.
- In Computational problems specify the units in which the answer is to be given and also the degree of precision expected.

### **Multiple choice questions**

The multiple choice item consists of a stem which presents a problem situation and several alternatives, which provide possible solutions to the problem. The stem may be a question, or an incomplete statement. The alternatives include the correct answer and several plausible wrong answer called distracters. Their function is to distract those students who are uncertain of the answer.

Multiple-choice items typically include either four or five choices. The large numbers will of course reduce the student's chances of obtaining the correct answer by guessing.

Rules for constructing multiple choice questions

Design each question to measure an important learning outcome.

Present a single clearly formulated problem in the stem of the item.

State the stem of the question in simple clear language.

Put as much of the wording as possible in the stem of the question

Avoid repeating the same material over again in each of the alternatives

## Matching type Questions

The matching type is simply a modification of the multiple-choice form. Instead of listing the possible responses underneath each individual stem, a series of stems called premises is listed in one column and the responses are listed in another.

### **Preparation of a Teacher-made Achievement Test**

If the test is to serve as an efficient and effective tool of evaluation, its preparation should be based on a number of careful considerations. The preparation of a good test is a systematic process having well-defined stages. The important steps envisaged in the preparation of a good teacher-made test are

- Planning the test
- Preparation of a design
- Designing the test items.
- Reviewing and editing
- Arranging the items
- Providing directions
- Preparing the scoring key and marking scheme
- Administering the test and scoring
- Evaluation of the test.

#### **Planning the test**

“Test planning encompasses all of the varied operations that go into producing the tests; but it must also involve careful attention to test difficulty, to type of test items, to directions to the examiner”. (Lindquist, E.F). We shall cover most of these considerations under the heading; preparation of design for the test or blueprint of the test.

#### ***Preparation of design***

Designing is the first and most important step in the test construction. It is at this stage that we plan to build in the test the important qualities: validity, reliability, objectivity and practicability. In order to accomplish this, the test constructor has to take a number of decisions regarding selection of the objective, the selection of the content, form of questions, the difficulty level of test items and the weightages to be allotted to the objectives, to the content and the form of questions. The set of those decisions will be called the design of the test from an analogy with the work of an architect. Important decisions have to be taken concerning the following.

- i) Identification of the objectives and allotting weightage to the objectives

The most important step while planning a test, or any evaluation tool or technique for that matter, is the identification of the instructional objectives and stating them in terms of specific observable behavior. After the objectives are identified and stated, the test maker has to decide their relative weights in the test. The fundamental principle to be observed here is that the test should reflect the actual emphasis being given to various mental processes during instructions. Because of the intangibility of instructional process, there cannot be any fixed formula for assigning weights to

various objectives. But these weights will be by and large a function of time, effort and resources spent on their acquisitions as also for the importance for the society and the learning of the subject in terms of retention and transfer value. The simplest basis for assigning the weights could be the weight them in terms of time devoted for their achievements. Weightages could, of course be given in numerical terms distributing 10 points over the objectives, giving the greatest number to those that are to receive the greatest emphasis.

For the sake of illustration, given below (table 3) are objectives identified for teaching some units in mathematics and the weightage allotted to them.

Table 3

Sl.No.	Objectives	Mark allotted	Percentage
1	Knowledge	6	24
2	Understanding	7	28
3	Application	10	40
4	Skill	2	8
		25	100

ii) Selection of the content and allotting weightage to the content.

Content being the means through which objective are attained, it is become very necessary to decide the weights to be given to its different parts. As the whole syllabus cannot be covered through any single test, a convenient number of units can be selected for testing to represent the actual emphasis on them in instructions. In assigning relative weights to unit a learning experience? How much time was devoted to it during instruction? Although there are them on the time require to teach various units.

For the sake of illustration, given below is the table 4 indicating the weightages given to three units namely Polynomials, Functions and Quadrilaterals.

Table 4

Sl.No.	Objectives	Mark allotted	Percentage
1	Unit - I	10	24
2	Unit - II	8	36
3	Unit - III	7	40
		25	100

iii) Selection of the

form of questions and giving weightage to the questions

The test-maker has to decide about the form of questions to be used, the number of questions to be chosen and the relative weightage to be given to each form. Perhaps a judicious combination of

the different forms will have to be used in achievement test. However, among the objective type questions, multiple choice may be given more weightage.

In the questions paper which is being taken for illustration, the weightage to different forms of questions could be as follows. (table 5)

Table 5 Weightages given to different forms of Questions

Sl.No.	Objectives	Mark allotted	Percentage
1	Essay (E)	6	24
2	Short answer (S )	9	36
3	Objective type (O)	10	40
		25	100

iv) Distribution of difficulty level

A decision also has to be taken concerning the distribution of difficulty level. The distribution of difficulty level in a test will depend upon the purpose of the test as also on the group of students for whom it is designed. To get optimum discrimination through a test, most of its questions should be of average difficulty level. A few easy questions, to motivate the below average student and a few difficult ones to challenge the gifted should find a place in the question paper. If achievement can be assumed to be normally distributed, some weightages in terms of percentages can be suggested for easy, average and difficult questions as shown in table 14.7

<i>Sl.No.</i>	<i>Difficulty Level</i>	<i>Percentage</i>
1	Difficult Questions	15
2	Average Questions	70
3	Easy Questions	15
		100

v) Preparation of Blueprint: (Table of specifications)

Preparation of the blueprint refers to the final stage of the planning of a test. The blue-print is a three dimensional chart showing the weightage given to the objectives, content and the form of questions in terms of marks. It is also called a table of specifications as it relates outcome to the content and indicates the relative weight given to each of the various areas. The units or the content spread along the vertical axis while the objectives are listed on horizontal axis. Each column is further subdivided into column that indicate the forms of questions. Thus we get a number of cells, each cell having three dimensions, the objective, the content and the form of question. What is required on the part of the test maker is to fit in all the questions in different cells in such a way that the blueprint reflects the decisions of the designer. When this is done, also row and columns are balanced, and the blueprint is ready. It is illustrated in table.14.8

<i>Objective</i>	<i>Knowledge</i>			<i>Understanding</i>			<i>Application</i>			<i>Skill</i>			<i>Total</i>
	E	S.A	O	E	S.A	O	E	S.A	O	E	S.A	O	
Content													
Polynomial		1(2)		3(1)	1(1)			3(1)	1(1)				10
Functions		1(2)		3(1)	1(1)				1(2)				8
Quardilateral		1(1)					4			2			7
	<b>5</b>			<b>8</b>			<b>10</b>			<b>2</b>			<b>25</b>

Note: The number inside the bracket indicates the number of questions and the number outside the bracket indicates the marks allotted to each question

### ***Uses of Blueprint***

*The preparation of the blueprint serves the following purposes. The blueprint .*

- helps to improve the content validity of the test.
- defines as clearly as possible the scope and emphasis of the test.
- relates objectives to the content.
- Gives greater assurance that the test will measure learning outcomes and course content in a balanced manner.
- lays before the tester a complete picture of the test he is going to prepare.

### **Designing the test items**

When the blueprint is ready the next step is to prepare or select the items. Write the test items according to the table of specifications. Take each cell of the blueprint and draft an item taking care of the various dimensions, the objective content and the form as laid down in the blueprint. Some other decisions taken while designing the test, particularly the one concerning the distribution of difficulty level has to be implemented at this stage itself. It is also desirable to prepare more items than the requirement of the cells of the blueprint since defects are likely to become apparent in some items during the later review. The additional items will make it easier to maintain the distribution of items reflected in the table of specifications.

### ***Reviewing and Editing***

The pool of items for a particular test after being set aside for a time can be reviewed with the help of experts. A more careful evaluation of the items can be made by considering them in the light of each of the following questions.

- Does each item measure an important learning outcome included in the table of specification?
- Is each item present a clearly formulated task?
- Is the item stated in simple, clear language?
- Is the item free from extraneous clues?
- Is the difficulty of the item appropriate for the students to be tested?
- Does each item fit into one of the cells of blueprint?

### ***Arranging the item***

When the final selection of the items has been completed and they are ready to be assembled into a test, a decision must be made concerning the best item arrangement. The following suggestions provide guideline for this purpose.

- The items should be arranged so that all items of the same type are grouped together.
- The items should be arranged in the order of increasing difficulty.

- It may be desirable to group together items which measure the same learning outcomes or the same subject matter content.

### **Providing Directions**

Directions constitute an inseparable part of a test. The directions for an achievement test should be simple and concise and yet contain information concerning each of the following: (1) purpose of the test (2) time allowed to complete the test (3) how to record the answers (4) whether to guess when in doubt the answer (5) marks allotted for each questions as also for each section of the test.

### **Preparation of scoring key and marking scheme**

When the test has been assembled and ready to administer, it become necessary to prepare some other important accessories in the form of scoring key for objective type questions and marking scheme for supply-type questions, such as short answer and essay type questions.

### **Scoring key**

Scoring key refers to the prepared list of answers to a given set of objective questions. The examiner compares the answers given by the students with those in the scoring key and thus arrives at the marks to be awarded to the students.

### **Correction of Guessing**

The test constructor while preparing the scoring key may feel like reducing to zero the gain in the score expected to result from guess work. This is popularly called correction for guessing.

The generalized formula for correcting for guessing is

$$S = R - \frac{kW}{n-k} \text{ where}$$

S= Score, w= Number of wrong responses, R= Number of right responses.

N=Number of suggested responses for a single item

K=Number of responses to be selected or marked for each item.

In the case of True or False items, S=R-W (since n=2 k=1)

In the case of multiple choice questions where only one correct answer is expected the generalized formula reduces to

$$S = R - \frac{W}{n-1}$$

### **Marking Scheme**

In the preparation of marking scheme in mathematics it will be desirable not only to analyse the solution into important stages and to distribute marks over them but each stage may be looked upon from the point of view of the method involved as also from expected accuracy. The marks for each stage, therefore, may be divided into two components: marks for the method and those for accuracy. A marking scheme is essential because it indicates

- The number of steps or learning points expected in the answer.
- The outline of each point or step expected in the answer.

- iii. The weightage of each point or each step
- iv. The level of accuracy expected of each step

Administering and scoring the test

At this step, it is important to make sure that all student know exactly what is expected of them and to provide them with the most favourable conditions for taking the test. After the administration of the test, the scoring can be done with the help of the scoring key and marking scheme.

### **Evaluating the test**

Evaluating the test helps the teacher to ascertain the following:-

- Was the test very easy or very difficult?
- Was the test too long or too short?
- Were the directions clear specific?
- Was the test practicable and feasible?
- Did the items measure the intended objectives?
- Were the items clear and unambiguous:
- Were the distracters effective?
- Do the items discriminate among the different levels of achievers?
- What are the misconceptions formed by the student?

Evaluation can be done at two level

- i. Question-wise analysis
- ii. Item analysis

Questions-wise analysis is done by analyzing each questions according to objective, specification, content, question type, estimated difficulty level and time required. This helps the teacher is assessing the effectiveness of the test item with reference to the objectives and other requirements in the blueprint. This also gives and insight into the difficulties encountered by students in taking the test.

Item analysis is process by which a test maker evaluates the effectiveness of the test item in term of (i) the difficulty level of the test items (ii) discriminating power of test items and (iii) the effectiveness of the distracters. For item analysis the teacher arranges the test papers in the ascending order of marks and analysis is done for 27% of the students on the high and low students' responses to each item are analysed for the student in upper and lower groups. Other than the purposes mentioned above, item analysis has several other benefits too.

It provides useful information for class discussion of the test.

It provides data for helping the students to improve their learning

It provides insight and skill which lead to the preparation of better tests on future occasions.

### **Characteristics of good achievement test**

The following are the qualities of a good achievement test.

**Reliability:** Reliability of a test is its trustworthiness or its consistency. It is defined as “the consistency with which a test measures what it intends to measure”.

Validity: Validity means purposiveness. Validity of a test is the “accuracy with which a test measures what it intends to measure”.

Objectivity: A test is said to be highly objective if the score assigned are not affected by the judgment, personal opinion or bias of the scores.

- i. Inform and construction.
- ii. In the way it is administered
- iii. In the use of norms

Differences between teacher-made tests and standardised tests are listed table 6

<b>Teacher – made tests</b>	<b>Standardized tests</b>
Based on content and objective specific to the class taught by the teacher	Based on content and objectives common to many schools covering a wide area
May deal either with a specific limited topic or skill or with large segments knowledge and skill.	Deals with large segments of knowledge or skill, usually only with a few items appraising any one skill or topic
Developed usually by one teacher with little or no outside help	Developed with the help or experts
Has moderate or low reliability	Has high reliability
Limited usually to the class or a single school as a reference group.	Provide norms for various groups that are broadly representative of performance throughout the country

## **DIAGNOSTIC TEST**

### **Need for diagnostic test**

Most standardized and teacher-made achievement tests are designed to give an indication of how far the student has progressed towards the accomplishment of specific objectives measured by the test. These objectives, however are grouped in broad categories. They cover a broad area and result in a total score which reflects overall achievement in the area tested. Thus the teachers can say that a pupil is doing well in arithmetic or poorly in difficulty. It will identify students who are having relative difficulty in an area, but it will not identify the causes of the difficulty. Such survey(achievement) tools serve a useful function, but in order to help the student with a disability, the teacher will need to analyse the nature of the difficulty and the causes for the trouble. There are tests which have been devised to provide information about the specific nature of pupil’s difficulties in given subject areas. These tests are called diagnostic tests. Any test can be used as diagnostic test in a limited way by examining student’s performance in the individual items which make up the test rather than on the test as a whole. Thus diagnostic test yield measures of highly related abilities underlying achievement in a subject. They are designed to identify particular strengths and weaknesses of the part of the individual child and with reasonable limits to reveal the underlying causes. The diagnostic test attempts to bread a complex skill like computation into measures of theses sub-skills. Such measures can help the teacher locate the sources of difficulty using which constructive action can be taken.

Educational Diagnosis



As is obvious, the term diagnosis has been borrowed from the medical professions where it implies “identification of disease by means of patients’ symptoms”. The word diagnosis is used more or less in the same sense in education. The only difference perhaps is that in medical diagnosis it is physical or an organ breakdown that is examined, while in educational diagnosis it is the failure of the process of education or learning that is located and attended to be remedied. We may say that educational diagnosis is “the determination of the nature of learning difficulties and deficiencies”. Of course, it cannot stop only at the identification of weakness in learning but has to go a little deeper to locate their causes and also suggest remedies for getting rid of them.

### **Level of Diagnosis**

Good diagnosis moves hand in hand with good teaching and a teacher should be as much concerned with it as with the latter. Ross and Stanley have identified five levels of diagnosis, which are, (1) who are the pupils having trouble? (2) where are the errors located? (3) why did the errors occur? (4) what remedies are suggested? and (5) how can the errors be prevented? The first four are grouped as corrective diagnosis and the last is known as preventive diagnosis. Most of the diagnosis resorted to by teachers will be corrective in nature by which measures are taken to make up the deficiencies while the highest form will remain preventive diagnosis with the help of which deficiencies are prevented from occurring. The immediate concern of the teacher may be corrected. The corrective diagnosis can be done at the following levels.

- Classification
- Finding the nature of difficulties
- Providing remedial measures
- Preventing the difficulties from occurring

These levels are in fact the steps in the total process of education diagnosis and are all interrelated.

### **Classification**

It is the process of sorting out students into groups particularly of underachievers and lower achievers. The reference point for each student, should rightly be his own expected achievement and students have to be classified with regard to their levels of expected achievement. If they have crossed their level, some enrichment programme may be planned to help them improve their achievement further.

### **Finding the nature of difficulties**

In this level of diagnosis the specific areas of difficulties have to be identified. Achievement test, unit test, etc. can be used for this purpose as they cover as many learning points as possible. The item wise analysis of such tests helps in locating the weaknesses of the students. If most of the student do poorly on a particular learning point, it is an indication that something is wrong with the instruction relating to that point. But this type of analysis give no ideas regarding to causation of these errors which will have to be sought by other means.

### **Finding the causes of difficulties**

This is the most difficult state in diagnosis. The main difficulty of this stage lies in the fact that a test appraises only the product of learning and not the process of learning. They may establish where the breakdown in learning has taken place but can seldom reveal anything about the causes of it. These causes are generally varied and complex in nature. We have to seek them in different areas, some of which need not be connected in any way with classroom instruction or school. Broadly speaking, underachievement may be due to factors with the students, or environmental factors, outside the control of the students or a combination of the two.

Most of the causes internal to the students, may however be located in the areas of scholastic aptitude, retardation of basic skills, study habit, physical factors and emotional factors. Tools such as interviews, checklists, rating scales, questionnaire etc. can be used to locate the causes of the difficulties.

### **Remediation**

After identifying the causes of the difficulties, the next stage is planning and applying remedial measures. There is however, no set pattern and no cut-and-try formula for remediation. In some cases, it may be a simple matter of review and reteaching. In others, an extensive effort to improve motivation, correct emotional difficulties and overcome deficiencies in work and study habits may be required. The hard fact is that, for two students having the same learning difficulty may have suffered it, because of different causes and may have to be tackled differently. Moreover, since each individual is unique, remedial programmes have to be planned accordingly. Obviously, the planning of remedial programmes will differ considerably from individual to individual.

Despite the different methods and techniques needed in remediation, there are certain guiding principles that apply to all subject areas and provide a framework in which the teacher can operate.

- Remediation should be accompanied by strong motivational programme.
- Remediation should be individual in terms of the psychology of learning.
- There should be continuous evaluation giving the pupil a knowledge of results.
- Remediation programme may not always need a separate time allocation. But they will always need some extra work for both the teachers and the affected students.

### **Prevention**

Prevention is better than cure in education as elsewhere. A programme of diagnostic testing should help an imaginative teacher in getting an insight into the type of possible errors that are likely to occur in learning, their possible causes and the ways of preventing them in future. Thus educational does not and should not end at remedial measures, but also should become a means for improving instruction, modifying curriculum and also for refining instructional material and strategies. The real importance is rather in the prevention of its reappearance elsewhere under similar conditions. Any weakness identified should form the basis for decisions relating to reducing the probability for their recurrence in the future.

### **Construction of Diagnostic Test**

Diagnostic tests may be standardized or teacher-made, diagnostic test will be more effective and economical than standardized tests. The norms which constitute a strong point with standardized

tests are not called for in diagnosis as the purpose is to discover the weaknesses of individual students rather than compare their achievements.

The designing of a diagnostic test is significantly different from a survey test. A teacher require must more data on the specific difficulties of the pupils. Diagnostic test have. It also requires a more detailed content analysis. The unit on which a diagnostic test is based should be broken into learning points with an attempt not to omit any of them. The diagnostic procedure is based on the assumption that mastery of the total process can be no stronger than that of the weak link in the chain of related concepts or skills. Accordingly, each concept, skill or learning point called into play in the test process in identified at the time of designing and then measured.

As far as a diagnostic test is concerned, it is not very important to know the relative importance of the various learning point as it is in the case of survey tests. We are not to decide their relative weightage. The basic principles is to cover all of them to give an unbroken sequence. Perhaps for each learning point, an adequate number of questions will have to be given to provide decisive evidences.

All the forms of questions can be employed for testing different learning points. As we want to collect evidence on all the points, it is desirable to use either short answer or objective type questions. Supply type of questions seem, however, to have an edge over selection type because they reveal the process of thinking in addition to the product of thinking. Such questions for in the responses. It appears, therefore, that for diagnostic test, short answer involving one or two steps are preferred especially in subject like mathematics. Whatever be the form of questions, they should in general be easy ones.

No rigid time limit needs be specified in the case of diagnostic tests. Diagnosis should be individualized as much as possible and every student should be allowed as much time as he reasonably needs.

It may be noted that as we do not have to relate content and process, the preparation of a blueprint may altogether be avoided in a diagnostic test. The items are designed so as to throw light on the weakness of the students and therefore the questions have to be specifically related to the learning points. The scope of the answer or the level of precision expected should also be made clear.

After the items on different learning points are written, they have to be assembled into a test. The basis of arranging test items in a diagnostic test is entirely different from other tests. There appears to be a good deal of justification in favour of clubbing questions around learning points even when they are of different forms. The learning points themselves can be arranged in increasing order of their complexity. If they are so arranged, the students do not have to change their mental sets very frequently. Moreover, this arrangements also helps in analyzing the response of students with a view identify their weaknesses, which is one of the important tasks in diagnostic testing.

To complete the test, sent of instruction may be drafted. It should also be provided with a scoring key and marking scheme. Finally the test is edited and reviewed to weed out inaccuracies or lapses of wording etc.,

The step in the construction of a diagnostic test can be summarized as follows.

Identified of the problem areas  
Detailed content analysis

Listing all the learning points  
Arranging the learning points in the logical sequence  
Writing test items. (preferably two or three items of free response type) for each learning point)  
Clubbing the items around the learning points.  
Providing a scoring key and a marking scheme.  
Providing the time limit as required by individual students.  
Administration of the test.  
After administering the test, the following procedure may be followed for analyzing the performance and identify the weaknesses.  
Item-wise analysis of the performance of each student.  
Qualitative and qualitative analysis for identifying the strengths and weakness  
Identification of the causes of learning difficulties  
Preparation of a diagnostic chart of each student  
Planning and implementing highly individual remedial programmes  
Evaluating the effectiveness of the programme.

### **Uses of diagnostic Test**

The following are the uses of diagnostic test.

The diagnostic tests

- Point out inadequacies in specific skills.
- Locate areas in which individual instruction is required
- Furnish continuous information in order that learning activities may be most productive of desirable outcomes.
- Serve as a basis for improving instructional methods, instructional materials and learning procedures.

### **Ensuring fairness in assessment**

*Fairness* is a concept for which definitions are important, since it is often interpreted in too narrow and technical a way. We set fairness within a social context and look at what this means in relation to different groups and cultures. Similarly, we are using *educational assessment* in a more inclusive way than is often the case; we include tests, examinations, teachers' judgments or evaluations ('assessment' in the United Kingdom) of student performance. We then explore *bias* in measurement and how it relates to validity, as well as the broader concept of *equity*. Finally, three examples of approaches to ensure fairness are given.

### **Seven Steps to Fair Assessment**

If we are to draw reasonably good conclusions about what our students have learned, it is imperative that we make our assessments—and our uses of the results—as fair as possible for as many students as possible. A fair assessment is one in which students are given equitable opportunities to demonstrate what they know (Lam, 1995). Does this mean that all students should be treated exactly the same? No! Equitable assessment means that students are assessed using methods and procedures most appropriate to them. These may vary from one student to the next, depending on the student's

prior knowledge, cultural experience, and cognitive style. Creating custom tailored assessments for each student is, of course, largely impractical, but nevertheless there are steps we can take to make our assessment methods as fair as possible.

1. Have clearly stated learning outcomes and share them with your students, so they know what you expect from them. Help them understand what your most important goals are. Give them a list of the concepts and skills to be covered on the midterm and the rubric you will use to assess their research project.

2. Match your assessment to what you teach and vice versa. If you expect your students to demonstrate good writing skills, don't assume that they've entered your course or program with those skills already developed. Explain how you define good writing, and help students develop their skills.

3. Use many different measures and many different kinds of measures. One of the most troubling trends in education today is the increased use of a high-stakes assessment— often a standardized multiple-choice test—as the sole or primary factor in a significant decision, such as passing a course, graduating, or becoming certified. Given all we know about the inaccuracies of any assessment, how can we say with confidence that someone scoring, say, a 90 is competent and someone scoring an 89 is not? An assessment score should not dictate decisions to us; we should make them, based on our professional judgement as educators, after taking into consideration information from a broad variety of assessments.

Using "many different measures" doesn't mean giving your students eight multiple-choice tests instead of just a midterm and final. We know now that students learn and demonstrate their learning in many different ways. Some learn best by reading and writing, others through collaboration with peers, others through listening, creating a schema or design, or hands-on practice. There is evidence that learning styles may vary by culture (McIntyre, 1996), as different ways of thinking are valued in different cultures (Gonzalez, 1996). Because all assessments favor some learning styles over others, it's important to give students a variety of ways to demonstrate what they've learned.

4. Help students learn how to do the assessment task. My assignments for student projects can run three single-spaced pages, and I also distribute copies of good projects from past classes. This may seem like overkill, but the quality of my students' work is far higher than when I provided less support.

Students with poor test-taking skills may need your help in preparing for a high-stakes examination; low achievers and those from disadvantaged backgrounds are particularly likely to benefit (Scruggs & Mastropieri, 1995). Performance-based assessments are not necessarily more equitable than tests; disadvantaged students are likely to have been taught through rote memorization, drill, and practice (Badger, 1999). Computer-based assessments, meanwhile, penalize students from schools without an adequate technology infrastructure (Russell & Haney, 2000). The lesson is clear: No matter what kind of assessment you are planning, at least some of your students will need your help in learning the skills needed to succeed.

5. Engage and encourage your students. The performance of "field-dependent" students, those who tend to think more holistically than analytically, is greatly influenced by

faculty expressions of confidence in their ability (Anderson, 1988). Positive contact with faculty may help students of non-European cultures, in particular, achieve their full potential (Fleming, 1998).

6. Interpret assessment results appropriately. There are several approaches to interpreting assessment results; choose those most appropriate for the decision you will be making. One common approach is to compare students against their peers. While this may be an appropriate frame of reference for choosing students for a football team or an honor society, there's often little justification for, say, denying an A to a student solely because 11 percent of the class did better. Often it's more appropriate to base a judgement on a standard: Did the student present compelling evidence? summarize accurately? make justifiable inferences? This standards-based approach is particularly appropriate when the student must meet certain criteria in order to progress to the next course or be certified.

If the course or program is for enrichment and not part of a sequence, it may be appropriate to consider growth as well. Does the student who once hated medieval art now love it, even though she can't always remember names and dates? Does another student, once incapable of writing a coherent argument, now do so passably, even if his performance is not yet up to your usual standards?

7. Evaluate the outcomes of your assessments. If your students don't do well on a particular assessment, ask them why. Sometimes your question or prompt isn't clear; sometimes you may find that you simply didn't teach a concept well. Revise your assessment tools, your pedagogy, or both, and your assessments are bound to be fairer the next time that you use them.

### **Spreading the Word**

Much of this thinking has been with us for decades, yet it is still not being implemented by many faculty and administrators at many institutions. Our challenge, then, is to make the fair and appropriate use of assessments ubiquitous. What can we do to achieve this end?

- Help other higher education professionals learn about fair assessment practices. Some doctoral programs offer future faculty studies in pedagogy and assessment; others do not. Encourage your institution to offer professional development opportunities to those faculty and administrators who have not had the opportunity to study teaching, learning, and assessment methods.
- Encourage disciplinary and other professional organizations to adopt fair assessment practice statements. A number of organizations have already adopted such statements, which can be used as models. Models include statements adopted by the Center for Academic Integrity (McCabe & Pavela, 1997); the Conference on College Composition and Communication (1995); the Joint Committee on Standards for Educational Evaluation (1994); the Joint Committee on Testing Practices (1988); the National Council on Measurement in Education (1995); and

the first National Symposium on Equity and Educational Testing and Assessment (Linn, 1999); as well as AAHE (1996). (See Assessment Policies, below).

- Speak out when you see unfair assessment practices. Call for the validation of assessment tools, particularly those used for high-stakes decisions. Advise sponsors of assessment practices that violate professional standards, and offer to work with them to improve their practices.
- Help improve our assessment methods. Sponsor and participate in research that helps create fairer assessment tools and validate existing ones. Collaborate with assessment sponsors to help them improve their assessment tools and practices. Help develop feasible alternatives to high-stakes tests.
- Help find ways to share what we already know. Through research, we have already discovered a great deal about how to help students learn and how to assess them optimally. With most of us too busy to read all that's out there, our challenge is finding effective ways to disseminate what has been learned and put research into practice.

As we continue our search for fairness in assessment, we may well be embarking on the most exhilarating stage of our journey. New tools such as rubrics, computer simulations, electronic portfolios, and Richard Haswell's minimal marking system (1983) are giving us exciting, feasible alternatives to traditional paper-and-pencil tests. The individually custom-tailored assessments that seem hopelessly impractical now may soon become a reality. In a generation—maybe less—it's possible that we will see a true revolution in how we assess student learning, with assessments that are fairer for all . . . but only if we all work toward making that possible.

## **Assessing the Assessments: Fairness, Accuracy, Consistency, and the Avoidance of Bias**

### **Introduction**

Fairness, accuracy, consistency and the elimination of bias are important concepts in the first element of NCATE Unit Standard 2, Assessment and Unit Operations. The rubric for that element reads:

The unit takes effective steps to eliminate sources of bias in performance assessments and works to establish the fairness, accuracy, and consistency of its assessment procedures.<sup>1</sup>

1.) define the concepts of fairness, accuracy, consistency, and the elimination of bias; and 2.) provide examples of how institutions can ensure that their assessments adequately reflect these concepts.

### **Fairness:**

---

<sup>1</sup> The concepts of fairness, accuracy, consistency, and the elimination of bias are also discussed in the second item of the NCATE Transition Plan. The relevant paragraph indicates: "Assessments must be fair, accurate, and consistent. To ensure this, the unit may need to provide time and resources for the review of curricula to ensure that candidates have the opportunity to learn the materials assessed. In addition, the unit must provide time and resources for piloting assessments, developing benchmarks, ratings assessments, and analyzing the extent to which the assessments were successful in measuring targeted candidate knowledge, skills, and dispositions."

Assessments are fair when they assess what has been taught. Candidates should be exposed to the knowledge, skills, and dispositions which are measured in the assessments. Without this type of exposure, it is not fair to expect candidates to have mastered the material.

One example of how institutions can demonstrate fairness in their key assessments is through curriculum mapping (e.g., a chart that shows where in the curriculum candidates have the opportunity to learn and practice what is specified in the standards). Institutions should identify where in the curriculum candidates have had the opportunity to learn and practice the material being assessed.

In addition, fairness also means that candidates understand what is expected of them on the assessments. To this end, instructions and timing of assessments should be clearly stated and shared with candidates. In addition, candidates should be given information on how the assessments are scored and how they count toward completion of programs.

### **Accuracy:**

Assessments are accurate when they measure what they purport to measure. To this end, the assessments should be aligned with the standards and/or learning proficiencies that they are designed to measure. Three characteristics that determine alignment of assessments with standards are:

- (a) the same or consistent categories of content appear in the assessments that are in the standards;
- (b) the assessments are congruent with the complexity, cognitive demands, and skill requirements described in the standards; and
- (c) the level of effort required, or the degree of difficulty is consistent with standards and reasonable for candidates who are ready to teach or take on other professional responsibilities.

The assessments should be aligned with the knowledge, skills, and dispositions being assessed. For example, a pencil-and-paper test is not an appropriate assessment of classroom skills, but may be an efficient way to document candidate knowledge of different instructional approaches and when to use them. A classroom observation may not be the best way to assess a candidate's content knowledge,<sup>2</sup> but may with structured scoring guides be a useful way to evaluate candidates' dispositions.

Accuracy is closely related to the statistical term "validity." However, establishing validity requires statistical analysis beyond what is called for in the NCATE standards. Most institutions already employ several activities that ensure accuracy of assessments.<sup>3</sup> One activity is simply reviewing

---

<sup>2</sup> For further information on the appropriateness of assessments, see [www.ncate.org/institutions/article\\_commission.asp?ch=87](http://www.ncate.org/institutions/article_commission.asp?ch=87) and choose "Commissioned papers on Development of Assessment Systems and Aggregating Data," then select Stiggins, *Specifications for a Performance-based Assessment System for Teacher Preparation*

<sup>3</sup> For further information on reviewing the accuracy of assessments, see [http://www.ncate.org/resources/assessment/assessment\\_examples.pdf](http://www.ncate.org/resources/assessment/assessment_examples.pdf)



assessments to ensure alignment and appropriateness, and documenting the review. This can happen once a year at a staff meeting, or in programmatic committees, or could be done by one person and discussed with a larger group.

Accuracy can also be supported by documenting the relationship between assessment results and candidate performance on related assessments, grades, and program completion.

### **Consistency:**

Assessments are consistent when they produce dependable results or results that would remain constant on repeated trials. Essentially, in approaching consistency, the standards are requiring that the assessments and results be trustworthy. In other words, if the same information were assessed on different occasions, with no intervention, and the results were largely the same, then the assessment could be said to be consistent.

Consistency is closely related to the statistical term “reliability.” However, NCATE consciously chose not to use the term “reliability” because the concept can be adequately addressed with methods that can be inclusive of, but also other than statistical analysis.

Institutions can document consistency through providing training for raters that promote similar scoring patterns, using multiple raters, conducting simple studies of inter-rater reliability, and/or by comparing results to other internal or to external assessments that measure comparable knowledge, skills and/or dispositions.

### **Avoidance and Elimination Bias**

Closely related to accuracy is the elimination of bias. To ensure that the results of assessments adequately reflect what candidates know and can do, it is important to remove any contextual distractions and/or problems with the assessment instruments that introduce sources of bias and thus adversely influence candidate performance. Contextual distractions include inappropriate noise, poor lighting, discomfort, and the lack of proper equipment. Problems with assessments include missing or vague instructions, poorly worded questions, and poorly reproduced copies that make reading difficult.<sup>4</sup>

The elimination of bias also means that the assessments are free of racial and ethnic stereotypes, poorly conceived language and task situations, and other forms of cultural insensitivity that might interfere with candidate performance and unintentionally favor some candidates over others. Further, the elimination of bias includes consistent scoring of assessments and vigilant efforts not to discriminate against groups of candidates.

Ultimately, it is important that units evaluate assessments and assessment conditions and eliminate as many sources of bias as possible. While the standards use the term “eliminate,” in fact, it is best to *avoid* sources of bias as the assessments are being developed.

---

<sup>4</sup> For a list of additional sources of bias, see [www.ncate.org/institutions/article\\_commission.asp?ch=87](http://www.ncate.org/institutions/article_commission.asp?ch=87) and choose “Commissioned papers on Development of Assessment Systems and Aggregating Data,” then select Stiggins, *Specifications for a Performance-based Assessment System for Teacher Preparation*, p.9,13.

NCATE believes that institutions must address these issues of fairness, accuracy, consistency and the avoidance/elimination of bias as an integral component of the development and implementation of a high quality assessment system. If institutions do not adequately address these issues, then the quality of the assessment system can be legitimately questioned, and the data derived from the assessments may not sufficiently address the elements in Standard 1.

Experts suggest that many assessments, in particular higher-stakes summative assessments, shift student focus and effort away from the learning process itself and towards the assessment instrument. In their view, reliance on such instruments often misdirects student motivation towards achieving high test scores rather than more meaningful learning outcomes. As a result, the processes that should be valued—learning, skill development, growth in knowledge—are displaced by the measurement instruments themselves, which in many cases are not valid indicators of those primary processes. Expert informants cited studies suggesting that standardized tests and grades have been shown to undermine motivation among students who struggle, and that even in the case of high-performing students, many summative assessments produce the wrong kind of motivation—the desire for high grades/scores rather than the desire to improve skills or increase knowledge. Low grades and scores are especially problematic because they give students the idea that they are poor learners, which de-incentivizes future learning.

Public assumptions about the relationship between assessments, grades and student motivation stand in marked contrast to those of experts. For our public informants, grading systems function as a necessary and effective means of incentivizing student achievement and punishing poor performance. While informants were at times able to speak of children’s capacity to love learning and the learning process for their own sake, they were largely unable to imagine of formal educational systems operating with grades. Instead, assessments and grades were deemed necessary to student motivation and positive educational outcomes.

Notable, both experts and public recognize the assessments and their by-products carry motivational power for students. But beyond that basic overlap, their perspectives diverge dramatically as the public largely fails to consider how assessments often distort motivation away from learning and can depress motivation overall.

The public’s model of assessments and grades as a motivational system is closely linked to a cultural model of education as a competitive arena, where students strive to outdo each other in test scores and grades, and in setting themselves up as desirable candidates for college and careers. In this respect, the idea that grades serve a positive motivational function is consistent with a broader acceptance of competition in American society, and with the idea that each individual must learn to compete in the marketplace of skills and knowledge. From this perspective, the idea that assessments motivate students is desirable, and there is little reason to distinguish motivations that actually improve learning from those that do not.

## QUESTIONS

- i. Describe the concept of differentiated learning.
- ii. How will you ensure fairness in assessment?
- iii. Explain the qualities of a good test.
- iv. What is a blueprint? How will you construct a blueprint for two units in your subject?
- v. What is meant by culturally responsive assessment? Explain.

## REFERENCES

1. [www.ncate.org/institutions/article\\_commission.asp?ch=8](http://www.ncate.org/institutions/article_commission.asp?ch=8), retrieved on 20/7/16
2. [http://www.ncate.org/resources/assessment/assessment\\_examples.pdf](http://www.ncate.org/resources/assessment/assessment_examples.pdf) retrieved on 25/8/16
3. Differentiated Assessment for Middle and High School classrooms, Blaz, 2008.
4. Aneece James, 2009, "Teaching of Mathematics", "Neelkamal Publisherrrs, Hydrabad.5.

## Unit - VI -ASSESSMENT FOR INCLUSIVE SCHOOLS

### OBJECTIVES

The student - teachers will be able to

- i. understand how to assess the disabled children
- ii. assess their performance outcomes
- iii. apply various strategies to assess their performance
- iv. know and understand the process of feedback
- v. analyse their feedback

### **Assessing the disabled/ to identify special educational needs**

Whilst there are clear differences in the ways assessment information is collected and used in countries, the necessity to precisely identify an individual pupil's special educational needs is

recognized in all countries. All countries have clear legal procedures for the initial identification of the educational needs of pupils who are experiencing difficulties. However, how these needs are identified differs and each country has its own set of procedures for initial identification of needs.

Initial assessment of pupils who are thought to have SEN can have two possible purposes: - Identification linked to an official decision to 'recognise' a pupil as having educational needs that require additional resources to support their learning; - Informing learning programmes, where assessment is focused upon highlighting strengths and weaknesses the pupil may have in different areas of their educational experience. Such information is often used in a formative way – perhaps as the starting point for Individual Education Plans (IEPs) or other target setting approaches – rather than as a one off, baseline assessment.

In different ways, most countries have 'graduated' approaches to the identification of a pupil's SEN. There may be clearly defined stages in a process that begins with mainstream class teachers highlighting and attempting to address difficulties, then involving other specialists in the school and finally specialists from external support services.

This sequence of collecting information about a pupil's strengths and weaknesses that is increasingly detailed and more specialised is often linked to the involvement of professionals who come from different specialist areas - health, social and psychological - and who can carry out different forms of assessment (often diagnostic tests) that give particular insights into a pupil's functioning in different areas. In all countries, to one degree or another multi-disciplinary teams are involved in assessment linked to initial identification of special educational needs.

In all countries, assessment with the purpose of initial identification of SEN applies to pupils in all educational settings - inclusive and segregated. However, pupils with SEN in inclusive settings might also be included in assessment procedures that pupils in segregated schools may or may not be involved in. These are described below.

## **Feed back**

Why is feedback so important? Good quality, comprehensive, timely feedback is a very important factor in driving student learning. Assessment should provide feedback to students on their progress towards the achievement of learning outcomes. Feedback will enable students to realise where they have done well and indicate what they could improve on, as well as justifying the grade/mark of summative assessments.

It is important that feedback is timely. If you provide feedback too soon, it may disrupt the student's reflective process. However, it is far more common that feedback is provided too late when it is no longer salient to the student. Feedback should not be held off until the end of a year/semester, as the student is unlikely to benefit from it once the task is complete and they have moved on to a new one. We'll explain more about the importance of formative feedback later in this guide.

The benefits of successful feedback set in the context of learning outcomes are many. For example, successful feedback will: • build confidence in the students, • motivate students to improve their learning; • provide students with performance improvement information, • correct errors, • identify strengths and weaknesses

Making feedback more effective As an educator, there are many ways to improve the quality of your feedback to make it more effective for the learner. Simple things like not always using ticks to indicate a good point are recommended as students will be more motivated by short words or phrases such as “good work” or “true”. Feedback should be specific – don’t just say ‘good’, explain why, in what respects. It should also be constructive, encouraging, honest, and supportive; and where possible it should be frequent and substantial. Successful feedback should clearly indicate to the student:

1. What aspects of their assessed work are successful, and why ?
2. What aspects of their assessed work are less successful, and why?
3. How the student could improve this particular piece of work?
4. How the student could do more successful work in future?.

Feedback is also timely, a fact we lecturers often overlook. It should not be provided too soon, as it could prevent students reflecting on their work; neither should it be provided too late when it is no longer salient to the student. How many times have students thought they were progressing just fine at interim assessment stages only to find out at the final assessment stage that their work was not up to the level the feedback they received led them to believe? Clear and appropriate assessment criteria, that are available to students before their assessment and can be consulted afterwards, go a long way in helping to address this problem.

Feedback can be time-consuming, but there are ways to make it more efficient.

- Consider the nature of the feedback students will need to master the concepts and skills for each assignment. How detailed does it have to be? Should it be individual or can it be group feedback? Can it be oral or does it have to be written?
- Use the track and edit tool in Word to speed up feedback and comments on student essays and reports.
- Consider using or creating generic feedback forms.
- Consider audio-taping feedback for learners.
- Provide more detailed solution sets to reveal the appropriate underlying reasoning, to identify potentially misunderstood concepts or principles, and to elaborate how common student errors followed from these misunderstandings.

Using Computer-Assisted Assessment (CAA) Computer-Assisted Assessment is a fast and efficient way to provide immediate feedback to the learner, and to save time on tutor marking. Computer Assisted Assessment is typically formative, in that it helps students to discover whether they have learned what the educator intended.

Computer Assisted assessment is a broad term for the use of computers in the assessment of student learning.<sup>1</sup> Various other forms exist, such as Computer-Aided Assessment, Computerised Assessment, Computer Based Assessment (CBA) and Computer-Based Testing. Online Computer

Based Assessment has existed for a long time in the form of Multiple Choice Questions (MCQ's). Computer Based Assessment is commonly directly made via a computer, whereas Computer Assisted Assessment is used to manage or support the assessment process.

### ***Key Questions in Planning***

#### Classroom Assessments

Just as teachers have numerous instructional techniques and strategies from which to choose, a variety of methods are available for assessing learning. The selection of particular assessment methods should be determined in response to several key questions. These questions are incorporated in the chart. "Classroom Assessment Planning : Key Questions".

The first questions concern learning outcomes, or the intended results of our teaching: What do we want students to understand and be able to do? Learning outcomes typically fall into three categories: (1) declarative knowledge –what we want students to understand (facts, concepts, principles, generalizations); (2) procedural knowledge what we want students to be able to do (skills, processes, strategies); and (3) attitudes, values or habits and mind – how we would like students to be people with respect, avoid impulsive behavior). The choice of specific assessment methods should be determined in large part by the nature of the learning outcomes being assessed (Marzano, Pickeing, & McTighe, 1993). For example, if we want students to demonstrate the capacity to write an effective persuasive essay, then our assessment should involve gathering samples of persuasive writing and evaluating them against specified criteria. In this case, a multiple-choice test would be ill-suited to measure the intended outcome. Likewise, if we wish to develop student's ability to work cooperatively on a research project, then we would assess group processes and products as well as individual performance.

In addition to considering outcomes, we need to raise questions related to the purpose(s) and audience(s) for classroom assessments: Why are we assessing? How will the assessment information be used? For whom are the assessment results intended? The purpose(s) and audience(s) for assessments influence not only the methods selected, but the ways in which the classroom assessment results are communicated. For example, if we wish to provide parents of a primary-grade student with an interim report of progress in language arts, we might arrange a conference to describe the child's reading skills in terms of a development profile and re-view a work folder containing samples of her writing.

### **THE FRAMEWORK OF ASSESSMENT APPROACHES AND METHODS.**

Given identified outcomes, purposes, and audiences, how might we assess student learning in our classrooms? The "framework of Assessment Approaches and methods" offer a systematic guide to the purposeful selection of assessment methods.

Each of the five columns in the framework identifies an assessment approach and contains examples of specific assessment methods corresponding to that approach. Given the focus of this article on performance-based assessment, we'll skip the first column (selected-response formats) and concentrate on the approaches in the second through fifth columns of the framework. We'll describe each general approach, examine the strengths and limitations of each, and provide vignettes of teachers using particular assessment methods in their classrooms.

## **Performance –Based Assessment**

By performance-based assessment, we are refereeing to assessment activities that directly assess student understanding and proficiency. These assessment allow students to construct a response, create a product, or perform a demonstration to show what they understand and can do. Since they call for students to apply knowledge and skills rather than simply to recall and recognize, performance-based assessments are more likely to reveal student understanding. They are well suited to assessing application of content-specific knowledge, integration of knowledge across subject areas, and lifelong learning competencies such as effective decision making, communication and cooperation (Shepard, 1989).

## **Performance Assessment**

Using performance assessments, teachers are able to directly observe the application of desired skills and knowledge. Performance assessments can be among the most authentic types of student assessments since they can replicate the kinds of actual performance occurring in the world outside of school. Performances have been widely used to assess learning in certain disciplines, such as vocal and instrumental music, physical education, speech, and theater, where performance is the natural focus of instruction. However, teachers in other subjects can routinely include performances such as oral presentations, demonstrations, and debates, as part of a broad array of assessment methods.

The evaluation of performances becomes instructionally valuable when students apply the scoring tools for peer and self-evaluation. Such involvement helps students to internalize the elements of quality embedded in the criteria. Many teachers have observed that students are motivated to put forth greater effort when they perform before “real” audiences of other students, staff, parents, or expert judges. In addition to the influences on students, schools often benefit from positive public relations when students perform for the community.

Despite their positive features, performance assessments can be time-and labour-intensive for students and teachers. Time must be allocated for rehearsal as well as for the actual performances. The evaluation of performances is particularly susceptible to evaluator biases, making fair, valid and reliable assessment and challenge.

## **QUESTIONS**

1. Explain why feedback is so important
2. How will you identify the special education needed children?
3. Explain the framework of assessment approaches.
4. How will you integrate ICT on assessing various types of learners?
5. Explain how technology will improve for early intervention of Mentally Retarded Children?

## **REFERENCES**

1. [www.ncate.org/institutions/article\\_commission.asp?ch=8](http://www.ncate.org/institutions/article_commission.asp?ch=8), retrieved on 20/7/16
2. [http://www.ncate.org/resources/assessment/assessment\\_examples.pdf](http://www.ncate.org/resources/assessment/assessment_examples.pdf) retrieved on 25/8/16
3. Differentiated Assessment for Middle and High School classrooms, Blaz, 2008.
4. Anece James, 2009, "Teaching of Mathematics", "Neelkamal Publishers, Hyderabad.5.

## **UNIT – 7**

### **PHILOSOPHICAL AND EDUCATIONAL UNDERPINNINGS OF ASSESSMENT**

#### **Course objectives**

The student teacher will be able to

1. understand the RTE act and its relationship with curriculum, pedagogy and teachers.
2. know the Non-detention policy and its problem.
3. identify the educational underpinnings of assessment.
4. analyse the merits of competitive exams.
5. know the various dimensions of assessment.

#### **No competitive exams**



There should not be any competitive examinations to assess the performance of the students. The students feel inferior if they got low marks in a competitive examination. Even though, the students who were from remote area and socially disadvantaged groups are talented. Majority of the students were not aware of competitive examinations. Considering the students from this group the government has decided not to have any competitive examination.

### **Non Detention Policy**

The 'No Detention Policy' is a Govt. of India's initiative according to which no student can be detained in one standard for more than one academic year. It was being talked of implementing it up to class XI but is valid till class VIII only. The Right to Education Act (RTE), 2009 makes provisions for free and compulsory education for children between 6 and 14 under Article 21A of the Indian Constitution. This article was inserted into Part-III (Fundamental Rights) in the constitution via the 86th Constitutional amendment of the constitution. Under this policy, the students up to class VIII are automatically promoted to the next class without being held back even if they do not get a passing grade. The policy was implemented as part of the Continuous and Comprehensive Evaluation (CCE) under the RTE Act in 2010 to ensure all-round development of students. The concept of CCE imported from the West, which emphasises on evaluating a child through the year, and not just based on performance in one or two term exams.

### **Problems in NDP**

The poor learning outcomes of schools are caused by many factors of learning. One of them is the pupil-teacher ratio. Many government schools in India are facing acute shortage of teachers. And the available teachers are burdened with non-school activities. Until the desired pupil-teacher ratio is achieved, it is unreasonable to expect CCE and NDP to succeed. Other factor responsible for poor learning outcomes is the lack of trained teachers. Lack of training has caused the confusion among the teachers on what their role is in implementation of CCE guidelines. Teacher training must be revised in line with the requirements of CCE. Instead of strengthening the foundation to implement the reforms, bringing back the old pass-fail system threatens to undermine the egalitarian promise of the RTE.

### **Right to Education**

The Constitution (Eighty-sixth Amendment) Act, 2002 inserted Article 21-A in the Constitution of India to provide free and compulsory education of all children in the age group of six

to fourteen years as a Fundamental Right in such a manner as the State may, by law, determine. The Right of Children to Free and Compulsory Education (RTE) Act, 2009, which represents the consequential legislation envisaged under Article 21-A, means that every child has a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards.

Article 21- A and the RTE Act came into effect on 1 April 2010. The title of the RTE Act incorporates the words ‘free and compulsory’. ‘Free education’ means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education. ‘Compulsory education’ casts an obligation on the appropriate Government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age group. With this, India has moved forward to a rights based framework that casts a legal obligation on the Central and State Governments to implement this fundamental child right as enshrined in the Article 21A of the Constitution, in accordance with the provisions of the RTE Act.

### **The RTE Act provides**

- Right of children to free and compulsory education till completion of elementary education in a neighbourhood school.
- It clarifies that ‘compulsory education’ means obligation of the appropriate government to provide free elementary education and ensure compulsory admission, attendance and completion of elementary education to every child in the six to fourteen age group. ‘Free’ means that no child shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education.
- It makes provisions for a non-admitted child to be admitted to an age appropriate class.
- It specifies the duties and responsibilities of appropriate Governments, local authority and parents in providing free and compulsory education, and sharing of financial and other responsibilities between the Central and State Governments.
- It lays down the norms and standards relating inter alia to Pupil Teacher Ratios (PTRs), buildings and infrastructure, school-working days, teacher-working hours.
- It provides for rational deployment of teachers by ensuring that the specified pupil teacher ratio is maintained for each school, rather than just as an average for the State or District or Block, thus ensuring that there is no urban-rural imbalance in teacher postings. It also

provides for prohibition of deployment of teachers for non-educational work, other than decennial census, elections to local authority, state legislatures and parliament, and disaster relief.

- It provides for appointment of appropriately trained teachers, i.e. teachers with the requisite entry and academic qualifications.
- It prohibits
  - (a) physical punishment and mental harassment;
  - (b) screening procedures for admission of children;
  - (c) capitation fee;
  - (d) private tuition by teachers and
  - (e) running of schools without recognition,
- It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child friendly and child centred learning.

### **Questions**

1. What do you mean by Non detention policy? Discuss the merits of Non detention policy.
2. Explain the problems in NDP.
3. Define RTE act and describe its relationship with curriculum, pedagogy and teachers.
4. Explain the various dimensions of Assessment.
5. Discuss the merits and demerits of Competitive exams.

## **UNIT – 8**

### **PARTICIPATORY APPROACH**

#### **Course objectives**

The student teacher will be able to

1. know the participatory approach and its benefits
2. understand the process involved in participatory approach
3. know the advantages of participatory assessment
4. develop community monitoring of assessment.
5. point out the key issues in teacher autonomy in assessment.

## **Participatory Assessment**

Participatory assessment is a means of building partnerships with people from certain communities of all ages and backgrounds. The partnership is fostered through structured discussions and dialogue.

Participatory assessments may include holding separate discussions with women, girls, boys and men, in order to:

- gather accurate information on the specific problems that they face,
- get information about the underlying causes of those problems,
- understand the capacities of various persons within the community,
- hear their proposed solutions to their problems.

### **A Major Benefit of Participatory Assessment**

One of the most beneficial aspects of participatory assessments is the fact that it helps mobilize communities to take collective action to improve their own quality of life. Participatory assessments also form the basis for the implementation of a rights and community-based approach.

### **Advantages of Participatory Assessment**

- Less time grading and more time for student interaction
- Greater class participation
- Positive classroom experiences
- Learning

### **Steps for conducting participatory assessment**

- Step 1: Reviewing existing information
- Step 2: Mapping diversity
- Step 3: Methods of enquiry
- Step 4: Selecting themes
- Step 5: Facilitating discussions
- Step 6: Systematizing the information gathered
- Step 7: Follow-up actions
- Step 8: Comprehensive analysis and prioritization

- Step 9: Recording meetings
- Step 10: Participatory planning workshop

### **Community-based approach**

A community-based approach motivates women, girls, boys and men in the community to participate in a process which allows them to express their needs and to decide their own future with a view to their empowerment. It requires recognition that they are active participants in decision-making. It also seeks to understand the community's concerns and priorities, mobilizing community members and engaging them in protection and programming. The focus is on helping refugees organize themselves to solve their own problems. The role of UNHCR is to support the building, rebuilding and strengthening of communities' capacities to respond to protection risks and to make decisions over access to and use of resources. Participatory assessment is carried out in the spirit of shared responsibility for enhancing protection of all members of the community and is an essential component of community-based work.

### **Teacher autonomy in Assessment**

Teacher autonomy has become an important aspect of the teacher professionalism. An autonomous teacher will be able to produce autonomous learners are also able to be independent implementers of government policies in particular education policies. Queensland Studies Authority (2010) outlined the importance and benefit of SBA in the education system claiming that: - The students are able to improve their learning to the optimum, - The students constant and detailed feedback and suggestions to improve, - Teachers have the opportunity to use variety of assessment techniques, - Teachers are able to improve on their assessment knowledge and techniques, - Teachers are able to adopt the curriculum and assessment to the students local needs The role of the teacher in this teaching environment demands more independence as they should be free to determine the best remedy for their students learning problem. Teachers are the best person to determine their students need and address their learning problems. Teacher's responsibility in SBA is viewed as an important aspect in the T&L process. Integration of assessment in the T&L process would help the teachers in identifying their students' immediate learning problem and help the teachers to provide real-time solution to overcome the problem.

### **Questions**

1. Explain Participatory approach.
2. Describe the process involved in participatory approach.

3. Explain the advantages of participatory assessment.
4. Explain community monitoring of assessment.
5. Describe the teacher autonomy in assessment.

## **UNIT – 9**

### **PREVALENT PRACTICES OF ASSESSMENT**

#### **Course objectives**

#### **The student teachers will be able to**

- ✓ understand the drawbacks of present assessment system;
- ✓ analysis assessment for better learning;
- ✓ understand assessment for confidence building;

- ✓ develop building self-confidence; and
- ✓ know assessment for creative learning.

## **INTRODUCTION**

In a rapidly changing world, the education system in India is re-shaping and refreshing itself day by day. The most sensitive part of curriculum change is change in the Assessment and Evaluation system. For quality assurance and for maintaining public confidence, links with authorities like International Assessments for Indian Schools and distinguished foreign institutions are thought to be vital. The Government of the Republic of India through the Ministry of Human Resource Development is the controlling authority of the assessment systems and procedures. The Educational Boards and Councils in different states and union territories are applying their own strategies to assess and evaluate the learners keeping a similarity with the standard and norms as used in CBSE and ICSE. A number of national levels Councils NCTE, IMC, AICTE, NCERT etc. are also directly involved in this system. It seems that assessment will continue to be a contentious issue and Indian students will continue to take part in the national and international tests. The key factor for the system and the educational institutions is to establish equilibrium between measuring and assessing achievements and the practical consequences on the teaching -learning process. Because the educated members of the élite society are no longer of the opinion that the learners should be assessed through global standard norms and criteria, some Universities and Academic Institutions of national and international reputation are introducing their own admission tests.

## **PRESENT EDUCATION SYSTEM**

The present system of assessment and evaluation for school education in India is exam based. Therefore, it focuses only on cognitive learning outcomes and in the process co-curricular domains are neglected, even though co-curricular areas are an equally important and significant part of child development. Even in curricular areas the focus is on rote learning and memorization, characterized by a neglect of higher mental abilities such as critical thinking, problem solving and creative ability. In India, The National Curriculum Framework – 2005 developed on the basis of 21 position papers has looked into every aspect of school education. The document states that examinations require systemic reforms in the context of evaluation and assessment. The high failure rates, increasing number of school drop outs, unhealthy competition, stress, nervous breakdowns and suicides among learners make it imperative for Indian educationists to look into the evaluation system of the country which is at present examination oriented.

## **DRAWBACKS OF PRESENT ASSESSMENT SYSTEM**

Assessment is the process of documenting, usually in measurable terms, knowledge, skills, attitudes and beliefs. Evaluation is an important aspect of any education system. Student learning can be improved through well-planned procedures of evaluation that are inbuilt in the teaching learning process. Many times teachers attempt to assess the progress of learning while teaching in the classroom – sometimes deliberate and at times spontaneous. Thus evaluation is considered as an integral part of teaching learning process. Evaluation is a process of collecting, analyzing and interpretation of the evidences about students' progress in cognitive and non-cognitive areas. On the basis of these evidences teacher could take certain decisions to improve classroom practices for enhancing the attainment levels among students. Evidences are collected, analyzed and interpreted through some tools and techniques. **Tests** are most prominent tools to collect evidences about the progress of learning among learners.

**Observation** is an important technique used to collect evidences of development in specifically co-scholastic areas. Tests provide the marks or grades and observation gives an idea or impression. Evaluation is a decision-making process that intends to lead students towards better performance and consequently helps to bring about qualitative improvement in education. It is both process and product. When we talk about the evaluation process, it mainly focuses on teachers as the teacher has to decide why, what, when and how to evaluate and how to make sense of it. The thoughtful teacher uses the information of students' results as guide to improve his/her own teaching practices. The performance of learners in scholastic areas can either be evaluated during the process of instruction or after completion of instruction in a regular temporal sequence. The former is formative evaluation and the latter is summative evaluation. The evaluation in scholastic areas is mostly focused on the attainment of instructional as well as educational objectives. Some of the important purposes of evaluation are:

- to know the efficacy of instruction, to determine the rate of progress of learners,
- to predict success of learners in their future scholastic endeavors,
- to know the attainment of instructional and educational objectives,
- to motivate learners for better learning,
- to diagnose the weaknesses,
- to provide continuous record of achievement,
- to place students in rank order and
- to increase self confidence among students

The process of evaluation involves in selection of suitable tools and techniques for collecting evidences to know the progress of performance among learners.



In spite having advantages, following could be the draw backs of the present System.

- It would be tough to measure or calculate the exact marks.
- Work load of teachers would be increased a lot.
- Regular teaching would be affected.
- Mobility or transferring of students from one institution to another one would be problematic.
- Maintaining compatibility among main subject's papers and soft papers would be challenging one.
- Offering more than one programme of different nature simultaneously would be challenging one.
- Extra burden would be experience by the institution.
- Mastery over concerned subject would be hampered.
- Problems of indiscipline would be happened as full liberty or choices of students are given maximum importance.
- Different nature and standard of institution will forced problem in maintain the equality in terms of mobility of students as everyone would desire to move from sub standard institution or university to standard one.
- It may pose problems in maintaining the cumulative record of every student.
- Seriousness of students will go away from the examination as much weightage is given to continuous or internal assessment and evaluation.
- Most of the time will have to be consumed for setting papers for different type of examinations.
- It will call to increase the infrastructure to house or accommodate the students.
- Equalisation of performance through it may discourage the gifted and talented students.
- Research work and innovation would get hampered, as most of the time teachers have to be involved in setting papers and making arrangement for the examinations.
- Chance of subjectivity would be maximum, as internal evaluation has 40 % weightage.

### **ASSESSMENT FOR BETTER LEARNING**

Assessment should help the learners move beyond their ability by providing them with constructive feedback about their strengths and weaknesses. Assessment cannot stand by itself and any language assessment should give students an opportunity to demonstrate what they know and can do with language. "First and foremost, assessment must encourage students to reflect on their

own reading and writing in productive ways, to evaluate their own intellectual growth, and to set goals.” (IRA/NCTE Joint Task Force on Assessment, 1994, p. 13)

Through constant interaction with students, teachers can assess the learner’s work and the wide range of work presented by different students makes the assessment easier.

Assessment for better learning can take various forms such as:

**Self assessment** which enables students to monitor their own progress against specific objectives and evidence from their own work.

**Peer assessment** which helps to improve learning and to develop social and cooperative skills.

**Teacher's assessment** which progress and strengths are recognised, difficulties diagnosed and strategies to overcome them planned.

## **ASSESSMENT FOR CONFIDENT BUILDING**

No matter what your self-confidence level is right now, you can probably improve it. But you need to believe in yourself and your capabilities before anyone else will.

Bandura's theory of self-efficacy is a great place to start looking for ways to improve the way you see your abilities. According to the theory, there are four sources of self-efficacy:

- Mastery experiences – things you have succeeded at in the past.
- Vicarious experiences – seeing people who are similar to you succeed.
- Social persuasion – hearing from others that you're capable.
- Emotional status – staying positive, and managing stress.

Three of these sources (the first, second, and fourth) are within your control, so we'll look at them more closely. However, while we can't force people to say good things about us (the third source), we can increase the likelihood of receiving positive feedback by being more confident in general.

Layering assessment on top of it all can create a maelstrom of stress.

How can we help students feel in control, confident and willing to approach learning new material? How can we help them feel poised for success on assessments and confident with new material?

### **1. Say It Out Loud**

When students encounter material for the first time, it is helpful if they can talk it out with a peer or teacher. This might be in the form of dealing with a vocabulary word, a scientific concept, a math problem, or a verb tense in a world language. The verbal processing that takes place in conversation with a trusted peer or teacher settles the learner, provides an opportunity to try out the language associated with the new topic, and arms him or her with confidence. Through trial, error and immediate feedback, the student now feels more confident setting out on his or her own to tackle the topic.

### **2. Brain Dump**

After learning new material for a set period of time, have students do a brain dump on a blank piece of paper. This serves the purpose of helping the student realize that learning and knowledge acquisition *have* been happening. It helps to raise student confidence and is also a useful approach for the teacher to receive feedback and see where gaps exist. Consider using this valuable approach with students as soon as they receive an assessment, before attempting to answer any questions. For some students, holding the information inside their head can cause anxiety and confusion. Taking a deep breath, dumping the information on a blank page, and seeing what it looks like prepares the student for success on the assessment. This brain dump then serves as a study guide.

### **3. Not All in a Straight Line**

For many students, learning is not linear. On an assessment, one of the keys to remember is that the first question might not be the best place to start. Sometimes, a student will look at the first question on an assessment and panic, thinking he or she knows nothing. That can derail the rest of the assessment. Instead, students should take a holistic approach, spend some time scanning the entire assessment, and look for a positive entry point where they feel most confident. Similarly, as teachers consider the entry point for learning new material, recognizing that each child may have a different entry point is important, so being multi-modal is critical.

### **4. Be Visual or Musical**

The artist and the musician live inside each student, and tapping into that creative side can unleash the student to learn and acquire knowledge. I can still recall the scene from the 1970s sitcom *Happy Days* when the musically talented character, Potsie, is trying to study for his biology test. The information is overwhelming him, and he doesn't know where to begin -- until he realizes that putting the vocabulary in the form of a song will help him master the material. Potsie soars from that point on as a student, and the viewer feels his newfound confidence. His teacher can't believe that he actually learned the material, so Potsie proves him wrong by performing the song, "Pump Your Blood."

## **ASSESSMENT FOR CREATIVE LEARNERS**

India's educational system is modelled on the mass education system that developed in the 19th century in Europe and later spread around the world. Tracing the roots of the movement, the goal is clear — to condition children as “good” citizens and productive workers. This suited the industrial age that needed the constant supply of a compliant workforce with a narrow set of capabilities. The educational environment even today resembles factories with bells, uniforms and batch-processing of learners. They are designed to get learners to conform.

From an economic standpoint, the environment today is very different. In a complex, volatile and globally interconnected world, new-age skill-sets are essential. *Wired* magazine estimated that 70 per cent of today's occupations would become automated by the end of this century. What will be the role of humans in this new economy? Linear, routine thinking will have no advantage. It calls for flexibility, adaptation, new thinking, paradigm shifts, and innovation — and that is the language of creativity. Creativity is an essential 21st century skill.

From a scientific perspective, creativity is an aptitude for new, original and imaginative thinking. Let us consider some key aspects of an educational system with creativity at its core

**Outcomes:** In a creative educational system, the infinite range of human abilities and talents finds an equal place. Creative learning produces growth in both cognitive and affective dimensions and leads to the production of outcomes that are rich and complex, original and expressive. There is a harmonious development of body, mind and spirit. Outcomes include the development of higher-order thinking skills, creativity, problem-solving ability, self-awareness and aesthetic sensibilities.

**Pedagogy:** Several studies suggest that the innate creativity and curiosity of children are lost in the conventional schooling methods. In creative classrooms, the teacher and students are participants in

the learning process. Pedagogies take into account the diversity of learning styles, involve all the senses and body, and are fundamentally experiential in nature. Learning about the environment challenges students to use complex thinking, provide time to think and play with new ideas and encounter knowledge in varied ways to lead to personal and meaningful insights. Classrooms are playgrounds for exploration, inquiry and reflection.

**Assessments:** Current assessment mechanisms largely rely on a one-time, high-stake standardised testing measuring a narrow range of abilities. Studies indicate that gifted students underachieve in these assessments, and up to 30 per cent of high school dropouts may be highly gifted. Assessments that nurture creativity are built for intrinsic motivation and enable growth on one's unique path. They are flexible, cover diverse dimensions and rely extensively on self-assessment. They encourage students to raise questions, probe, create possibilities and give play to imagination.

**Content:** Today, there is an inbuilt hierarchy of content in education. For the 21st century economy, content knowledge has little meaning without the skills of creativity, problem-solving, and human connection. In a creative system, any kind of creative potential has an equal chance of blossoming, be it in languages, maths, art or any other. Creative thinking, imagination and expression are the core focus across all content. There is cross-pollination of subjects and an infusion of art, aesthetics and design into the mainstream.

Globally, there is a growing body of thinkers, parents and educators concerned with the system. Creativity, design thinking and metacognition are being recognised as 21st century skills. Finland went against the tide in its education policies and has generated interest for its high scores. It follows a highly decentralised and flexible structure with high-quality teachers who have autonomy over curriculum and student assessments. There is no standardised testing, and teaching is a coveted profession.

A nation's educational system can unfold from its innate strengths, and uniqueness. India can take inspiration from its days of educational and intellectual excellence. Learning was infused with music, art and poetry. Higher-order thinking, self-awareness, deep inquiry, aesthetics, intuition, discussions and debates were integral to education. Creativity in many ways was pervasive in the goals, methods and content of education.

## QUESTIONS

1. Elucidate the drawbacks of present assessment system.
2. Describe the assessment for better learning.
3. How can you build your students self-confidence?
4. Write about assessment for creative learning.
5. How can you help pupils feel in confident and willing to approach new learning?

## UNIT 10

### REPORTING QUANTITATIVE ASSESSMENT OF DATA

#### Course objectives

#### The student teachers will be able to

- ✓ know the performance assessment and benefits;
- ✓ utilize the reflective journal and advantages;
- ✓ obtain knowledge of student portfolios;
- ✓ obtain knowledge of measures of central tendency; and
- ✓ understand correlation and advantages.

#### INTRODUCTION

In its simplest terms, a performance assessment is one which requires students to demonstrate that they have mastered specific skills and competencies by performing or producing something. Advocates of performance assessment call for assessments of the following kind: designing and carrying out experiments; writing essays which require students to rethink, to integrate, or to apply information; working with other students to accomplish tasks; demonstrating proficiency in using a piece of equipment or a technique; building models; developing, interpreting, and using maps; making collections; writing term papers, critiques, poems, or short stories; giving speeches; playing musical instruments; participating in oral examinations; developing portfolios; developing athletic skills or routines, etc.

Invariably, proponents of performance assessment also advocate the use of student portfolios. In doing so, they also remind us that a portfolio is more than a folder stuffed with student papers,

video tapes, progress reports, or related materials. It must be a purposeful collection of student work that tells the story of a student's efforts, progress, or achievement in a given area over a period of time. If it is to be useful, specific design criteria also must be used to create and maintain a portfolio system.

## **REFLECTIVE JOURNAL**

A reflective journal is a means of recording ideas, personal thoughts and experiences, as well as reflections and insights a student have in the learning process of a course. In addition to the demands of a typical written assignment (e.g. able to give definition on concepts, demonstrate basic understanding of course materials), reflective journal requires the students to think more deeply, to challenge their old ideas with new incoming information, to synthesize the course materials they have learnt into their personal thoughts and philosophy, and also to integrate it into their daily experiences and future actions. The benefits of the reflective learning process are usually accumulated over a period of time, in which the students usually show a series of developmental changes, personal growth and changes in perspectives during the process.

## **ADVANTAGES OF REFLECTIVE JOURNAL**

- **Active learning** - The process of reflection encourages the students to take the initiative to be active, self-driven; allows individual learner to explore concepts and ideas in relation to their thoughts and feelings from different perspectives. Students can become independent thinkers through the practice and to enable themselves to solve various problems on their own.
- **Understanding the progress of students** - Reflective journals provide good opportunities for teachers to gain better understanding about how the students think and feel about the course, and the learning progress of the students throughout the course, which will eventually enhance the students' learning process.
- **Improving writing skills** - Writing reflective journals can involve students in a new form of writing which they may not have a chance to experience in the past. This exposure can bring out improvement in students' writing skills.

- **Freely expressing personal views and criticizing of one-self** - Reflective journal assignments provide the platform for students to freely express what they think and feel about the course and their learning process, and also promote their expression of ideas, personal experiences and opinions. This is an ideal place for students who are generally not willing to speak up in the classes and tutorials to express themselves.
- **Enhance critical thinking and creativity** - The process of self-reflection enhances the development of critical thinking skills among students when they relate their knowledge to real world issues. It can help students develop their creativity and a questioning attitude towards different issues and problems.

## STUDENT PORTFOLIO

A student portfolio is a compilation of academic work and other forms of educational evidence assembled for the purpose of (1) evaluating coursework quality, learning progress, and academic achievement; (2) determining whether students have met [learning standards](#) or other academic requirements for courses, grade-level promotion, and graduation; (3) helping students reflect on their academic goals and progress as learners; and (4) creating a lasting archive of academic work products, accomplishments, and other documentation. Advocates of student portfolios argue that compiling, reviewing, and evaluating student work over time can provide a richer, deeper, and more accurate picture of what students have learned and are able to do than more traditional measures—such as [standardized tests](#), quizzes, or final exams—that only measure what students know at a specific point in time.

Portfolios come in many forms, from notebooks filled with documents, notes, and graphics to online digital archives and student-created websites, and they may be used at the elementary, middle, and high school levels. Portfolios can be a physical collection of student work that includes materials such as written assignments, journal entries, completed tests, artwork, lab reports, physical projects (such as dioramas or models), and other material evidence of learning progress and academic accomplishment, including awards, honors, certifications, recommendations, written evaluations by teachers or peers, and self-reflections written by students. Portfolios may also be digital archives, presentations, blogs, or websites that feature the same materials as physical portfolios, but that may also include content such as student-created videos, multimedia presentations, spread sheets, websites, photographs, or other digital artefacts of learning.

Online portfolios are often called *digital portfolios* or *e-portfolios*, among other terms. In some cases, blogs or online journals may be maintained by students and include ongoing reflections



about learning activities, progress, and accomplishments. Portfolios may also be presented—publicly or privately—to parents, teachers, and community members as part of a [demonstration of learning, exhibition](#), or [capstone project](#).

It's important to note that there are many different types of portfolios in education, and each form has its own purpose. For example, “capstone” portfolios would feature student work completed as part of long-term projects or final assessments typically undertaken at the culmination of a middle school or high school, or at the end of a long-term, possibly multiyear project. Some portfolios are only intended to evaluate learning progress and achievement in a specific course, while others are maintained for the entire time a student is enrolled in a school. And some portfolios are used to assess learning in a specific subject area, while others evaluate the acquisition of skills that students can apply in all subject areas.

The following arguments are often made by educators who advocate for the use of portfolios in the classroom:

- Student portfolios are most effective when they are used to evaluate student learning progress and achievement. When portfolios are used to document and evaluate the knowledge, skills, and work habits students acquire in school, teachers can use them to adapt instructional strategies when evidence shows that students either are or are not learning what they were taught. Advocates typically contend that portfolios should be integrated into and inform the instructional process, and students should incrementally build out portfolios on an ongoing basis—i.e., portfolios should not merely be an idle archive of work products that's only reviewed at the end of a course or school year.
- Portfolios can help teachers monitor and evaluate learning progress over time. Tests and quizzes give teachers information about what students know at a particular point in time, but portfolios can document how students have grown, matured, and improved as learners over the course of a project, school year, or multiple years. For this reason, some educators argue that portfolios should not just be compilations of a student's best work, but rather they should include evidence and work products that demonstrate how students improved over time. For example, multiple versions of an essay can show how students revised and improved their work based on feedback from the teachers or their peers.
- Portfolios help teachers determine whether students can apply what they have learned to new problems and different subject areas. A test can help teachers determine, for example, whether students have learned a specific mathematical skill. But can those students also apply that skill to a complex problem in economics, geography, civics, or history? Can they use it to conduct a statistical analysis of a large data set in a spread sheet? Or can they use it

to develop a better plan for a hypothetical business. (Educators may call this ability to apply skills and knowledge to novel problems and different domains “[transfer of learning](#)”). Similarly, portfolios can also be used to evaluate student work and learning in non-school contexts. For example, if a student participated in an internship or completed a project under the guidance of an expert mentor from the community, students could create portfolios over the course of these learning activities and submit them to their teachers or school as evidence they have met certain learning expectations or graduation requirements.

- Portfolios can encourage students to take more ownership and responsibility over the learning process. In some schools, portfolios are a way for students to critique and evaluate their own work and academic progress, often during the process of deciding what will be included in their portfolios. Because portfolios document learning growth over time, they can help students reflect on where they started a course, how they developed, and where they ended up at the conclusion of the school year. When reviewing a portfolio, teachers may also ask students to articulate the connection between particular work products and the academic expectations and goals for a course. For these reasons, advocates of portfolios often recommend that students be involved in determining what goes into a portfolio, and that teachers should not unilaterally make the decisions without involving students. For related discussions, see [student engagement](#) and [student voice](#).
- Portfolios can improve communication between teachers and parents. Portfolios can also help parents become more informed about the education and learning progress of their children, what is being taught in a particular course, and what students are doing and learning in the classroom. Advocates may also contend that when parents are more informed about and engaged in their child’s education, they can play a more active role in supporting their children at home, which could have a beneficial effect on academic achievement and long-term [student outcomes](#).

## **ASSESSING REFLECTIVE JOURNAL AND STUDENT PORTFOLIOS**

### **Assessment of the reflective diaries**

The assessment of the diaries was based on the quality of the evidence presented in the selected items in relation to the three objectives of the module, and in particular the reflection on current assessment practice based on theories. To explore the students’ perceptions and views on this new assessment approach, 18 students were randomly selected for interviews after the assessment. During the interviews, students were invited to talk about their views on the portfolio assessment

approach, their experience in preparing the portfolios, and their perceptions of the effects of portfolio assessment on their learning.

### **How to design a good Reflective Journal Assessment?**

- Consider the types of reflective journals that fit your course (if students are inexperienced with reflective journals, the structured form would be more ‘student-friendly’ because specific questions and guidelines are available)
- Make sure there are clear ideas about expectations and assessment criteria given to the students. (e.g. What can students put in their journals? What is the definition of ‘reflection’? What is the approximate length for each journal entry?)
- Try to make students understand the purpose and benefits of reflective journals at the very beginning
- Make sure that teachers have explained and discussed the policies concerning privacy and confidentiality of information with students
- Decide the regularity of journal entry (e.g. weekly, monthly)
- Provide timely feedback to students

### **WHAT IS PORTFOLIO ASSESSMENT?**

Portfolio assessment is an assessment form that learners do together with their teachers, and is an alternative to the classic classroom test. The portfolio contains samples of the learner's work and shows growth over time. An important keyword is reflection: By reflection on their own work, learners begin to identify the strengths and weaknesses of their own work (self-assessment). The weaknesses then become improvement goals. In portfolio assessment it is the quality that counts, not the quantity. Another keyword is *learning objectives*. Each portfolio entry needs to be assessed with reference to its specific learning objectives or goals.

Different schools may create different forms of portfolios. Some schools create portfolios that are a representative sample of the learners' work, while other schools use the portfolios as an assessment tool that can be an alternative to classical classroom tests and standardized teacher evaluation.

## Portfolio Assessment

Portfolio approaches to assessing literacy have been described in a wide variety of publications (Flood & Lapp, 1989; Lamme & Hysmith, 1991; Matthews, 1990; Tierney, Carter, & Desai, 1991; Valencia, 1990; Wolf, 1989) so that many descriptions of portfolios exist. Generally speaking, a literacy portfolio is a systematic collection of a variety of teacher observations and student products, collected over time, that reflect a student's developmental status and progress made in literacy.

## Instructional Outcomes

A portfolio is not a random collection of observations or student products; it is systematic in that the observations that are noted and the student products that are included relate to major instructional goals. For example, book logs that are kept by students over the year can serve as a reflection of the degree to which students are building positive attitudes and habits with respect to reading. A series of comprehension measures will reflect the extent to which a student can construct meaning from text. Developing positive attitudes and habits and increasing the ability to construct meaning are often seen as major goals for a reading program.

## Multiple Products Collected over Time

Portfolios are multifaceted and begin to reflect the complex nature of reading and writing. Because they are collected over time, they can serve as a record of growth and progress. By asking students to construct meaning from books and other selections that are designed for use at various grade levels, a student's level of development can be assessed. Teachers are encouraged to set standards or expectations in order to then determine a student's developmental level in relation to those standards (Lamme & Hysmith, 1991).

## Variety of Materials

Portfolios can consist of a wide variety of materials: teacher notes, teacher-completed checklists, and student self- reflections, reading logs, sample journal pages, written summaries, audiotapes of retellings or oral readings, videotapes of group projects, and so forth (Valencia, 1990). All of these items are not used all of the time.

## Student Involvement

An important dimension of portfolio assessment is that it should actively involve the students in the process of assessment (Tierney, Carter, & Desai, 1991).

### Effective Means of Evaluating Reading and Writing

There are many ways in which portfolios have proven effective. They provide teachers with a wealth of information upon which to base instructional decisions and from which to evaluate student progress (Gomez, Grau, & Block, 1991). They are also an effective means of communicating students' developmental status and progress in reading and writing to parents (Flood & Lapp, 1989). Teachers can use their record of observations and the collection of student work to support the conclusions they draw when reporting to parents. Portfolios can also serve to motivate students and promote student self-assessment and self-understanding (Frazier & Paulson, 1992).

### Brings Assessment in Line with Instruction

Portfolios are an effective way to bring assessment into harmony with instructional goals. Portfolios can be thought of as a form of "embedded assessment"; that is, the assessment tasks are a part of instruction. Teachers determine important instructional goals and how they might be achieved. Through observation during instruction and collecting some of the artifacts of instruction, assessment flows directly from the instruction (Shavelson, 1992).

Portfolios can contextualize and provide a basis for challenging formal test results based on testing that is not authentic or reliable. All too often students are judged on the basis of a single test score from a test of questionable worth (Darling-Hammond & Wise, 1985; Haney & Madaus, 1989). Student performance on such tests can show day-to-day variation. However, such scores diminish in importance when contrasted with the multiple measures of reading and writing that are part of a literacy portfolio.

### Valid Measures of Literacy

Portfolios are extremely valid measures of literacy. A new and exciting approach to validity, known as consequential validity, maintains that a major determinant of the validity of an assessment measure is the consequence that the measure has upon the student, the instruction, and the curriculum (Linn, Baker, & Dunbar, 1991). There is evidence that portfolios inform students, as well as teachers and parents, and that the results can be used to improve instruction, another major dimension of good assessment (Gomez, Grau, & Block, 1991).

## MEASURES OF CENTRAL TENDENCY

A measure of central tendency is a single value that attempts to describe a set of data by identifying the central position within that set of data. As such, measures of central tendency are sometimes called measures of central location. They are also classed as summary statistics. The mean (often called the average) is most likely the measure of central tendency that you are most familiar with, but there are others, such as the median and the mode.

The mean, median and mode are all valid measures of central tendency, but under different conditions, some measures of central tendency become more appropriate to use than others. In the following sections, we will look at the mean, mode and median, and learn how to calculate them and under what conditions they are most appropriate to be used.

### ARITHMETIC MEAN

The arithmetic mean is the most common measure of central tendency. It is simply the sum of the numbers divided by the number of numbers. The symbol " $\mu$ " is used for the mean of a population. The symbol "M" is used for the mean of a sample. The formula for  $\mu$  is shown below:

$$\mu = \Sigma X/N$$

where  $\Sigma X$  is the sum of all the numbers in the population and  
N is the number of numbers in the population.

The formula for M is essentially identical:

$$M = \Sigma X/N$$

where  $\Sigma X$  is the sum of all the numbers in the sample and N is the number of numbers in the sample.

As an example, the mean of the numbers 1, 2, 3, 6, 8 is  $20/5 = 4$  regardless of whether the numbers constitute the entire population or just a sample from the population.

Table 1 shows the number of touchdown (TD) passes thrown by each of the 31 teams in the National Football League in the 2000 season. The mean number of touchdown passes thrown is 20.4516 as shown below.

$$\begin{aligned}\mu &= \Sigma X/N \\ &= 634/31 \\ &= 20.4516\end{aligned}$$

Table 1. Number of touchdown passes.

37 33 33 32 29 28 28 23 22 22 22 21 21 21 20 20
19 19 18 18 18 18 16 15 14 14 14 12 12 9 6

Although the arithmetic mean is not the only "mean" (there is also a geometric mean), it is by far the most commonly used. Therefore, if the term "mean" is used without specifying whether it is the arithmetic mean, the geometric mean, or some other mean, it is assumed to refer to the arithmetic mean.

### **MEDIAN**

The *median* is also a frequently used measure of central tendency. The median is the midpoint of a distribution: the same number of scores is above the median as below it. For the data in Table 1, there are 31 scores. The 16th highest score (which equals 20) is the median because there are 15 scores below the 16th score and 15 scores above the 16th score. The median can also be thought of as the 50th *percentile*.

#### *COMPUTATION OF THE MEDIAN*

When there is an odd number of numbers, the median is simply the middle number. For example, the median of 2, 4, and 7 is 4. When there is an even number of numbers, the median is the mean of the two middle numbers. Thus, the median of the numbers 2, 4, 7, 12 is  $(4+7)/2 = 5.5$ . When there are numbers with the same values, then the formula for the third definition of the 50th percentile should be used.

### **MODE**

The mode is the most frequently occurring value. For the data in Table 1, the mode is 18 since more teams (4) had 18 touchdown passes than any other number of touchdown passes. With

continuous data such as response time measured to many decimals, the frequency of each value is one since no two scores will be exactly the same. Therefore the mode of continuous data is normally computed from a grouped frequency distribution. Table 2 shows a grouped frequency distribution for the target response time data. Since the interval with the highest frequency is 600-700, the mode is the middle of that interval (650).

**Table 2. Grouped frequency distribution.**

Range	Frequency
500-600	3
600-700	6
700-800	5
800-900	5
900-1000	0
1000-1100	1

### Measures of Dispersion

Measures of central tendency, Mean, Median, Mode, etc., indicate the central position of a series. They indicate the general magnitude of the data but fail to reveal all the peculiarities and characteristics of the series. In other words, they fail to reveal the degree of the spread out or the extent of the variability in individual items of the distribution. This can be explained by certain other measures, known as ‘Measures of Dispersion’ or Variation.

We can understand variation with the help of the following example :

-----

Series I	Series II	Series III
10	2	10
10	8	12
10	20	8
-----		
$\Sigma X = 30$	30	30



-----

In all three series, the value of arithmetic mean is 10. On the basis of this average, we can say that the series are alike. If we carefully examine the composition of three series, we find the following differences:

- (i) In case of 1st series, three items are equal; but in 2nd and 3rd series, the items are unequal and do not follow any specific order.
- (ii) The magnitude of deviation, item-wise, is different for the 1st, 2nd and 3rd series. But all these deviations cannot be ascertained if the value of simple mean is taken into consideration.
- (iii) In these three series, it is quite possible that the value of arithmetic mean is 10; but the value of median may differ from each other. This can be understood as follows ;

<b>I</b>	<b>II</b>	<b>III</b>
10	2	8
10 Median	8 Median	10 Median
10	20	12

The value of Median' in 1st series is 10, in 2nd series = 8 and in 3rd series = 10. Therefore, the value of the Mean and Median are not identical.

- (iv) Even though the average remains the same, the nature and extent of the distribution of the size of the items may vary. In other words, the structure of the frequency distributions may differ even though their means are identical.

### **Meaning of Dispersion**

Simplest meaning that can be attached to the word 'dispersion' is a lack of uniformity in the sizes or quantities of the items of a group or series. According to Reiglemen, "Dispersion is the extent to which the magnitudes or quantities of the items differ, the degree of diversity." The word dispersion may also be used to indicate the spread of the data.

In all these definitions, we can find the basic property of dispersion as a value that indicates the extent to which all other values are dispersed about the central value in a particular distribution.

### **Properties of a good measure of Dispersion**

There are certain pre-requisites for a good measure of dispersion:

1. It should be simple to understand.

2. It should be easy to compute.
3. It should be rigidly defined.
4. It should be based on each individual item of the distribution.
5. It should be capable of further algebraic treatment.
6. It should have sampling stability.
7. It should not be unduly affected by the extreme items.

### **Types of Dispersion**

The measures of dispersion can be either ‘absolute’ or ‘relative’. Absolute measures of dispersion are expressed in the same units in which the original data are expressed. For example, if the series is expressed as Marks of the students in a particular subject; the absolute dispersion will provide the value in Marks. The only difficulty is that if two or more series are expressed in different units, the series cannot be compared on the basis of dispersion.

‘Relative’ or ‘Coefficient’ of dispersion is the ratio or the percentage of a measure of absolute dispersion to an appropriate average. The basic advantage of this measure is that two or more series can be compared with each other despite the fact they are expressed in different units. Theoretically, ‘Absolute measure’ of dispersion is better. But from a practical point of view, relative or coefficient of dispersion is considered better as it is used to make comparison between series.

### **Methods of Dispersion**

Methods of studying dispersion are divided into two types :

(i) **Mathematical Methods:** We can study the ‘degree’ and ‘extent’ of variation by these methods. In this category, commonly used measures of dispersion are :

- (a) Range
- (b) Quartile Deviation
- (c) Average Deviation
- (d) Standard deviation.

(ii) **Graphic Methods:** Where we want to study only the extent of variation, whether it is higher or lesser a Lorenz-curve is used.

### **Mathematical Methods**

**(a) Range**

It is the simplest method of studying dispersion. Range is the difference between the smallest value and the largest value of a series. While computing range, we do not take into account frequencies of different groups.

Formula: Absolute Range =  $L - S$

Coefficient of Range =

where, L represents largest value in a distribution

S represents smallest value in a distribution

We can understand the computation of range with the help of examples of different series,

**(i) Raw Data:** Marks out of 50 in a subject of 12 students, in a class are given as follows:

12, 18, 20, 12, 16, 14, 30, 32, 28, 12, 12 and 35.

In the example, the maximum or the highest marks obtained by a candidate is '35' and the lowest marks obtained by a candidate is '12'. Therefore, we can calculate range;

$L = 35$  and  $S = 12$

Absolute Range =  $L - S = 35 - 12 = 23$  marks

Coefficient of Range =

**(ii) Discrete Series**

-----

Marks of the Students in Statistics (out of 50)	(X)	No. of students (f)
Smallest	10	4
	12	10
	18	16
Largest	20	15

-----

**Total = 45**

-----

Absolute Range =  $20 - 10 = 10$  marks

Coefficient of Range =

**(iii) Continuous Series**

	<b>X</b>	<b>Frequencies</b>
	10 – 15	4
S = 10	15 – 20	10
L = 30	20 – 25	26
	25 – 30	8

Absolute Range =  $L - S = 30 - 10 = 20$  marks

Coefficient of Range =

Range is a simplest method of studying dispersion. It takes lesser time to compute the ‘absolute’ and ‘relative’ range. Range does not take into account all the values of a series, i.e. it considers only the extreme items and middle items are not given any importance. Therefore, Range cannot tell us anything about the character of the distribution. Range cannot be computed in the case of ‘open ends’ distribution i.e., a distribution where the lower limit of the first group and upper limit of the higher group is not given.

The concept of range is useful in the field of quality control and to study the variations in the prices of the shares etc.

**(b) Quartile Deviations (Q.D.)**

The concept of ‘Quartile Deviation does take into account only the values of the ‘Upper quartile (Q3) and the ‘Lower quartile’ (Q1). Quartile Deviation is also called ‘inter-quartile range’. It is a better method when we are interested in knowing the range within which certain proportion of the items fall.

'Quartile Deviation' can be obtained as :

(i) Inter-quartile range =  $Q3 - Q1$

(ii) Semi-quartile range =

(iii) Coefficient of Quartile Deviation =

Calculation of Inter-quartile Range, semi-quartile Range and Coefficient of Quartile Deviation in case of Raw Data

Suppose the values of X are : 20, 12, 18, 25, 32, 10

In case of quartile-deviation, it is necessary to calculate the values of Q1 and Q3 by arranging the given data in ascending or descending order.

Therefore, the arranged data are (in ascending order):

X = 10, 12, 18, 20, 25, 32

No. of items = 6

Q1 = the value of item = = 1.75th item

= the value of 1st item + 0.75 (value of 2nd item – value of 1st item)

=  $10 + 0.75 (12 - 10) = 10 + 0.75(2) = 10 + 1.50 = 11.50$

Q3 = the value of item =

= the value of  $3\frac{7}{4}$ th item = the value of 5.25th item

=  $25 + 0.25 (32 - 25) = 25 + 0.25 (7) = 26.075$

### **Advantages of Quartile Deviation**

Some of the important advantages are :

(i) It is easy to calculate. We are required simply to find the values of Q1 and Q3 and then apply the formula of absolute and coefficient of quartic deviation.

(ii) It has better results than range method. While calculating range, we consider only the extreme values that make dispersion erratic, in the case of quartile deviation, we take into account middle 50% items.

(iii) The quartile deviation is not affected by the extreme items.

### **Disadvantages**

(i) It is completely dependent on the central items. If these values are irregular and abnormal the result is bound to be affected.

(ii) All the items of the frequency distribution are not given equal importance in finding the values of Q1 and Q3.

(iii) Because it does not take into account all the items of the series, considered to be inaccurate. Similarly, sometimes we calculate percentile range, say, 90th and 10th percentile as it gives slightly better measure of dispersion in certain cases.

(i) Absolute percentile range =  $P_{90} - P_{10}$ .

(ii) Coefficient of percentile range =

This method of calculating dispersion can be applied generally in case of open end series where the importance of extreme values are not considered.

### (c) Average Deviation

Average deviation is defined as a value which is obtained by taking the average of the deviations of various items from a measure of central tendency Mean or Median or Mode, ignoring negative signs. Generally, the measure of central tendency from which the deviations are taken, is specified in the problem. If nothing is mentioned regarding the measure of central tendency specified then deviations are taken from median because the sum of the deviations (after ignoring negative signs) is minimum.

#### Computation in case of raw data

(i) Absolute Average Deviation about Mean or Median or Mode =

where:  $N$  = Number of observations,

$|d|$  = deviations taken from Mean or Median or Mode ignoring signs.

(ii) Coefficient of A.D. =

#### Steps to Compute Average Deviation :

(i) Calculate the value of Mean or Median or Mode

(ii) Take deviations from the given measure of central-tendency and they are shown as  $d$ .

(iii) Ignore the negative signs of the deviation that can be shown as  $|d|$  and add them to find  $\Sigma |d|$ .

(iv) Apply the formula to get Average Deviation about Mean or Median or Mode.

**Example :** Suppose the values are 5, 5, 10, 15, 20. We want to calculate Average Deviation and Coefficient of Average Deviation about Mean or Median or Mode.

**Solution :** Average Deviation about mean (Absolute and Coefficient).

(x)	Deviation from mean d	Deviations after ignoring signs   d
5	- 6	6 =
5	- 6	6 where N = 5. SX = 55
10	+ 1	1
15	+ 4	4
20	+ 9	9
$\Sigma X = 55$		$\Sigma   d   = 26$

### Calculation of Median

#### Advantages of Average Deviations

1. Average deviation takes into account all the items of a series and hence, it provides sufficiently representative results.
2. It simplifies calculations since all signs of the deviations are taken as positive.
3. Average Deviation may be calculated either by taking deviations from Mean or Median or Mode.
4. Average Deviation is not affected by extreme items.
5. It is easy to calculate and understand.
6. Average deviation is used to make healthy comparisons.

#### Disadvantages of Average Deviations

1. It is illogical and mathematically unsound to assume all negative signs as positive signs.
  2. Because the method is not mathematically sound, the results obtained by this method are not reliable.
  3. This method is unsuitable for making comparisons either of the series or structure of the series.
- This method is more effective during the reports presented to the general public or to groups who are not familiar with statistical methods.

#### (d) Standard Deviation

The standard deviation, which is shown by greek letter  $\sigma$  (read as sigma) is extremely useful in

judging the representativeness of the mean. The concept of standard deviation, which was introduced by Karl Pearson has a practical significance because it is free from all defects, which exists in a range, quartile deviation or average deviation.

Standard deviation is calculated as the square root of average of squared deviations taken from actual mean. It is also called root mean square deviation. The square of standard deviation i.e.,  $s^2$  is called 'variance'.

### **Calculation of standard deviation in case of raw data**

There are four ways of calculating standard deviation for raw data:

- (i) When actual values are considered;
- (ii) When deviations are taken from actual mean;
- (iii) When deviations are taken from assumed mean; and
- (iv) When 'step deviations' are taken from assumed mean.

#### **(i) When the actual values are considered:**

$\sigma = \sqrt{\frac{\sum X^2}{N} - (\bar{X})^2}$  where, N = Number of the items,  
or  $\sigma^2 = \frac{\sum X^2}{N} - (\bar{X})^2$  = Given values of the series,  
= Arithmetic mean of the series

We can also write the formula as follows :

$\sigma = \sqrt{\frac{\sum X^2}{N} - (\bar{X})^2}$  =

#### **Steps to calculate $\sigma$**

- (i) Compute simple mean of the given values,
- (ii) Square the given values and aggregate them
- (iii) Apply the formula to find the value of standard deviation

**Example:** Suppose the values are given 2, 4, 6, 8, 10. We want to apply the formula

$\sigma =$

**Solution:** We are required to calculate the values of N,  $\sum X^2$ . They are calculated as follows :

<b>X</b>	<b>X<sup>2</sup></b>
2	4
4	16
6	36
8	64
10	100

$$N = 5 \quad \sum X^2 = 220$$



$\sigma =$

Variance  $(\sigma)^2 =$

=

**(ii) When the deviations are taken from actual mean**

$\sigma =$  where, N = no. of items and  $x = (X - )$

**Steps to Calculate  $\sigma$**

(i) Compute the deviations of given values from actual mean i.e.,  $(X - )$  and represent them by x.

(ii) Square these deviations and aggregate them

(iii) Use the formula,  $\sigma =$

**Example :** We are given values as 2, 4, 6, 8, 10. We want to find out standard deviation.

X	$(X - ) = x$	$x^2$
2	$2 - 6 = -4$	$(-4)^2 = 16$
4	$4 - 6 = -2$	$(-2)^2 = 4$
6	$6 - 6 = 0$	$= 0$
8	$8 - 6 = +2$	$(2)^2 = 4$
10	$10 - 6 = +4$	$(4)^2 = 16$
<b>N = 5</b>		<b><math>\sum x^2 = 40</math></b>

**(iii) When the deviations are taken from assumed mean**

$\sigma =$

where, N = no. of items,

$dx =$  deviations from assumed mean i.e.,  $(X - A)$ .

A = assumed mean

**Steps to Calculate :**

(i) We consider any value as assumed mean. The value may be given in the series or may not be given in the series.

(ii) We take deviations from the assumed value i.e.,  $(X - A)$ , to obtain dx for the series and aggregate them to find  $\sum dx$ .

(iii) We square these deviations to obtain  $dx^2$  and aggregate them to find  $\sum dx^2$ .

(iv) Apply the formula given above to find standard deviation.

**Example :** Suppose the values are given as 2, 4, 6, 8 and 10. We can obtain the standard deviation as:

-----

X	dx = (X - A)	dx <sup>2</sup>
2	- 2 = (2 - 4)	4
assumed mean (A) 4	0 = (4 - 4)	0
6	+ 2 = (6 - 4)	4
8	+ 4 = (8 - 4)	16
10	+ 6 = (10 - 4)	36
-----		
N = 5	∑dx = 10	∑dx <sup>2</sup> = 60
-----		

**(iv) When step deviations are taken from assumed mean**

$\sigma =$

where, i = common factor, N = number of item, dx (Step-deviations) =

**Steps to Calculate :**

- (i) We consider any value as assumed mean from the given values or from outside.
- (ii) We take deviation from the assumed mean i.e. (X - A).
- (iii) We divide the deviations obtained in step (ii) with a common factor to find step deviations and represent them as dx and aggregate them to obtain ∑dx.
- (iv) We square the step deviations to obtain dx<sup>2</sup> and aggregate them to find ∑dx<sup>2</sup>.

**Example :** We continue with the same example to understand the computation of Standard Deviation.

X	d = (X - A)	dx = and i = 2	dx <sup>2</sup>
2	- 2	1	1
A = 4	0	0	0
6	+ 2	1	1
8	+ 4	2	4
10	+ 6	3	9
N = 5	Sdx = 5	Sdx <sup>2</sup> = 15	

s = where N = 5, i = 2, dx = 5, and Sdx<sup>2</sup> = 15

s =

Note : We can notice an important point that the standard deviation value is identical by four methods. Therefore any of the four formulae can be applied to find the value of standard deviation.

But the suitability of a formula depends on the magnitude of items in a question.

Coefficient of Standard-deviation =

In the above given example,  $s = 2.828$  and  $n = 6$

Therefore, coefficient of standard deviation =

### **Advantages of Standard Deviation**

- (i) Standard deviation is the best measure of dispersion because it takes into account all the items and is capable of future algebraic treatment and statistical analysis.
- (ii) It is possible to calculate standard deviation for two or more series.
- (iii) This measure is most suitable for making comparisons among two or more series about variability.

### **Disadvantages**

- (i) It is difficult to compute.
- (ii) It assigns more weights to extreme items and less weights to items that are nearer to mean. It is because of this fact that the squares of the deviations which are large in size would be proportionately greater than the squares of those deviations which are comparatively small.

## **CORRELATION**

In the earlier chapters we have discussed univariate distributions to highlight the important characteristics by different statistical techniques. Univariate distribution means the study related to one variable only we may however come across certain series where each item of the series may assume the values of two or more variables. The distributions in which each unit of series assumes two values is called bivariate distribution.

In a bivariate distribution, we are interested to find out whether there is any relationship between two variables. The correlation is a statistical technique which studies the relationship between two or more variables and correlation analysis involves various methods and techniques used for studying and measuring the extent of relationship between the two variables. When two variables are related in such a way that a change in the value of one is accompanied either by a direct change or by an inverse change in the values of the other, the two variables are said to be correlated. In the correlated variables an increase in one variable is accompanied by an increase or decrease in the other variable. For instance, relationship exists between the price and demand of a commodity because keeping other things equal, an increase in the price of a commodity shall cause a decrease in

the demand for that commodity. Relationship might exist between the heights and weights of the students and between amount of rainfall in a city and the sales of raincoats in that city.

These are some of the important definitions about correlation. Croxton and Cowden says, “When the relationship is of a quantitative nature, the appropriate statistical tool for discovering and measuring the relationship and expressing it in a brief formula is known as correlation”.

A.M. Tuttle says, “Correlation is an analysis of the covariation between two or more variables.” W.A. Neiswanger says, “Correlation analysis contributes to the understanding of economic behavior, aids in locating the critically important variables on which others depend, may reveal to the economist the connections by which disturbances spread and suggest to him the paths through which stabilizing forces may become effective.”

L.R. Conner says, “If two or more quantities vary in sympathy so that the movements in one tends to be accompanied by corresponding movements in others than they are said be correlated.”

### **Utility of Correlation**

The study of correlation is very useful in practical life as revealed by these points.

1. With the help of correlation analysis, we can measure in one figure, the degree of relationship existing between variables like price, demand, supply, income, expenditure etc. Once we know that two variables are correlated then we can easily estimate the value of one variable, given the value of other.
2. Correlation analysis is of great use to economists and businessmen, it reveals to the economists the disturbing factors and suggest to him the stabilizing forces. In business, it enables the executive to estimate costs, sales etc. and plan accordingly.
3. Correlation analysis is helpful to scientists. Nature has been found to be a multiplicity of interrelated forces.

### **Difference between Correlation and Causation**

The term correlation should not be misunderstood as causation. If correlation exists between two variables, it must not be assumed that a change in one variable is the cause of a change in other variable. In simple words, a change in one variable may be associated with a change in another variable but this change need not necessarily be the cause of a change in the other variable. When there is no cause and effect relationship between two variables but a correlation is found between the two variables such correlation is known as “spurious correlation” or “nonsense correlation”. Correlation may exist due to the following:

**Pure change correlation:** This happens in a small sample. Correlation may exist between incomes and weights of four persons although there may be no cause and effect relationship between incomes and weights of people. This type of correlation may arise due to pure random sampling variation or because of the bias of investigator in selecting the sample.

2. When the correlated variables are influenced by one or more variables. A high degree of correlation between the variables may exist, where the same cause is affecting each variable or different cause affecting each with the same effect. For instance, a degree of correlation may be found between yield per acre of rice and tea due to the fact that both are related to the amount of rainfall but none of the two variables is the cause of other.

3. When the variable mutually influence each other so that neither can be called the cause of other. All times it may be difficult to say that which of the two variables is the cause and which is the effect because both may be reacting on each other.

### **Methods of studying correlation**

There are different methods which helps us to find out whether the variables are related or not.

1. Karl Pearson’s Coefficient of correlation.
2. Rank Method.

**(1) Karl Pearson’s Co-efficient of Correlation.** Karl Pearson’s method, popularly known as Pearsonian co-efficient of correlation, is most widely applied in practice to measure correlation. The Pearsonian co-efficient of correlation is represented by the symbol  $r$ .

According to Karl Pearson's method, co-efficient of correlation between the variables is obtained by dividing the sum of the products of the corresponding deviations of the various items of two series from their respective means by the product of their standard deviations and the number of pairs of observations. Symbolically,  $r = \frac{\sum xy}{N \cdot s_x \cdot s_y}$  where  $r$  stands for coefficient of correlation ... (i) where  $x_1, x_2, x_3, x_4, \dots, x_n$  are the deviations of various items of the first variable from the mean,  $y_1, y_2, y_3, \dots, y_n$  are the deviations of all items of the second variable from mean,  $\sum xy$  is the sum of products of these corresponding deviations.  $N$  stands for the number of pairs,  $s_x$  stands for the standard deviation of X variable and  $s_y$  stands for the standard deviation of Y variable.  $s_x = \frac{\sum x^2}{N}$  and  $s_y = \frac{\sum y^2}{N}$ . If we substitute the value of  $s_x$  and  $s_y$  in the above written formula of computing  $r$ , we get  $r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$ . Degree of correlation varies between + 1 and -1; the result will be + 1 in case of perfect positive correlation and - 1 in case of perfect negative correlation.

Computation of correlation coefficient can be simplified by dividing the given data by a common factor. In such a case, the final result is not multiplied by the common factor because coefficient of correlation is independent of change of scale and origin.

**Illustration :** Calculate Co-efficient of Correlation from the following data:

X	50	100	150	200	250	300	350
Y	10	20	30	40	50	60	70

**Solution:** of correlation coefficient.

**Solution :** = and =

X	x	x <sup>2</sup>	Y	y	y <sup>2</sup>	xy
3	-3	9	9	-4	16	12
4	-2	4	11	-2	4	4
6	0	0	14	+1	1	0
7	+1	1	15	+2	4	2
10	+4	16	16	+3	9	12
$S_x = 30$	0	30	$S_y = 65$	0	34	30

$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{30}{\sqrt{30 \cdot 34}} = \frac{30}{\sqrt{1020}} = \frac{30}{32.1} = 0.93$

$r = 0.93$

The value of  $r$  indicates that there exists a high degree positive correlation between lengths and weights.

**Short-cut Method:** To avoid difficult calculations due to mean being in fraction, deviations are taken from assumed means while calculating coefficient of correlation. The formula is also modified for standard deviations because deviations are taken from assumed means. Karl Pearson's formula for short-cut method is given below :

$$r = \text{or } r =$$

**Illustration :** Compute the coefficient of correlation from the following data :

Marks in Statistics 20 30 28 17 19 23 35 13 16 38

Marks in Mathematics 18 35 20 18 25 28 33 18 20 40

**Solution :**

#### Direct Method of Computing Correlation Coefficient

Correlation Coefficient can also be computed from given X and Y values by using the below given formula:

$$r =$$

The above given formula gives us the same answer as we are getting by taking deviations from actual mean or arbitrary mean.

**Illustration :** Compute the coefficient of correlations from the following data :

Marks in Statistics 20 30 28 17 19 23 35 13 16 38

Marks in Mathematics 18 35 20 18 25 28 33 18 20 40

**Solution :**

Marks in Statistics X	Marks in Mathematics Y	$X^2$	$Y^2$	XY
20	18	400	324	360
30	35	900	1225	1050
28	20	784	400	560
17	18	289	324	306
19	25	361	625	475
23	28	529	784	644
35	33	1225	1089	1155

13	18	169	324	234
16	20	256	400	320
38	40	1444	1600	1520
<b>SX = 239</b>	<b>SY = 255</b>	<b>SX<sup>2</sup> = 6357</b>	<b>SY<sup>2</sup> = 7095</b>	<b>SXY = 6624</b>

Substitute the computed values in the below given formula,

$r =$

$=$

$=$

### Properties of Coefficient of Correlation

Following are some of the important properties of  $r$  :

- (1) The coefficient of correlation lies between  $-1$  and  $+1$  ( $-1 \leq r \leq +1$ )
- (2) The coefficient of correlation is independent of change of scale and origin of the variable X and Y.
- (3) The coefficient of correlation is the geometric mean of two regression coefficients.

$r =$

**Merits of Pearson's coefficient of correlation:** The correlation coefficient summarizes in one figure the degree and direction of correlation. Value varies between  $+1$  and  $-1$ .

**Demerits of Pearson's coefficient of correlation:** It always assumes linear relationship between the variables; in fact the assumption may be wrong. Secondly, it is not easy to interpret the significance of correlation coefficient. The method is time consuming and affected by the extreme items.

**Probable Error of the coefficient of correlation:** It is calculated to find out how far the Pearson's coefficient of correlation is reliable in a particular case.

P.E of coefficient of correlation =

where  $r$  = coefficient of correlation and  $N$  = number of pairs of items.

If the probable error calculated is added to and subtracted from the coefficient of correlation, it would give us such limits within which we can expect the value of the coefficient of correlation to vary. If  $r$  is less than probable error, then there is no real evidence of correlation.

If  $r$  is more than 6 times the probable error, the coefficient of correlation is considered highly significant.

If  $r$  is more than 3 times the probable error but less than 6 times, correlation is considered significant



but not highly significant.

If the probable error is not much and the given  $r$  is more than the probable error but less than 3 times of it, nothing definite can be concluded.

**(4) Rank Correlation :** There are many problems of business and industry when it is not possible to measure the variable under consideration quantitatively or the statistical series is composed of items which can not be exactly measured. For instance, it may be possible for the two judges to rank six different brands of cigarettes in terms of taste, whereas it may be difficult to give them a numerical grade in terms of taste. In such problems. Spearman's coefficient of rank correlation is used. The formula for rank correlation is :

$$r = \frac{1}{N} \left[ N^2 - \frac{\sum D^2}{2} \right]$$

where  $r$  stands for rank coefficient of correlation.

$D$  refers to the difference of ranks between paired items.

$N$  refers to the number of paired observations.

The value of rank correlation coefficient varies between  $+1$  and  $-1$ . When the value of  $r = +1$ , there is complete agreement in the order of ranks and the ranks will be in the same order. When  $r = -1$ , the ranks will be in opposite direction showing complete disagreement in the order of ranks. Let' us understand with the help of an illustration.

**Illustration :** Ranks of 10 individuals at the start and at the finish of a course of training are given :

Individual : A B C D E F Q H I J

Rank before : 1 6 3 9 5 2 7 10 8 4

Rank after : 6 8 3 7 2 1 5 9 4 10

Calculate coefficient of correlation.

**Solution :**

Individual Rank before Rank after ( $R_1 - R_2$ )

R1	R2	D	D <sup>2</sup>
A 1	6	-5	25
B 6	8	-2	4
C 3	3	0	0
D 9	7	2	4
E 5	2	3	9
F 2	1	1	1

G	7	5	2	4	
H	10	9	1	1	
I	8	4	4	16	
J	4	10	-6	36	
N	=	10	SD2	=	100

By applying the formula,

$r =$

When we are given the actual data and not the ranks, it becomes necessary for us to assign the ranks. Ranks can be assigned by taking either the highest value as one or the lowest value as one. But if we start by taking the highest value or the lowest value we must follow the same order for both the variables to assign ranks.

## GRAPHS AND DIAGRAMS

Statistics helps make data understandable to people. Computers can understand lists easily; humans cannot. While statistical values, like averages and medians, can relay some information, they do not show patterns in a set of data. Graphs and diagrams do.

Humans are able to detect complex patterns. In fact, humans are often better able to see patterns than modern computer programs. When presented with a graph or a diagrams, people can often see trends. These trends can be upward or downward, and they can even be cyclical. If the data is presented on a table, however, detecting these patterns is far more difficult.

The aesthetics of information matters as well. When trying to attract investors, people will have more luck if they can present attractive graphs and charts. Visual information matters in media as well, and newspapers and online sites will often take time to present information in an aesthetically pleasing manner. Computers make the process of creating and customizing graphs and diagrams far easier than even before, which has made them more popular.

### **Diagrams and graphs are extremely useful because of the following reasons:**

1. Diagrams and graphs are attractive, impressive and save time.
2. They make data representation simple and have universal utility.
3. They make comparison possible and give more information.

**Questions:**

1. Describe the advantages of reflective journal.
2. How to design a good Reflective Journal Assessment?
3. Write the meaning, types and methods of dispersion.
4. Describe the methods of correlation and utilities.
5. Elucidate assessment of reflective journal and student portfolios.

**References:**

1. <https://www.learner.org>
2. <http://ehlt.flinders.edu.au>
3. [http://ar.cetl.hku.hk/am\\_rj.htm](http://ar.cetl.hku.hk/am_rj.htm)
4. <http://edglossary.org>
5. <https://www.eduplace.com>
6. <http://www.edutopia.org>
7. <http://www0.cs.ucl.ac.uk>
8. <http://repository.uneca.org>
9. <https://www.britishcouncil.in>

**TAMIL NADU TEACHERS EDUCATION UNIVERSITY**  
**Chennai-600 097**

**Course Material for B.Ed (Second Year)**

**Course 10: Creating an Inclusive School**

*Prepared by*

- Unit I** : **Understanding the disability**  
Dr.P.Subramanian, Assistant Professor
- Unit II** : **Understanding the learning disabilities**  
Mrs.C.E.Jayanthi, Assistant Professor
- Unit III** : **Models of disability**  
Mrs.C.E.Jayanthi, Assistant Professor
- Unit IV** : **Inclusive education**  
Mrs.T.M.Gnanasoundari, Assistant Professor
- Unit V** : **Policies and programmes of inclusive education**  
Dr.D.P.Saravanan, Assistant Professor

**Department of Educational Planning and Administration**  
**Tamil Nadu Teachers Education University**  
**Chennai-600 097**

## **COURSE 10: CREATING AN INCLUSIVE SCHOOL**

### **UNIT – I UNDERSTANDING THE DISABILITY**

#### **OBJECTIVES**

After the completion of the unit, the learners will be able to:

1. understand the disability
2. explain the characteristics of disability
3. classify the different types of disability

#### **INTRODUCTION**

Education is the fundamental right of every child. Sufficient opportunities should be provided to the child in education. Based on this, Educational opportunities for special children are also stressed in our country. Swami Vivekananda emphasizes “If special children are unable to move towards education, the education should go towards them”.

#### **MEANING AND DEFINITION OF DISABILITY**

Disability is defined as “any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being”.

Disability is a condition or function judged to be significantly impaired relative to the usual standard of an individual or group.

#### **IMPAIRMENT**

Impairment is the loss of an organ or the defect in structure and function of the organs of a person. This defect may be temporary or permanent.

## DIFFERENCES BETWEEN DISABILITY AND IMPAIRMENT

S.No	DISABILITY	IMPAIRMENT
1.	Any restriction or lack (resulting from an impairment) of ability to perform an activity considered normal for a human being.	Any loss or abnormality of psychological, physiological or anatomical structure or function.
2.	Disability results from impairment, limiting the range and efficiency of one's functioning.	May be genetic; may occur in developmental stages or may be due to accidents, diseases etc.
3.	The degree of disability could be reduced with the use of equipments and appliances.	Once impairment occurs, it cannot be completely rectified.

## CHARACTERISTICS OF DISABILITIES

1. Due to loss or abnormality of physical organs. (e.g.) mal-formation of limbs, cleft lip, disfigured fingers.
2. Disorders due to dysfunctioning of organs of the body even though they may have normal anatomical structure.
3. Impairment of organs of the body.
4. Due to genetic disorders, developmental defects, accidents or diseases.
5. Due to the limitation of one's functioning arising from impairments.
6. Due to the inability to undertake activities of daily life like others. i.e. one's functional efficiency getting affected.
7. The degree of disability could be reduced with the use of appropriate equipments and appliances.
8. The handicap arising out of disability could be greatly reduced by providing appropriate opportunities and facilities in the society.
9. Rehabilitation could be provided to the disabled by offering proper educational climate and exercise.
10. Without motivation and exercise, the degree of disability is likely to increase.

## **CAUSES OF DISABILITIES**

- Genetic Disorders
- Severe Malnutrition
- Diseases(Polio, Paralysis, Brain fever, cerebral palsy etc.)
- Adverse effects of drugs consumed during pregnancy
- Artificial fertilization
- Problems during delivery
- Severe accidents

## **HEARING IMPAIRMENT**

### **INTRODUCTION**

Among the five sense organs, Ear is not only responsible for tactile sensation but also paves way for awareness in the environment. Also it helps to learn a language and the skill of speaking it. When one loses his hearing capacity he is unable to adjust & face problems in the society. Hearing is defined as the reception of the environmental sound, knowing the properties of the sound & by whom it has been made. Defect in listening and understanding the conversations is called listening disability. It affects the natural growth of the children and behavior. Especially it affects hearing, speaking and understanding abilities. Hearing impaired children face more difficulty in hearing, speaking and communicating with others. These children have less speaking skills.

### **TYPES OF HEARING IMPAIRMENT**

- Hearing impairment has three types. They are,
- Conductive loss happens in the External ears.
- Sensory neural hearing loss, it happens due to the defects in the nerves, Ear drums and bones in the internal ear.
- Mixed hearing loss is a combination of conductive and sensory neural hearing loss.

The defects occur in Internal and external ears. Audiometer is used to identify these types of defects. This type of measuring is called Audiogram. The unit of sound is mentioned as Decibel (db).

### **SYMPTOMS OF HEARING IMPAIRMENT**

1. Non- response (shock) of the child for loud clapping within 3 feet.
2. Unable to turn towards the direction of the sound.

3. Delay in understanding.
4. Insist the teacher to repeat the taught units.
5. Keen observation of the facial expressions of teacher, while talking.
6. Very low level skills in Listening and Understanding.
7. More stammering while speaking and very poor in reading.
8. Bend head to listen to the side of speakers.
9. Differences in voice, sound and pronunciation.
10. Non-responding while calling.
11. Disinterested in listening to stories.
12. Leakage of puss from ears.
13. Seek others help when teacher dictates in the class.

### **REASONS FOR HEARING IMPAIRMENT**

1. Genetical factors (Related to Genes).
2. Non Genetical factors (unrelated to Genes).

### **GENETICAL FACTORS**

- **Warden perk Syndrome:** One who has this syndrome should marry another person with this syndrome to deliver a normal child without this hearing impairment. Otherwise there are more chances for the birth of hearing impaired babies.
- Close relationship marriage.
- Genetic defects.
- Genes Aberrations.

### **NON –GENETICAL FACTORS**

- Chicken Pox.
- High fever e.g. Flu fever, Dengue fever.
- Inflammation in inner ear during accident.
- Defects in the ear-brain nerves.
- Brain injury disturbing the growth of language skill.
- Exposure to loud noise.
- Nerves problem in old age.
- Jaundice during pregnancy.
- Mal- Nutrition during pregnancy.



## **HEARING DEVICES FOR HEARING IMPAIRED CHILDREN**

- Horn, calling bell, Flute, Drum.
- World map and Globe.
- Cartoons.
- Colour Pictures.
- Hearing Aids, Materials.
- Mirror.
- Speech Box.
- Music dolls.
- Audiometer.
- Text to speech.
- Audio Books.
- Individual hearing devices & group hearing devices.

## **WAYS OF ATTAINING SUCCESS FOR HEARING IMPAIRED PERSONS**

Identify the hearing impaired in the early childhood and provide suitable hearing aids. Practice them to observe the various sounds in their surroundings. Hearing impaired people can lead a normal life in the society. This idea is to be developed among the teachers & parents. Engage the parents in activities that increase the speaking skill of the hearing impaired students.

Creating awareness among the parents and people & enable them to think, that they can also lead a normal life like the other children of their age.

## **ROLE OF TEACHERS IN TEACHING THE HEARING IMPAIRMENT**

1. The Hearing impaired children must have a good view of the teacher in the classroom. A good rapport between the teacher and the students is to be maintained.
2. The teachers must look at the faces of these students while teaching, so that they follow the lip movement and the gestures of the teachers.
3. The teachers should use more teaching learning materials; especially more visual pictures are to be used.
4. More training for speaking skills should be given.
5. While teaching new lessons, real objects must be used.
6. More reading practice is given to the learners.

7. While teaching new lessons, the teacher writes it on the blackboard and explains the contents.
8. Develop speech skill through conversation.
9. Provide opportunities for visual experiences.
10. Make use of mirrors for speech practice.
11. Poems are taught with rhythm and music.
12. Integrate writing activities with reading skills.
13. Avoid signs among the less hearing impaired children.
14. Train the students to read simple sentences.
15. Provide opportunities for the children to learn drama & conversation lessons in a simple way.
16. Ascertain whether the students use the hearing aids properly in the class room.
17. More colourful pictures, charts and flash cards are to be used.
18. Teacher creates opportunities to bring out individual talents and creativity.

## **SPEECH IMPAIRMENT**

Of all the species on Earth, mankind is superior in Nature because of his skill of speech. It is rather a gift to mankind. A baby begins the language by uttering some sounds in an unclear manner. Then it starts to utter of small syllables, words, phrases, sentences and finally attain the skill of conversation. The sound, word and the sentence structure makes the speech skill effective. In order to develop this skill, the skill of listening becomes extremely essential. The speech skill is affected among the hearing impaired children.

The controlled movement of the speech organs like mouth, tongue, throat, jaw, trachea, vocal cards, hard & soft palate, produce different types of sounds. If there is a defect in any of the speech organs, the speaker fails to utter the words appropriately. This deficiency is known as speech impairment.

We may come across these types of children in the classroom. Mostly they go unnoticed in the eyes of the teacher. While speaking, these children fail to spell some alphabets, words and phrases. They stammer in speaking sentences. Their speech is incoherent & sometimes inordinate delay occurs in their speech. The teachers and the parents must identify this impairment among the children at the earlier stage and take necessary measures.

## **CAUSES FOR SPEECH IMPAIRMENT**

- Insufficient brain growth.
- Incomplete growth of inner ear organs.
- Uncontrollable movements in the speech organs.
- Multi language speaking environment.
- Shyness and fear.
- Inability to understand language sounds.
- Cleft in lips.
- Thick tongue.
- Stammering.
- Knowledge of a few Vocabularies.
- Delay in the growth of Speech activity.

## **SYMPTOMS OF SPEECH IMPAIRMENT**

1. Difficulty in speaking continuously.
2. Inordinate delay in speaking a word.
3. People with speech impairment give unnecessary stress in the syllable while speaking.
4. They are always in the grip of fear and tension.

## **TYPES OF SPEECH IMPAIRMENT**

The defects noticed among the hearing impaired and the speech impaired children can be classified as follows:

### **1. DEFECTS IN ARTICULATION**

- a. Addition.
- b. Distraction.
- c. Substitution.
- d. Skipping of sounds.

### **2. DEFECTS IN VOICE**

- a. Lowering/Raising of voice.
- b. Tone.
- c. Stress.

### **3. DEFECTS IN FLUENCY**

- a. Stammering / stuttering.

- b. Cluttering.
- c. Fear.

## **DEFECTS IN ARTICULATION**

Children with cleft lips struggle to speak properly. These defects are curable and can be treated medically. The brain has many speech integrating centres. Any damage in any of these centers may cause impairment. This is known as **Disarthria**.

Normally, the defects among the Hearing impaired can be divided into following categories.

- a. Addition.
- b. Distraction.
- c. Substitution.
- d. Skipping of sounds.

## **DEFECTS IN VOICE**

In case of any defect in the speech organ like vocal cord or if the speech organ remains unused, defects in voice occur.

### **a) Voice prosody - High/Low pitch**

The tone's density, power, nature, are the three important factors for a good voice. The high/low pitch of the voice is decided by the movement of air passing through the speech organs.

### **b) Prosody**

Some hearing impaired persons always speak in high pitch. This problem can be rectified through tactile sense and by ball technique.

### **c) Stress (prosody)**

In normal speech, some sounds are unnecessarily overstressed.

## **DEFECTS IN SPEECH FLUENCY**

### **Stammering**

In speech, Fluency, style and prosody are important in speech. Stammering is due to a break in the fluency. Repetition of a same word and prolonged uttering of a word takes place in stammering.

### **Nature of stammering**

Struggling to start the speech, unnecessary repetition of same sounds and prolongation of few sounds.

## **Causes for stammering**

Psychological barriers, unsteadiness and mal functioning of nerve system cause stammering among children.

## **Cluttering**

Absence of pause while speaking and very fast speaking are the causes for cluttering.

## **Fear**

Excess fear is one of the reasons which disturb fluency in speech.

## **HINDRANCES IN LEARNING**

- Difficulty in expressing the teachers' concepts.
- Hindrances in reading lessons.
- Unable to read lessons in a stipulated time.
- Wrong use of syllables (Stressed/unstressed) in speaking.
- Listeners are unable to comprehend these children's speech due to their prolonged spell of words and inordinate delay in speaking.
- The voice/ tone of the child are spoiled by constant stammering.

## **THE ROLE OF PARENTS**

- Parents should motivate the children to converse with them in simple sentences without grammatical errors.
- Information and communication technology (ICT) is to be used as a model to develop their speech.
- Parents should follow the recommendations of the speech specialists for their children.
- Children must undergo medical treatment regularly.
- Provide speech therapy as per the advice of the speech specialists.
- Help the children to be courageous.

## **TRAINING IN PRONUNCIATION**

1. Simple sounds of the alphabets and words are introduced. Adequate training is given to spell the sounds correctly.

2. From easy to difficult sounds of words, phrases are taught. Train the children to use apt words, phrases and sentences in their speech.

3. The alphabetic sounds are recorded in a tape recorder. Visual aids like computer, T.V. can be used for correct pronunciation. The speech organs are also trained under the supervision of the teacher.

4. Child oriented topics are presented to the children in the form of dialogue, conversation and seminars. With the help of educational tools, these children are trained to speak the same with correct pronunciation.

## **VISUAL IMPAIRMENT**

### **INTRODUCTION**

The physical condition of a child which completely prevents his/her participation in childhood activities either socially or professionally or in entertainment aspects, is known as Inability Deficiency. The child is emotionally affected. Further, the child is unable to cope with the society and their peer groups. No man is without defects in this world. Mostly the defects can be rectified or compensated. Therefore, our primary duty is to identify the impairment in children (body/mind). According to the impairment in children, we will be able to educate them. Senses are the only way to achieve intelligence. In our five senses, the vision (seeing) skill is very special because we are able to see the activities in our surroundings using our eyes. The knowledge we gain by seeing (vision) is hundred times greater than the description (of person, place or things) in words. There is no equivalent for visual experiences. But the blind children are unable to witness the activities in their surroundings. For the benefit of the blind children, efforts are taken to fulfill their needs, to provide treatment and upgrade their education.

### **TYPES OF VISUAL IMPAIRMENT**

1. Low vision
2. Total Blindness

#### **1. Low Vision**

The children with low vision learn with their residual vision using audio and visual equipments.

#### **2. Total Blindness**

Totally blind people learn with the help of Braille Letters, Audio Equipments and tactile method.

## **VISUAL IMPAIRMENT**

Eye diseases, accident and defect by birth are the causes for visual impairment. They have less visual ability. Some visual defects can be cured by treatment.

### **REASONS FOR VISUAL IMPAIRMENT**

- Cataract
- Vitamin A deficiency
- Trachoma
- Small
- Accident
- Hereditary disease
- Malnutrition
- Brain Tumor
- Diabetes in childhood

### **PROBLEMS FACED BY THE CHILDREN WITH VISUAL IMPAIRMENT IN THE CLASSROOM**

Learning environment plays a vital role in effective learning. Learning environment includes teachers, students and methods of learning. Learning Environment includes not only classroom but also laboratory, playground, library and educational tour. The above mentioned visually impaired children will face hindrances in these learning environments. The classroom hindrances faced by these children are listed below.

1. Letters on the blackboard are either partly visible or fully invisible.
2. The students with visual impairment will have problems in reading the words on the blackboard and in books, due to light failure in the rainy season or some other reasons.
3. The students find it difficult in doing science experiments in the lab and in identification of different colors.
4. The students with visual impairment are unable to perform on par with the other students in Drawing and S.U.P.W.
5. Problems in collecting data from photos and maps.
6. Visual based subjects like geometry possess a great problem in answering the questions in the examination.

7. The children with total blindness have to read the normal lessons along with the Braille system. This causes depression.
8. Due to variation in the individual's visual impairment these children cannot work together in one activity.
9. The students with visual impairment should be seated only in first bench or else they cannot be able to see the blackboard or the teachers clearly.
10. These students will find difficult in reading and writing in dim light and in bright light.
11. While reading continuously, they drop few lines.
12. Continuous and rapid writing is not possible.
13. Spelling mistakes are done in reading and writing.
14. Difficulty in color identification.
15. Hindrance in reading manuscripts.
16. When the background color and printed words are the same, these students will find it difficult to read.
17. Difficulty in completing or delay in submitting the teacher's homework or assignments.
18. Inability to walk in dim light.
19. Difficulty in differentiating the shapes of objects.
20. Difficulty in identifying rumbles in the school route.
21. Facing difficulties in reading and writing the lessons fast.
22. Tiredness in the eyes while reading.
23. Difficulties in reading small letters.

#### **TEACHER'S APPROACHES TO ELIMINATE THE VISUAL DEFECTS**

1. The children should be made to sit in first row
2. Light should not be directly focused on them.
3. They should be given felt pen or sketch pen or marker pen while writing.
4. Contrasting colours and bold letters are essential in the teaching learning material.
5. While writing on the board, the teacher reads it.
6. Constant listening to the recorded words and phrases.
7. Clay models are used in teaching.
8. Abacus and Taylor Frame instruments are used to teach Mathematics.
9. Distribution of enlarged Xerox copies of scripts to the students with low vision.



10. Usage of safe teaching learning materials.
11. Tactile based pictures are used to teach science and social science
12. Teaching through tactile sense, hearing sense, skill of taste and smell are mostly used.

### **INSTRUMENTS FOR VISUALLY IMPAIRED**

- Braille slates and styles
- Braille machine
- Abacus
- Taylor Frame
- Cassette Recorder
- Magnifier
- Embossed Diagram
- Reading Book stand
- Relieve sheet
- Long cane
- Braille text book
- Rattle ball
- Magnetic Chess

### **PHYSICALLY CHALLENGED**

Human beings possess many talents physically and mentally to live happily in this world. We live happily by using those talents. But, among us so many people are affected for many reasons in their life. This causes handicap both mentally and physically. In English it is called mentally impaired and physically disabled. If any part of our body becomes inactivated, it is called physically challenged. For example, a school going child is unable to participate in any activity either at home or in the society. Physically challenged are classified on the basis of their impairment. For example, if there is a leg or hand becomes inactive, then it is called physically challenged.

### **COMMON SYMPTOMS OF PHYSICALLY CHALLENGED**

- Non cooperation of body organs with its movements
- Pain in joints while moving
- Struggle in sitting, getting up and walking
- Incapable of using legs& hands normally.

- Uncontrollable body movements.
- Getting tired easily.
- Delay in activities.
- Cheeks and fingers become blue in colour.
- Inferiority complex.
- Hands, legs and feet in folded condition.

## **TEACHERS' APPROACHES**

- To strengthen the muscles, exercises are given.
- To make the students participate in games of their choice.
- Practice is given to write the correct shapes of letters.
- Designing of school environment for their free movement.
- Provide ramp instead of steps.
- Provide facilities for inactive to reach the examination hall.
- Provide scribe facilities during examination.
- Give practice to write with the other hand if one hand is affected.
- Priority is given to these children in all educational activities to motivate them.
- Identifying individual talents, tapping their skills and motivating them to participate in co-curricular activities.
- Train the parents to continue the muscles exercises given to the children in the school & in resource centre.
- The teachers based on their training identify the disabled children by observation with the aid of Resource teacher; the teacher helps these children for doctor consultation.
- These children must be involved in games depending upon their ability.
- Instructions are given to the parents for the proper use of equipments issued to these children during Medical camps conducted by S.S.A.

## **PSYCHOLOGICAL DISORDERS**

A psychological disorder, also known as a mental disorder, is a pattern of behavioral or psychological symptoms that impact multiple life areas and create distress for the person experiencing these symptoms.

"...a syndrome characterized by clinically significant disturbance in an individual's cognitive, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental process underlying mental functioning. Mental disorders are usually associated with significant distress in social, occupational, or other important activities."

## **NEURODEVELOPMENTAL DISORDERS**

- ❖ Neurodevelopmental disorders are those that are typically diagnosed during infancy, childhood, or adolescence. These psychological disorders include:
- ❖ **Intellectual disability** (or Intellectual Developmental Disorder) was formerly referred to as mental retardation. This type of developmental disorder originates prior to the age of 18 and is characterized by limitations in both intellectual functioning and adaptive behaviors.
- ❖ **Global developmental delay** is a diagnosis for developmental disabilities in children who are under the age of five. Such delays relate to cognition, social functioning, speech, language, and motor skills. It is generally seen as a temporary diagnosis applying to kids who are still too young to take standardized IQ tests. Once children reach the age where they are able to take a standardized intelligence test, they may be diagnosed with intellectual disability.
- ❖ **Communication disorders** are those that impact the ability to use, understand, or detect language and speech. There are four different subtypes of communication disorders: language disorder, speech sound disorder, childhood onset fluency disorder (stuttering), and social (pragmatic) communication disorder.
- ❖ **Autism spectrum disorder** is characterized by persistent deficits in social interaction and communication in multiple life areas as well as restricted and repetitive patterns of behaviors. The symptoms of Autism spectrum disorder must be present during the early developmental period and that these symptoms must cause significant impairment in important areas of life including social and occupational functioning.

- ❖ **Attention-deficit hyperactivity disorder** is characterized by a persistent pattern of hyperactivity-impulsivity and/or inattention that interferes with functioning and presents itself in two or more settings such as at home, work, school, and social situations.

## **BIPOLAR AND RELATED DISORDERS**

- ❖ Bipolar disorder is characterized by shifts in mood as well as changes in activity and energy levels. The disorder often involves experiencing shifts between elevated moods and periods of depression. Such elevated moods can be pronounced and are referred to either as mania or hypomania.
- ❖ Mania is characterized by feeling overly excited and even hyper. Periods of mania are sometimes marked by feelings of distraction, irritability, and excessive confidence. People experiencing mania are also more prone to engage in activities that might have negative long-term consequences such as gambling and shopping sprees.
- ❖ Depressive episodes are characterized by feelings of intense sadness, guilt, fatigue, and irritability. During a depressive period, people with bipolar disorder may lose interest in activities that they previously enjoyed, experience sleeping difficulties, and even have thoughts of suicide.

## **ANXIETY DISORDERS**

- ❖ Anxiety disorders are those that are characterized by excessive and persistent fear, worry, anxiety and related behavioral disturbances. Fear involves an emotional response to a threat, whether that threat is real or perceived. Anxiety involves the anticipation that a future threat may arise.
- ❖ Types of anxiety disorders include:
- ❖ **Generalized anxiety disorder** which is marked by excessive worry about everyday events. While some stress and worry are a normal and even common part of life, GAD involves worry that is so excessive that it interferes with a person's well-being and functioning.
- ❖ **Agoraphobia** is characterized by a pronounced fear a wide range of public places. People who experience this disorder often fear that they will suffer a panic attack in a setting where escape might be difficult. Because of this fear, those with agoraphobia often avoid situations

that might trigger an anxiety attack. In some cases, this avoidance behavior can reach a point where the individual is unable to even leave their own home.

- ❖ **Social anxiety disorder** is a fairly common psychological disorder that involves an irrational fear of being watched or judged. The anxiety caused by this disorder can have a major impact on an individual's life and make it difficult to function at school, work, and other social settings.
- ❖ **Specific phobias** involve an extreme fear of a specific object or situation in the environment. Some examples of common specific phobias include the fear of spiders, fear of heights, or fear of snakes. The four main types of specific phobias involve natural events (thunder, lightning, tornadoes), medical (medical procedures, dental procedures, medical equipment), animals (dogs, snakes, bugs), and situational (small spaces, leaving home, driving). When confronted by a phobic object or situation, people may experience nausea, trembling, rapid heart rate, and even a fear of dying.
- ❖ **Panic disorder** is a psychiatric disorder characterized by panic attacks that often seem to strike out of the blue and for no reason at all. Because of this, people with panic disorder often experience anxiety and preoccupation over the possibility of having another panic attack. People may begin to avoid situations and settings where attacks have occurred in the past or where they might occur in the future. This can create significant impairments in many areas of everyday life and make it difficult to carry out normal routines.
- ❖ **Separation anxiety disorder** is a type of anxiety disorder involving an excessive amount of fear or anxiety related to being separated from attachment figures. People are often familiar with the idea of separation anxiety as it relates to young children's fear of being apart from their parents, but older children and adults can experience it as well.

## **MENTALLY RETARDED**

### **CAUSES FOR MENTALLY RETARDED**

- Brain Fever.
- Genetically impaired
- Defect in nervous system and spinal cord.
- Low supply of oxygen to brain during birth.
- Deep head wound during birth.

## **SYMPTOMS OF MENTAL RETARDNESS**

- Delay in all growth and development.
- Not able to sit even after 12-15 months.
- Not able to walk even after two years.
- Not able to speak even after two years.
- Not able to eat and dress independently
- Dependence in answering nature calls.
- Difficulty in playing with their peer.
- Become ferocious frequently.
- Incapable of carrying out oral orders.
- Inability to communicate personal needs.
- Difficulty in understanding two or more orders at the same time.
- Ignorance of environment takes more time in learning skill activities.
- No progress in studies,
- Inattentive and excess loss of memory.
- Not able to participate in all classroom activities.
- Inability to sit in a same place for long time.

## **PROBLEMS FACED BY MENTALLY RETARDED CHILDREN**

- Due to delay in brain growth, the learning skill is relegated to the background.
- Difficulty in understanding concepts in a same method. For example, to know the parts of body and day today habits.
- Loss of memory power. Difficulties in retention. For example: forgetting the learning skills within a short time.
- Difficulties in problem solving. Example: Unable to decide after missing a regular bus.
- Drawback in decision making.
- Distraction in concentration. For example: Leaving classroom at the time of teaching.
- Failure to implement the understood habits like wishing teachers in the classroom and welcoming the guests at home.
- Difficulties in understanding the consequences.
- Touching the hot vessel without realizing its effect.

## **TEACHERS ROLE FOR MENTALLY RETARDED CHILDREN**

- Exempted from the school curriculum for promotion by giving concession.
- It is important to develop life skill in the teaching learning activities for these children.
- With the guidance of an expert teacher, the teacher imparts the skill to do their personal duties.
- Depending upon the child's mental ability, the teacher not only imparts the content part of the syllabus orally, but also through activities.
- According to the mental growth of the child, the teacher develops the learning skills by using life oriented objects.
- Training is started after identifying success oriented opportunities.
- After learning the numbers, the addition and subtraction should be taught.
- Display of related objects for introduction of "Sunday" may not be possible. So, 'Sunday' related activities can be incorporated.
- The parts of the body can be introduced by showing the different parts of organs.
- Retention of learned skill is possible by the repetition of teaching skills.
- Imperative statements are either limited to one or two.
- Training is given to develop memory power. Ex: List out the objects after five minutes of observing five objects on the table. Daily activities are recollected and arranged orally by the retarded students.
- Teach the methods of routine activities or duties. Ex: To wash hands before and after taking food. To wear clean clothes after bathing. To use toilets properly.
- Talent based follow up work is provided. Individual attention by the teacher is essential to involve the mentally retarded children in the entertainment oriented play-way methods to bring out the individual talents of the children.

## **CEREBRAL PALSY**

Cerebral palsy (CP) refers to a group of disorders that affect muscle movement and coordination. In many cases, vision, hearing, and sensation are also affected. The word "cerebral" means having to do with the brain. The word "palsy" means weakness or problems with body movement.

## **SYMPTOMS OF CEREBRAL PALSY**

- delays in reaching motor skill milestones, such as rolling over, sitting up alone, or crawling
- delays in speech development and difficulty speaking
- stiff muscles
- abnormal muscle tone
- a lack of muscle coordination
- tremors or involuntary movements
- excessive drooling and problems with swallowing
- difficulty walking
- favoring one side of the body, such as reaching with one hand
- neurological problems, such as seizures, intellectual disabilities, and blindness.

## **CAUSES FOR CEREBRAL PALSY**

- a lack of oxygen to the brain during labor and delivery
- severe jaundice in the infant
- maternal infections, such German measles and herpes simplex
- brain infections
- bleeding into the brain
- head injuries as a result of a car accident, a fall, or child abuse.

## **MULTIPLE DISABILITIES**

A person who has a combination of two or more disabilities is considered to have multiple disabilities. The effect of multiple disability can be more than the combination of two individual disabilities.

## **CHARACTERISTICS OF MULTIPLE DISABILITIES**

- Two or more disabilities
- Additional disabilities
- Due to combined loss of two or more disabilities, the rate and speed of learning is very low.



- Communication is most significantly affected in children with multiple disabilities.
- Some children with multiple disabilities have difficulty in body movements.
- Most children with multiple disabilities show strange behaviours that are called self stimulating behaviours.
- Deaf, blind children show disturbed sleep patterns.
- Most multi disabled children also suffer from other medical conditions, such as frequent eye and ear infections, respiratory disorders, muscular degeneration, and so on.

## CONCLUSION

In this unit, we came to know vividly that education should not hurt the handicapped children either physically or mentally and the educational environment must provide a happy & joyful learning for the disabled. The role of the teachers and the parents for the hearing impaired, physically handicapped and mentally retarded and their challenges & solutions, the causes for the deficiencies & disabilities and the methods and approaches of the teachers in teaching these children are discussed in this unit in detail.

## QUESTIONS FOR DISCUSSION AND REFLECTION

1. Explain the characteristics of disability.
2. Analyse the causes of disability.
3. Describe the different types of disability.

## REFERENCES

- Aggarwal, Y. P. (2002). *Statistical Methods*.
- Mangal, S. K. (2007). *Educating Exceptional Children An Introduction to Special Education* New Delhi: Prentice- Hall of India Pvt Limited.
- Mani, M. N. G. (1997). *Techniques of Teaching Blind Children*. New Delhi: Sterling Publishers.
- Rao, V. K. (2001). *Special Education*. New Delhi: A.P.H.Publishers.
- <https://www.tcass.net/domain/3288>
- <http://www.textbooksonline.tn.nic.in/Books/DTEd/DTEd2-FEL.pdf>
- <http://www.specialeducationguide.com/disability-profiles/multiple-disabilities/>
- <https://www.verywell.com/a-list-of-psychological-disorders-2794776>

## UNIT-II: UNDERSTANDING THE LEARNING DISABILITIES

### Objectives:

After the completion of the unit, the learners will be able to:

1. explain the concept of learning disability.
2. list down the signs and symptoms of learning disabilities.
3. describe the different types of learning disabilities.
4. identify children with learning disabilities.
5. discuss the importance of integrated and inclusive education.

### Introduction

Learning disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills such as reading, writing and calculating. They can also interfere with higher level skills such as organization, time planning, abstract reasoning, long or short term memory and attention. It is important to realize that learning disabilities can affect an individual's life beyond academics and can impact relationships with family, friends and in the workplace. Since difficulties with reading, writing and calculating are recognizable problems during the school years, the signs and symptoms of learning disabilities are most often diagnosed during that time.

Generally speaking, people with learning disabilities are of average or above average intelligence. There often appears to be a gap between the individual's potential and actual achievement. This is why learning disabilities are referred to as "hidden disabilities", the person looks perfectly "normal" and seems to be a very bright and intelligent person, yet may be unable to demonstrate the skill level expected from someone of a similar age.

### Meaning

Learning disabilities are lifelong. Learning disabilities are due to genetic and/or neurobiological factors or injury that alters brain functioning in a manner which affects one or more processes related to learning. It refers to a number of disorders which may affect the acquisition,

organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning.

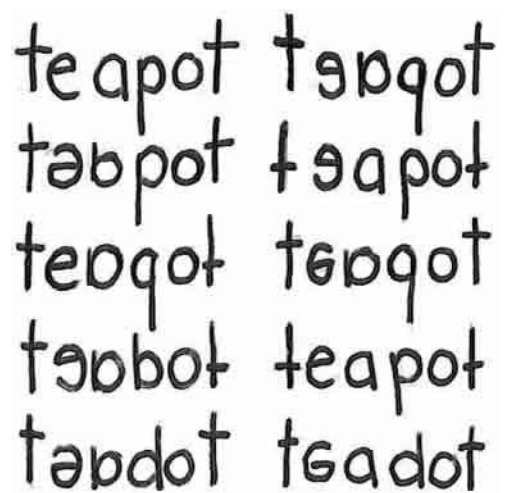
### **Kinds of Learning Disabilities**

1. Dyslexia
2. Dysgraphia
3. Dyscalculia
4. Dyspraxia

### **Dyslexia**

A specific learning disability that affects reading and related language-based processing skills. The severity can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a Language-Based Learning Disability. It affects reading and related language-based processing skills.

Dyslexia is a chronic problem with reading. It is a common learning difficulty, affecting a large percentage of those identified as "learning disabled." People with a learning difference like dyslexia may have trouble with reading, writing, spelling, math, and sometimes music.



**Figure:1**

The severity of this specific learning disability can differ in each individual but can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a Language-Based Learning Disability. Dyslexia can occur at any level of intellectual ability. Dyslexia may be accompanied by lack of motivation, emotional problems, and sensory impairment.

A more positive view of dyslexia describes people with dyslexia as visual, multidimensional thinkers who are intuitive, highly creative, and excel at hands-on learning. Many people with dyslexia shine in the arts, creativity, design, computing, and lateral thinking.

### ***Signs and Symptoms***

1. Reads slowly.
2. Experiences decoding errors, especially with the order of letters.
3. Shows wide disparity between listening comprehension and reading comprehension of some text.
4. Has trouble with spelling.
5. May have difficulty with handwriting.
6. Exhibits difficulty recalling known words.
7. Has difficulty with written language.

### ***Intervention Strategies***

There are numerous programmes, teaching aids, software packages etc that you can use with students. Whichever you choose, if you are positive about it then the pupil's confidence is improved there is a far greater chance of success. Training should be multi-sensory involving looking, listening, speaking, touching etc with as much variation as possible but we are all unique and it is good to observe whether the child/adult is predominantly Visual Learner(learns best by seeing), Auditory Learning(learns best by listening) and Kinesthetic Learner(learns by doing/feeling).

### ***Visual Learner***

1. Use pictures and multi-media material

2. Stick spelling words anywhere in view
3. Look at pictures in a book before reading
4. Play games and solve puzzles to improve memory
5. Draw mind maps
6. Use different colours
7. Use good visual software programmes

### ***Auditory Learners***

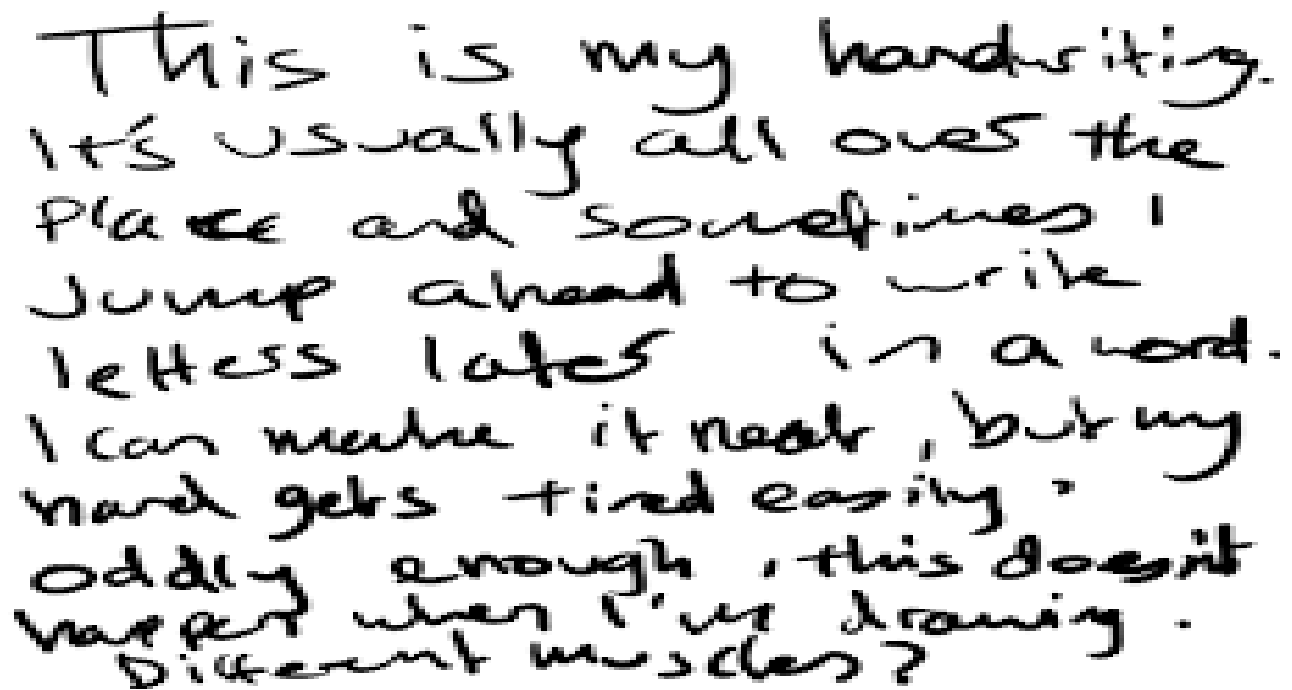
1. Talk about the book to be read or the information to be learned
2. Make sure instructions are orally clear
3. Get the student to record the information so it can be listened to again
4. Use software which has good auditory input.

### ***Kinesthetic Learners***

1. Trace letters in sand or in the air.
2. Use concrete objects which can be handled eg wooden letters, numbers etc
3. Memorise facts while moving about.

### **Dysgraphia**

The term dysgraphia is taken from the Greek word, (dys) meaning "bad" or "difficult" and (graphia) meaning "writing." Thus, "dysgraphia" literally means "bad writing". It is also defined as a learning disability with impairment in written expression that is the inability to write.



This is my handwriting.  
It's usually all over the  
place and sometimes I  
jump ahead to write  
letters later in a word.  
I can make it neat, but my  
hand gets tired easily.  
Oddly enough, this doesn't  
happen when I'm drawing.  
Different muscles?

**Figure:2**

It affects a person's handwriting ability and fine motor skills. A person with this specific learning disability may have problems including illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling, and difficulty composing writing as well as thinking and writing at the same time.

### ***Signs and Symptoms***

1. May have illegible printing and cursive writing.
2. Shows inconsistencies: mixtures of print and cursive, upper and lower case, or irregular sizes, shapes or slant of letters
3. Inconsistent spacing between words and letters
4. Exhibits strange wrist, body or paper position
5. Has difficulty pre-visualizing letter formation
6. Copying or writing is slow or labored
7. Shows poor spatial planning on paper
8. Has cramped or unusual grip/may complain of sore hand
9. Has great difficulty thinking and writing at the same time (taking notes, creative writing.)

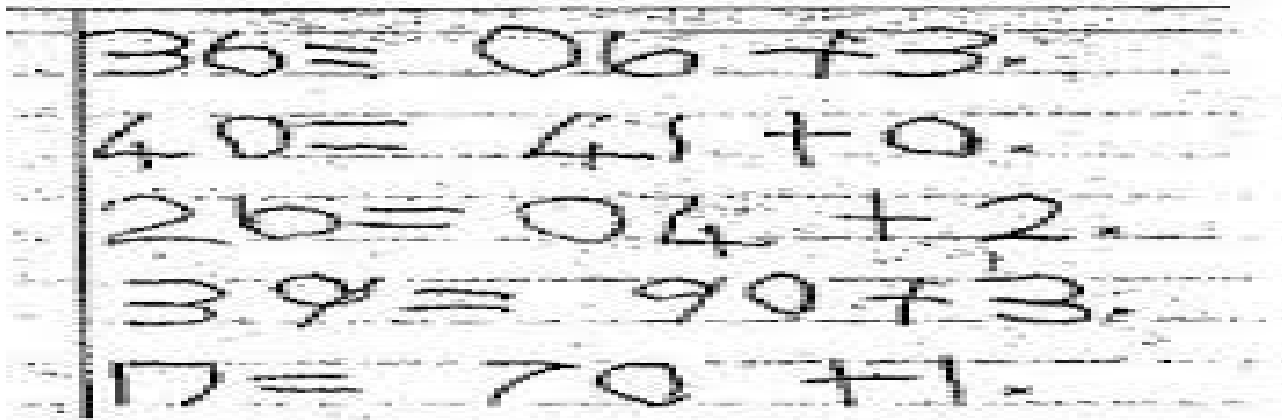
## *Intervention Strategies*

1. Children with dysgraphia need to strengthen hand muscles and improve motor control by playing with clay, keeping within lines on mazes, connecting dots or dashes to create complete letters, and tracing letters with an index finger or a pencil eraser.
2. To improve motor memory, have students practice forming letters and numbers in the air with big arm movements. Then, have them form letters and numbers with smaller hand or finger motions. Students should also experiment with pencil grips, shorter pencils, and other pencils and pens to find what feels best for them.
3. While remediation should be ongoing since good handwriting takes time and practice, strategies for dealing with dysgraphia include modifications, or changes in assignments to avoid writing.
4. Reduce copying of assignments and tests. Choose the questions that the student should answer in complete sentences, then allow the others to be answered in phrases or words. When students are copying definitions, let the student shorten them or give him the definitions and have him highlight or underline important words or phrases.
5. Give shorter written assignments.
6. Assignments can be modified in the following ways without changing the academic task: Grade assignments on individual elements of the writing process. On one assignment, make spelling count, then make grammar count on the next. On long-term assignments, help the student plan by providing intermittent due dates and working with him as a deadline approaches.
7. Give the student an alternative to a written assignment. Assign an oral report or visual project and specify what the student should include.
8. Providing additional time for note-taking, copying, and tests.
9. Starting projects or assignments early.
10. Providing the student with an outline so he can fill in details under major headings instead of taking notes.
11. Dictating some assignments or tests using a scribe.
12. Allowing abbreviations in some writing.
13. Not counting spelling on rough drafts.

14. Using a spell checker or having another student proofread his work.
15. Allowing the student to print or write in cursive, whichever is most legible.
16. Encouraging younger students to use paper with raised lines.
17. Allowing older students to use a different line width.
18. Allow students to use different color paper, pens, or pencils.
19. Allowing the student to use graph paper for math to help with lining up columns of numbers.
20. Allowing the student to use a word processor and speech recognition software, if necessary and appropriate.

Students should continue to work on improving their handwriting as it is an important skill and necessary in daily life. Meanwhile, strategies for dealing with dysgraphia, such as these modifications and accommodations, help facilitate learning and ease difficulties inside and outside the classroom.

**Discalculia** A specific learning disability that affects a person’s ability to understand numbers and learn math facts. Individuals with this type of LD may also have poor comprehension of math symbols, may struggle with memorizing and organizing numbers, have difficulty telling time, or have trouble with counting. It affects a person’s ability to understand numbers and learn math facts.



**Figure:3**



### ***Signs and Symptoms***

1. Shows difficulty understanding concepts of place value, and quantity, number lines, positive and negative value, carrying and borrowing
2. Has difficulty understanding and doing word problems
3. Has difficulty sequencing information or events
4. Exhibits difficulty using steps involved in math operations
5. Shows difficulty understanding fractions
6. Is challenged making change and handling money
7. Displays difficulty recognizing patterns when adding, subtracting, multiplying, or dividing
8. Has difficulty putting language to math processes
9. Has difficulty understanding concepts related to time such as days, weeks, months, seasons, quarters, etc.
10. Exhibits difficulty organizing problems on the page, keeping numbers lined up, following through on long division problems

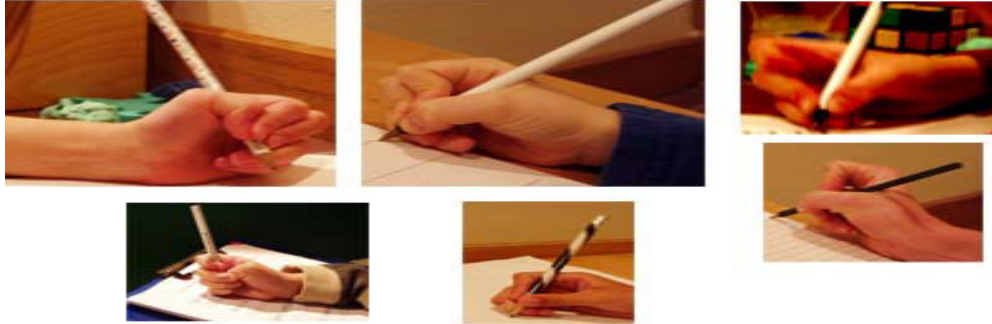
### ***Intervention Strategies***

1. Use concrete materials and start from practical activities.
2. Avoid creating anxiety for the student.
3. Establish the student's preferred learning style.
4. Teach more than one way to solve mathematical operations.
5. Build on student's existing knowledge.
6. Try to understand the student's errors, do not just settle for wrong.
7. Concentrate on one concept at a time.
8. Language should be kept to a minimum and specific cues given for various mathematical operations in word problems.
9. Encourage students to visualise mathematical problems. Allow students to draw a picture to help them understand the problem and ensure they take time to look at any visual information such as charts and graphs.
10. If the student does not have co-existing reading difficulties, encourage him/her to read problems aloud.

11. In the early stages of teaching new mathematical skills ensure that the mathematical problems are free of large numbers and unnecessary calculations.
12. Provide examples and try to relate problems to real-life situations.
13. Provide students with graph paper/squared paper and encourage them to use this to keep the numbers in line.
14. Ask to explain verbally how he/she arrived at particular solutions.
15. Explain new concepts in a logical manner.
16. Encourage students to teach a concept back in order to check understanding.
17. Ensure worksheets are uncluttered and clearly laid out and provide ample room for uncluttered computation. Ensure that the page does not look intimidating.
18. Limit copying from the board.
19. Allow students to use computers and calculators, especially to self-correct.
20. Provide students with extra time to complete tasks and encourage the use of rough work for calculations.
21. Directly teach the language of Mathematics.
22. Always bear in mind the language of Mathematics differs significantly from spoken English.
23. Use consistent mathematical language both in your classroom and throughout the school.
24. Make use of mnemonics and visual prompting cards to assist students in memorising rules, formulae and tables. Repetition is also very important.
25. Always match the strategy to the student's identified needs and abilities.

## **Dyspraxia**

Dyspraxia is a condition which can be acquired or developmental. Children with dyspraxia often have difficulty organizing their bodies to perform the tasks they want their bodies to do. They find motor planning challenging, and struggle to perform fluid, smooth movements with finesse and control. They may find their motor skills fall behind those of their peers, and can often appear clumsy and awkward. A disorder that is characterized by difficulty in muscle control, which causes problems with movement and coordination, language and speech, and can affect learning. Although not a learning disability, dyspraxia often exists along with dyslexia and dyscalculia. They face problems in movement, coordination, language and speech.



**Figure: 4**

### ***Different Kinds of Dyspraxia***

Dyspraxia can affect different kinds of movement. Professionals you speak to might break it down into these categories:

1. **Ideomotor dyspraxia:** Makes it hard to complete single-step motor tasks such as combing hair and waving goodbye.
2. **Ideational dyspraxia:** Makes it more difficult to perform a sequence of movements, like brushing teeth or making a bed.
3. **Oromotor dyspraxia**, also called verbal apraxia or apraxia of speech: Makes it difficult to coordinate muscle movements needed to pronounce words. Kids with dyspraxia may have speech that is slurred and difficult to understand because they're unable to enunciate.
4. **Constructional dyspraxia:** Makes it harder to understand spatial relationships. Kids with this type of dyspraxia may have difficulty copying geometric drawings or using building blocks.

### ***Signs and Symptoms***

1. Exhibits poor balance; may appear clumsy; may frequently stumble
2. Shows difficulty with motor planning
3. Demonstrates inability to coordinate both sides of the body
4. Has poor hand-eye coordination
5. Exhibits weakness in the ability to organize self and belongings

6. Shows possible sensitivity to touch
7. May be distressed by loud noises or constant noises like the ticking of a clock or someone tapping a pencil
8. May break things or choose toys that do not require skilled manipulation
9. Has difficulty with fine motor tasks such as coloring between the lines, putting puzzles together, cutting accurately or pasting neatly
10. Irritated by scratchy, rough, tight or heavy clothing

### ***Intervention Strategies***

There are some specific strategies you can employ in and outside the classroom to assist the student with dyspraxia. These include:

1. reducing the information load by providing instructions one at a time or as visual and / or auditory instructions.
2. avoiding situations where the student has to perform in front of an audience if they don't want to perform.
3. keeping objects in the classroom in the same place so it remains a predictable physical environment.
4. providing alternatives for handwriting tasks (such as keyboarding).
5. involving therapy support services and seeking advice when needed.
6. ensuring the play area is safe for a child with dyspraxia.

### **Approaches in identifying children with Disabilities**

The Rehabilitation Council of India (1995) reports that not even five per cent of the disabled population are currently enjoying educational facilities. To provide education to this uncovered population, appropriate strategies need to be adopted for locating them for early intervention services. Early intervention would solve many of the problems of the child later in life. The common approaches in identifying persons with disabilities are as follows.

**(1) *Cognitive approach:*** This identification is purely based on the cognitive abilities of the child. By adopting the cognitive approach, identification of children may be made as those who are

mentally retarded, slow learners, normal learners, academically advanced learners and gifted learners. For example

- The child who has an IQ between 50 and 75 will come under the category of educable mentally retarded child.
- The trainable mentally retarded children have an IQ of 25 to 50 and they may find it difficult even to perform manual kind of work.
- Those who have an IQ of less than 25 are called totally dependent category.

**(2) Sensory approach:** The sensory approach is based on the ability of the senses. By adopting it we can identify visually impaired, hearing impaired and deaf & dumb children. Out of them, visually impaired children are neither cognitively impaired nor communication impaired. They lack abilities in the orientation of environment. On the other hand, the deaf child's main problem is in the area of communication skills. The deaf blind children will have a serious disadvantage in both orientation and communication skills. As blind and deaf children are not impaired cognitively, they can follow the same curriculum meant for the sighted and hearing children. However, certain curricular adaptations have to be made to suit their learning styles.

**(3) Ability-based approach:** There are many children who experience difficulty in processing information. Though their intelligence is normal and senses too are normal, sometimes they perform poorly due to lack of ability in processing information. Information processing theorists feel that these children lack adequate skills in attention, perception, memory, encoding etc. These children are called as learning disabled children. Dysgraphia, Dyslexia and Dyscalculia are some of the defects associated with the learning problems in general.

**(4) Society-based approach:** Among disabled children, some of them are facing emotional problems too. The behaviour disorders in these children may also be a result of social problems such as the state of experience of neglect, over-protection, etc. There are many children who experience emotional problems. These children have to be provided the most appropriate environment for overcoming difficulties.

### **Role of Teacher in Managing Students with Disabilities**

1. Break learning tasks into small steps.
2. Probe regularly to check understanding.
3. Provide regular quality feedback.
4. Present information visually and verbally.
5. Use diagrams, graphics and pictures to support instruction.
6. Provide independent practice.
7. Provide prompts of strategies to use and when to use them.
8. Use graphic organizers to support understanding of relationships between ideas.
9. Use adaptive equipment if appropriate (books on tape, laptop computers, etc.).
10. Provide clear photocopies of notes and overhead transparencies.
11. Provide a detailed course outline before class begins.
12. Keep oral instructions logical and concise and reinforce them with brief cue words.
13. Repeat or re-word complicated directions.
14. Give assignments both in written and oral form.
15. Have practice exercises available for lessons, in case the student has problems.
16. Have student underline key words or directions on activity sheets (then review the sheets with them).
17. Provide and teach memory strategies, such as mnemonic strategies and elaborative rehearsal.
18. Clearly label equipment, tools, and materials, and use color-coding.
19. Provide a peer tutor or assign the student to a study group.
20. Use mnemonic devices to teach steps of a math concept.

## **Conclusion:**

A learning disability is a neurological disorder. In simple terms, a learning disability results from a difference in the way a person's brain is "wired." Children with learning disabilities are as smart or smarter than their peers. But they may have difficulty reading, writing, spelling, reasoning, recalling and organizing information if left to figure things out by themselves or if taught in conventional ways. A learning disability can't be cured or fixed; it is a lifelong issue. With the right support and intervention, however, children with learning disabilities can succeed in school and go on to successful, often distinguished careers later in life.

Parents can help children with learning disabilities achieve such success by encouraging their strengths, knowing their weaknesses, understanding the educational system, working with professionals and learning about strategies for dealing with specific difficulties.

### **Questions for discussion and reflection**

1. Explain the different kinds of learning disabilities.
2. Describe the importance and means of identifying the learning disabilities of students.
3. Suggest the strategies to overcome the learning disabilities of students.
4. Explain the various approaches in identifying children with disabilities.
5. Discuss the role of teacher in managing students with disabilities.

### **References:**

1. Algozzine, Robert & Ysseldyke, James (2006). Teaching students with learning disabilities. California: Corwin press.
2. Smith, Corrine & Strick, Lisa (1999). Learning disabilities A to Z. New York: Fireside books.
3. <http://www.sess.ie/categories/specific-learning-disabilities/dyscalculia/tips-learning-and-teaching>
4. <http://www.brighthubeducation.com/special-ed-neurological-disorders/64669-interventions-for-dysgraphia-ideas-for-teachers-parents-and-students/>
5. <http://dyslexiahelp.umich.edu/professionals/dyslexia-school/strategies-for-teachers>

## **UNIT-III:MODELS OF DISABILITY**

### **Objectives**

After the completion of the unit, the learners will be able to:

1. explain the concepts of models of disability.
2. describe the different models of disability.
3. discuss the importance of models of disability.
4. analyse the features of various models of diversity.

### **Introduction**

Models of Disability are tools for defining impairment and, ultimately, for providing a basis upon which government and society can devise strategies for meeting the needs of disabled people. Some thought they do not reflect a real world, often incomplete and encourage narrow thinking, and seldom offer detailed guidance for action. However, they are a useful framework in which to gain an understanding of disability issues, and also of the perspective held by those creating and applying the models. Models of disability are essentially devised by people about other people. They provide an insight into the attitudes, conceptions and prejudices. From this, Models reveal the ways in which our society provides or limits access to work, goods, services and economic influence for people with disabilities.

Models are influenced by two fundamental philosophies. The first sees disabled people as dependent upon society. This can result in paternalism, segregation and discrimination. The second perceives disabled people as customers of what society has to offer. This leads to choice, empowerment, equality of human rights, and integration.

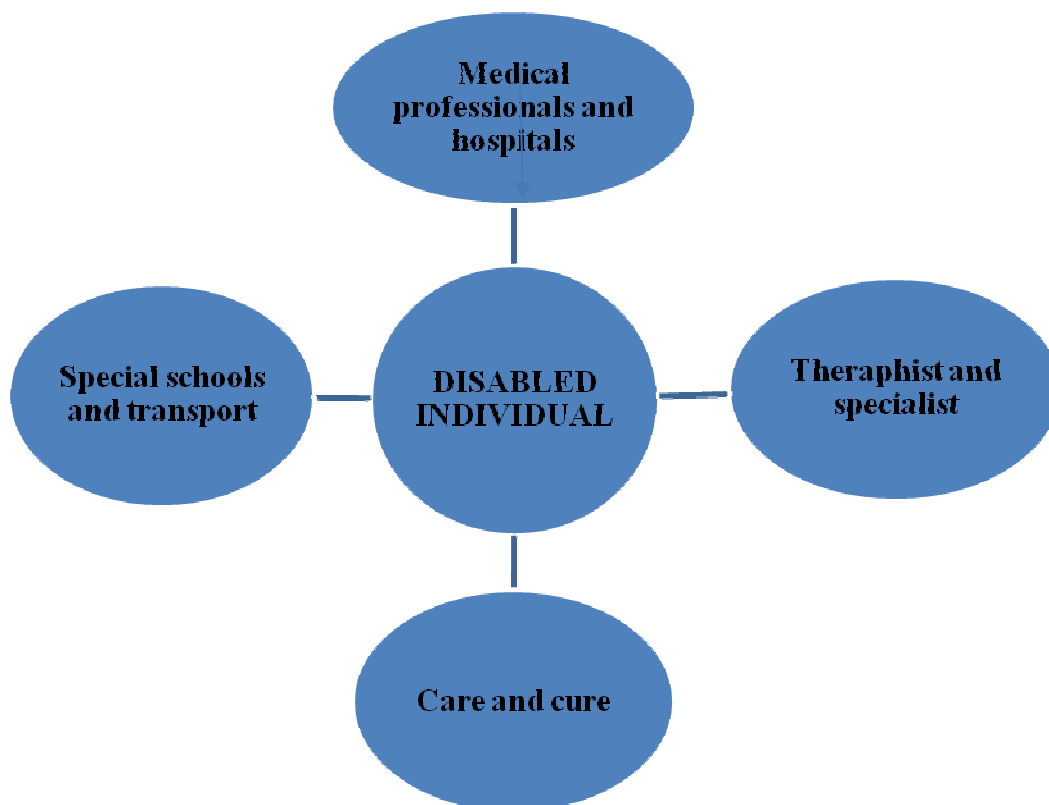
### **The Medical Model or Individual Model**

The medical model of disability is a medical model by which illness or disability, being the result of a physical condition intrinsic to the individual may reduce the individual's quality of life, and cause clear disadvantages to the individual.



The medical model is presented as viewing disability as a problem of the person, directly caused by disease, trauma, or other health condition which therefore requires sustained medical care provided in the form of individual treatment by professionals. In the medical model, management of the disability is aimed at a "cure," or the individual's adjustment and behavioral change that would lead to an "almost-cure" or effective cure. In the medical model, medical care is viewed as the main issue, and at the political level, the principal response is that of modifying or reforming healthcare policy.

Here disabled people are defined by their illness or medical condition. They are disempowered on the basis of medical diagnosis used to regulate and control their access to social benefits, housing, education, leisure and employment. This model promotes the view of a disabled person being a dependent and needing to be cured or cared for, and it justifies the way in which disabled people have been systematically excluded from society. This model is also known as the 'individual model' because it promotes the notion that it is the individual disabled person who must adapt to the way in which society is constructed and organised. It is sometimes referred to as the Biological-Inferiority or Functional-Limitation Model.



It is illustrated by the World Health Organisation's definitions, which significantly were devised by doctors:

***Impairment:*** Any loss or abnormality of psychological or anatomical structure or function.

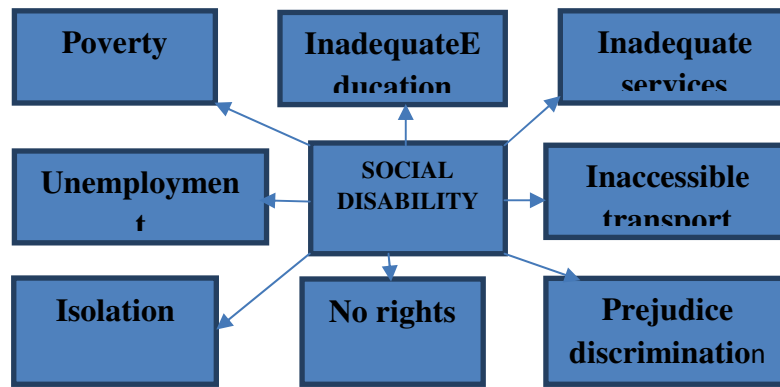
***Disability:*** Lack of ability to perform an activity in the manner or within the range considered normal for a human being.

***Handicap:*** Any disadvantage for a given individual, resulting from impairment or a disability that limits or prevents the fulfilment of a role that is normal for that individual."

And hence the medical approach is to make people with disabilities "normal" which of course implies that people with disabilities are in some way abnormal. Persons with disabilities need special services, such as special transport systems and welfare social services. For this purpose, special institutions exist, for example hospitals, special schools or sheltered employment places where professionals such as social workers, medical professionals, therapists, special education teachers decide about and provide special treatment, education and occupations.

### **The Social Model of Disability**

In 1983, a disabled academician Mike Oliver coined "social model of disability." It focussed on an independent model and a social model, derived from the distinction originally made between impairment and disability. A fundamental aspect of the social model concerns equality and strongly believes in the phrase "Nothing about us without us". The social model of disability is based on a distinction between the terms "impairment" and "disability." Impairment is used to refer to the actual attribute, the abnormality, of a person, whether in terms of limbs, organs or mechanisms, including psychological. It addresses issues such as under-estimation of potential of disabled people to contribute to the society by enhancing economic values if given equal rights, suitable facilities and opportunities.



The Social Model regards *disability* to be a result of the way society is organised. Shortcomings in the way society is organised mean that people with disabilities face the following types of *discrimination* and barriers to *participation*.

- Attitudinal: This is expressed in fear, ignorance and low expectations (influenced by culture and religion);
- Environmental: This results in physical inaccessibility affecting all aspects of life (market and shops, public buildings, places of worship, transport, etc.); and
- Institutional: This means legal *discrimination*. Persons with disabilities are excluded from certain rights (e.g. by not being allowed to marry or to have children), or from school, etc.

According to the Social Model, a *disability* not only depends on the individual but also on the environment, which can be disabling or enabling in various ways. The social model describes that these variations from the "normal state" are in fact, normal and that any disability is the result of societal perceptions rather than barriers to participation in life.

The social model approaches disability problems, and therefore solutions, in a very different fashion than the biomedical model. For example, an individual with limited hand and arm strength may have problems opening public doors. The biomedical model would propose a solution that would address physical strength issues in the upper limb, perhaps through the provision of physical therapy. The social model, conversely, would suggest a solution that would address the environmental limitation that imposed this disability and may advocate for automatic doors to replace the manual ones.

The social model advocates equality among individuals, and proposes that everyone can fully and completely participate in life if society's attitudes, information, and physical structures are appropriate for both "normal" and "differently abled" individuals.

The social model seeks to change society in order to accommodate people living with impairment; it does not seek to change persons with impairment to accommodate society. It supports the view that people with disability have a right to be fully participating citizens on an equal basis with others.

## **HUMAN RIGHTS MODEL**

This is the definition of **DRPI (Disability Rights Promotion International)**. According to this group and many other rights groups, “As full citizens with equal rights, people with disabilities are entitled to: access to education, equal rights to parenthood, rights to property ownership, access to courts-of-law, political rights such as the right to vote, equal access to employment”

A human rights approach to disability acknowledges that people with disabilities are rights holders and that social structures and policies restricting or ignoring the rights of people with disabilities often lead to discrimination and exclusion. A human rights perspective requires society, particularly governments, to actively promote the necessary conditions for all individuals to fully realize their rights.

However, the rights approach does not address fundamental flaws within the system that disabled people are seeking inclusion in. For example, the rights model recognizes the right of disabled people to own private property but does not question fundamental injustices attached to property ownership. Further, it does not necessarily address colonialism which has resulted in much of the property ownership in many parts of the world to be a direct result of racism and theft.

It is important to acknowledge that much of the access and privileges that disabled people have today is a direct result of the people who struggled and continue to struggle for disability rights. Many people have fought very hard for disabled people's inclusion in society and these struggles need to be recognized and celebrated. However, we need to do more than fight for rights

within society as it is structured now, we need to fight for social justice for everyone and that means restructuring society.

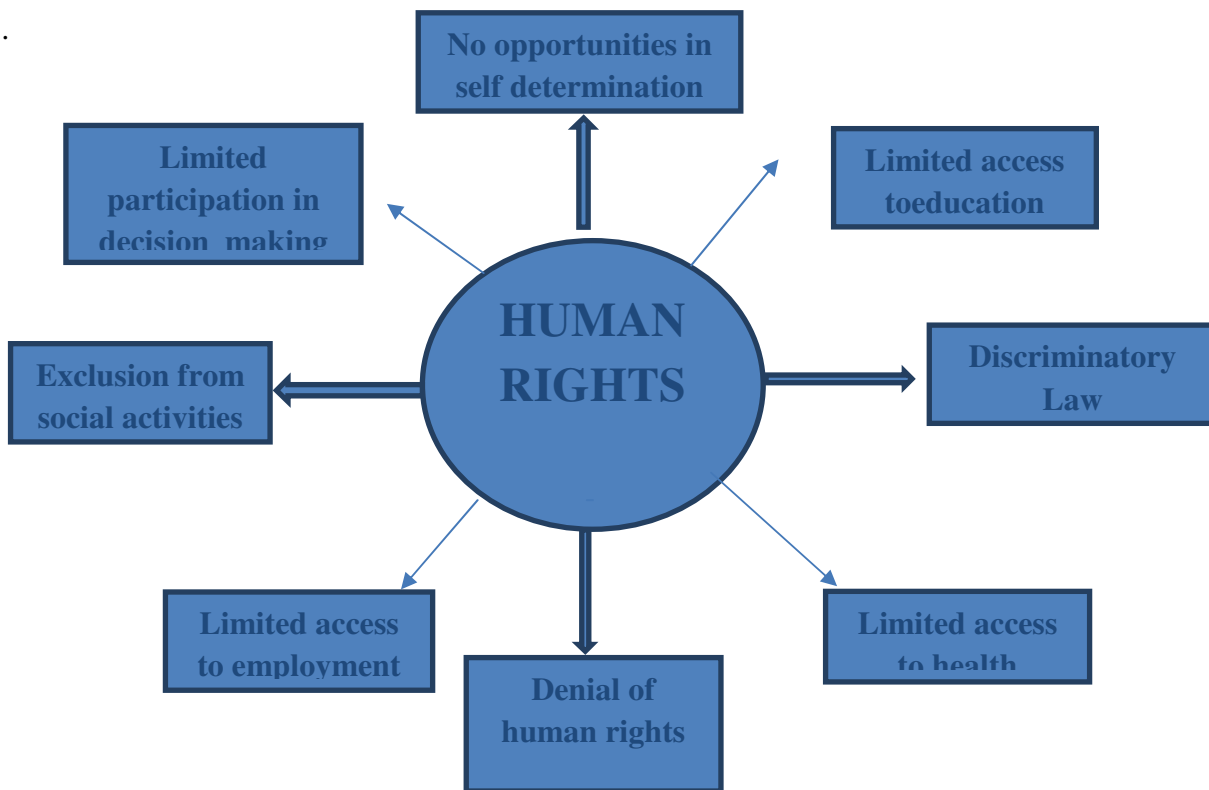
A human rights-based approach to disability implies that all people are active subjects with legal claims and that persons with disabilities need to participate in all spheres of society on an equal basis with their non-disabled peers. According to the human rights-based approach to development as defined by the UN, development cooperation contributes to capacity development of “duty bearers”, i.e. States and their institutions acting with delegated authority, to meet their obligations, and on the other hand of “rights-holders”, e.g. persons with disabilities, to claim their rights.

Throughout this process, the following core human rights principles should be applied:

- Equality and non-discrimination
- Participation and empowerment
- Transparency and accountability

Development cooperation needs to address the multiple barriers to the inclusion of persons with disabilities - physical, attitudinal and communication barriers. As these barriers can be found in all sectors and at all levels, a human rights-based approach to disability is relevant for programmes in a variety of sectors, including infrastructure, water and sanitation, health, education, social protection, employment, economic development or governance. Applying an HRBA (human rights-based approach) demands more than simply adding persons with disabilities to the target groups of development programmes.

It means adhering to and promoting the core human rights principles that underpin international human rights law. The Physical accessibility, Information and communication accessibility are the dimensions of accessibility. Physical accessibility is a key dimension for all development programmes that include an infrastructure component. Information and Communication accessibility can be improved by providing information material in accessible formats or by using alternative communication



This model is closely related to the Social Model. It focuses on the fulfilment of human rights, for example the right to equal opportunities and *participation* in society. Consequently, society has to change to ensure that all people including people with disabilities have equal possibilities for *participation*. It is a fact that persons with disabilities often face a denial of their basic human rights, for example the right to health or the right to education and employment. Laws and policies therefore need to ensure that these barriers created by society are removed. The Rights-based Model states that support in these areas is not a question of humanity or charity, but instead a basic human right that any person can claim.

The two main elements of the rights-based approach are *empowerment* and accountability. Empowerment refers to the *participation* of people with disabilities as active stakeholders, while accountability relates to the duty of public institutions and structures to implement these rights and to justify the quality and quantity of their implementation.

The human rights model positions disability as an important dimension of human culture, and it affirms that all human beings irrespective of their disabilities have certain rights which are absolute. This model builds upon the spirit of the Universal Declaration of Human Rights, 1948, according to which, 'all human beings are born free and equal in rights and dignity.'

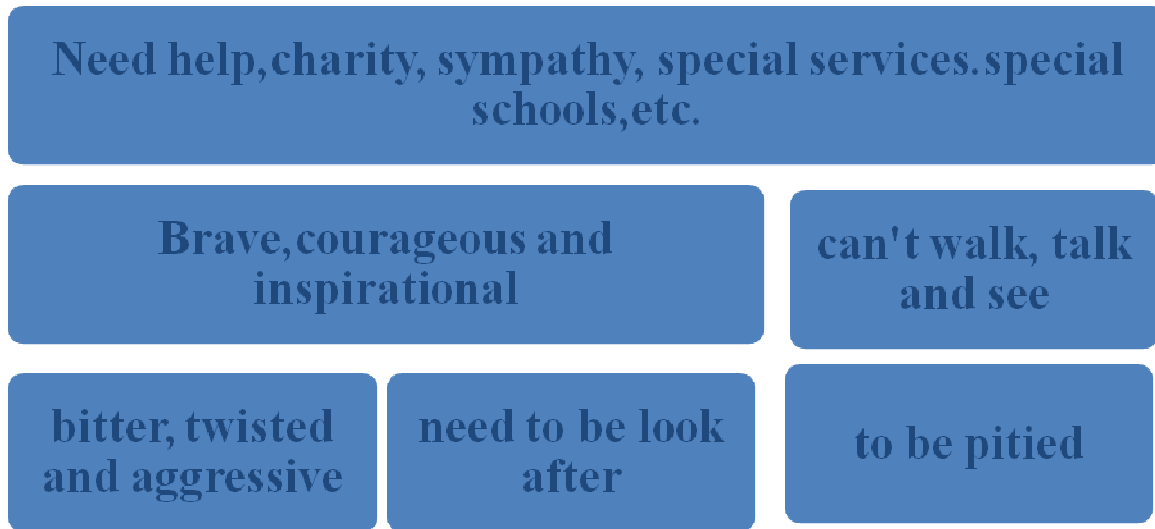
## **THE CHARITY MODEL**

This model treats persons with disability as helpless victims needing 'care' and 'protection'. This model relies largely on the goodwill of benevolent humanitarians for 'custodial care' of the person with disabilities rather than justice and equality and creates an army of powerless individuals dependent on either arrangements maintained by these so called benevolent individuals who are outside of the mainstream development and State sponsored charities or mechanisms of social support like special schools and protection homes for person with disabilities. In the core of this model, disability was perceived as a disqualification for claiming the right of social resources which ensured the exclusion of persons with disabilities from social arrangements, public services and justified their exclusion from mainstream education and employment.

The Charity Model sees people with disabilities as victims of their *impairment*. Depending on the *disability*, the disabled persons cannot walk, talk, see, learn, or work. Disability is seen as a deficit. Persons with disabilities are not able to help themselves and to lead an independent life. Their situation is tragic, and they are suffering. Consequently, they need special services, special institutions, such as special schools or homes because they are different. People with disabilities are to be pitied and need our help, sympathy, charity, welfare in order to be looked after. Sometimes people with disabilities themselves adopt this concept, in which case they usually feel "unable" and have a low sense of self-esteem.

The idea of being recipients of charity lowers the self-esteem of people with disabilities. In the eyes of "pitying" donors, charitable giving carries with it an expectation of gratitude and a set of terms imposed upon the beneficiary. The first is patronising; the second limiting upon the choices open to disabled people. Also, employers will view disabled people as charitable cases. Rather than address the real issues of creating a workplace conducive to the employment of people with

disabilities, employers may conclude that making charitable donations meets social and economic obligations.



This is not to advocate dismantling charities and outlaw caring, charitable acts, which enrich our society and bring badly needed funds. But we do need to educate charity managers and professionals to review the way they operate and ensure that funds are channeled to promote the empowerment of disabled people and their full integration into our society as equal citizens requiring our respect and not our pity.

### **THE DISABLEMENT MODEL**

The Disablement Model was created in the early 1960's by sociologist SaadNagi as part of efforts to study disability for the United States Social Security Administration (SSA). This model describes four basic phenomena that Nagi considered fundamental to rehabilitation, active pathology, impairment, functional limitations, and disability.





The four elements of Nagi's Disablement Model:

- **Active pathology** describes an interruption in normal body processes that leads to a deviation from the normal state. These include infection, trauma, disease processes, or other degenerative conditions.
- **Impairment** is the complete loss, damage to, or interruption in normal body structures or systems. Interestingly, this model describes how active pathologies commonly result in impairments, but the reverse is not always true. For example, impairment, such as a congenital limb absence, is not the result of active pathology.
- **Functional Limitations** are described as individual performance restrictions. Here, a muscular contraction could cause a functional limitation such as limited range-of-motion in the upper limb.
- **Disability** is described as an express physical and/or mental limitation in the context of a society.

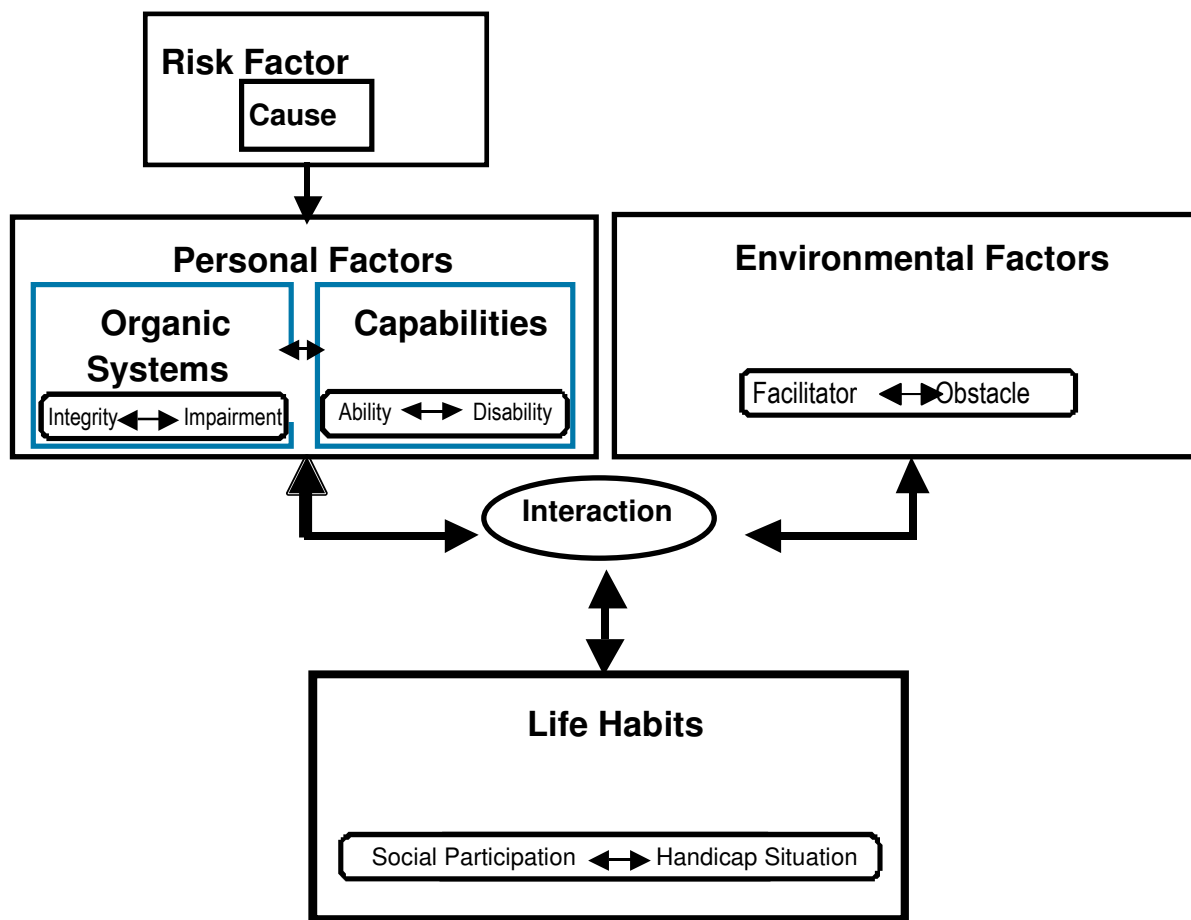
The Disablement Model views disability as an interaction between the individual and society. Furthermore, Nagi's model suggests that individual and social accommodations to an underlying pathology may diminish disability for one individual, while emphasizing it in another individual

## THE DISABILITY CREATION PROCESS

The disability creation process is close to the International Classification of Functioning, Disability and Health developed by the World Health Organization (WHO). It is also in line with the definition of disability provided in the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). At present these three converging references provide a shared, common vision and understanding of disability and add clarity to the notions of impairment, disability and disabling situations. Disability is not considered a characteristic of the person but as the result of interaction between the person and his/her environment. Reducing situations of disability therefore implies action on both personal and environmental factors.

Disability is therefore not only the concern of medical services: it needs to be inscribed more broadly within multi-sector dynamics and needs to be addressed by all development sectors such as

education, employment, health, social protection with a cross-cutting approach. Disability is relevant to all development stakeholders acting at international, national and/or local levels.



The Disability Creation Process is an adaptation of the human development model in the area of disability. It uses the central notion of social participation as resulting from an interaction between personal factors and environmental factors.

**Personal factors**, which are internal, are the result of the combination of **organic systems** (for example, the muscular system) and **aptitudes** (for example, motor activity capabilities). Organic systems can vary in degrees, from integrity to organic impairment (or deficiency). An individual’s aptitudes can also vary from capacity to inability (or functional impairment).

**Environmental factors** constitute either facilitators or obstacles regarding an individual's life habits. Environmental factors enable social participation or, on the contrary, worsen a disabling situation.

**organic system** is a group of bodily components all sharing a common function. An **impairment** refers to the degree of anatomical, histological (structural) or physiological anomaly or alteration of an organic system.

**aptitude** is the extent to which a person is capable of accomplishing a physical or intellectual activity.

The notions of impairment and capabilities are measured in terms of "degrees".

A **risk factor** is an element of an individual or within his/her environment that is *likely to* provoke a disease, trauma or any other disruption to his/her integrity or development.

A **cause** is a risk factor that has *effectively* led to a disease, trauma or any other disruption to a person's integrity or development, for example, a car accident, or failure to treat diabetes causing diabetic foot.

An **environmental factor** is a physical or social dimension that determines a society's organization and context.

**Facilitator** refers to an environmental factor that contributes to the accomplishment of life habits (when interacting with personal factors).

An **obstacle** is an environmental factor or situation that hinders the accomplishment of life habits (when interacting with personal factors).

### **Life habits**

The interaction between personal factors including the degree of impairment of organic systems, degree of inability to realize some aptitudes, but also the age, sex, identity and environmental factors, which can be facilitators or obstacles, either does or does not enable the full realization of a person's life habits. Life habit is a daily activity or a social role valued by the person the socio-

cultural context according to the characteristics, which ensures the survival and well-being in the society.

**social participation** corresponds to the full realization of life habits, for example: Cook and eat, Work, Tinkering ,Go to school, Go to the cinema, Play chess etc.

A **disabling situation** corresponds to lack of, or reduced, realization of life habits. For example, where an individual: cannot play music, does not have a job, does not go to school, cannot go out, cannot live where they wants etc.

## **CONCLUSION**

Models of Disability are tools for defining impairment and, ultimately, for providing a basis upon which government and society can devise strategies for meeting the needs of disabled people. They are often treated with skepticism as it is thought they do not reflect a real world, are often incomplete and encourage narrow thinking, and seldom offer detailed guidance for action. However, they are a useful framework in which to gain an understanding of disability issues, and also of the perspective held by those creating and applying the models.

## **Questions for Discussions and Reflections**

1. **Explain briefly the medical model of disability.**
2. Explain any two models of disability with its salient features.
3. Explain charity model of disability.
4. What are models of disability? Explain different types of disabilities with examples.
5. Write down the salient features of Nagi's Disablement Model.

## **References:**

1. [www.disabilitymonitor-see.org/.../Disability%20Creation%20Process/Dis](http://www.disabilitymonitor-see.org/.../Disability%20Creation%20Process/Dis).

2.<http://www.making-prsp-inclusive.org/en/6-disability/61-what-is-disability/611-the-four-models.html>

3.[http://www.oandp.org/olc/lessons/html/SSC\\_09/module2.asp?frmCourseSectionId=7CC1D52A-9E9D-4A03-A2F0-78AE7DB64977](http://www.oandp.org/olc/lessons/html/SSC_09/module2.asp?frmCourseSectionId=7CC1D52A-9E9D-4A03-A2F0-78AE7DB64977)

4.<https://stillmyrevolution.org/2012/01/01/rights-model/>

5.<http://cmhsr.wustl.edu/Resources/Documents/Linking%20models%20of%20disability%20for%20children%20with%20developmental%20disabilities.pdf>

## **UNIT IV: INCLUSIVE EDUCATION**

### **Objectives:**

After the completion of the unit, the learner will be able to,

1. obtain the knowledge of inclusive education
2. trace out the barriers in inclusive education
3. Explore the ways and means for education for all and mixed ability grouping and teaching.

### **Introduction**

Inclusion in education is an approach to educating students with special educational needs. Under the inclusion model, students with special needs spend most of their time with non-disabled students. Inclusion rejects the use of special schools or classrooms to separate students with disabilities from students without disabilities.

### **Meaning of Inclusive Education**

Schools most frequently use the inclusion model for selected students with mild to moderate special needs. Inclusive Education does not separate "general education" and "special education" programs; instead, the school is restructured so that all students learn together. Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners and can thus be understood as a key strategy to achieve education for all.

### **UNESCO's Definition of Inclusive Education**

UNESCO, along with other UN agencies, a number of international and national non-governmental organizations, been working towards achieving this goal- adding to the efforts made at the country level for Inclusive Education.

Despite encouraging developments, UNESCO recognized that current strategies and programmes have largely been insufficient or inappropriate with regard to needs of children and youth who are vulnerable to marginalization and exclusion. Where programmes targeting various marginalized and excluded groups do exist, they have functioned outside the mainstream – special programmes, specialized institutions, and specialist educators. The educational opportunities that do not guarantee the possibility to continue studies, or differentiation becoming a form of discrimination, leaving children with various needs outside the mainstream of school life and later, as adults, outside community social and cultural life in general (UNESCO, 1999).

UNESCO works to assist in providing a sound understanding and support for the principle of inclusion and its implications which could be applied in the school system by the national and local governments, schools and teachers. Assistance is also provided in exploring and identifying what countries could do to more proactively seek and reach out to any learner who is left behind. These endeavors aim to better promote improvement and implementation of education policies and practices on inclusive quality education.

## **Education For All (EFA)**

Significant progresses in achieving EFA have been made by countries through policies, programmes and projects implemented in the past and currently implemented. Specific strategies, approaches and targeted programmes have aggressively been pursued by countries to reach particular groups. Although significant improvements have shown in national aggregates, however many issues still exist and must still be addressed urgently if EFA is to be met by 2020. Poverty and marginalization are major causes of exclusion from education, which need to be effectively responded to avoid setbacks in progresses the countries have achieved towards attaining the EFA goals.

## **Barriers to Inclusive Education**

The greatest barriers to inclusion are caused by society, not by particular medical impairments. Negative attitudes towards differences result in discrimination and can lead to a serious barrier to learning. Negative attitudes can take the form of social discrimination, lack of awareness and traditional prejudices. Regarding disabled children some regions still maintain established beliefs that educating the disabled is pointless. Often the problem is identified as being caused by the child's differences rather than the education systems shortcomings.

### **Physical Barriers**

The vast majority of centers of learning are physically inaccessible to many learners, especially to those who have physical disabilities. In poorer, particularly rural areas, the centres of learning are often inaccessible largely because buildings are rundown or poorly maintained. They are unhealthy and unsafe for all learners. Many schools are not equipped to respond to special needs, and the community does not provide local backing. A major problem identified by many students is physically getting into school.

### **Curriculum**

In any education system, the curriculum is one of the major obstacles or tools to facilitate the development of more inclusive system. Curriculum is often unable to meet the needs of a wide range of different learners. In many contexts, the curriculum is centrally

designed and rigid, leaving little flexibility for local adaptations or for teachers to experiment and try out new approaches.

### **Teachers**

Teachers' abilities and attitudes can be major limitations for inclusive education. The training of staff at all levels is often not adequate. Where there is training it often tends to be fragmented, uncoordinated and inadequate. If teachers do not have positive attitudes towards learners with special needs, it is unlikely that these children will receive satisfactory education.

### **Language and Communication**

Teaching and learning often takes place through a language which is not the first language of some learners. This places these learners, at a disadvantage and it often leads to significant linguistic difficulties which contribute to learning breakdown. Second language learners are particularly subject to low expectations and discrimination.

### **Overcoming the Barriers in Inclusive Education**

Creating a more inclusive system requires a new approach in attitude. Simply placing children with special needs within the school system will not lead to meaningful inclusion. The focus needs to shift from seeing the problem as the child's differences to problem identification with the unwelcoming school system. In order to change the school system, there first must be change in the attitudes of the stakeholders. One way of improving stakeholders' attitudes towards inclusive education is to raise awareness of the potential benefits of inclusive education for all students.

### **Teacher Training And Support to overcome the barriers in inclusive education**

In addition to being re-trained in curriculum and evaluation, teachers need to be trained to change their attitude of special needs children. Teachers can be trained to view those who do not fit into existing arrangements as offering 'surprises'; that is, opportunities that invite further inventiveness. This implies a more positive view of differences.

Teachers must also be supported with appropriate materials. Lack of teaching/learning materials may hamper the quality of education. Teachers need support for their work in terms of information and background materials so that they can prepare their



lessons and update their own knowledge. Also locally made learning/teaching materials can enhance considerably the quality of the learning/teaching process.

### **Promoting Inclusive Education**

Countries have made many strong progresses in developing and implementing inclusive education, namely in its inclusion in national policies and strategies; in development and dissemination of supportive guidelines; and in the increasing number of regular private and public schools that practice inclusive education.

An inclusive system benefits all learners without any discrimination towards any individual or group. Inclusiveness should be reflected in the policies, curriculum, teacher training, and capacity development support provided. Policies for inclusive education that aim to address the learning needs of all children, especially those who are vulnerable to marginalization and exclusion (whether left out from school, or excluded within the school) need to be strengthened. More flexible rules and teacher training are needed so schools and teachers would be able to develop child-focused teaching methods and individual learning plans and assessments/evaluations for all children who may not be able to follow the centrally designed curriculum and examination. Adequate and coordinated training needs to be given to teachers, in order for them to be able to provide satisfactory education for all of their students, namely on how to make classroom practices more child-friendly, flexible, and without any discrimination towards any individual. External support needs to be mobilized to strengthen capacities of schools and teachers in implementing inclusive education practices.

### **Mixed Ability Grouping Teaching**

In general, mixed age grouping contributes a lot to social development of student members. Research reveals that children are aware with the differences and the expected behavior associated with their age. Thus, students in mixed groups have different expectations and play different roles in the group. Older students, more mature and experienced students realize that they have a more tutoring and protecting role for their younger group mates. Usually, these students are more willing to play this role, to act as mentors for their younger colleagues, than in the case when they have to cooperate in groups with mates of the same age. When children have to cope with mates of their age in groups, there are more possibilities of

exhibiting aggressive and competitive behavior than cooperating. On the other have cooperation and productive interaction is much more likely to exist among groups of children of different ages.

Younger mates are inspired and try to comprehend models of behavior of their older mates not simply imitate behaviors. At the same time cognitive development occurs in older students as well since their role as tutors in the group require deep comprehension of the knowledge they are about to transfer.

<b>S.NO</b>	<b>INTEGRATION EDUCATION</b>	<b>INCLUSIVE EDUCATION</b>	<b>SPECIAL EDUCATION</b>
1.	Needs of “special students”	Rights of ALL students	Special needs of individual differences
2.	Changing/remedying the subject	Changing the school	Challenges with learning in schools
3.	Benefits to the student with “special needs”	Benefits ALL students	Benefit from additional educational services
4.	Professionals, specialist expertise, and formal support	Informal support and the expertise of mainstream teachers	Different approaches to teaching

### **Teacher Development Initiatives for Inclusive Schooling**

The idea of inclusive education brings new demands and challenges to all teachers. Schools are expected to accommodate all students with and without special educational needs and accordingly, teachers should have the competence to support every student's learning.

Experience is also considered to be important factor in promoting positive attitudes and helping teachers to feel more confident and competent. Besides 'knowledge' and 'experience' there is one major factor that is important in fostering teachers' positive attitudes towards students with special needs. Namely, the ideological commitment to the principle of inclusion forms the grounds of facilitating the learning of students with special needs.

Teachers' competence development towards more inclusive education includes in general an ability to facilitate learning of diverse students and to develop school as well as educational environment so that the individual needs are taken into account. Changes in teachers' own practices and in the system (school) are concrete results of competence development in Inclusive Education.

### **Questions for discussions and reflections:**

1. Examine the impact of Inclusive Education.
2. Analyze the barriers of Inclusive Education and how to overcome the barriers.
3. Discuss – Mixed Ability Grouping Teaching.
4. Differentiate Integration Education, Inclusive Education and Special Education.

### **References**

<https://www.en.wikipedia.org/wiki/Inclusiveschools>

[https://www.ascd.org/.../The\\_Rationale\\_for\\_Differentiated\\_Instruction\\_in\\_Mixed-Ability](https://www.ascd.org/.../The_Rationale_for_Differentiated_Instruction_in_Mixed-Ability)

[http://www.unesco.org/.../education\\_for\\_all.](http://www.unesco.org/.../education_for_all)

## **UNIT-V: POLICIES AND PROGRAMMES OF INCLUSIVE EDUCATION**

### **Objectives**

1. discuss the contributions of Global Policies and programmes on inclusive education
2. discuss the various inclusive education policies and programmes in india

### **Introduction**

There are an estimated 25 million children out of school in India (MHRD 2003 statistics, cited in World Bank, 2004), many of whom are marginalized by factors such as poverty, gender, disability, caste, religion etc. Therefore undoubtedly the idea of inclusive education is certainly highly relevant to our current condition, where differences in religion, faith, gender, ethnicity and ability are often seen as a threat rather than a source of richness and diversity. Inclusive education stands for improvement of schools in all dimensions to address the educational needs of all children. The major support for inclusive education came from the 1994 World conference on Special Needs Education in Salamanca, Spain which emphasized that: Schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. The urgency to address the needs of learners who are vulnerable to exclusion through responsive educational opportunities was also highlighted at the Dakar (Senegal) World Education forum in April 2000 where in it was emphasized –“The key challenge is to ensure that the broad vision of

education for all as an inclusive concept reflected in national government and funding agency policies. Education for All.... must take account of the needs of the poor and the most disadvantaged, including working children, remote rural dwellers and nomads, and ethnic and linguistic minorities, children, young people and adults affected by conflict, HIV/AIDS, hunger and poor health; and those with special learning needs....”.

### **Inclusive Education Policy**

Recommendations to send children with disabilities to mainstream schools were first made in the Sargent Report in 1944, and again in 1964 by the Kothari Commission (Julka, 2005). Despite this, the change has been slow, with segregation in special schools dominating the scene until recently.

The 1995 Persons with Disability Act (PDA) states that disabled children should be educated in integrated settings where possible, although it seems that the lack of implementation may be due to there being no enforcement agency for this legislation.

Despite the promotion of inclusive education, govt. documents focus on inclusive education as being about including children with disabilities in the education system, but not specifically the mainstream (Singal, 2005a). However, inclusion in the education system is not the same as inclusion in the mainstream. It is however arguable that special education is in fact regarded as superior in India due to its preferred status (Mukhopadhyay and Mani, 2002) and that it is inclusion in the mainstream that is currently seen as the resource – constrained inferior alternative. However the limited coverage of mainly urban-based, impairment specific special schools in India may result in the exclusion of children with disabilities who do not fit the categories of their institutions or who live in rural areas. Inclusive education may be the only way of facilitating educational access for these children.

### **Teacher Education Programmes**

There is no need of reinforcing the fact that teacher education remains a very weak link with respect to equipping teachers to be prepared for an inclusive classroom environment. The teacher education diplomas and degrees offer “Education of children with special needs” as an optional subject, in order to prepare teachers to identify and diagnose disability. However it gives them a

holistic perspective with respect to dealing with diversity or challenge negative attitudes. This reinforces the 'difference' of children with disabilities who, some believe, can only be taught by teachers qualified specifically for them (Signal, 2005a). Although, it is ultimately teacher treatment of students in the classroom, rather than the training per se, that would reinforce this difference. Interestingly, distrust in both the special and mainstream education systems leads some parents to keep children with disabilities at home for fear of their abuse or neglect in the classroom (Julka, 2005); which may then be interpreted by teachers as a lack of community interest in education for their children, as demonstrated in the PROBE Report (PROBE,1999). There is evidence to suggest that many teachers do not feel equipped to teach children with disabilities and complain that they need more time to instruct these students (Mukhopadhyay, nd). Many government programmes have included a teacher training component in an attempt to instigate institutional change. However, a 'special needs' focus and a lack of training for management, combined with didactic training methodology do little to alter the classroom. The poor quality educational provision in many schools is reflected in the fact that many govt. job reservations for adults with disabilities remain unfilled. It is more likely to be directly related to the fact that very few children with disabilities get to, or stay in, school that there is a lack qualified, let alone confident candidates.

### **Infrastructural support**

A small pool of resources (41% of GDP for education UNDP, 2005:256) despite a promised 6% by 2000 (GOI, 2002) combined with high demand, suggests that the development of the mainstream would be a more financially effective and efficient way to go (Peters, 2004; UNESCO, 2003). This could result in smaller classes and better teaching which would benefit all students (Singal, 2005). Arguably, resources would not be so limited after all if all specialist institutions were moved to the mainstream, which may explain why Thomas (2005) argues that, there are indeed sufficient resources in India to implement inclusive education. However, this solution could mean that the essential services which some special schools provide (and would still be needed) would be spread wider, and thinner.

### **Prospects of Inclusive Education**

Inclusive education is a developmental approach seeking to address the learning needs of all children, youth and adults with a specific focus on those who are vulnerable to marginalization and

exclusion. An increasing number of publications, policy papers, workshops etc. have supported the ideology of inclusion. Some organizations and people, however, doubt whether the ordinary classroom can provide quality education for disabled children. This debate has been on, ever since people began to voice their reservation against old segregated institutions and in turn raised their concern for equality of disabled children. These concerns must be taken seriously and dispelled by showing examples of positive experiences, which clearly demonstrate that inclusive education most definitely addresses quality issues in education.

## **Conclusion**

It is important to remember that Inclusive education is at a very early stage of conceptualization and implementation in India. The fact that it is being discussed, debated and in some places implemented although falteringly, demonstrates a willingness to engage with elements with elements of a new concept that has the potential to be developed in the future in a positive manner.

So long as the “struggle to achieve compulsory education for a majority of children takes precedence over meeting the needs of those with disabilities...” (Ainscow et al, 1995 cited in Singal, 2005b:338), change for children with disabilities will continue to be sporadic and painfully slow. The division of educational responsibility for children, between the MSJE for those with disabilities and the MHRD for those with disabilities and the MHRD for those without, can only exacerbate this struggle, and highlight the ‘different’ nature of children with disabilities needs and the special needs focus of inclusive education with it. This implies that if inclusive education came under one ministry, most probably the MHRD, potentially both conceptualization and implementation could be clarified and promoted, while the needs of children with disabilities could finally be mainstreamed.

## **INCLUSIVE EDUCATION POLICIES AND PROGRAMMES IN INDIA**

### **INTRODUCTION:**

Inclusive education (IE) is a new approach towards educating the children with disability and learning difficulties with that of normal ones within the same roof. It seeks to address the learning needs of all children with a specific focus on those who are vulnerable to marginalization

and exclusion. It implies all learners – with or without disabilities being able to learn together through access to common pre-school provisions, schools and community educational setting with an appropriate network of support services. This is possible only in flexible education system that assimilates the needs of diverse range of learners and adapts itself to meet these needs.

Inclusion is not an experiment to be tested but a value to be followed. All the children whether they are disabled or not have the right to education as they are the future citizens of the country. In the prevailing Indian situation resources are insufficient even to provide quality mainstream schools for common children, it is unethical and impracticable to put children with special needs to test or to prove any thing in a research study to live and learn in the mainstream of school and community (Dash, 2006).

### **SPECIAL EDUCATION VS INCLUSIVE EDUCATION:**

The term “Special Need Education” (SNE) has come into use as a replacement for the term “Special Education”, as the older one was mainly understood to refer the education of all those children and youth whose needs arise from disabilities or learning difficulties. The Statement affirms: “those with special educational needs must have access to regular schools which should accommodate them within child centered pedagogy capable of meeting these needs”.

Moreover, the concept of “Special Need Education” extends beyond those who may be included in handicapped categories to cover those who are failing in school for a wide variety of other reasons that are known to be likely to impede a child’s optimal progress. Whether or not this more broadly defined group of children are in need of additional support depends on the extent to which school needs to support their curriculum, teaching and/or to provide additional human or material resources so as to stimulate efficient and effective learning for these pupils. (International Standard Classification of Education ISCED, 1997)

### **Indian scenario:**

Till 1990s ninety percent of India’s estimated 40 million children in the age group- four-sixteen years with physical and mental disabilities are being excluded from mainstream education. The overwhelming majority of them are vagabonds not out of volition but because of callous school managements and over-anxious parents of abled children in a travesty of humanity and social



justice. They have consistently discouraged children with disabilities from entering the nation's classrooms. Social justice and equity which are dominant sentiments of the Constitution of India demand that India's 35 million physically challenged, if not the 5 million mentally challenged, children should be given preferential access into primary and secondary schools. Fewer than five percent of children who have a disability are in schools. Remaining nine-tenths of them are excluded.

Against this backdrop of continuous neglect, there is an urgent need to find ways for developing potential of this large proportion of challenged children.

### **Historical Perspective:**

In India special education as a separate system of education for disabled children outside the mainstream education system evolved way back in 1880s. The first school for the deaf was set up in Bombay in 1883 and the first school for the blind at Amritsar in 1887. In 1947, the number of schools for blind increased to 32, for the deaf 30 and for mentally retarded 3. There was rapid expansion in the number of such institutions. The number of special schools rose to around 3000 by the year 2000 (Department of Education, 2000). The Govt. of India in the 1960s designed a scheme of preparing teachers for teaching children with visual impairment. Similar schemes for teaching children with other disabilities were gradually developed. However, the quality of the trained teachers was in question because of lack of uniform syllabi of various courses, eligibility criteria for admission to these courses and also due to large extent of non-availability of teacher educators and literatures in the field. Therefore, in 1980s the then ministry of Welfare, Govt. of India, realized the crucial need of an institution to monitor and regulate the HRD programmes in the field of disability rehabilitation.

**The National Policy on Education, 1986 (NPE, 1986), and the Programme of Action (1992)** stresses the need for integrating children with special needs with other groups. The objective to be achieved as stated in the NPE, 1986 is "to integrate the physically and mentally handicapped with general community as equal partners, to prepare them for normal growth and to enable them to face life with courage and confidence"

## **Integrated Education**

The concept of integrated education in India has emerged during the mid 1950s. It is based on the medical model of disability and it emphasizes placement of children with disabilities in mainstream schools. The major thrust is on attendance.

### **School Based Approach:**

Consequent on the success of international experiments in placing children with disabilities in regular schools, the Planning Commission in 1971 included in its plan a programme for integrated education. The Government launched the Integrated Education for Disabled Children (IEDC) scheme in December 1974. It was a Centrally Sponsored Scheme aimed to provide educational opportunities to children with special needs (CWSN) in regular schools and to facilitate their achievement and retention. Under the scheme, hundred per cent financial assistance is provided to for setting up resource centers, surveys and assessment of children with disabilities, purchase and production of instruction materials and training and orientation of teachers. The scope of the scheme includes pre-school training, counseling for the parents, and special training in skills for all kinds of disabilities. The scheme provides facilities in the form of books, stationery, uniforms, and allowances for transport, reader, escort etc.

## **MINISTRY OF HUMAN RESOURCE DEVELOPMENT (MHRD) ACTION PLAN:**

### **An outline of MHRD action plan is presented below:**

- To complement and supplement IEDC and Sarva Shiksha Abhiyan programmes in the movement from integration to inclusion.
- Enrolment and retention of all children with disabilities in the mainstream education system. (Free and compulsory education from 0 to 14 under draft Bill/free education 0 to 18 yrs under PWD Act).
- Providing need based educational and other support in mainstream schools to children in order to develop their learning and abilities, through appropriate curricula, organizational arrangements, teaching strategies, resource and partnership with their communities.

- Support higher and vocational education through proper implementation of the existing reservation quota in all educational institutions and creation of barrier free learning environments.
- Disability focused research and interventions in universities and educational institutions.
- Review implementation of existing programmes, provisions to identify factors leading to success or failure of the drive towards enrollment and retention of children with disabilities in mainstream educational settings. Address administrative issues arising out of review.
- Generating awareness in the general community, activists and persons working in the field of education and more specifically among parents and children that the disabled have full rights to appropriate education in mainstream schools and that it is the duty of those involved in administration at every level including schools to ensure that they have access to education.
- Ensure enrollment and intervention for all children with special needs in the age group 0-6 years in Early Childhood Care and Education Programs.
- Facilitate free and compulsory elementary education for children with special needs in the age group 6-14 (extendable to 18 yrs.) in mainstream education settings currently under the Sarva Shiksha Abhiyan (SSA) ( SSA is a governmental program shared by both union and state governments for achieving universal elementary education in India by 2010) .

**The Tenth Plan (2002-2007)** aims to provide Universal Elementary Education by the end of the plan. It also aims to provide basic education for the un-reached segments and special groups. The special interventions and strategies like pedagogic improvement and adoption of child centered practices are focused on the groups like the girls, scheduled castes and scheduled tribes, working children, children with disabilities, urban deprived children, children from minority groups, children below poverty line, migratory children and in the hardest to reach groups.

#### **National Curriculum Framework, 2005:**

A policy of inclusion needs to be implemented in all schools and throughout Indian education system. The participation of all children needs to be ensured in all spheres of their life in and outside the school. Schools need to become centers that prepare children for life and ensure that all children, especially the differently abled children from marginalized sections, and children in

difficult circumstances get the maximum benefit of this critical area of education. Opportunities to display talents and share these with peers are powerful tools in nurturing motivation and involvement among children. In our schools we tend to select some children over and over again. While this small group benefits from these opportunities, becoming more self-confident and visible in the school, other children experience repeated disappointment and progress through school with a constant longing for recognition and peer approval. Excellence and ability may be singled out for appreciation, but at the same time opportunities need to be given to all children and their specific abilities need to be recognized and appreciated. This includes children with disabilities, who may need assistance or more time to complete their assigned tasks. It would be even better if, while planning for such activities, the teacher discusses them with all the children in the class, and ensures that each child is given an opportunity to contribute. When planning, therefore, teachers must pay special attention to ensuring the participation of all. This would become a marker of their effectiveness as teachers. Excessive emphasis on competitiveness and individual achievement is beginning to mark many of our schools, especially private schools catering to the urban middle classes. Very often, as soon as children join, houses are allocated to them. Thereafter, almost every activity in the school is counted for marks that go into house points, adding up to an end-of-the-year prize. Such 'house loyalties' seem to have the superficial effect of getting all children involved and excited about winning points for their houses, but also distorts educational aims, where excessive competitiveness promotes doing better than someone else as an aim, rather than excelling on one's own terms and for the satisfaction of doing something well. Often placed under the monitoring eye of other children, this system distorts social relations within schools, adversely affecting peer relations and undermining values such as cooperation and sensitivity to others. Teachers need to reflect on the extent to which they want the spirit of competition to enter into and permeate every aspect of school life performing more of a function in regulating and disciplining than in nurturing learning and interest. Schools also undermine the diverse capabilities and talents of children by categorizing them very early, on narrow cognitive criteria. Instead of relating to each child as an individual, early in their lives children are placed on cognitive berths in the classroom: the 'stars', the average, the below - average and the 'failures'. Most often they never have a chance to get off their berth by themselves. The demonizing effect of such labeling is devastating on children. Schools go to absurd lengths to make children internalise these labels, through verbal name calling such as 'dullard', segregating them in seating arrangements, and even creating markers that visually

divide children into achievers and those who are unable to perform. The fear of not having the right answer keeps many children silent in the classroom, thus denying them an equal opportunity to participate and learn. Equally paralyzed by the fear of failure are the so called achievers, who lose their capacity to try out new things arising from the fear of failure, doing less well in examinations, and of losing their ranks. It is important to allow making errors and mistakes to remain an integral part of the learning process and remove the fear of not achieving 'full marks'. The school needs to send out a strong signal to the community, parents who pressurize children from an early age to be perfectionists. Instead of spending time in tuitions or at home learning the 'perfect answers', parents need to encourage their children to spend their time reading storybooks, playing and doing a reasonable amount of homework and revision. Instead of looking for courses on stress management for their pupils, school heads and school managements need to de-stress their curricula, and advise parents to de-stress children's life outside the school. Schools that emphasise intense competitiveness must not be treated as examples by others, including state-run schools. A child has special educational needs if s/he has difficulty in learning. This may require special educational provision to be made for him or her. A child may have learning difficulty because of a disability which hinders her/his from making use of the existing educational facilities provided for all other children of her class. A child may have learning difficulty because of some other reasons too.

### **Inclusive Education in Sarva Shiksha Abhiyan:**

Sarva Shiksha Abhiyan (SSA) was launched to achieve the goal of Universalisation of Elementary Education. This adopts a zero rejection policy and uses an approach of converging various schemes and programmes. The key objective of SSA is Universalisation of Elementary Education (UEE). Three important aspect of UEE are access, enrolment and retention of all children in 6-14 years of age. A zero rejection policy has been adopted under SSA, which ensures that every Child with Special Needs (CWSN), irrespective of the kind, category and degree of disability, is provided meaningful and quality education. It covers the following components under education for children with special needs:-Early detection and identification, functional and formal assessment, Educational Placement, Aids and appliances, Support services, Teacher training, Resource support, Individual Educational Plan (IEP), Parental training and community mobilization, Planning and management, Strengthening of special schools, Removal of Architectural barriers, Research, Monitoring and evaluation, Girls with disabilities.

SSA provides up to Rs.1200/- per child for integration of disabled children, as per specific proposals, per year. The interventions under SSA for inclusive education are identification, functional and formal assessment, appropriate educational placement, preparation of Individualized Educational Plan, provision of aids and appliances, teacher training, resource support, removal of architectural barriers, monitoring and evaluation and a special focus on girls with special needs. Residential bridge courses for CWSN with the main objective of preparing CWSN for schools, thereby ensuring better quality inclusion for them. Facilities for home-based education for children with severe and profound disabilities are provided with the objective of either preparing CWSN for schools or for life by imparting to them basic life skills.

### **Identification and enrolment:**

Household surveys and special surveys have been conducted by all states to identify CWSN. 3 million 38 thousand CWSN have been identified in 33 States/UTs. 20 thousand 30 thousand CWSN (66.84 percent of those identified) are enrolled in schools. Further 88009 CWSN are being covered through EGS/ AIE in 15 states and 77083 CWSN are being provided homebound education in 19 states. In all 72.27% of the identified CWSN in 2006-07 have been covered through various strategies.

### **Barrier-free access:**

Making schools barrier free to access for CWSN is incorporated in the SSA framework. All new schools to be barrier free in order to improve access for CWSN, is incorporated in the SSA framework. 4.44 thousand Schools have ramps for CWSN. Focus is now on improving quality, monitoring of services provided to and retaining CWSN in school.

### **MODE OF SPECIAL EDUCATION IN SCHOOLS OF INDIA :**

Children with disabilities are educated in India through special schools. There exist a few schools exclusively for blind and deaf under government sector. But there is not any special provision in mainstream government schools for education other disabled children like low vision, leprosy cured, hearing impaired, locomotory disabled, mentally retarded, mentally ill, autism affected, cerebral palsy affected and multiple-disabled. These children with disabilities are nurtured to some extent through the special schools of non-government sector.

## **FIGHTING EDUCATIONAL EXCLUSION:**

Inclusion is a complex issue. The curriculum is a powerful tool (Swann, 1988) and may be part of the problem. On inclusion Reuven Feuerstein viewed that “Chromosomes do not have the last word”. However, his view on inclusion are challenging for everywhere. He argues there are three pre-requisites: a) The preparation of the child, b) The preparation of the receiving schools, c) The preparation of parents, but it could not be achieved without d) The preparation of the teachers.

### **a. The preparation of the child:**

Some children with special needs may require some prior training before they are placed in a regular school. Special educators made available for the purpose can provide such training and thereafter CWSN may be admitted in mainstream schools. States of Andhra Pradesh and Uttar Pradesh have conducted exclusive residential bridge course for CWSN to prepare them for regular schools but in rest of the states it is not yet to be done. From 683 thousand, 100 thousand CWSN were identified in 2002-03. By 2006-07 3 million 38 thousand were identified. From 566 thousand CWSN enrolled in schools in 2002-03, the enrolment of CWSN currently in SSA stands at 2 million 20 thousand (Dec. 2006). The target for 2006-07 include enrolment of 3 million 38 thousand CWSN in 34 States.

### **b. The preparation of receiving schools:**

Some mainstream secondary schools may be selected and developed as “Model Inclusive School” on priority basis. First of all barrier-free access to CWSN are made in all such institutions. Effort should be taken to provide disabled-friendly facilities in these schools. Development of innovative designs to provide an enabling environment for CWSN should also be made in these schools as a part of preparation programme. In India total 222 thousand schools have been made barrier-free countrywide under SSA.

### **c. The preparation of parents:**

It has been seen that the parents/guardians of CWSN generally face problems, both social and psychological resulting into marginalisation and exclusion of CWSN in mainstream schools. Hence, it is important to undertake widespread awareness among the people especially parents of CWSN. They should be counseled so that they may prepare themselves to send his/her ward to

mainstream schools. d. The preparation of teachers: In India teacher training in special education is imparted through both face-to-face and distance mode.

**d. The preparation of teachers:**

In India teacher training in special education is imparted through both face-to-face and distance mode.

**I) Pre-Service Training:**

In India, there is provision for pre-service teacher training in SE, but it is mainly concentrated in secondary level training. There are 159 institutions of secondary teacher training in SE whereas there are only eleven institutions in the country that imparts pre-service training at elementary or primary level in SE. The Rehabilitation Council of India (RCI) is the apex authority to develop, recognize and regulate the course curriculum of SE. The Madhya Pradesh Bhoj (Open) University, Bhopal is the single university in the country, imparting B. Ed. (SE) through distance learning mode. Recently, it has launched Post Graduate Professional Diploma in Special Education Course for general B.Ed. students. The successful candidate of this program becomes equivalent to B.Ed.-SEDE degree holder with specialization in opted disability area. As the Indian school system is one of the largest in the world and number of CWSN are very high, the prevailing situation of pre-service teacher training in special education needs to be strengthened or elaborate alternative mechanism for incorporating the elements of special education in general teacher training programs needs to found out.

The teacher training course curriculum of general pre-service training programs neither fully equip the teachers and teacher educators to deal with the CWSN nor it equip them to manage the mild and moderately disabled children in general classrooms. Towards this end, an MOU has been signed between the National Council for Teacher Educations (NCTE) and the Rehabilitation Council of India (RCI) leading towards a convergence so as to sensitize all teachers and resource persons. The NCERT (2000) has set up a group under the National Curriculum Framework Review to examine the pedagogic inputs and classroom reorganization required for CWNS.

Even, UGC National Educational Testing Bureau has already included “Special Education”, in curriculum of its Educational discipline. It includes details about special education, integrated



education, education of mentally retarded (MR), visually impaired (VI), hearing impaired (HI), orthopaedically handicapped (OH), gifted and creative children, learning disabled children and education of Juvenile delinquents. The Postgraduate Departments of Education in India is on way to strengthen the disability element in their respective curriculum.

### **Residential Bridge Courses for CWSN in A.P., U.P. & Rajasthan:**

Andhra Pradesh, Uttar Pradesh and Rajasthan have developed a roadmap to implement residential Bridge Courses to develop skills of readiness for successful integration in regular schools. The other objectives of the course are: (i) equip with required skills among students with severe disabilities to use special equipment independently, (ii) develop adequate 3R's skills as well as academic competencies required for immediate inclusion in the regular classroom appropriate to the child's grade level and (iii) develop sense of independence, self-confidence and motivation for personal growth, to orient the children with various environments, not only for school inclusion, but also community and social inclusion.

### **II) In-Service Training:**

Different kinds of teacher training programmes are being implemented under SSA to orient elementary teachers towards Inclusive Education (IE). The component IE has been incorporated as a part of 20 days mandatory training of in-service teachers under SSA. This aims at orienting every teacher to the concept, meaning and importance of inclusion. Further, the state SSA programme also taken up a 3-5 or 5-7 day teacher exclusively in I.E. Total 2 million 45.2 thousand teachers have been covered through regular teacher training programmes, which includes a 2-3 day capsule on inclusive education. 1 million 400 thousand teachers have been provided 3-5 days additional training for better orientation to Inclusive Education. 39816 teachers have been trained in 22 States with Rehabilitation Council of India for 45 days and act as Resource Persons in districts/blocks. 23 States have appointed 6147 resource teachers and 671 NGOs are involved in the IE programme in 31 States. Schools are being made more disabled friendly by incorporating barrier free features in their designs. 444 thousand schools have been made barrierfree and the work is on. 575 thousand CWSN have been provided the required assistive devices.

## **Tasks and Assignments**

1. Student seminar/teacher talk on the UNESCO'S initiatives for inclusive education.
2. Presentation of report based on group discussion with respect to the government of India and state governments initiatives for inclusive education.

## **REFERENCES**

1. **Fullan, m. (1999)** "the new meaning of educational change" London, cassell educational limited.
2. **Miles, s. (2002)** schools for all including disabled children in schools save the children, London.
3. **Riser, R (2008)** implementing inclusive education, London. Commonwealth secretariat.
4. **Savolainen, H. (2008)** responding a diversity and striving for excellence, Helsinki.
5. **Stubbs, s. (2002)** inclusive education where there are few resources, oslo, the atlas alliance.

# **TAMIL NADU TEACHERS EDUCATION UNIVERSITY**

**Chennai-600 097**

**Course Material for B.Ed (Second Year)**

**(2016-2017)**

**Course: 11 ENVIRONMENTAL EDUCATION**

**Prepared by**

**Unit I: Environmental Education**

**Dr.P.Ganesan, Professor and Head & Dr.A.Magalingam, Assistant Professor**

**Unit II: Natural Resources, Problems and Solutions**

**Mr.P.Jaganathan, Assistant Professor**

**Unit III: International Efforts for Environmental Protection**

**Dr.L.George Stephen, Assistant Professor**

**Unit IV: Management and Protection of Environment**

**Dr.M.Muthamizhselvan, Assistant Professor**

**Unit V: Environmental Education in School Curriculum**

**Dr.P.C.Nagasubramani, Associate Professor**

---

**Department of Pedagogical Sciences**

**Tamil Nadu Teachers Education University**

**Chennai- 600 097**

**Unit I ENVIRONMENTAL EDUCATION**

**Objectives**

## **After the completion of the unit, the learners will be able to**

- awareness of problems related to environment and its development.
- acquire knowledge, values, attitudes and skills need to protect and improve the environment.
- create change in behavior of individuals, students and society etc towards the environment.
- develop concern and awareness among world population about the total environment and its associated problems.

### **1.1 Introduction**

Our mounting concern with the environment is not just for ourselves, but for the entire mankind now existing and the generations to follow. This agreed that children are nation's greatest resource and that the future of civilization depends on them.

There has been sudden increase in the activities for Environmental Education (E.E) during the last two decades. This has resulted in the development of different kinds of curricula, out of school activities and literature. The purpose is to regenerate man's interest in preservation, conservation and improvement of the environment before it is too late and reaches the point of no return. EE has been perceived differently by various Educationalist and thinkers.

They differ in its objectives, the kinds of activities that are used to achieve the objectives and resources to attain these ends. It is the vastness and variety of the area of E.E. that necessitates taking a holistic view of the various aspects of E.E. This will help us to see its strength and weakness and draw conclusions for the future. The purpose is to make a review of the situation in this context and examine different roles Played by E.E. at school level and see how these are achieved. Moreover, it is of interest to see how E.E. is molded in different circumstances such as those present in the wide spectrum of developing and developed countries. It is common to use the term 'environmental education' for different meanings. For the sake of clarity and to avoid ambiguity it is necessary to state, at least in brief, the meanings of EE in our context. This will be done here first.

### **1.2 Environmental Education (EE)**

Environmental Education is a process by which people develop awareness, concern and knowledge of the environment and learn to use this understanding to preserve, conserve and utilize the environment in a sustainable manner for the benefit of present and future generations.

It entails the will to take personal initiatives and social participation to achieve sustainability. It is intended for all types of learners, students, out-of-school youth, community leaders, policy makers and the general public to develop appropriate environmental related skills.

Environmental education is concerned with subjects like the way in which natural environment works, how human beings should behave to manage the ecosystem to sustain the environment. It provides the necessary skills and expertise to handle the associated challenges. The main focus of environmental education is to impart knowledge, create awareness, inculcate an attitude of concern and provide necessary skill to handle the environment and environmental challenges. Environmental education gained importance at the global after the Stockholm conference on Human Environment, organised by UNESCO in 1972. Soon after the conference UNESCO launched the International Environmental Education Programme (IIEP)

It is a process to promote the awareness and understanding of the environment, its relationship with man and his activities. It is also aimed at developing responsible actions necessary for preservation, conservation and improvement of the environment and its components.

### **1.3 The Concept of Environmental Education**

Various combinations of words such as Environmental Education (EE), Environmental study (E.S.) and Environmental Approach (E.A.) are being used in the literature in the context of environment and education. Although, according to semantics of the words, E.E., E.S and E.A. have different meanings in the strict sense of the terms, but one finds that these are being used many a time synonymously and interchangeably. We consider here the implications of E.E., E.S and E.A. and see in which context these are relevant and important, and how these are related to teacher training Programmes.

### **1.4 Encyclopedia of Educational Research (Mifzel 1982)**

Defining 'environmental education' is not an easy task. Unlike other curriculum areas, the specific content of E.E. has never been well defined. It is universally agreed, however, that environmental education should be interdisciplinary, drawing from biological, sociological, anthropological, and economic political and human resources.

It is also agreed that a conceptual approach to teaching E.E. is best.

The majority also agrees that E.E. is the process of recognising values and clarifying concept related with environment and its problems in order to develop skills and attitudes

necessary to understand surroundings. It also entails practices in decision making and self-formulating a code of behaviour about issues concerning environmental quality.

The most prevalent opinion is that E.E. can be treated as 'discipline' which heavily banks upon basics of existing subjects such as Physics Chemistry, Mathematics, Zoology and Botany. This opinion supports the training of specialists in E.E. which will be much needed for planning, management, development and taking remedial steps for existing problems. Some courses (Geldorloos 1975, & Levon, 1971) have been formulated on these lines. A typical course of this type has been mentioned by Wuzzelbacher (1976) which has the following components:

1. Man and Environment
2. Population and Urbanization
3. Ecology
4. Government Policy and Citizen
5. Economics and the Environment
6. Urban and Regional Planning
7. Social Resources
8. Tree Resources
9. Water Resources
10. Fisheries Resources
11. Wildlife Resources
12. Air Pollution
13. Outdoor Recreation
14. The Role of Citizens.

#### **1.4.1 At the primary level Sale and Lee (1972) describes the Objectives of E.E. as**

- to help the individuals acquire on understanding of the biophysical environment and society,
- to encourage understanding of man as an inseparable part of his environment but with the ability of alter it in important ways through his activities or lack of it and
- to generate understanding of the organizational strategies and social arrangements.

### **1.5 Definitions of Environmental Education**

The definitions of environmental education formulated by various agencies or organizations cited by Sharma given below

- a. **The Report of a conference of African Educators, EDC and CREDO held at Nairobi in 1968 says:** "To create awareness and an understanding of the evolving social and physical environment as a whole, its natural, man-made cultural, spiritual resources, together with the rational use and conservation of these resources for development." Environmental education can be regarded as the process of learning, through which participants acquire sufficient knowledge to contribute towards solving environmental problems.
- b. **Environmental Education Act, 1970:** "For the purpose of this Act, the term 'Environmental Education' means the educational process dealing with man's relationship with his natural and man-made surroundings and includes the relation of population, Pollution resource allocation and depletion, conservation, transformation, technology and urban and rural planning to the total human environment".
- c. **The First Report of the British Royal Commission on Environmental Pollution (1971) says;** "The best insurance for the environment is a commitment on behalf of the public to prevent the deterioration of air, water and land."
- d. **The Finnish National Commission in a Seminar held in 1974 has said:** "Environmental education is a way of implementing the goals of environmental protection. Environmental education is not a separate branch of science subject of study. It should be carried out according to the principle of lifelong integral education."

## **1.6 The Concept of Environmental Education can be Classified as**

- education for the environment
- education about the environment and
- education through the environment.

### **1. Education for the Environment**

Environmental education is a pragmatic response of the defacement of the environment. Environmental education is a kind of education which will seek to make pupils fully aware of the problems connected with their environment so that they will be able to tackle these problems with a sense of responsibility and with the technical skills which will enable them to contribute to their solutions along 'with other members of their community. Agarwal, (1986, P.P. 60-61) has aptly said "This awareness of environmental problems is social awareness." Such problems will be solved through collective action aimed at eradicating the social and economic causes of degradation of human environment.

## **2. Education about the Environment**

Environmental Education includes conservation, outdoor and natural resource education as well as nature study but it also includes everything that relates to man and his environment. E.E. is the study of man and how he shapes his total natural and cultural surroundings for good or ill. Man, not his technology, not the physical or biological world as a separate entity, not the arts or professions operating in segregated spheres, but all of these as they effect the quality of human life, become the pivotal concern. Man cannot be separated from the earth's ecosystem for he 'is the only conscious manipulator of the environment and his manipulation must be directed towards enhancing the quality of environment.

## **3. Education through the Environment**

Environmental education is not a separate subject. It is a multi-disciplinary approach both to education and to the problem of environment. The entire subject in the existing curriculum does have some information pertaining to environment but in their present form the subjects fail to relate to one another. Just as piecemeal attacks on environmental problems are ineffective so is piecemeal education about the environment inadequate because it does not take into account the interdependence of the pieces. E.E... Must, therefore, be of wholes not of parts, if human race is to understand the totality of environments subject areas must collaborate, integrate and coordinate so that E.E. may prove effective in overcoming the environmental crisis. The multidisciplinary approach integrates environmental education into all learning, in all subject in all grades all year long and beyond the formal school years to a lifelong education.

Environmental education should result in the knowledge, desires and ability necessary to direct one's conduct towards improving the quality of life. It should enable the individual to perceive the problems that exist and to devise solutions to them. In order for students to develop an environmental ethics; "Man is a part of this earth rather than careless exploiter of it. If we exploit the nature in unwise manner, it will be difficult to support even a small population. But if we protect the nature, it will continue to meet the needs of all living things and not only for man.

The consideration of environment as natural heritage may be the integral part of environmental education. Only when our life is guided by respect for the earth and all living things. We will be able to live in harmony with our environment." they must now throw off their arrogance and perceive with humility, their place in the earth's ecosystem and their ability to manipulate the environment. Their energies will have shifted from material growth to



environmental protection. In short, the environmental ethic must provide them with a new rationale for their existence, or all the technology and power will not sustain their existence.

## **1.7 Focal aspects of Environmental Education**

Environmental education is a process that allows individuals to explore Environmental issues energy in problem solving and take action to action to improve the environment. As Z result individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions.

### **a) Focal points of Environmental Education**

- ❖ Concern for reality by exposing students to the real life world, nature social environment in which they live.
- ❖ Enable students to analysis, evaluate and draw inferences about problems and issues related to environment.
- ❖ Enable students understand environment issues and take positive environmental action.

Develop skills of environmental actions among students in order of facilitate the journey of mankind towards sustainability.

## **Goals, Objectives and Aims of Environmental Education**

The main goal of environmental education is to develop concern and awareness among world population about the total environment and its associated problems. This requires a commitment to work individually and collectively towards solution of current problems and necessary prevention.

### **The Goals of Environmental Education**

The main goal of environmental education is to develop concern and awareness among world population about the total environment and its associated problems. The specific goals of environmental education are as follows

1. To improve the quality of environment
2. To create awareness among the people on environmental problems and conservation

3. To create an atmosphere so that people participate in decision-making and develop the capabilities to evaluate the developmental programs.

## **The Objectives of Environmental Education**

1. **Awareness:** to help social groups and individuals acquire an awareness of and sensitivity to the total environment and its allied problems.
2. **Knowledge:** to help social groups and individuals gain a variety of experiences and acquire a basic understanding of the environment and its associated problems.
3. **Attitudes:** to help social groups and individuals acquire a set of values and feeling of concern for the environment and the motivation for actively participating in environmental improvement and protection.
4. **Skills:** to help social groups and individuals acquire the skills for identifying and solving environmental problems.
5. **Participation:** to provide social groups and individuals with an opportunity to be actively involved at all levels working towards the resolution of environmental problems.

## **Aims of Environmental Education: EE has two main aims**

- The first aim is to provide different groups of people in a variety of professional fields with the knowledge needed to develop a sense of responsibility towards the environment and the rational utilization of its resources. International Journal of Current Research and Modern Education (IJCRME)
- The second aim is to make use of these knowledge and skills to preserve, conserve and utilize the environment in a sustainable manner for the benefit of present and future generations.

## **Core Themes**

### **Learning Environment**

The Learning Environment core theme reflects OHSU's intention of recruiting a more diverse and inclusive community and ensuring that graduates meet industry standards upon completion of their programs. OHSU strives to engage faculty, students and clinicians in ongoing learning by creating a culture that nurtures the quest to discover new knowledge as well as the translation of that knowledge into education and practice.

This core theme was developed by a Learning Environment Core Theme Team comprised of faculty and administrators representing a broad cross section of the university. Three core theme objectives and eleven indicators were identified to measure the impact:

**Objective 1.1** Develop student pipeline to meet the health needs of an increasingly diverse Oregon and nation.

### **Inter-Professional Education**

Over the last decade faculty within health professions have recognized the need to change learning and practice conditions. The Institute of Medicine, a non-profit organization that works outside of government to provide unbiased and authoritative advice to decision makers and the public made recommendations for future health care professions. These recommendations included faculty, student and staff learners develop additional skills related to working effectively, developing cultural competency and implementing system-based quality improvements. The goal is for learning to cross and connect organizational boundaries.

A team of faculty and administrators representing a broad cross section of the university developed the Inter-Professional Education core theme. To measure the progress toward implementation of inter-Professional education curriculum, one core theme objective and four indicators were identified:

**Objective 2.1** Promote an institutional culture that enhances inter professional practice and education (IPE). Etc...

### **The Scope Environmental Education**

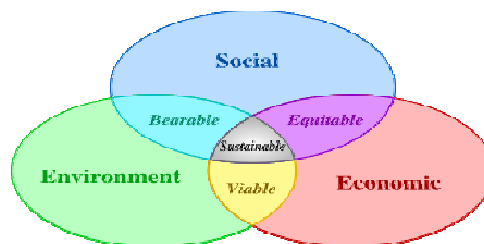
Population education has got a board scope with comprehensive subject matter as it is directly related with each and every human activity. Scope of population education varies according to the situation and need of the country. Consequently, its subject matters vary according to social, economic and political condition of country.

The scope of environment education is also called the content or subject matter of environment education. There are different aspects and components in the environment. Among them, the biological, physical, social and cultural aspects are important.



The scope of environmental education can be divided into biological, physical and sociological aspects. They are described below:

1. **Biological Aspect:** Biological aspects are one of the most important aspects of environmental education. Human being, animals, birds, insects, microorganism, plants are some of the examples of biological aspects.
2. **Physical aspect:** It can be further divided into natural aspects and human- made aspects. Air, water, land, climate etc are included in natural physical aspects. Likewise, Human made physical aspects cover all human made things such as roads, buildings, bridges, houses etc.
3. **Socio- cultural aspect:** Socio- cultural aspects are man-made social practices, rules and laws, and other religious places etc. Human beings have created them with their effort.



Thus, the environmental education is related with science, economics, geography, technology, population and health education, etc. It helps to develop integrated knowledge and feeling of co-operation in the students. As a result environment education becomes practical and contextual. Environment education can be implemented through formal and non-formal educational means. The basic concepts of ecology, natural resources, population environmental health etc are some of the subject matters in this subject. The environment education helps students to develop integrated knowledge and attitude which will be more effective to the society.

1. **Demography:** It is the study of population and deals with the measurement and analysis of birth rate, death rate, migration rate, etc. Birth, death and migration are the major elements of demography. Population change is a biological process. Demography includes birth rate, death rate, sex ratio, dependency ratio, and age- sex pyramid and population growth rate.
2. **Determines of population change:** Population change in a places takes place due to birth, death and migration. It also comprises biological, social and cultural aspects which directly affect the elements of population change. It also analyzes the factors like poverty, practices which influences population change.
3. **Consequences of population growth:** Rapid population grow directly affects economic, social and environmental aspects of a place. The adverse effects of population growth on people's health are important parts of population education. It also deals with analysis of population growth and its consequences in daily life.
4. **Human sexuality and reproductive system:** It includes the fundamental aspects of human sexual and reproduction process like sexual behaviors, development of human reproductive system and associated problems. This scope of population education helps to develop a positive attitude towards reproductive health.
5. **Planning for the future:** It includes various aspects of population management like appropriate age at marriage and first conception birth spacing, family planning, family welfare and use of contraceptives.

Thus, population education is important for us to maintain sustainable environment. Population education helps and enables us to be aware of the process and consequence of population growth on the quality of our lives and the environment. The child gets an opportunity to investigate and explore the interaction between the population and their environments, population characteristics, the meaning, the nature of process. Population education helps to lift up our quality of life.

## **Conclusion**

Environment is a complex but the need of environmental Education is compulsory. Environment is variable from Education and extensive system, protecting the environmental is a hard and ending task. It's impossible all the existing pollution and environmental problem can be completely solved by environmental education step by step. A wonderful and quality environment must be achieved by continuous planning, governmental polices efforts with public

participation especially with knowledge of environmental education. Thus environmental education wakes students society about the responsibility of every one to protect our environment protection crating a quality ecological Environment and have a green living together with the help of environment solution.

### **Questions for Discussion and Reflection**

1. Describe the need of environmental education.
2. Explain the term Education through environmental education.
3. Discuss about the goals and objectives of environmental education.
4. Explain briefly about the core themes of environmental education.

## UNIT II – NATURAL RESOURCES, PROBLEMS AND SOLUTIONS

### Objectives:

**At the end of the unit, the student teachers will able to**

1. develop an understanding land resources and prevention of soil erosion
2. understand the forest resources and deforestation
3. realize the importance of water resources and prevention of water scarcity
4. list out the mineral resources and food resources
5. identify the importance of energy resources

### Introduction

The concept of Environment Education is an important academic discipline. At Present, we are facing grave environmental problems; hence, the concept of environmental education is of vital concern. Human beings are unable to adjust themselves to changes in the environment. There is a very slow adaptation of human beings to the drastic environmental changes that are taking place. We discuss the land resources, water resources and food resources.

### Natural Resources

#### Definition of Natural resources

A Natural resource may be defined as any material given to us by nature, which can be transformed in a way that it becomes more valuable and useful.

### Land Resources

Land instead of being one thing, is in fact a complex made up of several components. The nature of each of the components, which make the soil complex, is studied under land resources.

Soil is one of the most important ecological factors, because upon it the plants depend for their nutrients, water supply and anchorage. It is important even for the free-floating aquatic plants, which drive their nutrients dissolved in the water medium around them as a chief storage of all the nutrients, which are made available to the water medium.

It provides support to all plants and animals. Land is connected to atmosphere from where it receives different gases; it is having many water bodies through rain and sufficient underground water to support plant life on earth. Beside, the land receives solar radiation, which is essential for the plants to prepare their food.

Land is also the place where different types of animals are found and different types of ecosystems function. Land, however, is not uniform throughout but marked with great diversity of forms and structure and accordingly the ecosystems differ in their characteristics.

Land is the most important resource of a nation. Soil is a dynamic natural substance over the Earth's crust in which plants strike root and grow. It is composed of mineral and organic materials and living forms.

### **Prevention of Soil Erosion**

1. Forest Management should be given top priority to check illegal felling of trees. Control measures should be taken to check forest soil erosion.

2. Steps should be taken to check shifting cultivation, which is very much seen in our area. People dependent on shifting cultivation should be provided with alternative methods of living. For example, they may be employed to plantation in a massive scale to check soil erosion in hill slopes.

3. Many studies should go before implementation of various developmental activities like urbanization, mining, construction of dams, canals, roads, railways airport, industries etc.

### **Forest Resources**

Forests and wildlife are essential to maintain ecological balance of an area. They are an important renewable natural resource. Forest ecosystem is dominated by trees, their species content varies in different parts of the world. It contributes to the economic development of the country because they provide goods and services to the people and industries. It enhances the quality of environment by influencing the life supporting system.

Forests check air pollution and soil erosion. Thus, they exercise safeguard pollution. It saves the hill slopes from landslide. In deserts, trees reduce wind erosion by checking wind velocity. The forests, check strong gales and keep the soil intact beneath the roots of trees and thus check extension of desert. Forests check pollution of air through increasing oxygen content of the air.

By causing condensation of water vapour in clouds, forests attract rains. Floods are controlled because forests dry up rainwater like sponge. They are linked with our culture and civilization. It supplies raw materials. It provides Rs 400 crore per year as revenue to the government and it provides fodder to cattle. Minor forest products are canes, gums, resins, dyes,



flocks, medicines, tannins, lac, fibres, katha etc. it gives employment opportunities and foreign exchange earners.

## **Deforestation**

Deforestation involves the conversion of forested regions to non-forest land for the use of pastures for livestock, logging, companies, industrial gain, urban use, or simply to become a wasteland.

## **Prevention of Deforestation**

### **a) Use recycled items**

To, a consumer can purchase a variety of recycled items, including notebook paper, books, toilet paper and shopping bags. When people use recycled products and make a conscious effort not to waste, the demand for new raw material to replace these items can decrease.

### **b) Tree Care**

When cutting down trees single out full-grown specimens and spare younger varieties. In the event that use must remove a tree for a legitimate reason (for safety issues or poor line interference), make sure that for every tree lost another is planted in its place.

### **c) Farming Practices**

Those who plant crops at a farm can participate in putting a dent in deforestation by rotating crops. It is suggested to place the habit of using different portions of land each year with using the same portion of land to plant different crops. This practice has proven effective in maintaining soil fertility. Farmers may also embrace many another options, such as high-yield hybrid crops and hydroponics, which relies on a method of growing plants using mineral nutrient solutions instead of soil.

### **d) Cut back on palm oil**

In Malaysia and Indonesia, an increasing amount of trees is cut down in order to generate the palm oil used in the production of some breads, chocolates and Shampoos. As a result, the native orangutans are losing their habitat. You can spread awareness and limit your consumption of products containing this type of oil.

### **e) Coals**

As the chill of the winter takes over the autumn season, try using coals instead of firewood in your fireplace. While it only takes a couple of hours to consume a few logs here and there, keep in mind that it takes years for one tree to fully grow.

#### **f) Reforestation**

Take a page from the People's Republic of China, where the government has in the past set a requirement that every able-bodied citizen between the ages of eleven and sixty is responsible for planting three to five trees per year or complete an equal amount of work in other areas of forestry. Since 1982, the Government claims that at least one billion trees have been planted in china because of the program.

#### **g) Become an Advocate**

Become an advocate of reforestation. Learn how you can spread the word. For instance, a middle school in Washington took to the streets asking people for just one penny. They explained that the money would go towards purchasing acres of Amazonian rainforest. If successful, this move ensures that no deforestation can take place on the bought land. The effort was twofold spreading information and collecting money for a good cause.

#### **h) Arbor day foundation's Rain forest rescue**

Support programs, such as this Arbor Day foundation gem, which assist in the prevention of deforestation. Donated money is used to purchase and preserve rainforest space before lumber companies can get a hold of the land. As a result, the Arbor Day Foundation is able to protect the land from Deforestation.

#### **i) Support Conservation Organizations**

Lend your support through donations of your time, money, or actions to organizations that run programs concentrating on the prevention of forest habitats, such as Green peas, worldwide fund for nature, community forestry international and Conservation International.

### **More Points**

1. Begin by hugging a tree.
2. Start planting trees.
3. When shopping, move towards buying recycled products mainly.

4. Stop printing and go paperless.
5. When at home, recycle as much as possible.
6. In the kitchen, cut down on your meat intake and eat as many vegetarian meals as possible.
7. Speaking of meat, do not buy meat products sources from land where forests have been cleared.
8. Simply buying organic products instead.
9. Do not buy palm oil at all.
10. Do not use firewood to heat up your fireplaces.
11. Encourage people to live in a way that does not hurt environment.
12. Do not buy anything from large, multinationals that are actively or indirectly involved or responsible for the clearing of forestland.
13. Support companies that produce products by causing minimal harm to the environment.
14. In the process, you also need to practice what you preach
15. Work with NGO's to establish parks to protect rainforests and wildlife.

## **Water Resources**

Water claims to be an important resource. An important use of water in our country is for irrigation. Besides, water is also required in large amounts for industrial and domestic consumption.

Water resources are revealed by the history of human civilization that water supply and civilization are almost synonymous. Several cities and civilization have disappeared due to water shortages originating from climatic changes. Millions of people all over the world, particularly in the developing countries, are losing their every year from waterborne diseases.

An understanding of water chemistry is the basis of knowledge of the multi-dimensional aspects of aquatic environmental chemistry, which involve the sources, composition, reactions and transport of water.

About 97 per cent of the earth's water supply is in the ocean, which is unfit for human consumption and other uses because of its high salt content. Of the remaining 3-2 percent is locked in the polar ice caps and only 1 percent as available as freshwater in rivers, lakes, streams, reservoirs and groundwater that is suitable for human consumption.

## **Prevention of Water Scarcity**

The apparent abundance of water is deceptive and we tend to take it for granted. We tend to abuse and overuse it. This has led to water scarcity.

1. Improve the utilization of created irrigation potential.
2. Optimize agriculture production and productivity from irrigated lands on a sustainable basis.
3. Integrate all functions related to irrigated agriculture through a multi-disciplinary team under an area development authority.
4. Major and medium Irrigation Projects started.
5. Groundwater development, which constitutes bulk of the minor irrigation programme, is essentially a people's programme implemented primarily through individual and cooperative efforts with finance obtained mainly from institutional sources. To encourage use of water-saving devices such as sprinklers, drip system, hydrams, water turbines and hand pumps, the government subsidies are made available to small and marginal farmers for their purchase.
6. National Commission for Integrated Water Resources Development Plan are mainly for development of water resources for drinking, irrigation, industrial, flood control, transfer of surplus water to deficit areas etc.
7. The Central Water Commission's (CWC) work are divided into four functional wings, namely, water planning, design and research, river management and planning and progress
8. Water should not be wasted. Leaky taps must be

## **Mineral Resources**

A '**Mineral Resource**' is a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction.

The economic development of a country depends, largely, on the availability of minerals, got as ores from the earth by mining. Coal and iron are the basic minerals, which humans need to develop iron and steel industry. Minerals such as mica, copper, lead and zinc are of vast economic importance. Thorium and uranium are atomic energy minerals.

A mineral is a naturally occurring substance, represent able by a chemical formula, that is usually solid and inorganic, and has a crystal structure.

A mineral is a pure inorganic substance that occurs naturally in the earth's crust. More than two-thousand minerals have been identified and most of these are inorganic, which are formed by the various combinations of elements. However, a small proportion of the earth's crust contains organic materials consist of single elements such as gold, silver, diamond, and sulfur.

## Categories of Mineral Resources

Mineral resources can be divided into two major categories.

- Metallic Mineral Resources
- Non-metallic Mineral Resources

**Metallic Minerals** are metals that are hard substance and conduct heat and electricity with characteristics of lustre or shine. For example Gold, Silver, Tin, Copper, Lead, Zinc, Iron, Nickel, Chromium, and Aluminium.

## Characteristics of Metallic Minerals

- Metallic Minerals present a metallic shine in their appearance.
- Contains metals in their chemical composition.
- Potential source of the metal that can be got through mining.
- Metallic minerals contain metal in raw form.

Metallic minerals are further classified into Ferrous and Non-ferrous metallic minerals.

**Ferrous Minerals** are those minerals that contain iron, for example, Iron ore, manganese, and Chromites.

**Non-Ferrous Minerals** are those minerals which do not contain iron, for example, gold, silver, copper, and lead.

**Nonmetallic minerals** are a special group of chemical elements from which no new product can be generated if they are melted. For example sand, gravel, gypsum, halite, Uranium, dimension stone.

## Characteristics of Non-metallic Mineral Resources

- Non-metallic minerals are minerals which are either present a non-metallic shine or bluster in their appearance.
- These minerals do not contain extractable metals in their chemical composition.

## **Use of Minerals**

The use of minerals depends upon its deposits. Some countries are rich in mineral deposits, while others have no deposits. The greatest use of minerals depends on its properties. For instance, Aluminum is light, strong and durable in nature, so it is used for aircraft, shipping, and car industries.

Minerals are used in almost all industries. Gold, silver, and platinum are used in the jewelry industry. Copper is used in coin industry and for making pipes and wire. Silicon obtained from quartz is used in the computer industry.

## **Conservation of Mineral Resources**

The total volume of consumable minerals resources is just 1% of all the minerals present in the earth's crust. However, the consumption rate is so high that these mineral resources which are non-renewable will get exhausted very soon. Here are some of the measures to conserve minerals:

- Use of minerals in a planned and sustainable manner.
- Recycling of metals
- Use of alternative renewable substitutes.
- Technology should be improved to use the low-grade ores profitably.

## **Prevention of Exploitation of Minerals**

A National mineral policy has been adopted which encompasses the various policy guidelines which have been issued from time to time. The policy also emphasizes certain new aspects and elements as follows:

1. Development of proper inventory.
2. Proper linkage between the exploitation of minerals and the development of mineral industry.
3. Preference to members of the scheduled Tribes for the development of small deposits in scheduled areas.
4. Production of forest, environment and ecology from the adverse effects of mining.
5. Enforcement of mining plan for adaptation of proper mining methods.
6. Optimum utilizations of minerals, export of minerals in value added form and recycling of metallic scrap and mineral waste.

Under the Constitution, Mineral rights and administration of mining laws are vested in state governments. The Central Government, however, regulates development of minerals under the MMRD Act 1957, and the rules and regulations framed under it. The statute empowers the Central Government to formulate rules for the following:

- The grant of prospecting licenses and mining leases.
- The conservation and development of minerals.
- The modification of old leases.

The MMRD Act, 1957, was amended in 1972 and major amendments were made in February 1987. The Mineral concession Rules, 1960, was also amended in February 1987 and 1988. The Mineral Conservation and Development Rules 1958, was replaced by rules that are more comprehensive in 1988.

The guidelines refer the environmental components to be kept in view during the site selection. For cost benefit analysis, the following has been suggested in the guidelines. The cost for environmental protection and mitigate measures should also be included in the overall estimates.

These should be also including the measure as follows:

1. Compensatory afforestation.
2. Restoration of land in areas under extraction.
3. Control of extracted weed.
4. Control of noise, air and soil pollution caused by the process of extraction and mining.
5. Rehabilitation of project ousters.

#### **GSI (Geological Survey of India)**

- a) Geological Survey of India (GSI) is the main national organization for locating mineral resources except oil, natural gas and atomic minerals.
- b) GSI is responsible for preparation of systematic geological mapping of hard rock area as well as quaternary geological formations.
- c) Its functions also encompass fields of marine geosciences, water resources development projects, foundation engineering, land use and environmental projects.
- d) GSI is carrying out research, both fundamental and applied, in various fields such as geochronology, stratigraphy, paleontology, petrology, remote sensing and geophysics.

#### **Indian Bureau of Mines (IBM)**

1. Indian Bureau of Mines (IBM) is a multi-disciplinary scientific and technical department.

2. It is primarily responsible for the conservations and scientific development of mineral resource other than coal, petroleum, natural gas, atomic minerals and minor minerals.
3. It scrutinizes mining laws before granting approval, undertakes inspection and study of mines and research on beneficiation of low-grade ores and minerals and on special mining problems.
4. It provides technical consultancy service to the mining industry for survey and geological appraisal of mineral resources and preparation of feasibility reports of mining projects including beneficiation plants.
5. It advises Central and state governments on all aspects of mineral industry, trade and legislation.
6. IBM functions as a 'data bank' for mines and minerals and periodically publishes related statistical information.

## **Food Resources**

Food is one of the basic requirements of human being it is the most important material that our body needs for its proper functioning and well-being at all stages of our life. Human diet is not restricted to any special category of food.

Man eats a variety of foods, of plant and animal origin, as no single food provides us with all the nutrients that we need.

Most food has its origin in plants. Some food is obtained directly from plants; but even animals that are used as food sources are raised by feeding them food derived from plants. Cereal grain is a staple food that provides more food energy worldwide than any other type of crop. Corn (maize), Wheat, and rice – in all of their varieties – account for 87% of all grain production worldwide. Most of the grain that is produced worldwide is fed to livestock.

Some foods not from animal or plant sources include various edible fungi, especially mushrooms. Fungi and ambient bacteria are used in the preparation of fermented and pickled foods like leavened bread, alcoholic, cheese, pickles, kombucha, and yogurt. Another example is blue-green algae such as spirulina. Inorganic substances such as salt, baking soda and cream of tartar are used to preserve or chemically alter an ingredient.



## **Plants**

Many plants and plant parts are eaten as food and around 2,000 plant species are cultivated for food. Many of these plant species have several distinct cultivars.

Seeds of plants are a good source of food for animals, including humans, because they contain the nutrients necessary for the plant's initial growth, including many healthful fats, such as omega fats. In fact, the majority of food consumed by human beings is seed-based foods.

Edible seeds include cereals (corn, wheat, rice, et cetera), legumes (beans, peas, lentils, cetera), and nuts. Oilseeds are often pressed to produce rich oils - sunflower, flaxseed, rapeseed (including canola oil), sesame, et cetera.

Seeds are typically high in unsaturated fats and, in moderation, are considered a health food, although not all seeds are edible. Large seeds, such as those from a lemon, pose a choking hazard, while seeds from cherries and apples contain cyanide, which could be poisonous only if consumed in large volumes.

Fruits are the ripened ovaries of plants, including the seeds within. Many plants and animals have coevolved such that the fruits of the former are an attractive food source to the latter, because animals that eat the fruits may excrete the seeds some distance away. Fruits, therefore, make up a significant part of the diets of most cultures. Some botanical fruits, such as tomatoes, pumpkins, and eggplants, are eaten as vegetables. Vegetables are a second type of plant matter that is commonly eaten as food. These include root vegetables (potatoes and carrots), bulbs (onion family), leaf (spinach and lettuce), stem vegetables (bamboo shoots and asparagus), and inflorescence vegetables (globe artichokes and broccoli and other vegetables such as cabbage or cauliflower).

## **Animals**

The products they produce use animals as food either directly or indirectly. Meat is an example of a direct product taken from an animal, which comes from muscle systems or from organs.

Food products produced by animals include milk produced by mammary glands, which in many cultures is drunk or processed into dairy products (cheese, butter, etc.). In addition, birds and other animals lay eggs, which are often eaten, and bees produce honey, a reduced nectar from flowers, which is a popular sweetener in many cultures. Some cultures consume blood, sometimes in the form of blood sausage, as a thickener for sauces, or in a cured, salted form for times of food scarcity, and others use blood in stews such as jugged hare.

Some cultures and people do not consume meat or animal food products for cultural, dietary, health, ethical, or ideological reasons. Vegetarians choose to forgo food from animal sources to varying degrees. Vegans do not consume any foods that are or contain ingredients from an animal source.

### **Food Crisis and Increasing Food Production**

A **food crisis** occurs when rates of hunger and malnutrition rise sharply at local, national, or global levels. This definition distinguishes a **food crisis** from chronic hunger, although **food crises** are far more likely among populations already suffering from prolonged hunger and malnutrition.

The food crisis seen in 2007 and 2008, with a sharp increase in basic food prices highlights the extreme vulnerability of the current agricultural and food model.

A food crisis, which has left after another 925 million hungry, according to the United Nations Food and Agriculture Organization (FAO). As its director-general Jacques Diouf puts it: “the number of people suffering from malnutrition before the rise in the price of food in 2007 was 850 million. In that year alone it increased by 75 million to reach 925 million” A figure that will rise to 1.2 billion hungry in 2017, according to the US Department of Agriculture (ETC Group 2008). However, in fact, the current food crisis is already affecting directly or indirectly half of the population worldwide, more than three billion people (Holt-Giménez, 2008).

In addition, the price of food has not stopped going up. According to the FAO food price index there was an increase of 12% from 2005 to 2006, 24% in 2007, and a rise of about 50% in January and July 2008. Figures from the World Bank point in the same direction: prices have increased 83 % in the last three years. Grains and other staples that are eaten by broad strata of the population especially in the countries of the global South (wheat, soy, vegetable oils, rice and so on) have undergone the most significant increases. The cost of wheat has gone up by 130%, soya by 87%, rice 74% and maize 31% (Holt-Giménez and Peabody, 2008) In spite of the good estimates for cereal production, the FAO estimates that prices will remain high in the coming years, and as a result, the poor countries in the main will continue to suffer the effects of the food crisis.

Taking this data into account, it is not surprising that there have been hunger riots in the countries of the South, as it is precisely the basic commodities that feed the poor which have

experienced the biggest price rises. In such countries as Haiti, Pakistan, Mozambique, Bolivia, Morocco, Mexico, Senegal, Uzbekistan, Bangladesh and Niger people have gone onto the street to say: “Enough” in riots that have left dozens of people dead and wounded. These uprisings remind us of what happened in the 1980s and 1990s in the countries of the South in reaction to structural adjustment policies imposed by the World Bank and International Monetary Fund. The causes, once again, are raising prices for food, transportation and public services that worsen the living conditions of the majority of the peoples of these countries and make their struggle for daily survival more difficult. History repeats itself and neo-liberal policies still leave millions hungry.

But the problem today is not the lack of food, but the inability to gain access to it. In fact, throughout the world cereal production has tripled since the 1960s, while the population on a global scale has only doubled (GRAIN, 2008a). Never in history has there been so much food as today. But for millions of people in the countries of the global South who spend 50-60% of their income to purchase food, a figure that can rise to 80% in the poorest countries, the increase in the price of food has made it impossible to gain access to it .

### **Short-term causes**

There are conjectural reasons which have been given and which partially explain this dramatic increase of prices in recent years: droughts and other meteorological phenomena linked to climate change in producer countries like China, Bangladesh and Australia, that have affected crops and will continue impacting on food production; the increased consumption of meat, especially in the countries of Latin America and Asia, due to a change in eating habits (following the model of Western consumption) and a resulting multiplication of facilities for the fattening of livestock; imports of cereals by countries which were until now self-sufficient like India, Vietnam and China, due to the loss of cultivated land; the fall in grain reserves in national systems that were dismantled in the late 1990s all mean that today countries depend fully on volatile world grain markets (Hernandez Navarro, 2008; Holt-Giménez, 2008). All this helps explain in part the causes that have led us to the crisis but these are partial arguments, which have sometimes been used to divert attention from the underlying causes. Authors such as Jacques Berthelot (2008), Eric Toussaint (2008a) and Alejandro Nadal (2008), among others, have challenged some of these arguments.

From my point of view, there are two short-term causes, which have been determinant in rising food prices and should be highlighted: the increase in the price of oil, which would have had an effect directly or indirectly, and growing speculative investment in raw materials. Both factors have finally unbalanced an agri-food system, which was extremely fragile. Let's go into detail.

The increase in the price of oil, which doubled in 2007 and 2008 and caused a big rise in the price of fertilizers and transport related to the food system, has resulted in increasing investment in the production of alternative fuels such as those of plant origin. Governments in the United States, the European Union, Brazil and others have subsidized production of agro-fuels in response to the scarcity of oil and global warming. However, this green fuel production comes into direct competition with the production of food. To give just one example, in 2007 in the United States 20% of the total cereal harvest was used to produce ethanol and it is calculated in the next decade that this figure will reach 33%. We can imagine the situation in the countries of the South.

In April 2008, the FAO recognized that “in the short term, it is highly likely that the rapid expansion of green fuels worldwide will have a significant impact on Latin American agriculture” (Reuters, 15/04/08).” And the diversion of 5% of world cereal production to the production of agro-fuels leads directly to the increase in the price of grains. To the extent that cereals such as maize, wheat, soy or beet have been diverted to agro-fuels, the supply of cereals on the market has fallen and consequently prices have increased. According to various sources, the impact has been greater or lesser, but always key: the US Department of Agriculture believes that agro-fuels have generated an increase in the price of grains of between 5 and 20%; the International Food Policy Research Institute (IFPRI) considers that the figure is around 30% while a World Bank report says that the production of agro-fuels would have led to an increase of 75% in the price of grains (Holt-Giménez, 2008).

Another conjunctural cause to be taken very much into account as a generator of this rise in prices has been the growing speculative investment in raw materials since the crash in the dotcom and real estate markets. After the collapse of the high-risk mortgage market in the United States, institutional investors (banks, insurance companies, investment funds and so on) and others have sought safer and more cost-effective places to invest their money. To the extent that

food prices have risen, they will direct their capital to the futures market pushing the price of grains upwards and further worsening food price inflation (Holt-Giménez, 2008).

Today it is estimated that a significant part of financial investment in the agricultural sector has a speculative character. According to the most conservative data, this figure would be 55% of the total, a volume which increases as the liberalization of agricultural production deepens. Note, also, the study by Lehman Brothers indicating that from the year 2003 the index of speculation in raw materials (integrated at 30% for agricultural materials) increased by 1,900% (García, 2008a).

### **Structural causes**

Beyond these short-term elements, there are underlying reasons that explain the current deep food crisis. The neoliberal policies applied indiscriminately in the course of the last thirty years on a planetary scale (trade liberalization at all costs, payment of the foreign debt for the countries of the South, privatization of public services and goods and so on) as well as a model of agriculture and food at the service of a capitalist logic bear the primary responsibility for this situation. In fact, we have a deeper systemic problem with a global food model which is extremely vulnerable to economic, ecological and social shocks.

As Eric Holt-Giménez (2008) puts it, the economic “development” policies driven by the countries of the North from the 1960s onwards (the Green Revolution, structural adjustment programmes, regional free trade treaties, the World Trade Organization and agricultural subsidies in the North) have led to the destruction of food systems.

Between the 1960s and 90s, the so-called “green revolution”, promoted by various international institutions and agricultural research centre, took place, with the “theoretical” objective of modernizing agriculture in non-industrialized countries. Early results in Mexico and, subsequently, in south-east Asia were spectacular from the point of view of production per hectare, but this increase in land yield did not have a direct impact on the reduction of hunger in the world. Thus, although world agricultural production increased by 11 %, the number of hungry people in the world also rose by 11 per cent, from 536 million to 597 (Reichmann, 2003).

As Rosset, Collins and Moore Lappé (2000) put it: “the increase in production which was at the centre of the green revolution was not enough to relieve hunger because it does not alter the concentration of economic power, access to land or purchasing power... the number of

people who are hungry can be reduced only by redistributing purchasing power and resources among those who are malnourished... if the poor have no money to buy food, increased production will solve nothing”.

The Green Revolution had negative collateral consequences for many poor and medium peasants and for long-term food security. Specifically, the process increased the power of agribusiness corporations in the market chain, caused the loss of 90% of agro and bio diversity, massively reduced water levels, increased salinisation and soil erosion, and displaced millions of peasants from the countryside to the slums of the city, while . dismantling traditional agricultural and food systems which guaranteed food security.

In the 1980 and 90s, the systematic application of structural adjustment programmes in the countries of the South by the World Bank and International Monetary Fund, so that they could pay the foreign debt, aggravated further the already difficult living conditions of the greater part of the population in these countries. The programmes had as their main focus the subordination of the economy of the country to the payment of debt by applying the maxim “export more and spend less”.

The shock measures imposed by these programmes consisted of forcing the governments of the South to withdraw subsidies to commodities such as bread, rice, milk and sugar and a drastic reduction in public spending on education, health, housing and infrastructure. Devaluation of the national currency was forced, making products cheaper to export, but reducing the purchasing power of the domestic population while interest rates were increased in order to attract foreign capital with high rates of remuneration, generating a speculative spiral. Ultimately, a series of measures which led to the most extreme poverty for the peoples of these countries.

At the trade level, the programmes promoted exports to boost foreign currency reserves, increasing monocultures for export and reducing agriculture for local consumption with a consequent negative impact on food security and dependence on international markets. Thus customs barriers were dismantled, facilitating the entry of highly subsidized products from the United States and Europe which sold below their cost price, at a price lower than local products, destroying local production and agriculture, while economies were fully opened to the investments, products and services of the multinationals. The massive privatization of public

enterprises, mostly to the benefit of Northern multinationals, was widespread. Such policies had a direct impact on local agricultural production and food security, leaving these countries at the mercy of the market, the interests of transnational corporations and the international institutions promoting these policies.

The World Trade Organization (WTO), established in 1995, consolidated the policies of structural adjustment programmes by means of international treaties, subjecting national laws to its designs. Trade agreements administered by the WTO like the General Agreement on Trade and Tariffs (GATT), the General Agreement on Trade in Services (GATS) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) further consolidated the control of the countries of the North over the economies of the South.

The WTO policies forced developing countries to eliminate tariffs on imports, end protection for and subsidies to small producers and open their borders to the products of transnational corporations while the markets of the North remained highly protected. In the same way, regional treaties like the and North American Free Trade Agreement (NAFTA) Central America Free Trade Agreement (CAFTA) deepened trade liberalization, leading to bankruptcy for the farmers of the South and making them dependent on food imports from the countries of the North.

US and European agricultural subsidies, directed mainly towards the agri-food industry, obliterate the small local producer. This support to agribusiness accounts for a quarter of the value of agricultural production in the US and 40% in the European Union (Holt-Giménez, 2008). In the Spanish state, the main recipients of this aid are the larger holdings: seven producers, including the Duchess of Alba, are the biggest beneficiaries of the European Union's common agricultural policy. It is estimated that 3.2% of major producers in Spain receive 40% of this direct aid (Intermón Oxfam, 2005), while family holdings, supporting rural areas in Europe and millions of farmers in South, have virtually no support and suffer from the unfair competition of these highly subsidized products.

### **Increasing Food Production**

1. Training farmers for new techniques of agriculture, Cultivation and crop rotation.
2. Construction of water storage reservoirs.
3. Improvement in the irrigation system and Canal networking.

4. Adopting water conservation and water harvesting techniques.
5. Adapting Soil reclamation processes.
6. Available land acreage should be properly and judiciously utilized.
7. Soil fertility should be increased through wise use of fertilizers and organic manures.
8. Mixed cropping should be practiced wherever possible.
9. Soil erosion and loss of nutrients should be prevented by maintaining vegetation cover throughout the year.
10. High yield and disease resistant plant varieties should be introduced.
11. Integrated and balance use of available water source (surface and groundwater) should be made.
12. Weeds and pest should be controlled; integrated pest control practices should be prepared over total Reliance on chemical pesticides.
13. Combining use of traditional methods/ equipments with modern methods/ equipments of agriculture.
14. Crop rotation should be done.

## **Energy Resources**

Energy is an important input for development .It aims at human welfare covering household, agriculture, transport and industrial complexes.

### **Kinds of Energy Resources**

#### **1. Renewable Energy Resources:**

These resources are mostly biomass based and available in unlimited amount in nature since these can be renewed over relatively short period. These include firewood (or fuel wood) obtained from forests, petro plants, plant biomass (agricultural wastes such as biogases), animal dung, solar energy, wind energy, water energy (hydroelectric and tidal energy), geothermal and dendrothermal energy. These are called renewable energy because they can reproduce themselves in nature and can be harvested continuously through a sustained proper planning and management.

#### **2. Non –Renewable Energy Resources:**

These energy resources are available in limited amount and develop over a longer period. Consequent to unlimited use, they are likely to be exhausted one day. These energy resources



include coal, mineral oil, natural gas and nuclear power. Coal, petroleum and natural gas, the common sources of energy are organic (biotic) in their origin. They are also called fossil fuels.

## **ALTERNATIVE ENERGY RESOURCES**

Energy resources are well recognized that the development and utilization of renewable sources of energy along with conventional energy sources is necessary to meet the growing demand for energy in our urban and rural areas. The techno-economic viability of a number of systems and devices based on renewable energy sources has been demonstrated successfully in the domestic, commercial and industrial sectors.

### **Reasons for use of alternative resources**

1. Coal, mineral oil, natural gas and nuclear minerals are non-renewable and are to last one day.
2. The use of conventional resources is invariably associated with environmental pollution problems.
3. Large-scale utilization of wood may lead to deforestation.
4. Centralized system in a conventional source of energy, involves much expenditure on setting up infrastructure and management. There is now a trend towards decentralization which is likely to provide greater initiative to local people who could assess their needs and resources and plan a strategy that suits them best.
5. The energy crisis during the 1970s forced scientists to develop alternative sources of energy that should be renewable and pollution free.
6. Due to the rapid depletion of conventional energy sources, countries all over the world are forced to concentrate over tapping the vast potential of non-conventional energy sources. These sources include dendrothermal, solar, wind, ocean(tidal) geothermal heat, biomass, farm and animal waste including human excreta.

### **(i) Solar Energy**

This sort of energy can be utilized well for the purpose of domestic heating and water supply can be met by this. In Israel, such systems of heating homes and water supply are already in operation.

## **(ii) Wind Energy**

In our country, a great number of areas are quite windy. Average annual wind density of 3kW/m<sup>2</sup>/day is prevalent at a number of places in peninsular India besides the coastline in Gujarat, the Western Ghats and parts of central India. The wind densities are even more than 101 W/m<sup>2</sup>/days during winter and wind densities exceeding 4kW/m<sup>2</sup>/day are available for 5-7 months in a year.

## **(iii) Wind Wave Energy**

The continuous motion of the sea surface in the form of wind waves constitutes a source of energy. They convert nearly 1.5 per cent of the incoming energy from sun to wind energy. Part of this is transferred to the sea surface resulting in the generation of waves. Thereafter, this is carried to coastal lines where it is dissipated as the waves break. Extract of energy from waves is more efficient is concentrated through the interaction of the wind and the free ocean surface. The coastal line of our country extends to about 6,000 km in length. Here the wave energy potential is estimated to be around 60,000 MW. The extraction of wave energy is of great advantage. A multipurpose wave regulator system (WRS) in the form of a long barrier creates a calm pool between the barrier and shore.

## **(iv) Ocean (Tidal) Energy**

Tidal power generation depends on harnessing of rise and fall of sea level due to tidal action:

**Position abroad:** Small tidal power plants have been constructed in china and USSR. France constructed in 1996 their first major tidal electric plant.

**Position in India:** In India, prospective sites for exploitation of the tidal energy are the Gulfs of Kutch, Cambay, and Sunderbans.

## **(v) Geothermal Energy**

The heat in the interior of the earth can be utilized for power generation. This is possible in volcanic regions or where hot springs and geysers occur. For developing countries, the overall projected potential was estimated at  $400 \times 10^{18}$  J for geothermal energy with a projected capacity at 2,300 MW in 1990.

## **(vi) Biomass-based Energy**

The term 'biomass' is used for all materials which originate from photosynthesis. In this way, biomass includes all new plant growth, residues and wastes; herbaceous plants; freshwater and marine algae; aquatic plants; agricultural and forest residues such as straw husks, bagasse, corncobs, bark and sawdust.

Besides animal dropping, wastes such as garbage, night soil, sewage and industrial refuse are also included in it. Biodegradable organic effluents from industries such as canneries, sugar mills, slaughter houses, meat packing plants, breweries and distilleries are also included in this categories. Biomass can also be produced from hydrocarbon plants.oils etc.

## **Conclusion**

“Creating a society of motivated citizens committed to conservation, preservation and protection of the environment and striving towards a life in perfect harmony with nature,” is the global mission that could be achieved through nurturance of young minds by developing an awareness of and concern about the environmental and its associated problems.

## **Questions for discussion and reflection**

1. Explain the Land Resources. How would you prevent the Soil Erosion?
2. What is Forest Resources?
3. List out the Mineral Resources
4. Mention the Energy Resources.
5. Describe “The Food Crisis of India”.

## **References**

1. Dr.Joseph Catherine (2011) *Environmental Education*. New Delhi: Neelkamal Publications Pvt.Ltd.
2. B.N. Behera and A.K.Rath (2014) *Basic Environmental Education*. New Delhi: Dominant Publishers & Distributors Pvt Ltd.
3. Suresh Pachauri (2012) *Environmental Education*. New Delhi: Dorling Kindersley (India) Pvt Ltd.

**Webliography:**

[www.landresourceanalysis.wordpress.com](http://www.landresourceanalysis.wordpress.com)

[www.fao.org](http://www.fao.org)

[www.idc.online.com](http://www.idc.online.com)

[www.climateandcapitalism.com](http://www.climateandcapitalism.com)

[www.byjus.com/chemistry/mineral-resources](http://www.byjus.com/chemistry/mineral-resources)

## **UNIT -III INTERNATIONAL EFFORTS FOR ENVIRONMENTAL PROTECTION**

### **Objectives:**

**After the completion of the unit, the learners will be able to**

1. realize the importance of environmental education
2. learn the environmental issues and environmental protection
3. discuss the contributions of conferences held on environmental issues
4. understand about the ideas of the Earth summit and Kyoto Conference

### **Introduction**

Environmental issues may include climate change, pollution, environmental degradation, and resource depletion etc. The conservation movement lobbies for protection of endangered species and protection of any ecologically valuable natural areas, genetically modified foods and global warming.

Environmental issues are harmful effects of human activity on the biophysical environment. Environmental protection is a practice of protecting the natural environment on individual, organizational or governmental levels, for the benefit of both the environment and humans. Environmentalism, a social and environmental movement, addresses environmental issues through advocacy, education and activism.

Environment is polluted in different ways. The carbon dioxide equivalent of greenhouse gases (GHG) in the atmosphere has already exceeded 400 parts per million (NOAA) (with total "long-term" GHG exceeding 455 parts per million) (Intergovernmental Panel on Climate Change Report). This level is considered a tipping point. "The amount of greenhouse gas in the atmosphere is already above the threshold that can potentially cause dangerous climate change. We are already at risk of many areas of pollution. It's not next year or next decade, it's now." The UN Office for the Coordination of Humanitarian Affairs (OCHA) has stated "Climate change is not just a distant future threat. It is the main driver behind rising humanitarian needs and we are seeing its impact. The number of people affected and the damages inflicted by extreme weather have been unprecedented." Further, OCHA has stated

Climate disasters are on the rise. Around 70 percent of disasters are now climate related – up from around 50 percent from two decades ago. These disasters take a heavier human toll and come with a higher price tag. In the last decade, 2.4 billion people were affected by climate related disasters, compared to 1.7 billion in the previous decade. The cost of responding to disasters has risen tenfold between 1992 and 2008.

Destructive sudden heavy rains, intense tropical storms, repeated flooding and droughts are likely to increase, as will the vulnerability of local communities in the absence of strong concerted action.

Environment destruction caused by humans is a global problem, and this is a problem that is on going every day. By year 2050, the global human population is expected to grow by 2 billion people, thereby reaching a level of 9.6 billion people. The human effects on Earth can be seen in many different ways. A main one is the temperature rise, and according to the report "Our Changing Climate", the global warming that has been going on for the past 50 years is primarily due to human activities. Since 1895, the U.S. average temperature has increased from 1.3 °F to 1.9 °F, with most of the increase taken place since around year 1970.

Sustainability is the key to prevent or reduce the effect of environmental issues. There is now clear scientific evidence that humanity is living unsustainably, and that an unprecedented collective effort is needed to return human use of natural resources to within sustainable limits. For humans to live sustainably, the Earth's natural resources must be used at a rate at which they can be replenished.

## **United Nations Conference on the Human Environment (Stockholm Conference)**

The United Nations Conference on the Human Environment (also known as the Stockholm Conference) was an international conference convened under United Nations auspices held in Stockholm, Sweden from June 5-16, 1972. It was the UN's first major conference on international environmental issues, and marked a turning point in the development of international environmental politics. When the United Nations General Assembly decided to convene the 1972 Stockholm Conference, at the initiative of the Government of Sweden to host it, UN Secretary-General U Thant invited Maurice Strong to lead it as Secretary-General of the Conference, as the Canadian diplomat (under Pierre Trudeau) had initiated and already worked for over two years on the project.

Sweden first suggested to the United Nations Economic and Social Council ECOSOC in 1968 the idea of having a UN conference to focus on human interactions with the environment. ECOSOC passed resolution 1346 supporting the idea. General Assembly Resolution 2398 in 1969 decided to convene a conference in 1972 and mandated a set of reports from the UN secretary-general suggesting that the conference focus on "stimulating and providing guidelines for action by national government and international organizations" facing environmental issues.

## **Issues at the Conference**

The Soviet Union and other Warsaw Pact nations boycotted the conference due to the lack of inclusion of East Germany, which was not allowed to participate as it was not a full member of the UN. At the conference itself, divisions between developed and developing countries began to emerge. The Chinese delegation proved hostile to the United States at the conference, issuing a 17 point memorandum condemning United States policies in Indochina, as well as around the world. This stance emboldened other developing countries, which made up 70 of the 122 countries attending. Multiple countries including Pakistan, Peru, and Chile issued statements that were anti-colonial in nature, further worrying the United States delegation. So harsh was the criticism that Rogers Morton, at that time secretary of the interior, remarked "I wish the Russians were here", to divert the attention of the Chinese criticisms.

The meeting agreed upon a Declaration containing 26 principles concerning the environment and development an Action Plan with 109 recommendations, and a Resolution.

## **Principles of the Stockholm Declaration**

1. Human rights must be asserted, apartheid and colonialism condemned
2. Natural resources must be safeguarded
3. The Earth's capacity to produce renewable resources must be maintained
4. Wildlife must be safeguarded
5. Non-renewable resources must be shared and not exhausted
6. Pollution must not exceed the environment's capacity to clean itself
7. Damaging oceanic pollution must be prevented
8. Development is needed to improve the environment
9. Developing countries therefore need assistance

10. Developing countries need reasonable prices for exports to carry out environmental management
11. Environment policy must not hamper development
12. Developing countries need money to develop environmental safeguards
13. Integrated development planning is needed
14. Rational planning should resolve conflicts between environment and development
15. Human settlements must be planned to eliminate environmental problems
16. Governments should plan their own appropriate population policies
17. National institutions must plan development of states' natural resources
18. Science and technology must be used to improve the environment
19. Environmental education is essential
20. Environmental research must be promoted, particularly in developing countries
21. States may exploit their resources as they wish but must not endanger others
22. Compensation is due to states thus endangered
23. Each nation must establish its own standards
24. There must be cooperation on international issues
25. International organizations should help to improve the environment
26. Weapons of mass destruction must be eliminated

One of the seminal issues that emerged from the conference is the recognition for poverty alleviation for protecting the environment. The Indian Prime Minister Indira Gandhi in her seminal speech in the conference brought forward the connection between ecological management and poverty alleviation.

Some argue that this conference, and more importantly the scientific conferences preceding it, had a real impact on the environmental policies of the European Community (that later became the European Union). For example, in 1973, the EU created the Environmental and Consumer Protection Directorate, and composed the first Environmental Action Program. Such increased interest and research collaboration arguably paved the way for further understanding of global warming, which has led to such agreements as the Kyoto Protocol and the Paris Agreement, and has given a foundation of modern environmentalism.



## **Brundtland Commission (1983)**

Formerly known as the World Commission on Environment and Development (WCED), the mission of the Brundtland Commission is to unite countries to pursue sustainable development together. The Chairperson of the Commission, Gro Harlem Brundtland, was appointed by United Nations Secretary-General Javier Pérez de Cuéllar in December 1983. At the time, the UN General Assembly realized that there was a heavy deterioration of the human environment and natural resources. To rally countries to work and pursue sustainable development together, the UN decided to establish the Brundtland Commission.

The commission focuses on setting up networks to promote environmental stewardship. Most of these networks make connections between governments and non-government entities. One such network is Bill Clinton's Council on Sustainable Development. In this council government and business leaders come together to share ideas on how to encourage sustainable development. The Brundtland Commission has been the most successful in forming international ties between governments and multinational corporations.

## **Sustainability Efforts**

The three main pillars of sustainable development include economic growth, environmental protection, and social equality. While many people agree that each of these three ideas contribute to the overall idea of sustainability, it is difficult to find evidence of equal levels of initiatives for the three pillars in countries' policies worldwide. With the overwhelming number of countries that put economic growth on the forefront of sustainable development, it is evident that the other two pillars have been suffering, especially with the overall well being of the environment in a dangerously unhealthy state. The Brundtland Commission has put forth a conceptual framework that many nations agree with and want to try to make a difference with in their countries, but it has been difficult to change these concepts about sustainability into concrete actions and programs. Implementing sustainable development globally is still a challenge, but because of the Brundtland Commission's efforts, progress has been made. After releasing their report, **Our Common Future**, the Brundtland Commission called for an international meeting to take place where more concrete initiatives and goals could be mapped out. This meeting was held in Rio de Janeiro, Brazil. A comprehensive plan of action, known as Agenda 21, came out of the meeting. Agenda 21 entailed actions to be taken globally, nationally, and locally in order to make life on Earth more sustainable going into the future.

## **Economic Growth**

Economic Growth is the pillar that most groups focus on when attempting to attain more sustainable efforts and development. In trying to build their economies, many countries focus their efforts on resource extraction, which leads to unsustainable efforts for environmental protection as well as economic growth sustainability. While the Commission was able to help to change the association between economic growth and resource extraction, the total worldwide consumption of resources is projected to increase in the future. So much of the natural world has already been converted into human use that the focus cannot simply remain on economic growth and omit the ever-growing problem of environmental sustainability.

Agenda 21 reinforces the importance of finding ways to generate economic growth without hurting the environment. Through various trade negotiations such as improving access to markets for exports of developing countries, Agenda 21 looks to increase economic growth sustainability in countries that need it most

## **Environmental Protection**

Environmental Protection has become more important to government and businesses over the last 20 years, leading to great improvements in the number of people willing to invest in green technologies. For the second year in a row in 2010, the United States and Europe added more power capacity from renewable sources such as wind and solar. In 2011 the efforts continue with 45 new wind energy projects beginning in 25 different states. The focus on environmental protection has transpired globally as well, including a great deal of investment in renewable energy power capacity. Eco-city development occurring around the world helps to develop and implement water conservation, smart grids with renewable energy sources, LED street lights and energy efficient building. The consumption gap remains, consisting of the fact that "roughly 80 percent of the natural resources used each year are consumed by about 20 percent of the world's population". This level is striking and still needs to be addressed now and throughout the future.

## **Social Equality**

The Social Equality and Equity as pillars of sustainable development focus on the social well-being of people. The growing gap between incomes of rich and poor is evident throughout the world with the incomes of the richer households increasing relative to the incomes of middle - or lower-class households. This is attributed partly to the land distribution patterns in rural

areas where majority live from land. Global inequality has been declining, but the world is still extremely unequal, with the richest 1% of the world's population owning 40% of the world's wealth and the poorest 50% owning around 1%. The Brundtland Commission made a significant impact trying to link environment and development and thus, go away from the idea of environmental protection whereby some scholars saw environment as something of its sake. The Commission has thus reduced the number of people living on less than a dollar a day to just half of what it used to be, as many can approach the environment and use it. These achievements can also be attributed to economic growth in China and India.

## **Earth Summit or Rio Conference 1992**

The United Nations Conference on Environment and Development (UNCED), also known as the Rio de Janeiro Earth Summit, the Rio Summit, the Rio Conference, and the Earth Summit (Portuguese: ECO92), was a major United Nations conference held in Rio de Janeiro from 3 to 14 June 1992.

Earth Summit was created as a response for Member States to cooperate together internationally on development issues after the Cold War. Due to conflict relating to sustainability being too big for individual member states to handle, Earth Summit was held as a platform for other Member States to collaborate. Since the creation, many others in the field of sustainability show a similar development to the issues discussed in these conferences, including non-governmental organizations (NGOs).

### **The Issues Addressed Included:**

- systematic scrutiny of patterns of production — particularly the production of toxic components, such as lead in gasoline, or poisonous waste including radioactive chemicals
- alternative sources of energy to replace the use of fossil fuels which delegates linked to global climate change
- new reliance on public transportation systems in order to reduce vehicle emissions, congestion in cities and the health problems caused by polluted air and smoke
- the growing usage and limited supply of water

An important achievement of the summit was an agreement on the Climate Change Convention which in turn led to the Kyoto Protocol and the Paris Agreement. Another agreement

was to "not to carry out any activities on the lands of indigenous peoples that would cause environmental degradation or that would be culturally inappropriate".

The Convention on Biological Diversity was opened for signature at the Earth Summit, and made a start towards redefinition of measures that did not inherently encourage destruction of natural eco regions and so-called uneconomic growth.

Although President George H.W. Bush signed the Earth Summit's Convention on Climate, his EPA Administrator William K. Reilly acknowledges that U.S. goals at the conference were difficult to negotiate and the agency's international results were mixed, including the U.S. failure to sign the proposed Convention on Biological Diversity.

Twelve cities were also honoured by the Local Government Honours Award for innovative local environmental programs. These included Sudbury in Canada for its ambitious program to rehabilitate environmental damage from the local mining industry, Austin in the United States for its green building strategy, and Kitakyūshū in Japan for incorporating an international education and training component into its municipal pollution control program.

The Summit's message — that nothing less than a transformation of our attitudes and behaviour would bring about the necessary changes — was transmitted by almost 10,000 on-site journalists and heard by millions around the world. The message reflected the complexity of the problems facing us: that poverty as well as excessive consumption by affluent populations place damaging stress on the environment. Governments recognized the need to redirect international and national plans and policies to ensure that all economic decisions fully took into account any environmental impact. And the message has produced results, making eco-efficiency a guiding principle for business and governments alike.

- Patterns of production — particularly the production of toxic components, such as lead in gasoline, or poisonous waste — are being scrutinized in a systematic manner by the UN and Governments alike;
- Alternative sources of energy are being sought to replace the use of fossil fuels which are linked to global climate change;
- New reliance on public transportation systems is being emphasized in order to reduce vehicle emissions, congestion in cities and the health problems caused by polluted air and smog;

- There is much greater awareness of and concern over the growing scarcity of water.

The two-week Earth Summit was the climax of a process, begun in December 1989, of planning, education and negotiations among all Member States of the United Nations, leading to the adoption of Agenda 21, a wide-ranging blueprint for action to achieve sustainable development worldwide. At its close, Maurice Strong, the Conference Secretary-General, called the Summit a “historic moment for humanity”. Although Agenda 21 had been weakened by compromise and negotiation, he said, it was still the most comprehensive and, if implemented, effective programme of action ever sanctioned by the international community.

Today, efforts to ensure its proper implementation continue, and they will be reviewed by the UN General Assembly at a special session to be held in June 1997. The Earth Summit influenced all subsequent UN conferences, which have examined the relationship between human rights, population, social development, women and human settlements — and the need for environmentally sustainable development. The World Conference on Human Rights, held in Vienna in 1993, for example, underscored the right of people to a healthy environment and the right to development, controversial demands that had met with resistance from some Member States until Rio.

### **KYOTO CONFERENCE 1997**

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gas emissions, based on the consensus that (a) global warming is occurring and (b) it is extremely likely that human-made CO<sub>2</sub> emissions have predominantly caused it. The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. There are currently 192 parties (Canada withdrew effective December 2012) to the Protocol.

The Kyoto Protocol implemented the objective of the UNFCCC to fight global warming by reducing greenhouse gas concentrations in the atmosphere to "a level that would prevent dangerous anthropogenic interference with the climate system" (Art. 2). The Protocol is based on the principle of common but differentiated responsibilities: it puts the obligation to reduce current emissions on developed countries on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere.

The Protocol's first commitment period started in 2008 and ended in 2012. A second commitment period was agreed on in 2012, known as the Doha Amendment to the protocol, in which 37 countries have binding targets: Australia, the European Union (and its 28 member states), Belarus, Iceland, Kazakhstan, Liechtenstein, Norway, Switzerland, and Ukraine. Belarus, Kazakhstan and Ukraine have stated that they may withdraw from the Protocol or not put into legal force the Amendment with second round targets. Japan, New Zealand and Russia have participated in Kyoto's first-round but have not taken on new targets in the second commitment period. Other developed countries without second-round targets are Canada (which withdrew from the Kyoto Protocol in 2012) and the United States (which has not ratified the Protocol). As of July 2016, 66 states have accepted the Doha Amendment, while entry into force requires the acceptances of 144 states. Of the 37 countries with binding commitments, 7 have ratified.

Negotiations were held in the framework of the yearly UNFCCC Climate Change Conferences on measures to be taken after the second commitment period ends in 2020. This resulted in the 2015 adoption of the Paris Agreement, which is a separate instrument under the UNFCCC rather than an amendment of the Kyoto protocol.

### **The Main Goal of the Kyoto Protocol**

This is to control emissions of the main anthropogenic (i.e., human-emitted) greenhouse gases (GHGs) in ways that reflect underlying national differences in GHG emissions, wealth, and capacity to make the reductions. The treaty follows the main principles agreed in the original 1992 UN Framework Convention. According to the treaty, in 2012, Annex I Parties who have ratified the treaty must have fulfilled their obligations of greenhouse gas emissions limitations established for the Kyoto Protocol's first commitment period (2008–2012). These emissions limitation commitments are listed in Annex B of the Protocol.

The Kyoto Protocol's first round commitments are the first detailed step taken within the UN Framework Convention on Climate Change (Gupta *et al.*, 2007). The Protocol establishes a structure of rolling emission reduction commitment periods. It set a timetable starting in 2006 for negotiations to establish emission reduction commitments for a second commitment period. The first period emission reduction commitments expired on December 31, 2012.

The ultimate objective of the UNFCCC is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would stop dangerous anthropogenic interference with the climate system." Even if Annex I Parties succeed in meeting their first-round

commitments, much greater emission reductions will be required in future to stabilize atmospheric GHG concentrations.

### **Some of the Principal Concepts of the Kyoto Protocol are**

- Binding commitments for the Annex I Parties. The main feature of the Protocol is that it established legally binding commitments to reduce emissions of greenhouse gases for Annex I Parties. The commitments were based on the Berlin Mandate, which was a part of UNFCCC negotiations leading up to the Protocol.
- Implementation. In order to meet the objectives of the Protocol, Annex I Parties are required to prepare policies and measures for the reduction of greenhouse gases in their respective countries. In addition, they are required to increase the absorption of these gases and utilize all mechanisms available, such as joint implementation, the clean development mechanism and emissions trading, in order to be rewarded with credits that would allow more greenhouse gas emissions at home.
- Minimizing Impacts on Developing Countries by establishing an adaptation fund for climate change.
- Accounting, Reporting and Review in order to ensure the integrity of the Protocol.
- Compliance. Establishing a Compliance Committee to enforce compliance with the commitments under the Protocol.

The agreement is a protocol to the United Nations Framework Convention on Climate Change (UNFCCC) adopted at the Earth Summit in Rio de Janeiro in 1992, which did not set any legally binding limitations on emissions or enforcement mechanisms. Only Parties to the UNFCCC can become Parties to the Kyoto Protocol. The Kyoto Protocol was adopted at the third session of the Conference of Parties to the UNFCCC (COP 3) in 1997 in Kyoto, Japan.

National emission targets specified in the Kyoto Protocol exclude international aviation and shipping. Kyoto Parties can use land use, land use change, and forestry (LULUCF) in meeting their targets. LULUCF activities are also called "sink" activities. Changes in sinks and land use can have an effect on the climate, and indeed the Intergovernmental Panel on Climate Change's Special Report on Land Use, Land-Use Change and Forestry estimates that since 1750 a third of global warming has been caused by land use change. Particular criteria apply to the definition of forestry under the Kyoto Protocol.

### **2009 United Nations Climate Change Conference**

The 2009 United Nations Climate Change Conference, commonly known as the Copenhagen Summit, was held at the Bella Centre in Copenhagen, Denmark, between 7 and 18 December. The conference included the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 5th Meeting of the Parties (MOP 5) to the Kyoto Protocol. According to the Bali Road Map, a framework for climate change mitigation beyond 2012 was to be agreed there.

The Copenhagen Accord was drafted by the United States, China, India, Brazil and South Africa on 18 December, and judged a "meaningful agreement" by the United States government. It was "taken note of", but not "adopted", in a debate of all the participating countries the next day, and it was not passed unanimously. The document recognised that climate change is one of the greatest challenges of the present day and that actions should be taken to keep any temperature increases to below 2 °C. The document is not legally binding and does not contain any legally binding commitments for reducing CO<sub>2</sub> emissions.

The conference was preceded by the Climate Change: Global Risks, Challenges and Decisions scientific conference, which took place in March 2009 and was also held at the Bella Centre. The negotiations began to take a new format when in May 2009 UN Secretary General Ban Ki-moon attended the World Business Summit on Climate Change in Copenhagen, organized by the Copenhagen Climate Council (COC), where he requested that COC councillors attend New York's Climate Week at the Summit on Climate Change on 22 September and engage with heads of government on the topic of the climate problem.

## **Doha Climate Change Conference 2012**

The 2012 United Nations Climate Change Conference was the 18th yearly session of the Conference of the Parties (COP) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 8th session of the Meeting of the Parties (CMP) to the 1997 Kyoto Protocol (the protocol having been developed under the UNFCCC's charter). The conference took place from Monday 26 November to Saturday 8 December 2012, at the Qatar National Convention Centre in Doha.

The conference reached an agreement to extend the life of the Kyoto Protocol, which had been due to expire at the end of 2012, until 2020, and to reify the 2011 Durban Platform, meaning that a successor to the Protocol is set to be developed by 2015 and implemented by 2020. Wording adopted by the conference incorporated for the first time the concept of "loss and



damage", an agreement in principle that richer nations could be financially responsible to other nations for their failure to reduce carbon emissions.

The United Nations Climate Change Conferences are annual multi-lateral meetings of governments held in different locations around the world under the sponsorship of the United Nations that serve as a forum for countries to discuss climate change matters. The conferences seek to address the threat of global warming caused by greenhouse gas emissions like carbon dioxide. Between 2000–2011 carbon dioxide growth in the atmosphere was 20% of the total concentration growth since prehistoric level (391,57 ppm in 2011 and 369,52 ppm in 2000) The concentration of carbon dioxide in Earth's atmosphere has reached 391 ppm (parts per million) as of October 2012 versus the pre-industrial concentration was 280 ppm which the consensus of world climate scientists agree is unsustainable.

The conferences are attended by dignitaries and sometimes heads of state from most countries and generally draw significant activity by various environmental advocacy groups. Consequently, the conferences are generally well covered by the world media agencies. The 2012 conference is held at the Qatar National Convention Centre in Doha, and with a projected attendance of 17,000 participants it is expected to be the largest conference to have ever been held in Qatar. The conference is casually called the COP18 /CMP 8 conference but these are technically different but closely related and sometimes integrated conferences. In 2012, the UNFCCC conference serves as an umbrella for seven concurrent and interrelated meeting groups collectively called the Doha 2012 UNFCCC conference. The main conference is also preceded by several topical pre-sessions.

### **The Conference focused on five aspects of climate change**

- Adaptation – social and other changes that must be undertaken to successfully adapt to climate change. Adaptation might encompass, but is not limited to, changes in agriculture and urban planning.
- Finance – how countries will finance adaptation to and mitigation of climate change, whether from public or private sources.
- Mitigation – steps and actions that the countries of the world can take to mitigate the effects of climate change.
- Technology – the technologies that are needed to adapt or mitigate climate change and ways in which developed countries can support developing countries in adopting them.

- Loss and damage – first articulated at the 2012 conference and in part based on the agreement that was signed at the 2010 United Nations Climate Change Conference in Cancun. It introduces the principle that countries vulnerable to the effects of climate change may be financially compensated in future by countries that fail to curb their carbon emissions.

## **Conclusion**

This unit addresses what are the issues that speak about environmental climate change, pollution and environmental degradation, and resource depletion etc. the conservation movement lobbies for protection of endangered species and natural areas. It also speaks about the effect of green gas house and the conferences which are organized in connection with environmental issues.

## **Questions for Discussion and Reflection**

1. Write an essay on “Environmental issues and Global community”
2. Describe in detail about Earth summit Rio Conference 1992
3. Discuss about “Kyoto Conference and Copenhagen UN climate change conference”
4. Write a note on Brundtland Commission

## **Unit IV Management and Protection of Environmental**

### **Objectives**

**After the completion of the unit, the learners will be able to**

1. develop understanding about the impact of human activities on environment.
2. realize the importance of International NGO'S and Environment protection.
3. discuss the importance of International initiatives to protect Environment.
4. understand the significance of International union for Conservation of Nature

### **Introduction**

Environmental management involves the management of all components of the bio-physical environment, both living (biotic) and non-living (abiotic). This is due to the interconnected and network of relationships amongst all living species and their habitats. The environment also involves the relationships of the human environment, such as the social, cultural and economic environment with the bio-physical environment. Our very survival in this planet Earth depends on the proper management of environment. Every living species in this planet require air, water for survival. All living beings are interdependent directly or indirectly. The survival of trees and forests will bring good rainfall and good agriculture. Every living body need clean air, water and soil for survival and healthy life. Due to enormous increase in population and stress on environmental factors like air, water and soil, it is now urgently needed to frame guidelines and rules for the management of environment in a proper way. A good management of environment can only bring a sustainable life to all in this planet earth.

### **Effect of Human Activities on the Environment**

Humans impact the environment in several ways. Common effects include decreased water quality, increased pollution and greenhouse gas emissions, depletion of natural resources and contribution to global climate change.

### **Water Pollution**

One of the biggest impacts humans have on aquatic systems is excess nutrient inputs. Nutrients, like nitrogen and phosphorus, are essential to the health and survival of aquatic plants and animals. However, humans introduce large quantities of nutrients, primarily through overuse

of fertilizers. Too many nutrients can rapidly reduce water quality by causing overgrowth of certain bacteria and algae that use the oxygen necessary for other species to survive.

## **Air Pollution**

The majority of air pollution is the result of human activities. For example, increased fossil fuel combustion from motor vehicles, industrial factories and power plants all pump large quantities of air pollutants, such as carbon monoxide, ozone and nitrous oxides, into the atmosphere. Other air pollutants, such as lead-based compounds, can lead to serious health effects like cancer, or other types of reproductive effects and birth defects.

## **Climate Change**

Human activities are largely responsible for an increase in temperature around the globe, primarily due to carbon dioxide and other greenhouse gas emissions. This increase in temperature is leading to changes in where crops can grow and where certain fish or animals can be found, all vital for feeding an increasing human population. The rise in global temperatures is also causing glaciers to melt, releasing water that causes sea levels to rise and threaten coastal communities and economies that rely on coastal resources.

## **Effects of Agriculture Activities on Environment**

The effects of agriculture on the environment can be broadly classified into three groups, viz. local, regional and global:

**i. Local Changes:** These occur at or near the site of farming. These changes/effects include soil erosion and increase in sedimentation downstream in local rivers. Fertilizers carried by sediments can cause eutrophication of local water bodies. Polluted sediments can also transport toxins and destroy local fisheries.

**ii. Regional Changes:** They generally result from the combined effects of farming practices in the same large region. Regional effects include deforestation, desertification, large scale pollution, increases in sedimentation in major rivers.

**iii. Global Changes:** These include climatic changes as well as initially extensive changes in chemical cycles.

- **Deforestation:** The slash and burn of trees in forests to clear the land for cultivation and frequent shifting result in loss of forest cover.
- **Soil Erosion:** Clearing of forest cover exposes the soil to wind, rain and storms, thereby resulting in loss of top fertile layer of soil.
- **Depletion of Nutrients:** During slash and burn the organic matter in the soil gets destroyed and most of the nutrients are taken up by the crops within a short period, thus making the soil nutrient poor which forces the cultivators shift to another area.

## **Eutrophication**

Excessive use of N and P fertilizers in the agricultural fields leads to another problem, which is not related to the soil, but relates to water bodies like lakes. A large proportion of nitrogen and phosphorus used in crop fields is washed off and along with runoff water reach the water bodies causing over nourishment of the lakes, a process known as Eutrophication

## **Pesticides Related Problems**

A pesticide is any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest. A pesticide may be a chemical substance, biological agent (such as a virus or bacterium), antimicrobial, disinfectant or device used against any pest. Pests include insects, plant pathogens, weeds, molluscs, birds, mammals, fish, nematodes (roundworms), and microbes that destroy property.

## **Water Logging**

Over irrigation of croplands by farmers for good growth of their crop usually leads to water logging. Inadequate drainage causes excess water to accumulate underground and gradually forms a continuous column with the water table.

## **Salinity**

Salinity refers to increased concentration of soluble salts in the soil. It results due to intensive agricultural practices. Due to poor drainage of irrigation and flood waters, the dissolved salt in these waters accumulates on the soil surface.

## Effects of Housing Activities on Environment

Housing characteristics includes home decorations pet keeping and other environmental factors have significant impact on the health of the residents.

- The poor housing can have profound, directly measurable effects on physical and mental health of the residents.
- The air-tight sealing of modern buildings has helped in reducing spiralling energy costs but it has contributed significantly to the health problems arisen due to indoor air pollution.
- Several building materials continue to affect the indoor air quality. These materials used as solvents, finishes and cleansers for maintenance and protection of building materials can cause 'sick building syndrome'.

Production of plastics is also associated with generation of the greenhouse gas namely carbon dioxide (CO<sub>2</sub>), volatile organic compounds (VOCs) and polyvinyl chloride (PVC), which are harmful because of global warming potential of CO<sub>2</sub> and health related problems of the latter two. Disposal of PVCs is a major problem.

- The indoor air pollution is a major source of public exposure to air pollutants having potential to cause chronic health problems.
- The sources of formaldehyde in modern buildings include building materials, smoking, household products, and the use of un-vented, fuel-burning appliances, like gas stoves or kerosene space heaters.
- In the houses, offices or workplaces, the most significant sources of formaldehyde are likely to be pressed wood products made using adhesives that contain urea-formaldehyde (UF) resins.
- Formaldehyde is also present in tobacco smoke, natural gas and kerosene.
- Benzene is a solvent used in petrol, ink, oil, paint, plastic and rubber.
- Trichloroethylene is used in metal degreasers, dry cleaning solvents, inks, paints, lacquers, varnishes and adhesives.
- Ozone from copying machines.
- Fumes from cleaning solvents.
- Even our kitchen trash-bin contributes a huge volume of illness-causing bacteria and unpleasant odour to indoor air. Cockroach droppings trigger allergic asthma.

## **Role of Non-Governmental Organizations (NGO) in Environment Protection**

Non-Governmental Organization is a broad term, which includes charity organizations, advisory committees and various other professional organizations. NGOs in India are spread across the country and they have close contacts with communities. They are involved in the whole spectrum of developmental activities from creating environmental awareness to undertaking watershed development: from disaster management to sustainable livelihoods; from joint forest management to giving inputs to policies. They range from clubs, which encourage nature camping to agencies, which undertake research and monitoring.

There are large number of NGOs in India and other countries that are exclusively working for environmental, protection, conservation, and awareness. The number of these non-governmental organizations which are actively involved in environmental protection in our country is, in fact, more than in any of the developing country. Increasingly, the government is viewing NGOs not only as agencies that will help them to implement their programs, but also as partners shaping policy and programs.

NGOs are now playing an important role in framing the environmental policy, mobilizing public support for environmental conservation, and protecting the endangered species of forests and animals. Environmental organizations such as Earth watch and Sea Shepherd Conservation Society have been successful in creating awareness about the environmental dangers in using drift nets in the commercial fishing industry.

Some of the international environmental organizations are Greenpeace, Worldwide Fund for Nature' (WWF), Earth First, etc. Let us now have a detailed discussion on some of the environmental organizations and their efforts in protecting environment.

### **Greenpeace**

Greenpeace is an environment-friendly international organization, which aims at promoting environmental awareness. It is an independent, campaigning organization, addressing the environmental abuse through direct, non-violent confrontations with governments and companies. It exposes the global environmental problems and provides solutions for a healthy environment.

Greenpeace focuses on the most crucial worldwide threats to our planet's biodiversity and environment.

## **It campaigns to:**

### **1. Stop Climate Change**

The extensive use of oil, gas, fuel, and other energy resources leads to climatic changes, which results in global warming. In order to stop climate change, Greenpeace is campaigning on various fronts. It has been researching to stop climate change and to promote clean energy solutions.

### **2. Protect Ancient Forests**

Many forests of the world are in crisis. The plants and animals are facing the threat of extinction. People living in forests and depending on them for their livelihood are also under threat. Greenpeace takes up the responsibility to save the forests and provides solutions for the same.

### **3. Save the Oceans**

Greenpeace's save the oceans campaign currently focuses on four major threats to the world's oceans: overfishing, pirate fishing, whaling, and intensive shrimp aquaculture.

### **4. Stop Whaling**

Commercial Whaling has resulted in the decline of the world's whale population. In order to stop commercial whaling, Greenpeace is working on many fronts. Through political work, public outreach, and by adopting non-violent direct action against the whalers at sea, Greenpeace is fighting against commercial whaling.

### **5. Say No to Genetic Engineering**

Genetic engineering enables the creation of plants, animals, and micro-organisms through the manipulation of genes. The organisms, which are produced through genetic engineering when interbred with natural organisms, lead to new environments, which are uncontrolled.



## **6. Stop the Nuclear Threat**

Greenpeace campaigns against the use of nuclear power as its use has never been peaceful. It leads to accidents, deaths, and disasters. Radiation released into the environment through the nuclear tests has led to the contamination of soil, air, rivers, and oceans, causing cancer and other diseases in people.

## **7. Eliminate Toxic Chemicals**

Greenpeace also campaigns against toxic chemicals, as they prove to be a global threat to the health and environment.

## **8. Encourage Sustainable Trade**

Greenpeace opposes the current form of globalization that is increasing corporate power. It demands that the World Trade Organization (WTO) adopt a policy of trade, which works for all and that preserves and restores the environment. Governments must work toward achieving sustainable development.

## **Worldwide Fund for Nature (WWF)—India:**

WWF is an international organization for wildlife conservation with its focus on protecting particular species of wildlife fauna. As its range of activities broadened, the international organization believed that its name no longer reflected the scope of its activities and became the Worldwide Fund for Nature in 1986. But the affiliated groups in the United States and Canada retained the original name. The organization is now simply, referred to as WWF.

WWF-India is committed to protecting and saving the already degraded and threatened natural bounties in the country. The organization is today dedicated to the conservation of natural habitats and ecosystems in India.

WWF-India was established as a Charitable Trust in 1969. With its network of State/Divisional and Field Offices spread across the country to implement its programs, WWF-India is the largest and one of the most experienced conservation organizations in the country.

The Secretariat of the organization functions from New Delhi. The organization is part of the WWF family with 27 independent national organizations. The coordinating body, the WWF International, is located at Gland in Switzerland.

In order to suit India's specific ecological and socio-cultural situation, WWF-India articulated its mission in 1987 as follows: "The promotion of nature conservation and environmental protection as the basis for sustainable and equitable development."

### **The WWF-India Mission has the following program components**

1. Promoting India's ecological security; restoring the ecological balance.
2. Conserving biological diversity.
3. Ensuring sustainable use of the natural resource base.
4. Minimizing pollution and wasteful consumption, promoting sustainable lifestyles.

WWF-India implements its conservation programs through Field Programs, Public Policy, Education, Communications, NGO Networking, and Resource Mobilization.

### **International Union for Conservation of Nature**

The **International Union for Conservation of Nature (IUCN** officially **International Union for Conservation of Nature and Natural Resources**) is an international organization working in the field of nature conservation and sustainable use of natural resources. It is involved in data gathering and analysis, research, field projects, advocacy, and education. IUCN's mission is to "influence, encourage and assist societies throughout the world to conserve nature and to ensure that any use of natural resources is equitable and ecologically sustainable".

IUCN was established in 1948. It was previously called the **International Union for the Protection of Nature** (1948–1956) and the **World Conservation Union** (1990–2008). Over the past decades, IUCN has widened its focus beyond conservation ecology and now incorporates issues related to sustainable development in its projects. Unlike many other international environmental organisations, IUCN does not itself aim to mobilize the public in support of nature conservation. It tries to influence the actions of governments, business and other stakeholders by providing information and advice, and through building partnerships. The organization is best known to the wider public for compiling and publishing the IUCN Red List of Threatened Species, which assesses the conservation status of species worldwide.

IUCN has a membership of over 1400 governmental and non-governmental organizations. Some 16,000 scientists and experts participate in the work of IUCN commissions on a voluntary basis. It employs approximately 1000 full-time staff in more than 50 countries. Its headquarters are in Gland, Switzerland.

IUCN has observer and consultative status at the United Nations, and plays a role in the implementation of several international conventions on nature conservation and biodiversity. It was involved in establishing the World Wide Fund for Nature and the World Conservation Monitoring Centre.

## **Environmental Protection strategies**

Studies carried out on the state of environment in the country indicate a dangerous situation which might reach disastrous proportions. The reasons for such an impending calamity are not difficult to assess. A burgeoning population having crossed the billion mark coupled with large scale rural – urban migration has put unbearable strain on the already over – stretched infrastructure of towns and cities. The civic agencies cannot cope up with the increasing demands for water and power supply, sanitation, sewage and waste management, etc.,

Depleted water availability, shortage of power, non-availability of land for garbage disposal, increase in the number of vehicles, non-effective controls on emissions, absence of water conservation schemes, depletion of tree cover due to mushrooming commercial and housing complexes, add up to the complexities which urban areas face. Lowering of water table, selected cultivation of cash crops which are water intensive, destruction of trees for wood as construction material, extensive degradation and salination of agricultural land are some aspects which need to be addressed and ameliorative mitigation actions taken. Environmental protection is an integral part of the development process and cannot be considered in isolation from it. This involves a holistic approach and understanding of issues which are best handled with the participation of all concerned. It also involves changing of attitudes and lifestyles, such that we minimise and reduce the impacts on environment.

## **National Green Tribunal Act**

**National Green Tribunal Act, 2010** (NGT) is an Act of the Parliament of India which enables creation of a special tribunal to handle the expeditious disposal of the cases pertaining to environmental issues. It draws inspiration from the India's constitutional provision of Article 21, which assures the citizens of India the right to a healthy environment.

## **Definition**

The legislature Act of Parliament defines the National Green Tribunal Act, 2010 as follows,"An Act to provide for the establishment of a National Green Tribunal for the effective

and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto".<sup>[4]</sup>

The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts. The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice. The tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 6 months of filing of the same. Initially, the NGT is proposed to be set up at five places of sittings and will follow circuit procedure for making itself more accessible; New Delhi is the Principal Place of Sitting of the Tribunal and Bhopal, Pune, Kolkata, Allahabad and Chennai shall be the other place of sitting of the Tribunal.<sup>[7]</sup>

Also Tribunal is competent to hear cases for several acts such as Forest (Conservation) Act, Biological Diversity Act, Environment (Protection) Act, Water & Air (Prevention & control of Pollution) Acts etc. and also have appellate jurisdiction related to above acts after establishment of Tribunal within a period of 30 days of award or order received by aggrieved party. The Bill says that decision taken by majority of members shall be binding and every order of Tribunal shall be final. Any person aggrieved by an award, decision, or order of the Tribunal may appeal to the Supreme Court within 90 days of commencement of award but Supreme Court can entertain appeal even after 90 days if appellant satisfied SC by giving sufficient reasons.

## **Functions of Central Pollution Control Board**

The mandate of the Central Pollution Control Board is to set environmental standards in India, lay down ambient standards and coordinate the activities of State Pollution Control Boards.

According to section 16 of the Water (Prevention and Control of Pollution) Act, 1974, the Central Board has been assigned to discharge the functions as follows

**(a) Advise the Central Government** The Central Pollution Control Board can advise the Central Government on any matter concerning the prevention and control of water pollution.

**(b) Co-Ordination with State Board** Central Pollution Control Board is to Co-ordinate the activities of the State Boards and resolve dispute among them.

**(c) Technical Assistance/Guidance to State Boards** Central Pollution Control Board is to provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problem of water pollution and prevention, control or abatement of water pollution.

**(d) Training Programme** Central Pollution Control Board is to plan and organize the training of persons engaged or to be engaged in programmes for the prevention, control or abatement of water pollution.

**(e) Organising Comprehensive Programme** Central Pollution Control Board is to organise through mass media a comprehensive programme regarding the prevention and control of water pollution.

**(f) Functions as State Board** By the Amending Act, 1988, the Central Board can perform such of the functions of any State Board as may be specified in an order made under section 18(2) of the Water (Prevention and Control of Pollution) Act, 1974 i.e., “power to give directions”-“every State Board shall be bound by such directions in writing as the Central Government or the State Government may give to it.

**(g) Publication of Statistical/Technical Data** Central Pollution Control Board is to Collect, compile and publish technical and statistical relating to water pollution and the measures devised for its effective prevention and control and prepare manuals, codes or guides relating to treatment and disposal of sewage and trade effluents and disseminate information connected therewith.

**(h) Laying Down Standard for A Stream/Well** Central Pollution Control Board is to lay down, modify or annul, in consultation with the State Government concerned the standards for a stream or well.

**(i) Execution of Programme at National Level** Central Pollution Control Board is to plan and cause to be executed by a nationwide programme for the prevention, control or abatement of water pollution.

## **Functions of State Pollution Control Boards**

In terms of section 17 of the Water (Prevention and Control of Pollution) Act, 1974, the State Board has to perform the following functions:

**(a) Planning Comprehensive Programme** the State Pollution Control Board is to plan a comprehensive programme for the prevention, control or abatement of pollution of streams and wells in the state and to secure the execution thereof.

**(b) Advisory functions** The State Pollution Control Board is to advise the state government on any matter concerning the prevention, control or abatement of water pollution.

**(c) Dissemination of Information** the State Pollution Control Board is to collect and disseminate information relating to water pollution and the prevention, control or abatement thereof.

**(d) Investigation and research** The State Pollution Control Board is to encourage, conduct and participate in investigation and research relating to problems of water pollution and prevention, control or abatement of water pollution.

**(e) Organising training programme** The State Pollution Control Board is to collaborate with the Central Board in organising the training of persons engaged in programmes relating to prevention, control or abatement of water pollution and to organise mass education programmes relating thereto.

**(f) Inspection of sewage/trade effluents plants** The State Pollution Control Board is to inspect sewage or trade effluents works and plants for the treatment of sewage and trade effluents, and to review plans, specifications or other data relating to plants setup for the treatment of water, works for the purification thereof and the system of the disposal of sewage or trade effluents or in connection with the grant of any consent as required by the Water (Prevention and Control of Pollution) Act, 1974.

**(g) Lay down Standards for Causing Discharge of Water** The State Pollution Control Board is to lay down, modify or annul effluents standards for the sewage and trade effluents and for the quality of receiving waters resulting from the discharge of effluents and to classify water of the state.

**(h) Economical Methods of Treatment of Sewage** the State Pollution Control Board is to evolve economical and reliable methods of treatment of sewage and trade effluents, having regard to the peculiar conditions of soil, climate and water resources in different regions.

**(i) Methods Regarding Utilization of Sewage** the State Pollution Control Board is to evolve methods of utilization of sewage and suitable trade effluents in agriculture.

**(j) Methods of Disposal of Sewage** The State Pollution Control Board is to evolve efficient methods of disposal of sewage and trade effluents on land, as are necessary on account of the

predominant conditions of scant stream flows that do not provide for major part of the year, the minimum degree of dilution.

**(k) Laying Down Standards for Treatment of Sewage** The State Pollution Control Board is to lay down the standards of treatment of sewage and trade effluents to be discharged into any particular stream taking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the streams after the discharge of suit effluents.

**(l) Advisory Functions** the State Pollution Control Board is to advise the state government about the location of any industry the carrying out of which is likely to pollute a stream or well Besides the aforesaid statutory functions, the State Board is also to perform functions as may be prescribed from time to time, or may be entrusted to it by the Central Pollution Control Board or the State Government.

## **Conclusion**

Environmental management is the management of the impact and interaction of human societies on the environment. Environmental Management is the practice of keeping soil, air and water safe for humans and wildlife. An environmental management system addresses the environmental impact of an organization's activities and establishes goals and procedures that will improve the impact it has on the environment and human health.

## **Questions for Discussion and Reflection**

1. Explain the need and dimensions of environment.
2. What are the impacts of Human Activities on Environment?
3. Write an essay on International NGO'S and Environmental protection.
4. Discuss Environmental protection strategies initiated

## UNIT V ENVIRONMENTAL EDUCATION IN SCHOOL CURRICULUM

### Objectives

After the completion of the unit, the learners will be able to

1. Describe the environmental education in school curriculum.
2. Explain the different stages of environmental education.
3. Identify the innovative methods of teaching environmental education.
4. Discuss the problems faced in teaching environmental education.

### Status of Environmental Education in School Curriculum

Environmental Education has been introduced in school curriculum at pre-school level, Elementary level and higher secondary level both in state board (Tamil Nadu) schools and in Central Board (CBSE). Both syllabuses are prepared in accordance with the National Policy of Education in 1986.

Environmental Education is inter-disciplinary in nature. It involves subject matter from natural science and social science. NCERT has developed national curriculum for all stages of education specially emphasizing the aspects of general awareness, land resources and their uses, food and nutrition, conservation, pollution, health and hygiene and man in nature of Environmental Education.

### Pre-school Level

At pre-school level, a general awareness about the personal hygiene and environmental cleanliness are introduced in a simplified version through a number of colourful diagrammatic illustrations. Rhymes related to nature are also introduced. The Government of Tamil Nadu has introduced *scientific Tamil (Ariviyal Tamil)* also various levels in school curriculum, environmental education is one of the components included in the text book of Scientific Tamil. This book is published by the Tamil Nadu Text Book Society, Chennai-6.

### Elementary Level

At Elementary level, the focus is stressed towards the environmental cleanliness. The concept of “ENVIRONMENT” is introduced. The relationship between the child and the environment is emphasized. The child understands that he/she is surrounded by land, water, air, plants and animals. The role of environment is brought out through storytelling and singing



songs. But less emphasis is given to various practical activities in connection with environmental education.

### **Secondary Level**

The concepts of environmental education have been provided in the text books of science and social science in state of Tamil Nadu. The course materials are built on fundamental understanding of ecological and bio-geographical principles. The important objectives are to understand the ecological principles and issues, and to know about the conservation. At the 6<sup>th</sup> standard level, the environmental hygiene is explained in scientific Tamil Text Books.

#### **In *sixth* standard level**

- Primary Energy
- Water Harvest(through song)
- Environmental hygiene
- Medicinal plant
- Life without disease

Similarly, in 7<sup>th</sup> standard of scientific Tamil the following concepts related to environmental education are introduced:

- Protection of soil, tree(through songs)
- Electricity from clouds
- A search for plants
- Noise pollution
- Chemicals in our daily life
- Food as medicine
- Biosphere
- Green house effect
- Ozone layer depletion
- Wind power
- Use of fertilizers and pesticides
- Environmental laws and acts
- Environmental concepts also extend to subject areas like Language and Social Science, which reinforce learning and Internalization of all such concepts.

## **Higher Secondary Level**

In general, at higher secondary level, only those students selecting science subjects like Mathematics, Physics, Chemistry and Biology are exposed to environmental education. Majority of the concepts are found in the text books of Biology, Chemistry and Geography, which are optional subjects. Students opting for any one of these subjects would accordingly benefit in different aspects of environmental education.

The coverage of environmental education concepts in the text books of various subjects includes:

- Environment and sustainable development
- Atmospheric pollution-Global Warming
- Acid rain
- Water pollutions-International Standards of Drinking water
- Land pollution-pesticides
- Ecology

Some of the activities pertaining to Environmental Education from primary, elementary, secondary and higher secondary level.

## **Environmental Education At Different Levels Of Education**

Environmental Education is a process that allows individuals to explore environmental issues engages in problem solving and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skill to make informed and responsible decisions.

### **Meaning of Environmental Education**

Environmental Education is one that helps individuals to become more knowledgeable about their environment and to develop the responsible environmental behaviour and skills so that they can improve the qualities of the environment.

### **Definition of Environmental Education**

Environmental Education is aimed at introducing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve

these problems and motivated to work towards their solution.

*-Stapp.W.B.,et al(1969)*

## **Environmental Education at Different Stages**

### **Primary Stage**

The world of the child begins with an awareness of its own body and gradually expands, in ever-widening circles to an exploration of the immediate surroundings-family and home, neighbourhood, school and beyond.

Valuable learning takes place through interaction with the immediate environment. Everyday Children experience the natural environment-Seasons, Heat, Rain, Cold, The sky, The sun and Moon, Different aspects of water, Plants and Animals. Children, especially young have a natural desire to learn and make sense of the world around them.

The National Curriculum Framework 2005 (NCF) recognizes that “Learning in early years must hence be directed by the child’s interest and priorities, and should be contextualised by their experiences rather than being structured formally. An enabling environment for children would be i.e., rich in stimulation and experiences, that allow children to explore, experiment and freely express themselves and one that is embedded in social relations that give them a sense of warmth, security and trust”.

### **Secondary Stage**

Students at the secondary level, as intermediate between primary school and University College, are in a varying age group according to the school system. Secondary school involves young people of both sexes. The so called generation gap is directly related to the education crisis. Students have antagonistic feelings towards school and teachers.

Students should clearly see why they should be concerned with the environment. Youths are “now individuals”. It is necessary to relate ecological-environmental long term aims to short term interests of individuals. By predicting future problems and hardships, students might respond with an implicit, “so what” attitude.

Teacher should explore the environment with students, both intellectually and by experience, in order to obtain factual knowledge and the motivating concerns regarding man’s relationship and responsibility within human ecosystem.

## Higher Secondary Stage

The concepts of Environmental Education have been provided in the text books of Science and social science, in the states of Rajasthan and Madhya Pradesh. In Orissa, there are textbooks, namely Science part-1 (physical science), science part-2 (Biological science) and geography. The Environmental concepts both are at *concrete* and *abstract levels*. The concepts covered are:

- Biosphere
- Green House Effect
- Ozone Layer Depletion
- Use of fertilizers and pesticides
- Wild life protection
- Soil chemistry
- Management of domestic and Industrial Waste
- Ecosystem
- Radiation Hazards

## College Stage

This is the stage of diversification. Students opt for either the academic stream or the vocational stream. The treatment of concepts become deeper and more discipline oriented since the content caters to demand the concerned subject, as an independent discipline a comprehensive view about Environmental Education is not available in the textbooks.

The coverage of Environmental Education concepts:

- Environment and sustainable development
- Global Warming
- Green House Effects
- Water pollution
- Bio-chemical oxygen demand
- Chemical oxygen demand
- Pesticides
- Ecology

## **Innovative Methods of Teaching Environmental Education**

### **Discussion Method**

A discussion is an open forum in which learners can express their opinions as well as review factual materials. In addition, discussion is a natural opportunity for students to exercise their command of the processes of communication, inference and conclusion (Wolfe, 1984). In the discussion method the teacher gives a brief introduction of the topic for discussion. The references are given by the teachers.

Whenever, the discussion method is followed by the teacher should keep in view the following points which are highlighted by Sharma (1996) :

- The topic for discussion should be chosen with due care and thought. It should commonly be of general nature –neither very simple nor very technical but which involves some thinking Interpretation on the part of the pupil.
- Teacher has to be very careful that discussion is not stretched away from the topic but is relevant. Time should not be wasted for irrelevant discussion.
- Class discipline should not be disturbed
- Any controversial point should be settled by the teacher at the proper time.
- The points left out by a particular group should be supplemented by the teacher.

### **Objectives of Discussion Method**

The objectives of discussion method are listed hereunder;

- To share information
- To clarify ideas
- To inspire interest
- To promote co-operative learning
- To identify the different views on a problem
- To get conceptual clarity
- To develop the skill of expression
- To evaluate progress
- To locate and define a problem
- To allocate responsibilities to find ways of solving the problems

## **Types of Discussion**

There are two types of discussion which are as follows;

1. Open discussion
2. Planned discussion.

### **Open Discussion**

Open discussion is one in which the learner determines the topic and the role of the teacher is to ask questions that will lead the learner to consider the various ideas. There can be no planning because the open discussion is spontaneous by definition. It can be extremely effective in getting learner to make inference and draw conclusion.

### **Planned Discussion**

In a planned discussion the teacher determines the content of the discussion plans the questions and guides the learners towards some predetermined goals. It is a way of introducing and teaching content to the learners in a way that will involve them cognitively.

Hence, discussion is a natural opportunity for students to share their ideas freely with others in order to get conceptual clarity.

### **Seminar**

The term “seminar” is generally used to refer to a structured group discussion. Individual students also prepare a paper or report and presents before a group of peers, as in the case of seminar paper presentation.

### **Preparation for Seminar**

The teacher should take the initiative in acquiring the students with objectives and purpose of the seminar. Seminar requires much planning in terms of referring to literature on related aspects of seminar topics, organising the collected data in a sequential manner and presenting the paper through effective reporting. During the presentation of papers at seminar varies from topic-to-topic and discipline-to-discipline. Generally 30-45 minutes are permitted for presentation followed by discussion for 10-15 minutes. Adequate time should be given to students or other participants to clear their doubts and probe the major aspects of the topic.

Observation by individual students appointed by the teachers, along with the teacher can be carried out in order to give a feedback to the presenter on his presentation.

### **Advantages of Seminar**

- The ability to detect and derive the principle from the context is developed.
- Understanding power and questioning ability in a relevant situation are strengthened.
- Self-reliance, self-confidence, sense of co-operation and responsibility are developed.

### **Workshop**

Workshop is a get-together for some creative educational activity. While discussion demands must talk, workshop is a “shop for work”. It is an activity-oriented technique. The group consisting of teacher, students, administrators, may initiate the workshop in general session and frame guidelines for the conduct for the workshop. It involves directly the skills of both cognitive and psycho-motor domains. Preparing reports, syllabi, manuals and critical reviews, visiting places, making teaching-learning aids, and planning instructional designs, instructional materials and modules are examples of activities of a workshop session.

### **Advantages of Workshop**

The following are the advantages of workshop:-

- It is an activity-oriented technique.
- The workshop is based on the principles of learning by doing.
- It is co-operative work which promotes the work culture.
- It involves the skill of cognitive, affective and psycho-motor.

### **Field Trips**

Field trips are very much educative and they create great curiosity in students and also bring out their creativity.

### **Keown (1984) states that**

- those concepts that are integral part of the students’ environment are best learned in the outdoor environment.

- The concepts have a better chance of being understood and retained, if parts of concept can be related to students' environment.
- Critical thinking is enhanced in the outdoor environment.

## **Field Survey**

Field survey is an analysis of the present status about a particular area. Through a field survey, one can get a correct picture of the status of a particular event. It is a natural observation that Rousseau emphasized this natural observation is the best method of teaching as compared with classroom teaching-learning and studying book. Through the field survey in environmental education, the learner gets first hand information about the environmental problems.

The outdoor studies also require a detailed planning like field trips, but those studies may be limited to the local environments.

## **Types of Field Survey**

Based on the objective, the field survey can be classified into many types. Some of these are listed below,

- Local field survey
- Regional field survey
- Geographical survey
- Historical survey
- Industrial survey
- Field survey of natural vegetation
- Field survey of animals
- Survey of soil and fauna
- Field survey of community.

## **Objectives of Field Survey in Environmental Education:**

The following are the objectives of field survey:-

To promote awareness about learner's environment.

- To develop the tendency to survey it and utilize it for understanding.
- To develop the ability for interpreting the learners' own experience and observation.



- To promote the skill of observation and interpretation.
- To develop the ability of co-operation and group-work.
- To identify the qualities of the environment.

### **Steps Involved in Field Survey**

The environment field survey has the following steps:-

Step-1	Writing objectives
Step-2	Planning
Step-3	Identification of tool and techniques
Step-4	Execution collecting information
Step-5	Evaluation
Step-6	Follow- up activities.

Thus, field survey provides a vivid picture about a particular area. It is a scientific way of investigating the status of environment.

### **Projects**

A project is a problematic act carried to completion in its natural setting. The project method consists of building a comprehensive unit around an activity which may be carried on in the school or outside. “*Learning by doing*” and “*Learning by living*” are the two cardinal principles of this method.

The teacher acts as a guide and helps the students to find the facts and principles themselves. The role of teacher is not of a dictator but a friend, guide and work partner in the project method. Students have to take up certain projects. Each student or small group of students is given a work for which the student takes responsibility of completing it successfully.

### **Steps in Project Method**

Steps involved in project method are as follows:-

- Sensing a problem
- Defining a problem

- Selection of appropriate methodology
- Data collection
- Process of analysis
- Drawing conclusion
- Evaluation
- The cording.

### **Characteristics of a Good Project**

The following are the characteristics of good projects:-

- Projects should allow the active participation of both learners and teachers.
- It should be useful and purposeful.
- It should have definite educational values.
- It should be practicable.
- It should not be expensive.

### **Merits of Project Method**

The following are the merits of project method:

- 1) This method is based upon the laws of learning.
  - a) Law of readiness
  - b) Law of exercise
  - c) Law of effect
- 2) It promotes co-operative activity and group interaction.
- 3) It is a democratic way of learning. The children choose, plan and execute the projects themselves.
- 4) It sets up a challenge to solve a problem and this stimulus constructive and creative thinking.

### **Demerits of Project Method**

The following are the demerits of project method:-

- It absorbs a lot of time.
- It involves much more work on the part of the teacher.
- Text books and materials written on these are not available.

- It is expensive in the sense that a well- equipped library and laboratory are required.

## **Exhibition**

Exhibition in environmental education means presentation to view a display or showing of the material relevant to the environmental studies.

Exhibition or exhibitions can be arranged to show the project work of the students or to get suitable remedies. It is essential to form a committee to organize the exhibition. It should be distributed among the various committees drawn for the purpose.

The leadership should be gradually passed from teacher to students. The teacher should supervise entire procedures.

Advantages of Exhibition:

- Exhibition is based on the principles of learning
- The learners can observe analyze, criticize, and apply the scientific laws.
- They get chance of picking up skills by means of participation in the exhibition.
- Exhibition promotes scientific attitude among the learners.
- It helps the learners to use science in life situations.
- It promotes exploration and creative spirit among the learners .
- It propagates scientific information.

## **Important Methods of Instruction in Environmental Education**

### **Videos**

- The educator team uses videos produced by native for kids (NFK) in collaboration with UNITE for the environment, the Max plank institute for evolutionary anthropology (MPI) and the kassisi project.
- As videos form a valuable medium which help learners to understand the abstract concept and interact freely with the teacher when they watch a particular programme in the video-show.

- These videos are relevant and meaningful to rural Ugandan audiences, as local communities were closely consulted on their content. They address three key environment threats of snaking, bush meat and habitat loss.
- Covering topic such as waste management, grassland maintenance, human wildlife conflict and deforestation raise awareness of the dangers in all of them.
- Sometimes it is very difficult to bring all the learners in the field of investigating the environmental problems. Hence teacher can arrange a video-show about the problems like Narmadha controversy and so on, by which the learner can easily understand the problems.
- Documentary film can also emphasis ecological problem that happened in the past. For instance the issues in Japan (march 1973) about the “chisso corporation’s aceto-aldehyde plant” which brought varied health issues to people.
- These help to bring out the courses of environmental problems, sharing of experiences from the other countries but most importantly what school children and communities can do to address these challenges.

## **Television**

- As television has a great influence on young generation and easy access to the people, it helps for man education through satellite about the environment.
- Through film, documentaries, animation, debates and social programmes, the learners gain immense knowledge about the issues of environment and solution for the problems.
- From experienced film makers and aspiring Vloggers tells environmental stories to learners creates the awareness about the eco-system.

- The educational television (ETV) is the system that present learning content in various subject areas through programmes prepared by a central agency.
- The following are the ETV programmes in India
- Delhi Agricultural Television (DATV) project.
- Satellite Instructional Television Experiment (SITE)
- Secondary School Television Project
- Port-SITE Project
- Higher Education Television Project (HETV) of UGC.

### **Advantages of Television Programmes**

- The educational authorities can produce TV lessons made to their own requirement for special local needs.
- Creates genuine interest in the topic or the subject that is being taught.
- To provide a wide variety of experiences, those are quite different from the routine classroom instruction.
- T.V has the advantage of the audio as well as the video aids.
- Stimulate less passive slow learners by developing more critical approach in them.
- Learning process with T.V reduces the dependency on teachers.

### **Limitations of Television Programmes**

- The screen is small and the focused screens are not clear enough for the large size classrooms.
- The lesson timings are inflexible and sometimes inconvenient.
- The class teacher has no control over the pace of development of a TV lesson.
- The learners are the passive observers and are nor active participants, as one way communication.
- Interruptions and distractions at the receiving end can seriously impair the effectiveness of the lesson.

- Teaching and learning through TV in an individualized method and thus co-operation, adjustment, cardinal relationship etc, are not developed in viewers.
- The effectiveness of any transmitted aid is limited to the range of the transmitter.

## **Other Methods**

### **1. Stimulation and Games**

Stimulation and games can be used to acquire the learner's attention on both attitudes and content. The advantages of games and stimulation, according to Altman (1972) is that they have intrinsic potential, presence of mind for motivation.

### **2. Debates**

On arranging debates over the topics of environmental issues, brings discussion about the awareness of environmental issues necessary feasible solutions.

Many cotemporary environmental issues could be debated in the classroom in order to gain solution for them.

### **3. Readings**

A teacher can ask the students to get further information through additional readings. This will help to grow individually.

Reading leads to self- learning and develops one's skill over reading comprehensive.

### **4. Inquiry**

On finding a problem over any occasion, the students can take up an inquiry to probe into it.

The teacher should develop inquiry guides for the benefit of the students.

This will develop their critical analyzing skill and critical thinking.

### **5. Guest Lectures**

Guest lecturers tend to provide further information about the content and provide many activities.

Guest lecturers given by eminent personalities will motivate the students and make them participate in such activities.

### **Environmental Education Programmes to be undertaken in Educational Institutions**

- Mere knowledge about environmental problems does not develop the necessary behaviour in any individual to conserve his environment and its quality (Lucas 1980).
- Following are some of the important ways suggested to develop the important values and feeling of concern for the environment, motivation for actively participating in environmental protection and development.

### **Arranging for Video-Clips**

- Video-clip over environmental related factors like waterfalls, mountains, dense forest, deep seas and other natural resources could be prepared as video albums and made available in the school “Educational Technology Laboratory” , for students to love and enjoy the eco-system.
- It helps to increase student’s interest and enhance their learning experiences and learning resources for further cohorts to use.
- Copies of photographs taken by students during their school excursion could also add on an album to project.

### **Establishing Environmental Club**

Alike the subject clubs, in the school ‘Environmental Club’ is the one which has the active members who are interested in protecting and conserving the environment.

### **Talking of Oath**

- The oath over the environment is committed to reducing its environmental impacts.
- Continually improving environmental performance.
- Promoting positive behaviour throughout the operation.

- Every member in that club should take the oath with others in the class like “I, all through my life will not indulge in any activity that affect or injure the environment”.

### **Field Trips**

- Field trips are a time-honoured tradition in most schools. Students often love them because field- trips give them a chance to get out of the classroom and experience something new.
- Such field trips tend to develop the followings.
- New learning environment
- Team building
- Planning
- Liability
- Develops the visual literacy

### **Celebrating the World Environmental Day**

5<sup>th</sup> June of every year is celebrating as the “World Environment Day” by planting a sapling in the institutional campus and distributing tree sapling freely to interested people.

It is the United Nations principle vehicle for encouraging worldwide awareness and action for the Protection of our environment.

### **Creating an Environmental Corner**

- In some environmental challenging schools, they set up “Environmental Corner” in which a display board, contains various information about the issues and programs are maintained.
- Teacher also encourages the students to write or stick any news related to the environment in the display board like “In Chennai an old man planted more than 1000 trees on roadside and watering them regularly”.
- The ECS aims to inculcate good environment and social values among the students by increasing awareness of local environmental issues that affect their community.

### **Tree Planting**



- Everyone is to be encouraged to plant a sapling either in the school or at home on their birthday gift.
- Similarly pupils are to be urged to present a plant or tree- sapling as birthday gift.

### **Conducting Environmental Festival**

- Alike the common culture festivals, environmental festival can be conducted by school children every year near the villages.
- They arranged various cultural programmes, debates, dramas, and other art forms on themes related to environmental problems.
- The purpose of environmental festival is for students to meet professionals who work in the environmental sciences every day; thereby gaining an understanding how the science concepts can apply to real life.

### **Conducting Competitions in Environmental Awareness**

- According to Wilson-smith “The competition is structured to encourage competition from the entire cross-section of students because it facilitates individual capability while empowering them to practice various academics and social skills”.
- Annual competitions could be arranged for school children in environmental awareness.
- Students are encouraged to participate in competitions like “poster making, drawing cartoons, essay writing, composing poem, elocution, group discussion and debates”.

### **Long Walk to Promote Environmental Awareness**

- Students could encourage to undertake “paadhayatra” (long walk), cycle rally or peace march to promote environmental awareness on the eve of “World Earth Day” and “ World Forest Day” and so on.
- Students carry boards with awareness slogans like “You Smoke, I Cough”, “and Say No to Cigarettes”, “Each One and Plant One” and so on.

### **Programmers on Hygiene and Sanitation**

#### **Personal hygiene**

- Washing the body often if possible everybody should have a shower or a bath every day.
- Cleaning the teeth at least once a day. Brushing the teeth after each meal is the best way of making sure that gum disease and tooth decay are avoided. It is very important to clean teeth after breakfast and immediately before going to bed.
- Changing into clean clothes. Dirty clothes should be washed with laundry soap before wearing them again.
- Hanging clothes in the sun to dry. The sun rays will kill some disease causing germs and parasites.
- Turning away from other people and covering the nose and mouth with a tissue or the hand when coughing and sneezing.
- Washing hands before preparing foods helps keep germs out of our bodies.
- Keeping the teeth, mouth, nails, limbs, ears, hair and the body clean and neat by daily washing and brushing.

### **Public Hygiene**

- Protected drinking water facilities are provided to the public in order to maintain public hygiene.
- If the drinking water is contaminated. It leads to causes of water borne diseases.
- Use the public toilet properly one of the most important practices to maintain public hygiene is use of public toilet facilities.
- When you go to public places such as Bus stand, Railway park and beach etc., Don't use the open toilet for urination or defecation. After using the toilets pour water to clean them.
- Eat only the food in the protected environment. After cooking the food. It should be kept in the closed environment. So that to avoid flies and other insects do sit on the food.
- Treat skin infections in time. If ignored it tends to aggravate and spread all over the body and it may spread to others also.
- Wash your socks. This is important not only for your personal health best. It is also in general public interest. As you move around your socks accumulate a lot of dust and bacteria.

## **Sanitation**

- The term sanitation is connected with various descriptors or adjectives to signify certain types of sanitation systems which may deal only with human excreta management or with the entire sanitation system. That is also grey water strong water and solid waste management.
- Sanitation system aim to protect human health by providing a clean environment. That will stop the transformation of disease.
- Diarrhoea, Malnutrition and stunted growth in children can be reduced to sanitation.
- These are many other diseases which are easily transmitted in communities that have low levels of sanitation. Disease such as cholera, hepatitis, polio and trachoma.
- The Human Right to water and sanitation was recognized by the United Nations general assembly in 2010. Sanitation is a global development priority and subject of sustainable development to goal.
- Lack of access to sanitation as an impact not only on public health, but also on human dignity and personal safety.

## **Problems Faced in Teaching Environmental Education**

Some of the major problems facing environmental education in the country can be described as follows;

### **Resource Constrains**

Lack of resources is one of the major problems that is being encountered in the promotion of environment education in the country. This is true of other developing countries too. It is fact that any environmental education programme requires adequate resources both in terms of money and personal, it is to be implemented successfully.

### **High Dropout Rate**

Because of the high dropout rate in our education system teachers are left with no option but to begin the environmental education component from the primary classes to ensure that they students even if they drop out later one sensitized to the environmental problems.

## **Social Constrains**

Sometimes conclusions drawn from the study of environmental thinking. This clash in thinking may lead to undesirable confrontation environmental education has no meaning purpose if it is not accompanied by action. Ensuring this action is not easy.

## **Difficulty in Assessment**

Assessment of the work done as part of environmental education is difficult as many a time it is difficult to think of a common hard stick to evaluate the work done under different projects.

## **In Effect Formal Environmental Education Faces The Following Difficulties**

- A shortage of supporting staff and office equipments of the national environmental education centre.
- Shortage of environmental education national for teacher and students.
- Weak monitoring system.
- Lack of government priorities or political will for environment policy
- Lack of appropriate legislative from work enforcement and institutional support
- Government control of Mass media
- Lack of commitment and involvement on the part of the people concerned.

## **United Nations Environment Programme (UNEP)**

- United nations environment programme is an international environmental agency operation across the world with the support of United Nations Organisation
- It coordinates its activities, assisting developing countries in implementing environmentally sound policies and practices.
- It was founded Maurice strong its first director, as a result of the United NATIONS CONFERENCE ON Human Environment (Stockholm conference) in June 1972 has its headquarters in Girir neighbourhood of Nairobi and Kenya.
- But International talks on specialized issues such as climate change or combating decertification.

- The world meteorological organizations and Un Environmental established the Intergovernmental panel on climate change in 1988
- There is a 300.100 staff of them professionals in a variety of fields and with a five year fund of more than 1200 millions.

### **Executive Director**

UNEP'S current executive director Erik Solheim succeeded the previous director A Steiner in 2016. As a media friendly approach often uses the term UN environment

The position was held for 17 years (1975-1992) by bringing environmental considerations to the forefront of global thinking and action.

### **Structure**

UNEP structure includes seven substantive divisions;

- Early warning and assessment (DEWA)
- Environmental policy implementation (DEPI)
- Technology industry and economics (DTIE)
- Regional cooperation (DRC)
- Environmental law and conventions (DELG)
- Communications and public (DCPI)
- Global environment facility coordination (DGEF)

### **Activities**

UNEP main activities are related to climate change, disasters and conflicts, ecosystem management, environmental governance, environment under review, harmful substances, and Resource efficiency.

In June 2010, a report from UN environment declared that a global shift towards a vegan diet was needed to save the world from hunger shortage and climate change.

### **Centre for Environment Education**

The centre for environment education (CEE) in India was established in august 1984. As a centre of excellence supported by the Ministry of Environment and forests. The Organisation works towards developing programmes and materials to increase awareness about the

environment and sustainable development. The head office is located in Ahmadabad. The centre has 41 offices across India including regional cells in Bangalore(SOUTH), Guwahati(Northeast), Lucknow (north), Ahmadabad (west), and pune (central), state offices in Delhi, Hyderabad, Rajpur, Goa, Coimbatore and several field offices. It has international offices in Australia and Srilanka Government of India Mr. Karthikeya Sarabhai is the Director of CEE.

CEE has inherited the rich multi disciplinary resource base and varied experience of Nehru foundation for development its parent organization which has been promoting educational efforts since 1966 in the areas of science, nature study health development and environments.

At the time it began its activities, CEE the only organization actively engaged in environment education in the country while carrying out programme in different parts of the country. It was located only Ahmadabad. Within five years of activities, it was realized that for a country as vast and diverse and India, physical presence was important for effective implementation.

Based on this, the first regional office was opened southern in 1988-99 since then it has been a conscious effort to have office or presence of the geographical area of work.

It mainly aimed at creating environmental awareness in communities, conducting widespread environmental education and training programme through a very cast network. It has a vast range of publications, books, posters, educational packages, bibliographies and directories. There is also a large computerized database the environmental education bank which has a collection so more than 300 environment concepts about 2500 environment related activities and hundreds of cases studies.

After complementing a decade of activities in 1994, it was decided to move more for environmental education to environmental action. This was an outcome of the earnings and experience in the first ten years. CEE organization more pilot, field level and demonstration projects towards sustainable development which could be scaled up and replication. Within the next ten years, these projects formed a major chunk of centre activities.

Today CEE works for a wide range of sectors target groups and geographical areas. CEE sees a major opportunity in the UN decade of Education for sustainable development to further contribute towards sustainable development CSE is the nodal agency for implementation of

DESD activities in India under the ministry of human resources development, Government of India.

CEE's programmes in the decade will focus on training and capacity building, Internships and youth programmes, consultancy services knowledge centre for ESD and journal on education for sustainable development.

CEE's work is organized around thrust areas, As an organizing principles

- Education for children
- EE in higher education
- Examination system for EE
- Education system for youth.
- Communicating environment through the media
- Experiencing nature
- EE through Interpretation
- Knowledge management for sustainable development
- Industry Urban development
- Sustainable Rural development
- Water and sanitation
- Water management
- EE for fragile areas
- Bio diversity conservation
- Ecotourism
- Disaster preparedness and rehabilitation
- Training, networking and capacity building
- Facilitating NGO and community initiatives
- Initiatives for the UN decade of education for sustainable development
- Research in EE

### **Role of N.C.E.R.T in Environmental Education**

For the promotion of education of school level NCERT undertakes the following activities

- Extension activities such as publication of quarterly journal school science and organizing a national science exhibition every year. The themes of the exhibition are generally environment based.
- Training programme for teachers and teachers educators. Development of films video programmes of Indian environment. There is a film library in NCERT that loans films to schools
- Publication of supplementary reading materials
- Collaboration with international agencies like UNESCO, UNICEF, UNEP etc.,
- In order to generate awareness and motivate the youth and young children in INDIA especially by the government. On the 18<sup>th</sup> December 2003, the honourable Supreme Court further ordered and directed NCERT to prepare a module syllabus.
- On 13<sup>TH</sup> July 2004, the Supreme Court directed that the syllabus prepared by the NCERT from class I to XII SHALL BE ADOPTED BY EVERY STATE IN RESPECTIVE SCHOOLS.
- It further directed that NCERT be appointed as a nodal agency to supervise the implement of the court order. Mandatory and desirable and applies to all states and union territories.
- NCERT developed the syllabus on environment education for class to XII which was accepted by the Supreme Court. The ministry of environment and forest is the nodal agency in administrative structure of the central government for the planning promotion coordination and overseeing the implementation of India environmental and forestry policies and programmes. They have an environmental education division.
- The objective of the division is to
- Develop educational teaching materials and aids for formal education sector
- Encourage non-government organizations, mass media and other concerned organizations for promoting awareness among the people at all levels.
- Promote environment education through existing educational scientific research institutions.
- Ensure training and manpower development in environmental education
- Mobilise people awareness for the preservation of conservation of environment.



## **NCERT Approach for Environment Education NCERT Lays Emphasis Upon the Following Aspects**

- Population
- Land its uses
- Different types of resources and their uses
- Food and nutrition
- Pollution
- Man and nature relationship

### **Role of Teachers in Environmental Education**

The objective of environmental education is to learn the skills of gathering information developing desirable attitudes, values and habits hence the teacher has to act as a guide and stimulate the children to use their abilities to acquire information

The teacher may structure the learning experiences and activities and prepare the points and enquiry. The students can be divided into small groups to conduct the investigations. The group may exchange their experiences in the general class and enter into discussing functions of the teacher may be summarized as follows

- To discuss the approach to problems or topics
- To organize working groups and to provide with the help of work cards for the lines of enquiry.
- To discuss the approach to problems or topics
- To arrange visits
- To provide reference materials for children's use.
- To provide reference materials for children use
- To arrange for visiting speakers.
- To initiate and develop discussion and debate and
- To provide facilities and for displays and exhibitions of the work carried out.

Education acts as a powerful tool in the socio economic transformation of a society, community and nation. It sharpens the eye of knowledge, develops awareness and makes mind logical. Teacher being the agent of social change, play an active role in shaping the behaviour of

children to promote desire for environmental awareness. Teachers adopt age level specific strategies to impart environmental education

**Apart from usual classroom teaching, Teacher plays their significant roles as**

- Providing opportunity to observe local environment features, problems and phenomena and changes in community.
- Allowing children to classify living and nonliving things on the basis of criteria chosen by children themselves.
- Helping them to draw obvious inference from their observation and such classification.
- Organizing out of class activities based on learning on immediate environment.
- Co relating the environmental issues while teaching the curriculum subject.
- Encouraging students to acquiring social values through active. Participation in environmental protection activities.
- Creating awareness on renewal and nonrenewal resources
- Enabling students to acquire basic knowledge and understanding of the total environment, its problem and role of Human Being.
- Providing ample knowledge and skill regarding Gandhian concept of development

Apart from these the teacher should tell students the fundamental duties of Indian citizen with regard to environmental duties of India citizen with regard to environment as incorporated in part IV-A of India. constitution to protect and improve and the natural environment including forest, lakes, rivers and have compassion for leaving creatures.

**Conclusion**

In this materials and approaches of imparting environmental education at different stages of formal education. Some important instructional methods followed in environmental education and their relative's merits, United Nations environmental programme centre for environment education have been discussed.

**Questions for Discussion and Reflection:**

1. Describe the environmental education in school curriculum.
2. Explain the different stages of environmental education.
3. Examine the problems faced in teaching environmental education.
4. Explain the role of teachers in environmental education.

# TAMIL NADU TEACHERS EDUCATION UNIVERSITY

Chennai - 600 097.

## COURSE MATERIALS FOR B.Ed. SECOND YEAR (2016-2017)

### COURSE: 8 – KNOWLEDGE AND CURRICULUM

#### *Lessons Prepared by*

- Unit: I** : Epistemological bases of education  
**Mr.R.Senthil Kumar, Assistant Professor**
- Unit: II** : Social bases of Education  
**Dr.A.Rajeswari, Assistant Professor**
- Unit: III & IV** : Child-centered Education & Nationalism, Universalism,  
Secularism and Education  
**Dr.K.Vijaya, Assistant Professor**
- Unit: V** : Education and democracy  
**Dr.A.Rajeswari, Assistant Professor**
- Unit: VI& VII** : Meaning and nature of curriculum & Principles of curriculum  
development  
**Dr.V.Balakrishnan, Dean of Faculty & Professor and Head**
- Unit : VIII** : Resources of curriculum  
**Mr.R.Senthil Kumar, Assistant Professor**
- Unit: IX& X** : Curriculum Implementation & Curriculum Change and  
Innovation  
**Dr.K.Devisri, Assistant Professor**

**Department of Curriculum Planning and Evaluation**

Tamil Nadu Teachers Education University,  
Chennai-600 097.

## **COURSE-8 :KNOWLEDGE AND CURRICULUM**

### **UNIT- I: EPISTEMOLOGICAL BASES OF EDUCATION**

#### **Course Objectives**

At the end of the course, the student-teachers will be able to:

- To know about the meaning of Knowledge, skills, teaching, training, information, reason and Belief.
- To find the above aspects how to help the teaching profession.
- To know differences between knowledge-skills, teaching-training, knowledge-information, Reason-belief.

#### **Introduction**

Epistemology focuses on our knowledge of reality. Epistemology analyses about the validity of sources of knowledge. The epistemologist tries to answer questions like ‘what is the difference between knowing and believing? What can we know beyond the information provided by our sense organs? What is the guarantee that what we know is true? Thus the major concerns of epistemology are knowledge and truth.

According to naturalism, senses are the sources for knowledge. It is confirmed by their statement, ‘senses are the gate –way of knowledge’

In the realist’s epistemology an elaborate and comprehensive conception of a realm of experience is given greater significance than in the pragmatists. For the pragmatist a theory is at best only a source of hypothesis. Moreover, the pragmatists do not attach explicit importance to the fund of accumulated wisdom form the past which is transmitted in the form of tradition and theory as the realist do. For realists, pure theory is an elaborate and comprehensive conception of a realm of experience.

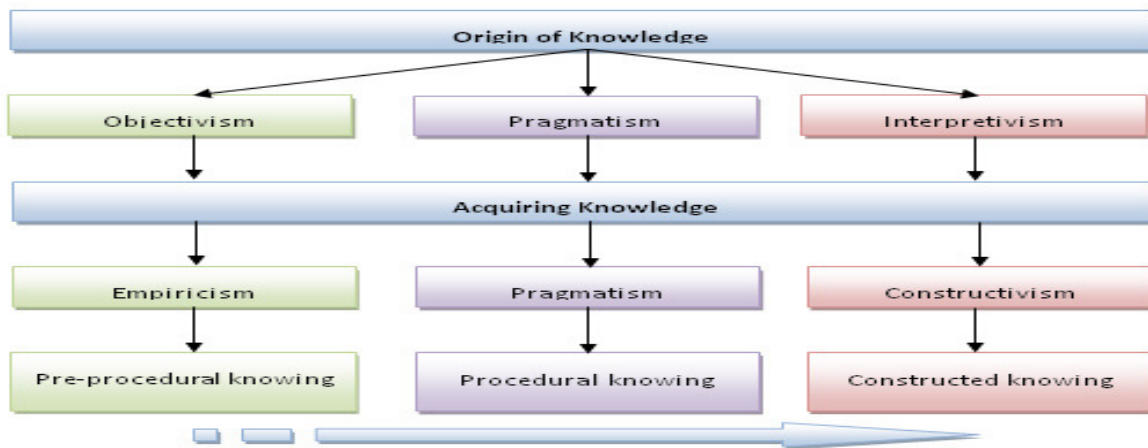
#### **Content:**

- Meaning: Epistemology, Knowledge, skills, teaching, training, information, reason and belief.
- Types of Knowledge, skills, teaching, training, information, reason and belief.
- Differences between knowledge-skills, teaching-training, knowledge-information, reason-belief.

## Epistemology and Learning Theories

Epistemology basic is a branch of philosophy that investigates the origin, nature, methods, and limits of human knowledge. Such beliefs influence the development of knowledge because they are considered to be the central values or theories that are functionally connected to most other beliefs and knowledge (Hofer & Pintrich, 1997).

Our own personal epistemology influences our own theories of learning, and consequently, how we approach, design, and delivery our classes. The terms used to describe epistemological positions vary, depending on whether it's describing the origin or the acquisition of knowledge. A brief overview of the key terms is presented in Figure 1.



**Figure 1. Key Epistemological Terms**

<b>Objectivism</b>	
What is knowledge?	Posits that knowledge is absolute and true, and is independent from and outside of the individual. Learning involves the transfer of what exists in reality to what is known by the learner.
Source of knowledge?	Reality exists external to the individual, so therefore knowledge simply exists and there is no need to construct knowledge. Knowledge is acquired by experience.
Associated terminology?	Objectivism is linked with <b>empiricism</b> - a process of gaining knowledge, in which sensory experience (what we can quantify with our own senses) is the only valid source of knowledge. Kuhn and Weinstock (2002) describe this way of knowledge acquisition as ' <b>pre-procedural knowing</b> ', or the first way to approach acquiring

	information.
<b>Pragmatism</b>	
What is knowledge?	Pragmatism regards knowledge as a worthy but improbable goal. This approach emphasises theories of meaning (of what works) with the understanding that this may not reflect reality.
Source of knowledge?	Knowledge is interpreted and negotiated, through a process of experience and reason.
Associated terminology?	<b>Pragmatism</b> also used when describing the acquisition of knowledge, and involves active processing where no single truth exists (Brownlee et al, 2008). Kuhn & Weinstock (2002) describe this way of knowledge acquisition as ' <b>procedural knowing</b> '
<b>Interpretivism</b>	
What is knowledge?	In constructivism knowledge is not uniform and identical. Rather, it's constructed at an individual level and exists in multiple formats.
Source of knowledge?	Knowledge is gained through reason, by considering the available information and assembling a personal interpretation. It's not concerned with whether knowledge is true in the absolute sense, since truth depends on the knower's frame of reference.
Associated terminology?	Interpretativism is linked with <b>constructivism</b> . Knowledge is constructed individual or collectively, and varies from person to person. These ' <b>constructed knowing</b> ' beliefs are more likely to be linked to constructivist beliefs in learning (Brownlee, 2003; Hammer, 2003), which are based on a view of knowledge as complex, tentative, and needing to be actively critiqued (Gill, Ashton, &Algina, 2004).

Each learning theory, or psychological explanation of teaching and learning, can be traced back to one of these main epistemological traditions.

Epistemological analysis is usually in terms of the subject, the object and the process of question of knowledge. Each school of philosophy has its own conception of the nature of these components of knowledge. The different types of knowledge types are *authoritative knowledge, empirical knowledge, revealed knowledge, rational knowledge, and intuitive knowledge*. Epistemology also provided a classification of different types of knowledge.

Revealed knowledge is knowledge that god disclosed to men-select men who are deemed prophets. It is embodied in the treaties like the Baghavat Gita, Bible and the Koran. For the followers of the respective religions what is contained in their sacred books is the word of God. Hence, they believe it is true everywhere and at all times. Though the truths revealed in the books are super-rational, the languages in which they are written is not and belong to this 'fallen' world. Hence, religious scholars spend much time in exposition, elaboration and interpretation of texts of these books. The aim of such exercise is to bring to light the hidden and perennially relevant message and meaning of these books for the benefit of every generation.

Intuitive knowledge is knowledge gained by a man from within himself. It is different from revealed knowledge. Revealed knowledge is God-given and is external to man. It is mediate by prophets. Intuitive knowledge has its source within the individual. It is also immediate. It is gained as an illuminating flash in a moment of insight. Every one of us would have gained such an intuitive knowledge when we were trying to solve a difficult problem, making decision about the trustworthiness of a stranger etc. Of course, it is knowledge which has not been submitted in rational or empirical verification. When Archimedes ran out naked from his bath tub shouting 'Eureka, Eureka', had just gained such intuitive knowledge which he subsequently verified by means of an experiment.

Rational knowledge is obtained through the exercise of reason alone, unaccompanied by empirical observation. The principles of logic and mathematics are examples for such rational knowledge. The principles of rational knowledge may be applied to sense experience, but they are not deduced from it.

Empirical knowledge is knowledge confirmed ultimately by the evidence of the senses. Rational knowledge is the result of the exercise of reason. Authoritative knowledge is knowledge accepted as true because it is attested by experts who are authorities in the concerned field.

Thus, epistemology is concerned with our knowledge of reality.

The word Epistemology is derived from the ancient Greek episteme meaning "scientific knowledge" and logos meaning "speech" or "word", in this context denoting "codified knowledge of". *J.F. Ferrier* coined epistemology on the model of '*ontology*', to designate that branch of philosophy which aims to discover the meaning of knowledge, and called it the 'true beginning' of philosophy.

Epistemology is, the division of philosophy that investigates the origin and nature of knowledge is called epistemology, and its objective is to investigate the foundations upon which human knowledge rests.

A pluralist epistemology is thus fundamentally practical and placed (Spender, 1998).

“Epistemology is a branch of philosophy concerned with nature and justification of knowledge. (Hofer and Pintrich, 1997)

Epistemology is concerned with explaining the boundary between justified belief and opinion, and involved generally with a theoretical philosophical study of knowledge. The primary problem in epistemology is to understand exactly what is needed in order for us to have knowledge.

### **Meaning of Knowledge**

Knowledge is a familiarity, awareness or understanding of someone, such as facts, information, descriptions, which is acquired through experience or education by perceiving, discovering, or learning.

Knowledge can refer to a theoretical, practical understanding of a subject. In philosophy, the study of knowledge is called epistemology; the philosopher Plato famously defined knowledge as "*justified true belief*", though "*well-justified true belief*" is more complete as it accounts for the Gettier problems. However, several definitions of knowledge and theories to explain it exist.

The National Curriculum Framework-2005, while placing the experience of the knower at center, also defined knowledge. According to it, knowledge can be conceived as experience organized through language into patterns of thought, thus creating meaning, which in turn helps us to understand the world we live in. It can also be conceived of as patterns of activity, or physical dexterity with thought, contributing to acting in the world, and the creating and making of things. Human beings over time have evolved many bodies of knowledge, which include a repertoire of ways of thinking, of feeling and of doing things, and constructing more knowledge.

Knowledge acquisition involves complex cognitive processes: perception, communication, and reasoning; while knowledge is also said to be related to the capacity of acknowledgment in human beings.



## **Type of Knowledge:**

1. Communicating knowledge.
2. Situated knowledge.
3. Embedded knowledge
4. Practitioner knowledge.
5. Prior Knowledge.
6. Posterior Knowledge

## **Communicating knowledge**

Symbolic representations can be used to indicate meaning and can be thought of as a dynamic process. Hence the transfer of the symbolic representation can be viewed as one ascription process whereby knowledge can be transferred. Other forms of communication include observation and imitation, verbal exchange, and audio and video recordings. Philosophers of language and semioticians construct and analyze theories of knowledge transfer or communication.

## **Situated knowledge**

Situated knowledge is knowledge specific to a particular situation. It is a term coined by Donna Haraway as an extension of the feminist approaches of "successor science" suggested by Sandra Harding, one which "offers a more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as others' practices of domination and the unequal parts of privilege and oppression that makes up all positions. *Arturo Escobar* explains as, "neither fictions nor supposed facts." This narrative of situation is historical textures woven of fact and fiction. Some methods of generating knowledge, such as trial and error, or learning from experience, tend to create highly situational knowledge. One of the main attributes of the scientific method is that the theories it generates are much less situational than knowledge gained by other methods. Situational knowledge is often embedded in language, culture, or traditions. This integration of situational knowledge is an allusion to the community, and its attempts at collecting subjective perspectives into an embodiment "of views from somewhere."

## **Embedded knowledge**

Embedded knowledge is a significant feature of the knowledge base in education. Tests and other assessment instruments, curriculum frameworks, the academic organization of schooling, are all based on prior investigation and other accumulated knowledge which the teacher is not involved

in and may not advert to at the point of use. Embedded knowledge makes a range of intellectual resources available to teachers which improve their understanding of individual students, strengthen their curriculum programming and enrich their pedagogy.

Indicators here require two dimensions, reflecting the amount of knowledge embedded and the extent of usage respectively. A multi-attribute psychological test such as the British Ability Scales or the Wechsler Intelligence Scale for Children which has undergone a full development process and has extensive standardization data covering different age ranges and populations is richer in information terms than a simple rating scale designed for use with four-year-olds. A first measure, therefore, relates to the amount of knowledge embedded in the test or curriculum framework or school routine.

An instrument may of itself be information-rich but be little used, however. This could be because of mismatch with the information needs of potential users, limited target audience, or pragmatic factors such as marketing and cost. Whatever the reason, such an instrument has to be regarded differently from a similar instrument which is in widespread use and which generates substantial amounts of information in practitioners' hands. Hence, there is need of a further set of indicators geared to use and the generation of knowledge in practice.

### **Practitioner knowledge**

Teachers' knowledge base is especially various, as noted above, and direct measurement of it is probably not possible on a prevalent basis. Some direct measures are taken, as for example when teachers' certification is based on the measurement, through examinations and observation of teaching practice, of knowledge and competences or when serving teachers are rated in terms of a knowledge-related framework.

Indirect measures are more likely to be used, however, and there are a number of indicators or quasi-indicators based on either pre-service or in-service training, on the grounds that length and level of initial training and opportunities for continuous professional development are associated with expanding the teacher's knowledge base.

### **Prior knowledge**

It is independent of experience, as with mathematics ( $3+2=5$ ), tautologies ("All bachelors are unmarried"), and deduction from pure reason (e.g., ontological proofs).<sup>[3]</sup>

## **A posteriori knowledge**

It is dependent on experience or empirical evidence, as with most aspects of science and personal knowledge.

### **Meaning of Skill:**

A skill is learning to carry out a task with pre-determined results often within a given amount of time, energy, or both.

Skills can often be divided into domain general and domain-specific skills. For example, in the domain of work, some general skills would include time management, teamwork and leadership, self-motivation and others, whereas domain-specific skills would be useful only for a certain job.

### **Types of skills**

1. Labor skills
2. Life skills
3. People skills
4. Social skills
5. Soft skills
6. Hard skills

### **Labor skills**

Skilled workers have long had historical import as electricians, masons, carpenters, blacksmiths, bakers, brewers, coopers, printers and other occupations that are economically productive. Skilled workers were often politically active through their craft guilds.

### **Life skills**

Life skills are problem-solving behaviors that are used appropriately and responsibly in the management of personal affairs. They are a set of human skills, acquired via learning (teaching) or direct experience that are used to handle problems and questions commonly encountered in daily human life. The subject varies greatly depending on societal norms and community expectations.

### **People skills**

According to the Portland Business Journal, people skills are described as understanding ourselves and moderating our responses talking effectively and empathizing accurately building relationships of trust, respect and productive interactions.

## **Social skills**

Social skill is any skill facilitating interaction and communication with others. Social rules and relations are created, communicated, and changed in verbal and nonverbal ways. The process of learning such skills is called socialization

## **Soft skills**

Soft skills is a sociological term relating to a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, and optimism that characterize relationships with other people.[9] Soft skills complement hard skills (part of a person's IQ), which are the occupational requirements of a job and many other activities.

## **Hard skills**

Hard skills are any skills relating to a specific task or situation. These skills are easily quantifiable unlike soft skills which are related to one's personality

## **Meaning of Teaching:**

Teaching is a process of educating a person with theoretical concepts and is a kind of a knowledge transfer between a teacher and a student.

The role of the teacher is to act as a facilitator of learning by leading discussions, providing opportunities to ask open-ended questions, guiding the processes and tasks and enabling the active participation of learners and to engage with ideas. Teachers are occupied in schools with the main purpose of educating the children to grow as good citizens in the world. Children today are the future leaders of the society. Therefore, teaching can be considered as an important concept.

## **Common characteristics of Good Teaching:**

*According to UNESCO (2004) and Scheerens (2004), the main characteristics of good teaching relate to a number of broad categories:*

1. **Relevance:** of the teaching content, in particular alignment with the curriculum.
2. **Sufficient learning time:** this refers to the time devoted to actual teaching, as opposed to the official hours set in the curriculum.

3. Structured teaching, in which learners' engagement is stimulated, their understanding monitored, and feedback and reinforcement regularly provided.
4. A conducive classroom environment with, in particular, a task-oriented climate, mutual respect between the students and teacher and among students themselves, orderliness, and safety.
5. Teachers with appropriate subject matter mastery, verbal intelligence, a broad teaching repertoire, and motivation to achieve.
6. What research also underlines though is that adaptability to context matters as different countries and students may need different teaching contents (both in terms of subject matter knowledge and of medium of instruction) and different levels of structure tailored to students' profile. It is therefore important to critically assess the relevance of both current and planned objectives (in terms of the content, structure, and context of teaching and learning) to the national situation.

### **Meaning of Training:**

Training is teaching, or developing in oneself or others, any skills and knowledge that relate to specific useful competencies. Training has specific goals of improving one's capability, capacity, productivity and performance.

### **Types of Training:**

#### **Physical Training:**

Physical training Physical training concentrates on mechanistic goals: training-programs in this area develop specific skills or muscles, often with a view of peaking at a particular time. Some physical training programs focus on raising overall physical fitness.

In military use, training means gaining the physical ability to perform and survive in combat, and learning the many skills needed in a time of war. These include how to use a variety of weapons, outdoor survival skills, and how to survive being captured by the enemy, among many others. See military education and training.

### **Computer skills training:**

Some commentators use a similar term for workplace learning to improve performance: "training and development". There are also additional services available online for those who wish to receive training above and beyond that which is offered by their employers.

### **Simulation based training**

Is another method which uses technology to assist in trainee development. This is particularly common in the training of skills requiring a very high degree of practice, and in those which include a significant responsibility for life and property. An advantage is that simulation training allows the trainer to find, study, and remedy skill deficiencies in their trainees in a controlled, virtual environment. This also allows the trainees an opportunity to experience and study events that would otherwise be rare on the job.

e.g., in-flight emergencies, system failure, etc.,

### **Religion and spirituality training**

In religious and spiritual use, training may refer to the purification of the mind, heart, understanding and actions to obtain a variety of spiritual goals such as (for example) closeness to God or freedom from suffering. Note for example the institutionalized spiritual training of Threefold Training in Buddhism, Meditation in Hinduism or discipleship in Christianity. These aspects of training can be short term or last a lifetime, depending on the context of the training and which religious group it is a part of.

### **Meaning of Information:**

Information is that which informs. In other words, it is the answer to a question of some kind. It is also that from which data and knowledge can be derived, as data represents values attributed to parameters, and knowledge signifies understanding of real things or abstract concepts.

### **Different Methods of Collecting Information**

<b>Methods</b>	<b>Advantage</b>	<b>Disadvantage</b>
Surveys (Group-Administered)	Can survey many people <ul style="list-style-type: none"><li>• Not time-consuming</li><li>• Relatively inexpensive</li><li>• Everyone gets the same instrument</li><li>• Object interpretation</li><li>• Relatively inexpensive</li></ul>	May be problems with interpreting questions <ul style="list-style-type: none"><li>• Difficult to get much detail</li></ul>
Surveys (Telephone)	Able to ask for more detail when needed <ul style="list-style-type: none"><li>• Everyone gets the same instrument</li></ul>	Sometimes difficult reaching people <ul style="list-style-type: none"><li>• Lack of anonymity</li></ul>

Interviews	<p>Researcher can know how people are interpreting questions</p> <ul style="list-style-type: none"> <li>• Able to ask for more detail when needed</li> <li>• Provide detailed data</li> </ul>	<p>Time-consuming</p> <ul style="list-style-type: none"> <li>• Because of time, can limit sample size</li> <li>• Subjective interpretation</li> <li>• Can be expensive</li> <li>• Can be difficult to analyze</li> </ul>
Focus Groups	<p>Researcher can know how people are interpreting questions</p> <ul style="list-style-type: none"> <li>• Able to interview multiple people at one time, thus, more cost-effective</li> <li>• Responses from one person provide stimulus for other people</li> </ul>	<p>Group setting may inhibit some individuals from providing information</p> <ul style="list-style-type: none"> <li>• Sometimes hard to coordinate multiple schedules</li> <li>• Responses from one person provide stimulus for other people</li> </ul>
Observations	<p>Objective interpretation</p> <ul style="list-style-type: none"> <li>• Low burden for people providing data</li> </ul>	<p>Time-consuming</p> <ul style="list-style-type: none"> <li>• Some items are not observable</li> <li>• Can be expensive</li> <li>• Participant behavior may be affected by observer presence</li> </ul>
Student Records	<ul style="list-style-type: none"> <li>• Objective interpretation</li> <li>• Low burden for people providing data</li> <li>• Relatively inexpensive</li> </ul>	<p>May not correspond to exactly what researcher wants</p> <ul style="list-style-type: none"> <li>• May be incomplete or require additional interpretation</li> <li>• May need special permission to use</li> </ul>
Collection of Materials	<p>Objective interpretation</p> <ul style="list-style-type: none"> <li>• Low burden for people providing data</li> <li>• Relatively inexpensive</li> </ul>	<p>May not correspond to exactly what researcher wants</p> <ul style="list-style-type: none"> <li>• May be incomplete or require additional interpretation</li> </ul>

### **Characteristics of good information**

When using information for business purposes and storing information in an information system it is of vital importance that the information is good and helps you make the correct business decision. The characteristics of good information are as follows: valid, reliable, timely, fit-for-purpose, accessible, cost-effective, sufficiently accurate, relevant, having the right level of detail, from a source in which the user has confidence, understandable by the user. These are explained in more detail below:

**Valid:** Valid information is information that is correct and can be used for the purpose that it is needed. An example of valid information is information that you can trust such as information supplied to you by a governing body. Valid financial information would be tax rates supplied to companies from the Government's Tax Office.

**Reliable:** Reliable information is information that you can rely on as being correct. It will be from a valid and trusted source. An example of reliable information would be information from your sales department that is supplied to the financial department on the sales figures for last month. As this comes from an internal information source it is reliable and can be trusted.

**Timely:** Timely is another important characteristic of good information. Timely information is information that is from the correct time period. If a company wants to analyse current profit and loss then they will need to access current sales figures and not the sales figures from 10 years ago. We can also say that timely information is information that is available as and when needed. For example if a Manager needed to check the sales figures for today timely information would be information that they could print from a cash register immediately at any time during the day.

**Fit for Purpose:** Information that is fit for purpose means that it is relevant to what you need it for. For example if you were opening a business in London then it would be advisable to look at the population within a certain area beside where you wanted to open the business. Looking at information about the population of Papua New Guinea would not really be fit for purpose in this instance.

**Accessible:** Accessible information is information that is stored in a way that it can be easily accessed at any time. If we refer back to the example of looking at sales figures on a cash register at any time of the day having the feature of printing out current sales from the cash register means that the information is accessible. If it took one hour to process the sales figures and print them then this information would not be easily accessible. Accessible is an important characteristic of good information as users need to have information available to them as and when they need it.

**Cost Effective:** Cost effective information is information that is worth investing the time and money to get to help make business decisions. As an example, if you paid a company to do a survey for you and it cost £1000 and you were then able to use the information supplied to increase your profits by £1500 in the next month then this could be seen as cost effective information. However, if the survey cost £50000 to complete and the information only seen a £100 increase in sales in the



next month then this information would not be seen as cost effective. Cost effective information is information that costs a lot less to put together than the resultant profit from analyzing and using the information to increase profits.

***Sufficiently Accurate:*** Accurate information helps businesses make the correct decisions. If the speedometer in your car was out by 20mph then this information may result in you breaking the law. Similarly if a sales department sent inaccurate sales figures to the finance department this might result in incorrect tax calculations for the company that would put them in danger.

***Relevant:*** Relevant information is information that is directly related to your business need. If a business was looking to cut costs they might look at their electricity bill and try to see where they could save money. If a bakery was looking at the price of metal then this would not really be relevant information to their business. Relevant information for a bakery would be looking at the price of ingredients to use in their products.

***Having the right level of detail:*** If someone requests information from you having the correct level of detail is very important. For example, if a manager wants a summary the sales figures for the last 6 months, then the information that has the right level of detail might show the overall sales figures for each month and the grand total added together. Giving the manager a complete list of all sales for every product you sold in the six month period in a 1000 page report would be seen as having not the right detail and would not really be a summary. When presenting information it is important to understand what exactly the person requesting the information needs.

***From a source in which the user has confidence:*** Obtaining information for a business purpose means that you must obtain it from a reliable and trust worthy source. If you wanted information about the population of Korea then using Wikipedia might not be seen as being 100% reliable and you may not be 100% confident in using this source. However, if you looked at the census information from the Korean Government you could say what the population was at the time that the census was taken.

***Understandable by the user:*** Information that is used for a business purpose needs to be understandable by the end user. If a non financial person wanted information about the sales for the last 3 years and you presented them with a complex set of figures taken from a database with no clear totals then they would not understand it. However, if you knew exactly what they wanted you

might present them with an easy to read graph with clear instructions on the totals sales for each of the last 3 years.

Knowing what the characteristics of good information are is an essential skill to make the correct business decisions. If you liked this article and found it helpful, please feel free to share

### **Meaning of Reason:**

Reason is the capacity for consciously making sense of things, applying logic, establishing and verifying facts, and changing or justifying practices, institutions, and beliefs based on new or existing information.

Reason or "reasoning" is associated with thinking, cognition, and intellect. Reason, like habit or intuition, is one of the ways by which thinking comes from one idea to a related idea. For example, it is the means by which rational beings understand themselves to think about cause and effect, truth and falsehood, and what is good or bad. It is also closely identified with the ability to self-consciously change beliefs, attitudes, traditions, and institutions, and therefore with the capacity for freedom and self-determination.

According to Jürgen Habermas, the "substantive unity" of reason has dissolved in modern times, such that it can no longer answer the question "How should I live?" Instead, the unity of reason has to be strictly formal, or "procedural."

### **Types of reasoning:**

#### ***Deductive reasoning:***

A subdivision of Philosophy is Logic. Logic is the study of reasoning. Deduction is a form of reasoning in which a conclusion follows necessarily from the stated premises.

Premise 1: All humans are mortal.    Premise 2: Socrates is a human.    Conclusion: Socrates is mortal.

The reasoning in this argument is valid, because there is no way in which the premises, 1 and 2, could be true and the conclusion, 3, be false.

#### ***Inductive reasoning:***

Induction is a form of inference producing propositions about unobserved objects or types, either specifically or generally, based on previous observation. It is used to ascribe properties or relations to objects or types based on previous observations or experiences, or to formulate general statements or laws based on limited observations of recurring phenomenal patterns.

Inductive reasoning contrasts strongly with deductive reasoning in that, even in the best, or strongest, cases of inductive reasoning, the truth of the premises does not guarantee the truth of the conclusion. Instead, the conclusion of an inductive argument follows with some degree of probability. Relatedly, the conclusion of an inductive argument contains more information than is already contained in the premises. Thus, this method of reasoning is implicative.

**Meaning of belief:**

Belief is the state of mind in which a person thinks something to be the case, with or without there being empirical evidence to prove that something is the case with factual certainty.

Belief is, it is a mental representation of an attitude positively oriented towards the likelihood of something being true. In epistemology, philosophers use the term ‘belief’ to refer to personal attitudes associated with true or false ideas and concepts. However, ‘belief’ does not require active introspection and circumspection.

Belief is a common label for convictions, surmises, suppositions, expectations.

**Importance of Belief:**

Beliefs are important because behavior is important and your behavior depends on your beliefs. Everything you do can be traced back to beliefs you hold about the world — everything from brushing your teeth to your career. Beliefs also help determine your reactions to others' behavior — for example their refusal to brush their teeth or their own career choices. All this means that beliefs are not an entirely private matter. Even beliefs you try to keep to yourself may influence your actions enough to become a matter of legitimate concern of others.

**Distinction between knowledge and skill:**

Knowledge	Skill
<p>1. Knowledge is the theoretical or practical understanding of a subject.</p> <p>2. Knowledge refers to learning concepts, principles and information regarding a particular subject(s) by a person through books, media, encyclopedias, academic institutions and other sources.</p>	<p>1. Skills are the proficiencies developed through training or experience</p> <p>2. Skill refers to the ability of using that information and applying it in a context</p>

3. Knowledge is an understanding. It's mental or theoretical, rather than practical. Knowledge can be gleaned from a book, and you can gain knowledge by researching online or visiting your local library.	3. Skills can be developed and improved over time, by combining our abilities and our knowledge, but the underlying abilities are needed in order for the skills to be developed.
---	---

**Distinction between Knowledge and Information:**

<b>Knowledge</b>	<b>Information</b>
1. Knowledge, cannot really be managed because it resides in one's mind	1. Information is much more easily identified, organized and distribute
2. Knowledge is the broadest: it includes facts and ideas, understanding, and the totality of what is known.	2. Information is usually construed as being narrower in scope than Knowledge.
3. The process of acquiring knowledge in science is targeted at discovering some new objective laws, typical of this process, laws related to all phenomena of the reality	3. Information explain already exists in the science, laws, all phenomena.

**Distinction between Reason and Belief:**

<b>Reason</b>	<b>Belief</b>
1. Reason associate with psychological components.	1. Belief associate with philosophical components.
2. Reason makes scientifically.	2. Belief makes not scientifically
3. Reason try to create new one	3. Belief gives the confidence while crate new one.

**Index Questions:**

1. **Definition :** Epistemology, Knowledge, Skill, Teaching, Training, Information, Belief.
2. **Distinction Between:**
  1. Knowledge and Skill
  2. Teaching and Training

3. Knowledge and Information
4. Reason and Belief
3. How knowledge and skill are help the student and their critical life situation?
4. Write merits of Teaching and Training

#### **Supplementary Materials**

- <http://www.unesco.org/>
- <http://www.wikipedia.org/>

#### **Reference:**

- Hirsch's E. D. Knowledge and the Curriculum A collection of essays to accompany lecture at Policy Exchange
  - **Source: U.S. Department of Education, Office of Educational Research and Improvement**
  - **Paulraj A.P.J. 2010.Education in the emerging Indian society, Holy Trinity Pub.**

## **UNIT-2: SOCIAL BASES OF EDUCATION**

### **COURSE OBJECTIVES**

At the end of the course, the student-teachers will be able to:

- explain an influence of society, culture and modernity on education
- discuss an industrialization and democracy on education.
- comprehend the social justice and dignity

### **INTRODUCTION**

The social base of education is the study of social institutions and individual experiences affect education and its outcome. Education is concerned with all forms of education is formal and informal education systems of modern industrial societies. After the advancement and engagement of human capital (work force) in industrialization America and Europe gave rise to the social mobility. Now it is easier to move up to the upper strata of society gaining technical skills, knowledge. People who were farmer earlier became worker in factories. In that period social mobility was at top gear. And we began to think that Education promotes social mobility and undermines the class stratification. It gained interest and lot of sociological studies done on the subject. Statistical and field research across numerous societies showed a persistent link between an individual's social class and achievement, and suggested that education could only achieve limited social mobility.

### **INFLUENCE OF SOCIETY ON EDUCATION**

Society and education are two inseparable elements in our world. It has always been in talks how education influences the society. The things we are taught and what we learn through our schooling affects the kind of person we are and consequently influences the society as a whole. But seldom do we tackle on society influence on education.

In definition, society is an extended social group having a distinctive cultural and economic organization. The building blocks of society are we human beings. People interact creates the pattern of relationships between individuals and thus characterizes the society according to the systems of customs, values, and laws.

Education plays a very important role in molding the character of an individual. It is one of the concrete sources from which one get information and knowledge. It affects the society. We can make sense of its effective role from the following points

**1. *Preservation and transmission of our social, moral and cultural value***

In Education, through curriculum, students will be acquainted with social, moral and cultural values and teachers make them familiar with values and ideal through different activities, games, story-telling etc. Education makes them familiar with constitution, rules and regulations of citizens and so on. As we find in NPE 1986 major objectives to produce a productive citizen has been fulfilled by education so education preserves our value and make others to imbibe those values.

**2. *Awakening of Social feelings***

Through education individuals become aware about the importance of unity, love, fraternity and other values. Education makes all people get awakened of being a part of society and they can contribute the world as society. People know different values and life skills and thus they develop concern for society including social mindedness, values life skills, learning to be, learning to do, learning to know, learning to live together via different activities story telling dramatization.

**3. *Political development of society***

Education makes all aware about rights and duties of all, which are their responsibilities and duties so that they can develop their civic sense. Through different lesson of political leaders and stories education develop ideal leadership quality so that in future citizens can lead to state as a society.

**5. *Economic development of society***

Education develops skills in individual and makes him a productive citizen. Through education everyone learns how to earn money and as per their qualification he gets job or labor and on the whole with the help of education more or less everyone get work and earn money so due to increasing literacy per capita income will increase. As we find government take help in the form of tax and thus our economy develops. Because of education people migrate in other country and their earning helps to develop society, country. Thus education affects the economic development of society.

## ***5. Social control***

Education makes all aware about customs and duties the same as it makes aware about the rules and regulations as we find the rules in Indian constitution. People know how to preserve their lives via education. They make also familiar with crimes. Thus education provides a guideline and it controls all society.

## ***6. Social changes and reforms***

Education makes individuals perfects and aware about the rights. So can claim against dwelled superstitions, beliefs which are harmful for them. Through education everyone learn grow to live and to save from difficulty and how to inculcate values and ideals in their lives and ideals in their lives so they can appeal in court having of felling injustice. Education makes all aware about to live peacefully and to face difficulties on their lives .They become aware about the proverbs like ‘nothing ventured, nothing gained’ so they develop their risk taking attitudes via education.

## ***7. Socialization of a child***

Education trains the mind of a child and it teaches him how to inculcate values in his life. It makes the child understand what is society, how he is a part of society, what are his roles in society, how he should behave, how he should interact with others etc. Education helps him to understand and it develops a sense if a social being in him. In short education socializes a child. Thus, education produces productive citizens it helps everyone how to flourish and makes them ideal citizens of society. To sum up, Education influences the society.

## ***Education and Society***

Hence, education must not merely inculcate secularism, realism and liberality in the educated, but must also provide him with the ability to distinguish the right from the wrong. The young people are subject to multiplicity of influences emanating from various sources, and for this reason it is essential that there should be some unity in all this diversity. The absence of such a unity will have disastrous consequences in the form of personality and social disorganization. The first step in this direction is the creation of character, which will grant an adolescent the determination to be guided by his own opinion. It is essential that old and traditional values be explained to the younger generation in the interest of continuity with the older generation but this should not preclude consideration of new values which can lead to progress and development. Education can thus fulfill the needs of society only if it adopts a comprehensive and dynamic curriculum, a dynamic methodology of teaching and dynamic philosophy of education.



## INFLUENCE OF CULTURE ON EDUCATION

### *Culture*

In anthropological literature the term culture is used in many senses, but in general writings it is used to indicate social charm and intellectual superiority. even some sociologists believe cultured individuals to be the leaders of society. According to Sorokin and Maclver, culture implies man's moral, spiritual and intellectual achievements. In the words of Bogardus, "culture is composed of integrated customs, traditions and current patterns of human group. Culture is the stock in trade of group. It is an antecedent complex of value into which every individual is born. It is a medium within which individuals develop and mature."

In Indian Society the individual is prepared for performing various in society at a very early age by a series of impressions deliberately made upon his mind. For example, the ceremony of marriage places upon the individual's shoulders the responsibility of procreating and thus ensuring the continuity of the race. Culture includes all those elements for which ceremonies and their consequent impressions are required. It is the process of purification. In ancient India Sanskrit was believed to be the language of the educated people, and this too is intimately concerned with culture, because the Hindi synonym is 'sanskriti'.

Just as culture influences education, much in the same way education also exerts a powerful influence upon the culture of a country. Following are the various ways by which education influences the culture of a country.

1. ***Preservation of Culture:*** Each country believes and flaunts the superiority of its own culture over the rest. Hence it tries to preserve its culture in its original form. Education is the only means to complete this task. Thus, education preserves the culture of society.
2. ***Transmission of Culture:***The process of preservation includes the process of transmission as well. Transmission of culture from one generation to another is the best guarantee of its preservation. "The function of education is to transmit the social values and ideas to the young and capable members of society.
3. ***Development of Culture:*** The process of education is to bring about the needed desirable changes in the cultural ideals and values for the progress and continued development of society, without which social progress will stratify and come to naught. Education culturists individuals, modifies cultural processes by research and deeper investigations into all areas of human requirements.

4. ***Continuity of Culture:*** Culture is the lifeblood of a society is bound to decay and die sooner or later. Education upholds the continuity of culture through its diverse activities and programmes. A society establishes schools to preserve and transmit its culture from generation to generation. But some schools try to develop undesirable cultural chauvinism and superiority complexes among its children. Children should be motivated to learn more and more from cultural interaction among various cultures. They should develop the qualities of tolerance and adjustment together with mutual give and take so that they are able to benefit themselves from the contribution of all cultures. This cultural integration and cultural synthesis is the dire need of the world society in modern times.
5. ***Development of personality:*** Education aims at developing the personality of the child. It employs diverse cultural patterns of thinking, behaviour and items of cultural values so that children are physically, mentally, socially and emotionally developed to the maximum extent.
6. ***Removing Cultural Lag:*** While material culture develops at a fast pace due to scientific researchers and inventions, non-material culture consisting of ideals, values and norms lags behind creating a gulf between the two. Education is the only means to bridge this cultural lag by its activities and programmes of development.

## **INFLUENCE OF MODERNITY ON EDUCATION**

### ***Modernity***

Generally, the meaning of modernity is associated with the sweeping changes that took place in the society and particularly in the fields of art and literature, between the late 1950s and the beginning of Second World War. There is, however, no clear demarcation by date, and although the term 'postmodern' is increasingly used to describe changes since the Second World War, there are some who argue that modernity persists, and others who see its demise as having occurred much earlier.

When modernity is explained in terms of history, it is said that the world first experienced renaissance, and then, enlightenment and thereafter modernity and post modernity. As a matter of fact, there is much disagreement on the precise dates of the beginning and end of modernity. There appears to be general consensus on its meaning and social formations.

## ***Modernization through Education***

Education is the most important instrument of modernization since modernization includes the following:

1. Directed change in the system of attitudes, beliefs and values and also in the institutional complex, to enhance the acceptability of modern technology and its organizational and operational framework.
2. Growth of the infrastructure essential to the adaptation to technology of foreign origin to specific national needs.
3. Laying the foundations of institutions and organizations which could, in time, assume responsibility for independent innovation and technological growth to the country's needs and problems.

*The means of modernization will be discussing:*

**1. Industrialization:** In modern countries industrialization is going on at fast pace. The Western Countries, in industrialization. In Particular U.S.A., have helped underdeveloped countries in industrialization. In order to meet the demands of fast growing population, every country must per force become industrialization. Therefore, India is fully resolved to bring about fast industrialization.

**2. Urbanization:** The fast growth of population of this country in the last 50 years has led to fast urbanization in India. The fast industrialization and consequent urbanization has led to many ticklish problems like slum, crimes etc. In order to solve these problems town planning is imperative.

**3. Secularization:** Secularization is a consequence of urbanization. The people of India have adopted the ideal of secularism according to which everybody is free to follow the religion of his choice. Modern society is pluralist. Compassion and tolerance are the chief characteristics of modernization.

**4. Rise of new social classes:** Today, both in the towns and village, the people are divided into classes which are based upon economic and political rather than caste considerations. The distinction between lower, middle and high classes is exclusively economic. The classes based on economic considerations are non-hereditary. A low class person, by dint of his labor and application, may belong to upper class tomorrow. The importance of money and possessions in modern society is paramount. With increasing politicization there is now clear-cut demarcation

between those in power and those out of it. Mostly, economically better off, persons are politically also better off, but this is not essential. The political leaders' class in India is other than the economically rich support politicians with money and uses them.

5. ***Social change:*** The social change can be seen in diverse fields. On the one hand, social movements have greatly changed our ideas and concepts about various social matters and on the other youth movement has brought about revolutionary change in the thinking and aspirations of youth. The youth movement can be seen all over the world, this is a harbinger of new shape of things to come. Today, a particular attention is being paid to encourage youth movements at the university level. From time to time youth functions and festivals are held in the universities in encourages the national integration and also shows the basis for the building up of the future.

6. ***Westernization:***The trend towards modernization in India can be seen in the form of a movement towards westernization of the society. The trend towards westernization can be seen in all fields. In Social, Economic, Political, Cultural, Religious and Educational spheres. Even those who are in favor of retaining the traditional values also want to utilize the good traits of the western and Indian values. They want a synthesis of western and Indian values. The westernization leads to modernization. In the social sphere we are following west in matters like dress, life style and town-planning etc. The latest fashions of the West are quickly followed by the Indian elite. There is more of westernization in the technical and scientific spheres. This has given rise to cultural flag.

7. ***Democratization:***In the field of politics the most characteristic feature of modernization is the process of democratization. India is becoming progressively democratized. There is in India universal adult franchise. Everybody above a certain age is entitled to elect his representative. Everybody is equal before law and enjoys rights and privileges. In the economic sphere an attempt is being made to reduce economic disparities. The compulsory primary education is aiming at universal literacy. All political parties are wedded to the values of equality, liberty and freedom. There may be differing viewpoints regarding the means to attain these values but there is no dispute about their validity and acceptance as the ultimate goals of political endeavor.

## **INFLUENCE OF INDUSTRIALIZATION AND DEMOCRACY**

### ***Industrialization***

Previously the people used to spin cloths through spindles and live in traditional ways and use their old patterns of occupation and places of residence. When the industrialization of a country

takes places, the people give up their traditional rural and agricultural economy. Its place is taken over by industrialization. New factories and mills continue to grow daily and use latest techniques.

## ***Democracy***

Abraham Lincoln defined democracy as a government of the people, by the people and for the people. Despite the frequent attempts at defining democracy, the is probably the most accurate description. In a democracy one finds a government of the people which is made up of the elected representatives of the people, elected on the basis of adult suffrage. The ideals of democracy are liberty, equality and fraternity. Democracy aims to establish political, economic and social equality, and gives every individual the constitutional right to express his own opinion, to associate with any group, to indulge in any legitimate action. The final objective of democracy is not merely successful government but the creation of an ideal society in which people have the greatest chance of evolving brotherhood. Democracy seeks to create an environment which is conducive to the highest and most beneficial development of the human personality.

Democratic education begins with the premise that everyone is unique, so each of us learns in a different way. By supporting the individual development of each young person within a caring community, democratic education helps young people learn about themselves, engage with the world around them, and become positive and contributing members of society.

*The influence of democracy on education is evident on the working of the following elements:*

### ***1. Provision of Equal Opportunities and Recognition of Individual Differences***

In a democratic set up, each child is a sacred and valuable entity of society. As such, equal opportunities are made available to one and all for their fullest development.

In this connection the principle of individual differences is given proper recognition and therefore each child receive proper support according to his interests, aptitudes and capacities to develop his individuality to the fullest extent.

### ***2. Universal and Compulsory Education***

In democracy, the reins of government remain in the hands of the people. Hence, common people must be so educated that they develop themselves as responsible and dynamic citizen's conscious of their rights and duties, fully conversant with their national and international obligations, well aware with the government procedures anti-administration processes.

### ***3. Provision of Adult Education***

Under the influence of democratic tendency, in different countries, emphasis is being laid upon adult education, women education and education of the mentally retarded and physically handicapped. Schemes are under operation in our country also for the effective education of the adults who constitute a bulk of our entire population. Night-schools, short-term-courses, one Jay schools and the schemes are being launched to solve this stupendous problem.

### ***4. Free Education***

The principle of universal and compulsory education involves free education to all irrespective of their social or monetary status. Hence, education is now regarded as the birth right of each child irrespective of color, caste, creed and sex.

In almost all democratic countries, education has been made free up to a certain standard. In addition, education of the physically and mentally handicapped is also receiving proper and increasingly effective attention.

### ***5. Child Centered Education***

Democratic way of thinking emphasizes the importance of each child as sacred individuality. Hence, educational schemes and plans are so structured that each child receives full attention and full facilities to develop his individuality to the fullest extent.

### ***6. Methods of Teaching***

Under the impact of democratic tendency, method of teaching is undergoing revolutionary changes. Old, traditional and mass education methods are being gradually replaced by individual attention methods. Nothing is now enforce or thrust in by force.

Self-learning devices are encouraged and such methods are promoted which motivate children to pay attention and learn by their own efforts. Such wholesome and welcome environment is created wherein children search for truth, gain knowledge by their own efforts and learn by their own experience.

## ***7. Social Activities***

Bookish and academic activities are not over-emphasized in schools now-a-days. Proper attention is paid to social, cultural and co-curricular activities, so that children develop in a wholesome way and gain more and more social experience.

## ***8. Importance of Individual Attention***

As discussed above, each child receives individual attention. His family background, his own interests, likes and dislikes, his needs and capacities are fully taken care off in all plans of educational development, the purpose being to achieve the maximum development of personality.

## ***9. Student Unions***

Student unions and student welfare associations are formed in institutions to promote student welfare in all spheres with the aim of achieving balanced, dynamic, efficient and socially motivated personalities.

## ***10. School Administration***

To inculcate in children the sense of self-discipline and self-administration, their association with school administration is being welcomed. Such schemes are being formulated in various institutions where student participation in actual educational and school administration is a fact.

## ***11. Respect of Teacher's Personality***

Democratic philosophy respects teacher as a very dynamic and effective agency of social change for social progress. Thus, teachers are now made to participate more and more in curriculum construction and educational planning.

Side by side, they are allowed to experiment freely in respect to methods, techniques and devices of teaching as well as materials which aid teaching procedures and processes. Not only this, more and more plans are being laid and worked out for increasing the professional competency of teachers.

## ***12. Intelligence Tests***

Schemes of intelligence tests are under operation in various institutions all over the world to evaluate the mental capacity, growth and achievement of children. Diagnostic tests are proving very useful for this purpose.

## ***13. Physical Health of Children***

To promote physical well-being of children, facilities for games and sports, gymnasia, medical tests and medical help are being provided freely and on an increasing scale. Medical check-up, advice and medicines are now provided to the needy.

## ***14. Co-operation between all Agencies of Education***

In a democratic set up, all the agencies of education co-operate actively for the development of children. Hence, under the influence of democratic tendency, schemes are being formulated now-a-days to establish co-operation between all the agencies of education namely-family, school, community, church and state.

## ***15. School***

School is now regarded as a centre of promoting national consciousness and international understanding. Education for dynamic citizenship is associated with education for national and international understanding, amity and fellow-feeling. Thus, school is now regarded as a miniature of society.

## **INFLUENCE OF INDIVIDUAL AUTONOMY AND REASON ON EDUCATION**

Autonomy is a widely used concept in education policy and practice. The etymology of the concept derives from the Greek autonomous 'having its own laws'. As such, the debates around the concept circulate around individuals' or groups' ability and capacity to self-rule, and the governance and/or constraints, which limit such a capacity. However, autonomy has also been widely contested in philosophy; the concept has been defined in a variety of ways. In educational research too, the concept has been debated from varying viewpoints, as, for example, scholars engaged in education history, education sociology and policy and pedagogy have all problematized and defined its meaning in relation to education.

When applied to educational practice, this nuanced and complex concept may indeed mean a variety of things. Take school-level autonomy as an example. Schools are complicated



social systems in which multiple actors operate in different roles, and in which one's scope of action may affect the decision-making capacity of that of others. The question of who in a school community may possess autonomy (e.g. the teachers, the principals, or the learners) has fundamental implications for the ways in which the school operates. Also, the matters over which the members of the school community enjoy autonomy have important implications for what school autonomy means in practice. If we consider teacher autonomy more closely, it becomes apparent that teacher autonomy is often understood in terms of a dichotomous pairing of constraint vs. freedom. Focusing on the ways in which autonomy is constrained, as well as the matters over which autonomy is enjoyed and by whom. Therefore, teacher autonomy should be distinguished from other forms of autonomy, for example, school or local autonomy. Indeed, increased school autonomy, or local autonomy, as witnessed, for example, in relation to the Friskola movement in Sweden or Academies movement in England, does not automatically grant to teachers an increased scope of action

Moreover, the teacher autonomy debate has been influenced by and reflects wider global education trends and international comparisons. Indeed, autonomy has been a central concept in education policy in Nordic countries as well as elsewhere. Recently, this could be seen, for example, in relation to 'PISA envy', and the ways in which Finland's consistent success in PISA has been explained, at least partly, through its highly educated and autonomous teaching workforce. However, as the contributions in this issue highlight, international comparisons concerning teacher autonomy must remain sensitive to the national and local contexts in which teachers operate, and consider what autonomy actually means for teachers in those.

As such, this issue highlights the importance of context when studying the autonomy of individuals or groups, and provides opportunities to engage with different educational traditions. It also offers conceptual tools for investigating autonomy in education. Which are more extensively cited in Anglo-American research, have the potential to inform continental European discourses around autonomy? Furthermore, the empirical studies from different countries cast light on the complexities inherent in local settings and the nature of autonomy of actors operating in these settings. Although valuable accounts are provided from different national and local contexts, possible comparisons are left to the discretion of the reader. Indeed, there is a need for further comparative research that investigates autonomy in different national contexts, in order to develop a better understanding of what autonomy really means for educators, learners, managers and administrators in different national contexts.

## INFLUENCE OF INDIVIDUAL AUTONOMY AND REASON ON EDUCATION

In education, the concept of **autonomy** is perhaps most commonly discussed in reference to professional independence in schools, particularly the degree to which teachers can make autonomous decisions about what they teach to students and how they teach it. For a more detailed discussion of this issue, see teacher autonomy.

That said, the concept of autonomy in public education may take several different forms:

- **Local-governance autonomy:** In education, the degree to which local governing bodies such as school districts and school boards can make independent decisions about how to structure and operate public schools is a common topic of study, discussion, and debate in the United States. Those who advocate for greater autonomy in the governance of schools tend to argue that the individuals and institutions closest to, most knowledgeable about, and most invested in a school and in the welfare and success of its educators, students, and communities are best suited to making important decisions related to operations, academics, leadership, teaching, and improvement. This general philosophy of governance is often contrasted with state or federal educational policies that are intended to influence the structure, operation, or academic programs in districts and public schools, given that autonomy in local governance is directly related to the level of prescription articulated in state and federal education laws, regulations, and related compliance rules and requirements. Autonomy in local governance also intersects with two related educational terms and concepts: “local control” and “site-based management,” both of which refer to the ability of local institutions and governing bodies to make autonomous decisions about the management of public schools. In some states and regions, local control is a complicated and often contentious issue. In New England, for example, there is a long history of local control over public schools, typically in the form of school boards or school unions, while state-directed control of public schools is less controversial or contentious in the southern states, which do not have the same history of local control over public schools. For a more detailed discussion, see local control.
- **School autonomy:** The concept of autonomy also intersects with the governance and design of specific schools. For example, charter schools privately operated schools funded partially or entirely by public money, often in the form of student tuition paid by states and communities are generally considered to have more autonomy when it comes to making

decisions about how the school will operate and teach students. Charter-school regulations, however, can differ significantly from state to state: some states have more prescriptive or involved regulations governing the operation of charter schools, while others have more permissive policies, lighter governmental oversight, and less demanding compliance requirements. As with issues related to local governance, the autonomy of individual public schools is directly related to the level of prescription articulated in state and federal education policies, regulations, and related compliance rules and requirements.

- **Teacher autonomy:** The concept of “teacher autonomy” is a common topic of discussion and debate in education. Advocates of greater teacher autonomy may argue that because teachers are in the best position to make informed decisions about a student’s education, teachers should be given as much autonomy as possible when it comes to determining instructional strategies, curriculum, and academic support. In this view, for example, more regulations, tougher job requirements, greater administrative oversight, or more burdensome teacher-evaluation procedures will inevitably stifle the instructional creativity and responsiveness of teachers, which could produce a variety of negative results, including lower student performance or higher job dissatisfaction and attrition rates among teachers. Critics of teacher autonomy tend to cite evidence that teaching quality and effectiveness is uneven, and that problems such as achievement gaps or low graduation rates indicate that measures need to be taken to improve the effectiveness of teachers and public-school instruction, including more administrative oversight, increased educational and professional requirements for new teachers, stronger evaluation systems for job performance, or penalties for poor-performing teachers.
- **Parent autonomy:** In recent years, the idea of parents playing a role in the operation and management of a school has become increasingly popular and contentious. While some debates are centered on the degree of control that parents should have over what gets taught to their children particularly when it comes to subjects that are broadly contentious in American society, such as sex education or the teaching of evolution others are focused on issues related to leadership and management. For example, so called “parent trigger laws” allow parents to intervene when the school their children attend is deemed “low performing.” Although laws differ from state to state, they usually allow parent groups to create petitions that, with enough signatures, can “trigger” a variety of actions, such as converting a public school into a charter school, firing and replacing the school’s administration and faculty, or closing the school and sending its students to alternate

schools. In some states, laws allow committees or councils of parents to play a role in the management of schools, which can even extend to participating in decisions related to the hiring and firing of school administrators. In many cases, however, parent committees play only an advisory role in a school or district, and their recommendations may or may not be acted upon.

- **Student autonomy:** In recent years, educators have increasingly discussed and debated the degree to which students should be given more autonomy in the educational process. For example, the concept of “student voice” is often used in reference to instructional approaches and techniques that take into consideration student choices, interests, passions, and ambitions. Some educators argue that students should play a more active role in designing or selecting learning experiences in schools, and that such approaches can encourage students to be more interested in school, more motivated to learn, and more likely to take greater responsibility over their education. In addition, the terms *student autonomy* or *learner autonomy* may refer to various theories of education that suggest learning improves when students take more control or responsibility over their own learning process. For related discussions, see differentiation, personalized learning, scaffolding, student-centered learning, and student engagement.

## **UNDERSTANDING EDUCATION IN RELATION TO MODERN VALUES: EQUITY AND EQUALITY, INDIVIDUAL OPPORTUNITY**

### ***Education and values***

According to Reid, “Education is part of life, and clearly our questions about values and education are insuperable from questions of values in life. Values are embodied in educational practice”. Thus education develops a sense of discrimination between good and bad. This discrimination is based on values. And these value are tested in school.

To quote W.H.Kilpatrick, “The teacher must have an essential part of his professional equipment, which is here called map of values”. Such a map consists of his hopes, aims, ideals, all the cherished values which he will use as aims in guiding those things. Teaching should aim continually on keeping this aggregate of values alive and growing but especially it should include all that the teacher hopes for students to learn so as life for them becomes as rich and fine as possible. In other words, “Aims are an end in themselves and values are product.” Values of education are the same as of life. These educational values are individual as well as social.

**Equity:** ~The briefing explains two dimensions essential to equity in education:

1. **Fairness** – defined making sure that personal and social circumstances – for example gender, socio-economic status or ethnic origin – should not be an obstacle to achieving educational potential.
2. **Inclusion** – defined as ensuring a basic minimum standard of education for all – for example that everyone should be able to read, write and do simple arithmetic.

**Equality** :Equality is about ensuring that every individual has an equal opportunity to make the most of their lives and talents, and believing that no one should have poorer life chances because of where, what or whom they were born, what they believe, or whether they have a disability. Equality recognizes that historically, certain groups of people with particular characteristics e.g. race, disability, sex and sexuality, have experienced discrimination.

### **Equity vs. Equality**

- One of the differences is the fact that equality obviously denotes that everyone is at the same level, whereas equity, in business parlance, denotes the ownership of the shares of a company. Equality alludes to the identical apportionment where dealings, values or qualities are concerned. Equity represents fairness, or what may be termed as the equality of outcomes. This involves factoring in aspects of the system that have put particular groups at a disadvantage.
- An example, which would bring out the principal difference between the two, would be how a turkey may be carved up at family's dinner table. Equality would mean that everybody 'father, mother and children – would get a piece of the same size. Equity, on the other hand, would mean that they take the sensible option, and divide it according to their needs, i.e. larger sized pieces for the adult and smaller pieces for the children.
- When we say equity, we refer to the qualities of justness, fairness, impartiality and even handedness. When we talk about equality, we are talking about equal sharing and exact division.
- A perfect example of the practical demonstration of the difference between the two concepts is the feminist movement. Now, if women demand they should be treated in the same way as men that would not be possible – equality would not be possible – because women and men are different, and cannot be treated in exactly the same way. However, if they demanded equity in how the world treats them, it would be a genuine demand, because now

they are demanding that they be given the same rights as men have as human beings. It is equity that is desirable, not sameness.

- If one were to take a classical example to distinguish between the two concepts, one could go back to the days of the cold war when the communist bloc countries tried to practice equality by paying everyone the same, irrespective of their station in life. The capitalist block, on the other hand, paid according to merit and productivity. The efficacy of the later approach is brought out by the subsequent collapse of the communist order.

### ***Equity in Education***

- Historically, many discussions of equity in education have focussed on inputs into education such as physical and human resources or the funding required to provide such resources. Some see educational equity as meaning equal educational resources or inputs for all students, for which per-student expenditure is often considered a proxy.
- However, students are different in terms of what they need to reach any particular level of achievement. Some students will achieve at much lower levels at a given input level than others because they come from a disadvantaged social environment or because they have special educational needs.
- It is educational outcomes rather than inputs which are the ultimate focus of education policy goals. Inputs to education are a means to an end, namely, the education outcomes expected for all children in modern society. Because the needs of students differ, equity in education is likely to require unequal resources applied to different students to obtain expected outcomes. To give priority to equity in education inputs for students is to pursue a goal of inequity in education outcomes.
- The Review committee's definition of equity clearly sees it in terms of education outcomes. This is a sound approach. However, its definition needs to be expanded upon to provide clear direction for education policy and school funding. This brief proposes that equity in education should comprise a dual objective:
  - All children should receive an adequate education; and
  - Children from different social groups should achieve similar average results.

### ***Equality in education***

- The goal of equity in education outcomes is a more socially just one than the commonly advocated goal of equality of opportunity.

- Equality of opportunity has long been the goal of those striving for a more democratic education system and to extend education to vast numbers of people previously excluded from extended schooling. Traditionally, it has been interpreted as providing all students with the opportunity to pursue their talents. The strong value behind this idea is that the quality of education received by each child should not be dependent on the level of wealth and education his or her family.
- However, there is also a strong meritocratic aspect to this idea. Equal opportunity in education involved the removal of hindrances to the development of individual talent and diligence, irrespective of social origin. The most able must be identified and educated to the hilt of their potential, quite irrespective of their social origins. Its core belief is that everyone should have an equal opportunity to succeed and have access to the highest status occupations and positions of power and influence. It is the role of the education system to identify these talented people.
- If everyone has a chance, according to the rules, to win the prize in open competition with their peers, then winners (and losers) deserve what they have earned. Everyone has had an equal opportunity to fulfil their potential. In this sense, equality of opportunity means equal chances to become unequal.
- The idea of equality of opportunity is often seen as providing the opportunities to learn without reference to the outcomes. It does not require any particular level of achievement for all students. It is also consistent with wide inequalities in outcomes between students from different social backgrounds. Students are given the opportunity to find success and if they fail to take up these opportunities it is attributed to their lack of talent or motivation. Those who do not succeed are judged to be not capable of succeeding. As a result, many see the concept equality of opportunity in education as inherently flawed and fundamentally unjust.
- As such, equality of educational opportunity is a recipe for continuing inequity. It is a fundamentally unjust principle. Adoption of equality of opportunity as an education goal fails to challenge the massive social inequities in education. As a result, these inequalities may be legitimised as the natural order of things.
- Despite these criticisms, the idea of equality of opportunity has a strong resonance in the community as the right of all children to have a successful education to a high level, irrespective of family background. It can be viewed not just as providing the opportunity to succeed at school but the opportunity to succeed in life. It should be seen as the equality of

opportunity to participate fully in adult society or equality of opportunity in future prospects. Such an interpretation of equality of opportunity is not dissimilar to the idea of providing each child with the capacities needed for adulthood and participation in modern society. Nor is it inconsistent with the idea that students from different social groups should have similar prospects as adults.

## **UNDERSTANDING SOCIAL JUSTICE AND DIGNITY WITH SPECIAL REFERENCE TO AMBEDKAR**

### ***Social Justice***

“Social justice” has been defined in a variety of ways. Amongst them, they incorporate concepts of basic rights, the realisation of human potential, social benefit, a healthy planet, an equitable distribution of resources, equal opportunities and obligations, security, and freedom from discrimination. Economic justice really forms a part of social justice. It seeks the equitable distribution of world’s natural and intellectual wealth so that everyone is able to gain a fair share.

Social justice means equal rights for all, regardless of gender, race, class, ethnicity, citizenship, religion, age or sexual orientation. It implies equal rights for women and girls in workplaces, homes and public life. It implies economic justice – which means governments must take active steps to alleviate poverty and redress past injustices.

### ***Dignity***

Caste and consequent graded structure has been a dominant issue in Ambedkar’s quest and vision of Social Justice. He was deeply conscious of the fact that Indian society was and had been caste ridden. In the past, there existed no such area of social existence and governance where caste as political, social, economic, educational and cultural factor was not present. Even today, after more than six decades of introduction of Republican Constitution, the caste factor is dominant in every sphere of life of the people of this country. Before the commencement of Ambedkar era, there were the untouchable Hindus in India, who due to Hindu social system, had, remained socially graded, economically impoverished, politically suppressed, religiously ostracized and indefinitely excluded from educational and cultural opportunities. They were condemned to the lot of serfs and deprived of all human rights



Dr. B.R. Ambedkar's birth in an untouchable community and in a system based on the graded inequality and injustice and deprivation of basic human rights to his brethren was responsible for giving a purpose and a mission of his life. "Ambedkar was all sound and fury against social injustice. His weaponry was legal-political, his anathema Hindu caste exclusivism and his ambition social democracy...His life was a planning forge, his commitment was to free the ancient un free, his economics, law and politics were welded into a constitutional militancy and geared to social emancipation movement." Recalling his struggle for Social Justice, both in pre-Independent India, and in Constituent Assembly and more importantly to ponder over its continued relevance today is always an enriching exercise.

One of the key themes of the writings of Dr. B.R. Ambedkar was the attainment of Social Justice and establishment of a just society, which, for him, was essentially also a casteless society. He not only provided a ruthless criticism of the existing social order but also came up with an alternative vision and alternative model of social order based on justice liberty, equality, fraternity and annihilation of caste. Ambedkar was convinced that a good social order or society has to go through two tests namely 'the test of justice' and the 'test of utility'. His judgmental analysis of the caste based Hindu social order was based on these two tests.

In the writings of most contemporary political philosophers, social justice is regarded as an aspect of distributive justice and indeed the two concepts are often used interchangeably. Social justice rightly understood is a specific habit of justice that is "social" in two senses. First, the skills it requires are those of inspiring, working with, and organizing others to accomplish together a work of justice. These are the elementary skills of civil society, through which free citizens exercise self-government by doing for themselves (that is, without turning to government) what needs to be done.

The second characteristic of "social justice rightly understood" is that it aims at the good of the society, not at the good of one agent only. Citizens may join together to start a school or build a bridge. One significant characteristic of this definition of the virtue of social justice is that it is ideologically neutral. It is as open to people on the left as on the right or in the centre. Its field of activity may be literary, scientific, religious, political, economic, cultural, athletic, and so on, across the whole spectrum of human social activities.

The basic premise of social justice is the emancipation of the underprivileged, exploited, and oppressed sections of society. Its main aim is to liberate mankind from traditional bondages of

social and economic exploitation and discrimination. It postulates a social order which can guarantee freedom and equal rights to all sections of society. The concept of social justice is closely linked with human rights as envisaged by the United Nations in its 1948 declaration and fundamental rights as provided in the Constitution of India but they are not synonymous. Fundamental rights, i.e. the right to freedom and equality, the right against exploitation, and right to constitutional remedies, etc. are essential for the free and natural development of the human personality and hence are the backbone of a just social order but they are subject to control or limits if they adversely affect the pattern of social justice in society.

Social Justice encompasses economic justice. It is the virtue which guides us in creating those organized human interactions which we call institutions. Social justice is also equated with equality, liberty and dignity; which mean that all three are essential for social justice and that denial of any one of them is a denial of justice. Dignity is generally coterminous with freedom and equality. An illiterate, poor and ill fed person is hardly said to have any dignity.

Ambedkar cited that untouchability was unique in Indian society. Even the British Government had not done any good for improving the plight of untouchables. They had also denied them the political rights. He said that untouchables were: –

1. Socialized in such a way as to never to complain of their low status.
2. Never allowed to dream of improving their lot by forcing the other castes to treat them with common.
3. Made to think that they had been born so low that their fate was anything but irrevocable.
4. Given to believe that nothing could ever persuade them that they have the right to insist on better treatment than that meted out to them.

Ambedkar had taken a vow to expose and finally do away with the abominable conditions and inhuman injustice under which the class, into which, he was born had been groaning. He never failed in highlighting that the untouchable was prohibited from using the public road. If some high caste man happened to cross him, he had to be out of the way and stand at such a distance that his shadow will not fall on the high caste man. Helplessness made the untouchables live like slaves in Hindu society. The charter of fundamental rights and the Directive Principles of State Policy sought to incorporate the ideas of Human Rights in the constitution of India.

Ambedkar believed in the maxim, “Tell the slave that he is a slave and he will revolt against

In the Indian context, justice as seen was an important social value in terms of the strict observance of Dharma or the enforcement of a social order based on the *Varna-Ashram Vyavastha* reflected in an elaborate caste system. This established order, according to Ambedkar, was based on graded inequality and was legitimized by Hindu Law, which completely neglected equality, fraternity, liberty, democracy and human rights. He was also of the view that the system of graded inequality was not notional but legal and penal as it entailed strict enforcement of Hindu Law which meant different things to different castes and people and contained no notion of equal treatment to all. This fact has been highlighted by Ambedkar thus: "Hindu Law is the Law of the established order and was made by the touchable. The Untouchables had nothing to do except to obey it and respect it. The untouchables have no right against the touchable. For them there is no equal right, no justice, which is due to them, and nothing is allowed to them. Nothing is due to them except what the touchable are prepared to grant. The Untouchables must not insist on rights.

The road to social justice in the opinion of Ambedkar was to be led by education. He firmly believed in the efficacy of education as a panacea for the social evils and injustice because the problem of social injustice in India is not only economic but also cultural. Here, it is not enough to house the untouchables/deprived sections of society, feed them and then leave them to serve the higher classes as was the ancient ideal of this country. It was even more necessary to remove from their minds/psyche that feeling of inferiority which has shunted their growth and made them slaves others and to create in them a consciousness of significance of life for themselves and for their country of which they have been cruelly robbed by the Indian social order. Ambedkar was convinced that nothing could achieve this better than the spread of higher education and the fact remains as true in present times as it was when Ambedkar wrote.

To Ambedkar, the aim of democracy is essentially the practical interests of society as a whole, and not of any class group or community. He regards democracy as the social Organization of the people in the sense that the people include all members of society. To him, real democracy is opposed to the suppression of minorities.

Democracy was an essential ingredient of Ambedkar's vision of Social Justice. For this, there is no denying that self-government must be good government, otherwise it is not worth having. The primary concern of his life had always been to study and understand the nature of good government. He stood for a self-government which should be both efficient and good government. To him, the ability and efficiency of the governing class are not enough for good

government. 'What is necessary is to have in the governing class the will to do good or, to use Dicey's language, freedom from internal limitations arising out of selfish class interests. Efficiency combined with selfish class interests instead of producing good government is far more likely to become a mere engine of suppression of the service classes[30].' He argued, therefore, not only for self-government but also for a good government. He had a deep faith in self-government and good government, which, in his view, could go a long way in ensuring social justice.

Ambedkar's vision of social justice also includes a strong faith in the separation of the government's power and of the allocation of functions to various departments. He builds his theory of social and political Organization around his central concept of the individual and his rights. To him, the State exists only to prevent injustice, tyranny and oppression. He wants that no State should violate the fundamental rights of man. He is opposed to all kinds of discrimination in administration. He holds that society can do nothing without some organized power. He stresses the need of constitutional morality and some conventions for the practical success of a constitution. He wishes a good, moral government, to protect the rights of the people in all their legitimate functions. He fought for these rights in his life.

According to Ambedkar, law is an important factor in maintaining social peace and justice among different groups of people. It is a guardian of equality and liberty. For him, law was not only a legal function. It also regulated the life of the whole society and nation as well. He categorically declared, 'All citizens are equal before the law and possess equal civic rights.'

His attitude toward social justice was humanistic as well as nationalistic. His approach was twofold. He wanted not only freedom from foreign domination, but also internal freedom for the people to whom it was denied. He says, 'We must have a Government in which men in power knowing where obedience will end and resistance will begin, will not be afraid to amend the social and economic code of life which the dictates of justice and expediency so urgently call for. This role the British Government will never be able to play. It is only a Government which is of the people, for the people and by the people that will make this possible.'

During the British period Ambedkar was undoubtedly the most articulate spokesman of the exploited and downtrodden in Indian society, particularly of the Depressed Classes. He held pragmatic and uncompromising views on the amelioration of the sufferings of these classes and the role of the government in this regard. He came out vociferously and eloquently in support of

adequate representation and constitutional safeguards for the Depressed Classes in his innumerable statements, representations and evidences.

Thus, Ambedkar's conception of political power was aimed at securing social justice for the deprived on more equitable and honourable terms. But for him, political justice was not enough for the welfare and well being of the Untouchables. He considered socio-economic justice as the precondition for redeeming political justice. Moreover, his vision of social justice involves a normative element also in as much as it aims at the desirability of goodness in social life, dignity of the individual, equal rights of man and woman, promotion of social progress and better standards of life with peace and security in all spheres of human life.

## **CONCLUSION**

The social base of education, as a sub-discipline of both education and sociology, has contributed much to the understanding of educational processes. As a source of information and training for future teachers, and as a source of information for policy makers, it continues to draw attention to the social context of what goes on in schools. The tensions within the social base of education will no doubt continue, but the sub-discipline as a whole is so eclectic and robust that this can only be a sign of its strength. In either case, the sociology of education uniquely focuses attention on the social context of educational structures and processes, and its contribution will continue to be invaluable for understanding and reforming educational systems, particularly as they change to accommodate new social needs and new technologies.

## **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. What is the Concept of Society on Education?
2. What is diversity in education?
3. Describe the democratic education.
4. Explain Equity Vs. Equality.
5. What is the general idea of multicultural education?

## **SUGGESTED READING / REFERENCE BOOK**

- Bennett, C. (1995). *Comprehensive multicultural education: Theory and practice* (3rd ed.). Massachusetts: Allen & Bacon,
- Hans Haferkamp and Neil Smelser.J (1992), *Social Change and Modernity*, University of California Press.

- MuniruddinQureshi (2005),*Social Aspects of Education*, New Delhi: Anmol Publications Pvt.Ltd.
- YogendraK.Sharma,(2007), *Foundations in Sociology of Education*, New Delhi: Kanishka Publishers, Distributors.
- [source.south university.edu/...fluence on -education](http://source.south university.edu/...fluence on -education)
- [folk.uio.no/sveinsj/STE-paper-sjoberg-UNESCO2.htm](http://folk.uio.no/sveinsj/STE-paper-sjoberg-UNESCO2.htm).
- [teacherwebcom/...iddle/Godfrey/8.6.1- influence of](http://teacherwebcom/...iddle/Godfrey/8.6.1- influence of)
- [plato.stanford.edu/entries/democracy](http://plato.stanford.edu/entries/democracy)

## UNIT -3 CHILD-CENTRED EDUCATION

### Course Objectives

At the end of the unit, the student-teacher will be able to

- explain the concepts of child centred education.
- explain the strategies of discoveries related to child centred education.
- explain the strategies of activities to the students.
- explain the educational thoughts of different authors.

### INTRODUCTION

All children have a right to an education that helps them grow and develop to their fullest form. Child centred learning aims to develop skills and practices of learner. The great philosophers and educationalists like Rousseau, Tagore, Froebel, Pestalozzi and Montessori have given emphasis on the child-centred Education at different times.

### Meaning of Child-Centred Education

Child-centred education is a sort of revolt against subject-centred education. Child-centred Education seeks to provide natural flow of activity and spontaneous growth of the child. He must be allowed to enjoy complete freedom of action subject to the condition that he should not interfere with the freedom of others.

### Characteristics of Child-Centred Education

As child is the Centre of Education, development of mind, body and spirit of the child should be reflected in the programme and planning of education.

Rousseau advocates that child should be allowed to learn from nature in his natural way without any interference from the adult his individuality should be respected, that his natural interests like play and curiosity should form the basis of his education, books should be avoided particularly at the early stage. More emphasis should be given to the child sensory and natural development.

The following points need to be considered for promoting child-centred education.

(i) Freedom:

Education was not the privilege of any single class but the right of every child belonging to different classes.

Freedom was granted to the child to discover things than getting secondhand information through books.

Emphasis was as they like given on the freedom of children to learn and create.

(ii) Self-activities:

Plays, games and songs and occupations should be developed and designed especially to stimulate the child's self-activity.

Great stress on self development of the child and child's activity should stem from his own interests.

(iii) Process of spontaneous development:

The child progresses at its own speed in a subject.

The role of the teacher is to understand the child.

The child's freedom and individuality have found expression spontaneously in the lap of nature.

(iv) Development of interest and needs:

The education of child depends on his interest and needs.

The physical, social, moral and spiritual development of the child is "the main objective of the child-centred Education.

(v) Education-based on experience:

The main objective of child centred Education is to enable the child to learn through experience which is permanent.

The course and subjects should be experience- oriented to meet the need of the child. Child is the centre of the whole education process. The role of teacher is like a guide and observer to provide



complete freedom to the child to grow naturally. Child-centred Education is the ideal system to manifest the latent talent of the child.

#### Educational thoughts of Mahatma Gandhi

- Education for character building, education thought mother-tongue.
- Place of manual work in education and co-education.
- Hostel residence and community life.
- Moral education through character and good conduct.
- Educational of soul should be imparted through teacher's (model) life rather than through books.
- Health education for physical fitness and health and insistence for simple life.
- Importance for self-help and self-reliance, education for thoroughness (strength), education for citizenship.
- Education for self-help and self-reliance, education for personality development.
- Education for avoiding caste and colour distinction, education for vocation useful for life.
- Education for equality of all the religions, education based (founded) on truth, non-violence and justice”.

#### Activities

- Collecting, processing, preserving and displaying archival materials (writings, photographs, paintings, voice-records, films, personal clothes etc
- Microfilming, lamination and preservation of negatives
- Arranging exhibitions on aspects of Gandhi's life, literature and activities
- Publication of the “Mahadevbhani Dairy,” which chronicles the entire history of the Indian freedom struggle
- The Ashram Trust funds activities that include education for the visitor, the community and routine maintenance of the museum and its surrounding grounds

- Keeping contact with as well as helping and undertaking study and research in Gandhian thought and activities and publishing the results of such study and research and allied literature for the benefit of the people
- Observance in a suitable manner of occasions connected with Gandhi's life
- Maintaining contact with the youth and student community and providing facilities to them for the study of Gandhian thought.

#### Dialogue

1. Conduct night and day schools with just a short course, well conceived, to last for the period of the vacation.
2. Visit Harijan quarters and clean them, taking the assistance of Harijans if they would give it.
3. Taking Harijan children for excursions, showing them sights near the villages and teaching them how to study Nature, and generally interesting them in their surroundings, giving them by the way a working knowledge of geography and history.
4. Reading to them simple stories from the Ramayana and the Mahabharata.
5. Teaching them simple Bhajans (Devotional Songs).
6. Cleaning the Harijan boys of all the dirt that they would find about their persons and giving both, the grown-ups and the children simple lessons in hygiene.
7. Taking a detailed census in selected areas of the condition of the Harijans.
8. Taking medical aid to the ailing Harijans.
9. This is but a sample of what is possible to do among the Harijans. It is a list hurriedly made, but a thoughtful student will, I have no doubt, add many other items

#### Educational Thoughts of Rabindranath Tagore

##### Aims of Education According to Tagore (Discovery)

###### (1) Self Realization:

- Spiritualism is the essence of humanism; this concept has been reflected in Tagore's educational philosophy.
- Self-realization is an important aim of education.

- Manifestation of personality depends upon the self-realization and spiritual knowledge of individual.

## 2) Intellectual Development:

- Tagore also greatly emphasized the intellectual development of the child.
- By intellectual development he means development of imagination, creative free thinking, constant curiosity and alertness of the mind.
- Child should be free to adopt his own way learning which will lead to all round development.

## (3) Physical Development:

- Tagore's educational philosophy also aims at the physical development of the child.
- He gave much importance to sound and healthy physique.
- There were different kinds of exercises.
- Yoga, games & sports prescribed in Santiniketan as an integral part of the education system.

## (4) Love for humanity:

- Tagore held that the entire universe is one family.
- Education can teach people to realize oneness of the globe.
- Education for international understanding and universal brotherhood is another important aim of his educational philosophy.
- The feeling of oneness can be developed through the concepts like fatherhood of God and brotherhood of man all creatures are equal on this earth.

## (5) Establishment of relationship between man & God:

- Man bears the diverse qualities and potentialities offered by God.
- These qualities are inborn and innate.
- The relationship between man and God is strong and permanent.
- However the dedication to spiritualism and sacredness will lead to the harmonious relationship with man, nature and God.

(6) Freedom:

- Freedom is considered as an integral aspect of human development.
- Education is a man-making process, it explores the innate power exists within the man.
- It is not an imposition rather a liberal process that provides utmost freedom to the individual for his all round development.
- He says, Education has leaning only when it is imparted through the path of freedom".

(7) Co-relation of Objects:

- Co-relation exists with God, man and nature.
- A peaceful world is only possible when correlation between man and nature will be established

(8) Mother tongue as the medium of Instruction:

- Language is the true vehicle of self-expression.
- Man can freely express his thought in his mother-tongue.
- Tagore has emphasized mother tongue as the medium of instruction for the child's education.

(9) Moral and Spiritual Development:

- Tagore emphasized moral and spiritual training in his educational thought.
- Moral and spiritual education is more important than bookish knowledge for an integral development of human personality.
- There must be an adequate provision for the development of selfless activities, co-operation and love fellow feeling and sharing among the students in educational institutions.

(10) Social Development:

- According to Tagore, "Brahma" the supreme soul manifests himself through men and other creatures.
- Since He is the source of all human-beings and creatures, so all are equal.
- Rabindranath Tagore therefore said, "service to man is service to god".
- All should develop social relationship and fellow-feeling from the beginnings of one's life.

- Education aims at developing the individual personality as well as social characters which enables him to live as a worthy being.

#### Activities

[T]he following functions [are] treated as of primary educational importance:

Care and cleaning and construction of quarters.

Care and proper use of latrines; sanitary disposal of waste.

Cooking and serving of food; clothes washing and repair.

Personal hygiene and healthy habits.

Individual self-discipline; group self-government.

Policing and hospitality; fire drill and control.

In every one of these, there is some art to be mastered, some business or organizing capacity to be developed, some law of science to be recognized, and in all of them there is a call for the recognition of the need for individual self-preservation as well as of the duties, responsibilities and privileges of family membership and citizenship.

Much of what is termed housecraft is in the nature of handicraft, but, from the earliest years, it is well to introduce to the children some special craft, easily grasped by small hands, which is of definite economic value. The product should be of real use in the home, or have a ready sale outside, and thus enable the child to realize his capacity for self-preservation through the trained experience of his hands.

Any of the following can be mastered in a few weeks:

- Cotton wick, tape and band making; scarf weaving and belt making; cotton rug and duree making (the looms can easily be made by the children themselves, out of bamboo.)  
Straw-sandal making. Straw-mat and mattress making.

Sewing; paper making; ink making.

Dyeing with simple vegetable dyes; cotton and calico printing with wood blocks.

Making sun-dried mud bricks ...

There are few of the crafts mentioned above which are not in some way intimately bound up with the life of the country-folk. With each of them there is a grammar of procedure which has to be learned, but it is a grammar which is not detached from life

Of all workshops the one provided by Nature herself is the most commodious and helpful. Under skilled stimulation and guidance there is out-of-doors an unlimited field for experiencing and experimenting with life. The schoolmaster here is an anachronism. He can no longer tower over his pupils from his rostrum and threaten them with his power to grant or withhold marks and certificates. He is forced to adopt his rightful place behind the student, ever on the watch, ever ready with a word of advice or encouragement, ever ready to be a student himself, but never in the way.

Dialogue

The highest education is that which does not merely give us information, but makes our life in harmony with all existence”

At first, children must gather knowledge through their life because children are in love with their life, and it is their first love. All its color and movement attract their eager attention, and then they will renounce their lives to gain knowledge

“I felt clearly that what was needed was not any particular material object, not wealth or comfort or power, but our awakening to full consciousness in the freedom of soul, the freedom of life in God, where we have no enmity with those who must fight, no competition with those who must make money, where we are beyond all attacks and above all insults

Luxuries are the burdens of other peoples habits, the burdens of the vicarious pride and pleasure which parents enjoy through their children”

The mind of the child is always on the alert, restless and eager to receive firsthand knowledge from mother nature. Children should be surrounded with the things of nature which have their own educational value. Their minds should be allowed to stumble upon and surprised at everything that happens in todays life

Educational thoughts of John Dewey

## Discovery

Progressive methods of teaching advocated that the interests of learners and freedom in learning situations should form important bases of education. These progressive ideas were the result of pragmatism.

The root of pragmatism philosophy is the problem solving attitude. It is John Dewey who gave a classic formulation to the structure of the problem solving method. The credit for introducing the inquiry approach in education really goes to John Dewey.

### **EDUCATION IS A BIPOLAR PROCESS.**

It has two sides the psychological and the sociological.

The psychological side is the study of the child, with all his inclinations, instincts, potentials and interests.

The sociological side is the social environment in which the child is born, lives and grows for society.

His educational theory has four fundamentals

### **EDUCATIONS AS GROWTH**

Growth is the real function of education. But growth is not directed towards any predetermined goal or end.

The end of growth is more growth and so the end of education is more education. Education is to promote critical thinking and with the mind will grow to think further.

### **EDUCATION AS LIFE**

According to Dewey education is not preparation for life but it is life itself.

School is now taken as a miniature society which faces problems, similar to those faced in life outside. In school community pupils are active participants and they are to be trained for cooperative and mutually helpful living.

They should be encouraged to face actual life problems in the school and gain varied experiences

## **EDUCATION AS SOCIAL EFFICIENCY.**

Education is to bring out the ability to function as an effective member of his community by partaking in its activities and at the same time contributing to its refinement and advancement.

## **EDUCATION AS RECONSTRUCTION OF EXPERIENCE.**

Experience is the source of the true knowledge.

One experience leads to further experience and each new experience calls for revision, modification or rejection of the previous experience.

## **AIMS OF EDUCATION**

John Dewey is a pragmatist. As physical and social environments are always changing, aims of education must also change. They cannot be fixed for all times to come.

To develop an ability to understand and analyse the problems

To develop skills for intelligent application of knowledge and insight into solving problems

To arouse interest through planned experiences

To help in the adjustment to changing needs and ideals of society.

## **CURRICULUM**

Dewey's curriculum is not a mere scheme of studies, nor is it a list of subjects.

It is an entire range of activities and experiences, projects leading to reconstruction and reorganisation of experiences. Thus he makes occupational activities of crafts, the core of the school curriculum.

He also includes moral, aesthetic and religious education in the curriculum. But these again are to be imparted through practical experiences and not through 'chalk and talk lessons' in the classroom.

## **METHODS OF TEACHING**

According to Dewey mind is a product of activity and develops through activity. There must be some stimulus to mind for thinking



A child engages himself in various types of activities which are inspired by his own urges and inclinations, he faces certain problems which arise spontaneously out of his own like situations. The child then thinks of possible solutions and then tries to put his plans into action.

In the actual execution of his plans, he comes to know of the correctness or otherwise of his ideas. This procedure is called by him as “project method” which is also referred to by the name “Experimental method”

#### STEPS INVOLVED IN THE PROJECT METHOD

Creation of a suitable situation that gives rise to real problem.

Thinking of all possible solutions for that problem.

Collection of information about the problem from all possible sources.

Execution and arriving at the possible solution.

Application of the solution arrived at.

#### ROLE OF TEACHER

The teacher is the provider of settings, conducive to learning.

He is not an authority in dispensing ideas to be absorbed by his pupils, but a guide, stimulus and catalyst in getting the child to make his own relations and connections, his own ideas.

#### CONTRIBUTION TO EDUCATION:

- He fused both psychological and sociological aspects of education
- Advocated “Project Method” of learning
- Insistence on activities of diverse kinds in schools – activity- centered curriculum.
- Conceptualized social discipline by participating in group activities.
- Considered teacher as a guide, friend and director of activities.
- Advocated social efficiency” as the main aim of education
- Advocated training for democratic living through school activities and practices

## **Educational thoughts of Plato**

### **PHILOSOPHY**

- His philosophy is concerned with justice e, virtue, character and the human soul. He wanted students to become independent thinkers.
- The only good life or life worth living is a life reasoned by your own mind, not other's ideas and opinions, change your life and mind.
- Examine your life,. History and ideas once you self examine yourself then you are ready for knowledge.
- All knowledge begins in not knowing to state "I don't know is the first step- open to learning.
- Every thing has a truth or an essence your job is to seek this truth. Life is an adventure and jooornmey7 not destination.
- The good teacher will spark you lead you to the truth with integrity, reason imagination.
- Virtue is excellence or doing your best- teaching your highest potential for goodness and to shape good character. The potential rests in the human soul everyone born with a soul.
- Character is what is developed from this soul and is moulded and tested and shaped – dynamic process.
- Society is our ultimate teacher and it may produce errors and evils as well as wrong values. Previous generation may have been wrong and transmitted bad ideas and practices.

### **PLATO'S CONCEPT OF EDUCATION**

#### **Role of Education**

Education should make people fit for their different social roles; as he said, "A purpose of education is to create a balance, a harmonious state; where the workers are to be trained to obey their masters and offer important economic services to the state"

#### **STAGES OF EDUCATION**

Plato named three stages of education: reading and writing as the first stage; second stage: physical education; and the third stage: secondary or literary education.

#### **READING AND WRITING**

Education was not started for the children after birth, even before birth a mother was supposed to exercise properly, to ensure the health of the baby. After birth, exercise must be supplemented by various means that will keep the child from becoming frightened or emotional. This was followed

by supervised play, instruction for both boys and girls; although they were supposed to learn the same disciplines and sports, it was suggested to be done separately.

In this stage children should be taught through music, play, physical work, geometrical exercises: this should be done when children are in the age of six. The major aim of this stage is to “promote culture and right living by exposing the child to the proper kind of environment and atmosphere through play, music, discussion, and criticism”

### **PHYSICAL EDUCATION**

In this stage Plato was thinking more of military training rather than mere athletic training. This stage starts from 18<sup>th</sup> to 20<sup>th</sup> year. Big emphasis was on physical education because it helped to build healthy bodies. And the other purpose of training was to give them stability in judgement. They were supposed to get physical strength, courage and a philosophical temperament: they should have self-control, self-discipline and they must also show wisdom. By those characteristics they could be able to care for laws and customs

### **SECONDARY OR LITERARY EDUCATION**

This is the study of the works of poets, which were learnt to be recited and were sung to the lyre, so it included knowledge of music.

Greeks didn't have a Bible; the poets were the source of theology and morals. An ordinary Greek was expected to acquire his morals and theological notions from these poets and use them to educate his young, so it was expected that those poets must be suitable for the intended purpose i.e. to teach morality.

This was strictly considered because most of the existing poetries were unsuitable and because of this, Plato was afraid that unsuitable poetry could misrepresent God who is Perfect.

### **TEACHING METHODS**

Plato recommended play method at elementary level; student should learn by doing. when he/she reaches the higher level of education, his reason would be trained in the processes of thinking and abstracting.

Plato wanted motivation and interest in learning. He was against the use of force in education.

"Knowledge which is acquired under compulsion obtains no hold on the mind."

According to Plato "Do not then train youths by force and harshness, but direct them to it by what amuses their minds so that you may be better able to discover with accuracy the peculiar bent of the genius of each."

Plato wanted a place where children love to go and stay there and they play with things which enhance their education by playing.

Plato gave importance to nursery education, as nursery education plays a vital role in the education of man and it helps to build his moral character and state of mind

## ROLE OF THE TEACHER

- In Plato's plan of education educator is considered to have greatest importance.
- He is like torch bearer who leads a man lying in the dark cave, out of the darkness into the bright light of the outside world. The teacher is thus the constant guide of the students.
- The teacher must be a person of high integrity and must possess high self worth.
- He must have pleasing personality, in depth knowledge and professional training .
- He should be deeply committed to his profession, have high sense of responsibility and a true role model.
- Teachers should lead a true moral life.

They should practice what they preach.

## **Educational Thoughts Martin Buber**

### Philosophy

Buber is famous for his thesis of dialogical existence, as he described in the book *I and Thou*. However, his work dealt with a range of issues including religious consciousness, modernity, the concept of evil, ethics, education, and Biblical hermeneutics

Buber rejected the label of "philosopher" or "theologian" claiming he was not interested in ideas, only personal experience, and could not discuss God but only relationships to God

### Dialogue and existence

In *I and Thou*, Buber introduced his thesis on human existence. Inspired by Feuerbach's *The Essence of Christianity* and Kierkegaard's *Single One*, Buber worked upon the premise of existence

as encounter.<sup>[25]</sup> He explained this philosophy using the word pairs of Ich-Du and Ich-Es to categorize the modes of consciousness, interaction, and being through which an individual engages with other individuals, inanimate objects, and all reality in general. Theologically, he associated the first with the Jewish Jesus and the second with the gentile Christian Paul.<sup>[26]</sup> Philosophically, these word pairs express complex ideas about modes of being—particularly how a person exists and actualizes that existence. As Buber argues in *I and Thou*, a person is at all times engaged with the world in one of these modes.

The generic motif Buber employs to describe the dual modes of being is one of dialogue (Ich-Du) and monologue (Ich-Es). The concept of communication, particularly language-oriented communication, is used both in describing dialogue/monologue through metaphors and expressing the interpersonal nature of human existence.

### *Ich-Du*

*Ich-Du* ("I-Thou" or "I-You") is a relationship that stresses the mutual, holistic existence of two beings. It is a concrete encounter, because these beings meet one another in their authentic existence, without any qualification or objectification of one another. Even imagination and ideas do not play a role in this relation. In an I–Thou encounter, infinity and universality are made actual (rather than being merely concepts). Buber stressed that an *Ich-Du* relationship lacks any composition (e.g., structure) and communicates no content (e.g., information). Despite the fact that *Ich-Du* cannot be proven to happen as an event (e.g., it cannot be measured), Buber stressed that it is real and perceivable. A variety of examples are used to illustrate *Ich-Du* relationships in daily life—two lovers, an observer and a cat, the author and a tree, and two strangers on a train. Common English words used to describe the *Ich-Du* relationship include encounter, meeting, dialogue, mutuality, and exchange.

One key *Ich-Du* relationship Buber identified was that which can exist between a human being and God. Buber argued that this is the only way in which it is possible to interact with God, and that an *Ich-Du* relationship with anything or anyone connects in some way with the eternal relation to God.

To create this I–Thou relationship with God, a person has to be open to the idea of such a relationship, but not actively pursue it. The pursuit of such a relation creates qualities associated with It-ness, and so would prevent an I-You relation, limiting it to I-It. Buber claims that if we are open to the I–Thou, God eventually comes to us in response to our welcome. Also, because the God

Buber describes is completely devoid of qualities, this I–Thou relationship lasts as long as the individual wills it. When the individual finally returns to the I-It way of relating, this acts as a barrier to deeper relationship and community.

### *Ich-Es*

The *Ich-Es* ("I-It") relationship is nearly the opposite of *Ich-Du*. Whereas in *Ich-Du* the two beings encounter one another, in an *Ich-Es* relationship the beings do not actually meet. Instead, the "I" confronts and qualifies an idea, or conceptualization, of the being in its presence and treats that being as an object. All such objects are considered merely mental representations, created and sustained by the individual mind. This is based partly on Kant's theory of phenomenon, in that these objects reside in the cognitive agent's mind, existing only as thoughts. Therefore, the *Ich-Es* relationship is in fact a relationship with oneself; it is not a dialogue, but a monologue.

In the *Ich-Es* relationship, an individual treats other things, people, etc., as objects to be used and experienced. Essentially, this form of objectivity relates to the world in terms of the self – how an object can serve the individual's interest.

Buber argued that human life consists of an oscillation between *Ich-Du* and *Ich-Es*, and that in fact *Ich-Du* experiences are rather few and far between. In diagnosing the various perceived ills of modernity (e.g., isolation, dehumanization, etc.), Buber believed that the expansion of a purely analytic, material view of existence was at heart an advocacy of *Ich-Es* relations – even between human beings. Buber argued that this paradigm devalued not only existents, but the meaning of all existence

### **Educational thoughts of Paulo Freire**

- Freire developed his own educational theory known as conscientization.
- A formation of critical consciousness which allowed people to question and inquire about various the historical and social situations they learn about. “Education as the practice of freedom
- Freire's vision was for an education system that was based creative learning and freedom to think differently.
- Freire's method became known as the “problem posing” concept, allowing students to converse with their instructor during the learning course.

The teachers had come to class with a monologue set and ready to teach to the kids with or without questions.

The discovery learning literature often claims the following advantages:

- Supports active engagement of the learner in the learning process
- Fosters curiosity
- Enables the development of life long learning skills
- Personalizes the learning experience
- Highly motivating as it allows individuals the opportunity to experiment and discover something for themselves
- Builds on learner's prior knowledge and understanding
- Develops a sense of independence and autonomy
- Make them responsible for their own mistakes and results
- Learning as most adults learn on the job and in real life situations
- A reason to record their procedure and discoveries - such as not repeating mistakes, a way to analyze what happened, and a way to record a victorious discovery
- Develops problem solving and creative skills
- Finds new and interesting avenues of information and learning - such as gravy made with too much cornstarch can become a molding medium

These sorts of arguments can be regrouped in two broad categories

- Development of meta cognitive skills (including some higher level cognitive strategies) useful in lifelong learning.
- Motivation

Most researchers would argue that pure discovery learning as a general and global teaching strategy for beginning and intermediary learners doesn't work. The debate on how much guiding is needed is somewhat open. See Kirschner et al. (2006) for a good overview (or Mayer, 2004; Feldon) and also Merrill's first principles of instruction model that does promote unguided problem-based learning at the *final stages* of an instructional design.

## Dialogue Education

Dialogue Education shifts the focus of education from what the teacher says to what the learner does, from learner passivity to learners as active participants in the dialogue that leads to learning

(Global Learning Partners, 2006c). A dialogue approach to education views learners as subjects in their own learning and honours central principles such as mutual respect and open communication (Vella, 2002). Learners are invited to actively engage with the content being learned rather than being dependent on the educator for learning. Ideas are presented to learners as open questions to be reflected on and integrated into the learner's own context (Vella, 2004).

The Structures of Dialogue Education intent is that this will result in more meaningful learning that affects behaviour.

Dialogue

Learners as Subjects or Decision makers

Achievement-Based Objectives

Learning Tasks

*Structures:*

1. *Learning Needs and Resources Assessment (LNRA)* To discover the present knowledge and skills of the learners and help develop further goals.

2. *The Seven Steps of Design* - In designing learning activities, educators seek to answer in as much detail as possible the questions:

1. *Who* - are the learners, the educators, other participants?
2. *Why* - the situation that calls for the learning, especially in terms of why the learners want to be there.
3. *When* - will the learning take place (timing & total length of time available)?
4. *Where* - will learning take place (location, set up, etc.)?
5. *What* - specific Content (Knowledge, Skills and Attitudes) will be covered to address the *Why*?
6. *What for* - Describes the Achievement-Based Objectives (ABOs) for each element of Content
7. *How* - the Process (learning tasks) through which learners interact with the *What* to meet each ABO (*What For*).

By answering these questions in detail and ensuring congruence throughout, a strong, accountable design can be prepared.



3. *Learning Tasks (How?)* - work by using active verbs to engage the learner and work at proficiency in knowledge, skills, and attitudes (both individuals and groups). This leads to the development of the four I's.

- Four I's - One particularly helpful sequence for a learning task involves four parts:
- *Inductive* work that allows the learner to reflect on their past experience. *Input* which provides some new information for the learner to consider.
- *Implementation* which invites the learner to apply this new information and finally.
- *Integration* to bring the new understanding back into the context of the learner.

4. *The principles and practices* at every level:

- Learning needs and resources assessment - Learners need to participate in the planning of what will be learned. Conducting an LNRA, allows the educator to begin to model the dialogue with learners that will continue during the educational event. Additionally the design may be enhanced because it is informed by the themes of learners and an understanding of what is meaningful to them.
- Safety - Learners must feel safe in order to engage with other learners, teachers and the content. The atmosphere and design for learning must create a safe environment for learners. Challenge is still necessary for learning to take place, but with the promise of support, reinforcement and being provided with all of the tools (skills, knowledge and abilities) necessary to do the task, learners can feel prepared to undertake this challenge.
- Sound Relationships - This involves respect and interest in the views of all involved in the learning process and is established on an individual basis. It is based on the soundness of the person who is in the position of teacher.
- Sequence and Reinforcement - Sequencing activities help to ensure learner safety and success in task completion by building from small to large, simple to complex, single to many and familiar to unfamiliar. When learners repeatedly interact with the content in diverse and engaging ways, learning is reinforced.
- Praxis - Learners must have opportunities to act upon content and then reflect on their actions in order to draw conclusions and then to have further opportunities to act again. This can be achieved through the use of analysis and synthesis. Analysis - taking apart

information or a situation and Synthesis - putting it back together are both necessary for learning to occur.

- Respect - Seen through the effort that is put into the learning endeavor by all participants. The teacher in the preparation and structuring of the learning process and the learners in the engagement and effort exhibited back.
- Ideas, Feelings, Actions - In order for significant learning to occur, ideas (cognition), feelings (affection) and actions (psychomotor) all need to be involved in learning activities.
- Relevance and Immediacy - Content needs to be immediately applicable, useful and meaningful (relevant) to the context of the learner in order for learning to occur.
- Clear Roles - Learners must see the equality between teacher and learners and among learners. This can be supported by teachers through the demonstration of listening intently, showing interest in the learners and expressing humility.
- Teamwork and Small groups - The use of small group work is a central practice in Dialogue education because it creates a safe environment for learners to find their voice, reflects life situations of teamwork and allows for peer mentoring which can enhance learning.
- Engagement - Learners are engaged with making theory on any subject and educators must use cognitive, affective and psychomotor activities to engage learners in this process. When learners are engaged they are committed to the learning process.
- Accountability - Accountability is one of the most important principles in adult learning. Teachers must be accountable to learners through their learning design and facilitation and learners must be accountable to the teacher, each other and themselves through their actions.

#### *5. Evaluation Indicators*

- Learning
- Transfer
- Impact

### **Conclusion**

Every child is a unique and special individual. Children are active participants in their own education and development. This means that they should be mentally involved and physically

active in learning what they need to know and do. Child centred has been an important foundation of early childhood education.

### **Question for discussion and reflection**

1. Explain child centred education with its characteristics.
2. Explain activity based education with reference to Tagore.
3. Explain child centred education with special emphasis on Mahatma Gandhi.
4. Explain dialogue education with reference to Paulo Freire.
5. Compare and contrast the philosophy of John Dewey with Paulo Freire.
6. Explain the philosophy of Martin Buber.
7. Discuss the concepts of activity, discovery and dialogue based education.

### **References**

- Fagg,H (2006), A Study of Gandhi's Basic Education, New Delhi: National Book Trust
- Freire,P (1993). Pedagogy of the City. New York: Continuum
- Gadotti, M. (1994) Reading PaulonFreire. His life and work, New York: Routledge.
- Lall. R. (2016). Language Across the Curriculum. VinayRakheja, Pub. Meerut.
- RanjanaPandey. (2016). Language Across The Curriculum. Bookman,publishers. NewDelhi.
- SanthoseAreekkuzhiyil. (2016). Language Across The Curriculum. Neelkamal, pub. Hyderabad.

## UNIT 4: NATIONALISM, UNIVERSALISM SECULARISM AND EDUCATION

### Course Objectives

At the end of the unit, the student-teacher will be able to

- Explain the concept of nationalism in the view of Tagore and J.Krishnamoorthy.
- Compare the philosophical thoughts Tagore and Krishnamoorthy
- Explain the concept of nationalism, and secularism in the context of present political situation .

### INTRODUCTION

This Unit deals with nationalism, universalism and secularism in the opinion of Tagore and J. Krishnamoorthy two eminent Indian Educational philosophers

#### **Nationalization Meaning and Concept**

Since nationalism is by definition the attachment to a nation of this world, it is also a form of secularism. Nationalism is something of which Orthodox Christians are often accused. The classic case of such a nationalist lack of love for God is surely that of the Old Testament Jews, who stoned the prophets and crucified the Son of God. This was represented by the racism and ethnic exclusivity of the Pharisees, condemned by the Saviour. However, as we can see below, Judaism has no monopoly on nationalism. The dictionary defines secularism, first recorded in 1846, as 'the doctrine that morality should be based solely on the well-being of mankind in the present life, to the exclusion of all considerations drawn from belief in God or in a future state'. Secularism is therefore a lack of love for God and the justification for that lack of love. Tagore says Universalism is a human scientific view of it is also that of the scientific man. It is a relative world depending for its reality upon consciousness.

#### **Concept of Nationalism**

Nationalism and globalization are often considered processes leading to opposite poles in cultural, economic, and political history, but in fact the relationship between them has been far more complex, and in the past century and a half they may be said to have worked in tandem. Nationalism emerged in a sixteenth-century country in Western Europe – England – its emergence coinciding with the dawning of “the European Age in History”: the rise of Western Europe, in

particular, and societies of Western European descent, to the position of economic, political, and to a certain extent cultural leadership of the entire world.

It emerged in a region, culturally unified by Western Christianity, which, independently of nationalism, and for the first time on such a broad scale in history, already began to bring other continents under its sway, thereby initiating the process of cultural, economic, and political globalization. At the centre of this globalizing world was Spain, which subordinated the European “Holy Roman” Empire and vast areas in South and Central America under the political authority of the Habsburg Crown, united Europe, Africa, and the Americas economically in the “triangular trade,” and dedicated itself to the mission of spreading Roman Catholicism. The world would never again be integrated into one system on so many levels, that is, so meaningfully, but, however profound, the success of this first attempt at globalization was short lived.

The emergence of nationalism, reinforced by and reinforcing the disintegration of the Western European Church order which produced the Protestant Reformation, put an end to it: *res publicachristiana* split into warring camps, religious differences adding on to and often masking secular political conflicts, and by the eighteenth century the competitive spirit which pitted nation against nation in every sphere of human endeavor replaced the universalistic, catholic indeed, religious consciousness which for so long united Western Christians.

## **Nationalism Quotes**

**Nationalism** by Rabindranath Tagore

Nationalism Quotes (showing 1-12 of 12)

“Yes, this is the logic of the Nation. And it will never heed the voice of truth and goodness. It will go on in its ring-dance of moral corruption, linking steel unto steel, and machine unto machine; trampling under its tread all the sweet flowers of simple faith and the living ideals of man.”

— **Rabindranath Tagore, Nationalism**

“Neither the colourless vagueness of cosmopolitanism, nor the fierce self-idolatry of nation-worship, is the goal of human history.”

— **Rabindranath Tagore, Nationalism**

“Because each nation has its own history of thieving and lies and broken faith, therefore there can only flourish international suspicion and jealousy, and international moral shame becomes anæmic to a degree of ludicrousness. The nation's bagpipe of righteous indignation has so often changed its

tune according to the variation of time and to the altered groupings of the alliances of diplomacy, that it can be enjoyed with amusement as the variety performance of the political music hall.”

— **Rabindranath Tagore, Nationalism**

“I have seen in Japan the voluntary submission of the whole people to the trimming of their minds and clipping of their freedom by their government, which through various educational agencies regulates their thoughts, manufactures their feelings, becomes suspiciously watchful when they show signs of inclining toward the spiritual, leading them through a narrow path not toward what is true but what is necessary for the complete welding of them into one uniform mass according to its own recipe. The people accept this all-pervading mental slavery with cheerfulness and pride because of their nervous desire to turn themselves into a machine of power, called the Nation, and emulate other machines in their collective worldliness.”

— **Rabindranath Tagore, Nationalism**

“For what are obstacles to the lower creatures are opportunities to the higher life of man.”

— **Rabindranath Tagore, Nationalism**

“cruelly unjust both in their act and their thought, accompanied by a feeling that they are helping the world to receive its deserts; men who are honest can blindly go on robbing others of their”

— **Rabindranath Tagore, Nationalism**

“The West in the voice of her thundering cannon had said at the door of Japan, Let there be a nation—and there was a Nation. And now that it has come into existence, why do you not feel in your heart of hearts a pure feeling of gladness and say that it is good? Why is it that I saw in an English paper an expression of bitterness at Japan's boasting of her superiority of civilization—the thing that the British, along with other nations, has been carrying on for ages without blushing? Because the idealism of selfishness must keep itself drunk with a continual dose of self-laudation. But the same vices which seem so natural and innocuous in its own life make it surprised and angry at their unpleasantness when seen in other nations.”

— **Rabindranath Tagore, Nationalism**

“Clever lies become matters of self-congratulation. Solemn pledges become a farce—laughable for their very solemnity. The Nation, with all its paraphernalia of power and prosperity, its flags and pious hymns, its blasphemous prayers in the churches, and the literary mock thunders of its patriotic bragging, cannot hide the fact that the Nation is the greatest evil for the Nation, that all its precautions are against it, and any new birth of its fellow in the world is always followed in its mind by the dread of a new peril.”

— **Rabindranath Tagore, Nationalism**

“It is the continual and stupendous dead pressure of this inhuman upon the living human under which the modern world is groaning. Not merely the subject races, but you who live under the delusion that you are free, are every day sacrificing your freedom and humanity to this fetich of nationalism, living in the dense poisonous atmosphere of world-wide suspicion and greed and panic.

I have seen in Japan the voluntary submission of the whole people to the trimming of their minds and clipping of their freedom by their government, which through various educational agencies regulates their thoughts, manufactures their feelings, becomes suspiciously watchful when they show signs of inclining toward the spiritual, leading them through a narrow path not toward what is true but what is necessary for the complete welding of them into one uniform mass according to its own recipe. The people accept this all-pervading mental slavery with cheerfulness and pride because of their nervous desire to turn themselves into a machine of power, called the Nation, and emulate other machines in their collective worldliness.”

— **Rabindranath Tagore, Nationalism**

“Yet when, one day, standing on the outskirts of Yokohama town, bristling with its display of modern miscellanies, I watched the sunset in your southern sea, and saw its peace and majesty among your pine-clad hills,—with the great Fujiyama growing faint against the golden horizon, like a god overcome with his own radiance,—the music of eternity welled up through the evening silence, and I felt that the sky and the earth and the lyrics of the dawn and the dayfall are with the poets and idealists, and not with the marketmen robustly contemptuous of all sentiment,—that, after the forgetfulness of his own divinity, man will remember again that heaven is always in touch with his world, which can never be abandoned for good to the hounding wolves of the modern era, scenting human blood and howling to the skies.”

— **Rabindranath Tagore, Nationalism**

“But now, where the spirit of the Western nationalism prevails, the whole people is being taught from boyhood to foster hatreds and ambitions by all kinds of means—by the manufacture of half-truths and untruths in history, by persistent misrepresentation of other races and the culture of unfavourable sentiments towards them, by setting up memorials of events, very often false, which for the sake of humanity should be speedily forgotten, thus continually brewing evil menace towards neighbours and nations other than their own. This is poisoning the very fountainhead of humanity. It is discrediting the ideals, which were born of the lives of men who were our greatest and best. It is holding up gigantic selfishness as the one universal religion for all nations of the

world.”

— **Rabindranath Tagore, Nationalism**

“I do not for a moment suggest that Japan should be unmindful of acquiring modern weapons of self-protection. But this should never be allowed to go beyond her instinct of self-preservation. She must know that the real power is not in the weapons themselves, but in the man who wields those weapons”

— **Rabindranath Tagore, Nationalism**

**Concept of Universalism**

Universalism is not in itself a common ideology, but a unique feature in the way of seeing the world, or human life. It is common to have different universalistic ideologies resulting very opposite each other. A universalist thinking ensures the accuracy of a way unique or specific view, explain, or organize the world.

**MEANING:**

Universalism, is an idea or belief in the existence of a universal, objective or eternal truth that it determines everything, therefore, is and must be equally present in all human beings.

**Definition of universalism**

Universalism is the philosophical doctrine that affirms the existence of certain principles that are universally indisputable, for being real, and which must therefore be admitted by all persons and cultural groups as a guide for their conduct and to distinguish the good deeds of the evil. On the theological level, each religion tries to their beliefs to be recognized as the only true.

**Concept of Secularism**

**MEANING:**

- The word secularism was first used in the 19th century by George Jacob Holyoake.
- He derived it from the latin word “saeculum” meaning “this present age”.
- He used it in the context of social and ethical value or system.
- secularism is a social and ethical system. It primarily emphasize on natural and cultural improvements of human beings.



## **DEFINITION**

Secularism can be defined as, “a system of doctrines and practices that rejects any form of religious faith and worship”.

Indian concept of secularism requires that there shall be no state religion and the state shall treat all religion equally. In the word of great Mahatma Ghandhi, “My veneration for other faiths is the same as for any one faith”. We believe in Sarvadharmasamabhavana, equal place for all faith and creeds.

## **SECULARISM:**

Dr.Rajendra Prasad, first president of India has very clearly observed that becoming secular, India has not been anti religion or religious. He stated, “There are some who thinks that because we are a secular state we do not believe in religion or spiritual values. Far from being so, it really means that in this country all free to profess or preach the faith of their liking and that we wish well of all religions and want them to develop in their own way without any hindrance.Jawaharlal Nehru, explained the secular nature of our state “it means while religions are completely free, the state including in its wide fold various religions and culture, gives protections and opportunities to all and thus brings about an atmosphere of tolerance and cooperation”

## **India as a Secular State:**

It means that state shall not discriminate against the followers of a particular religion.

All Indian-Hindus,Muslims,Sikhs, Christians and others have the freedom to preach their religions. Secularism has been made one of the basic element of the structure of the constitution of India.

## **The Characteristics Of Secular States Are,**

- The state as such as no religion of its own
- It does not award preferential treatment to the followers of any faith
- It does not discriminate against any person on account of his faith
- All citizens are eligible to enter government service irrespective of the faith

### **Characteristics of secular education:**

Secular education is identified with the following characteristics,

- Moral out look
- Development of wider vision
- Pluralistic out look
- Democratic values
- Cultural development
- Synthesis of spiritual and material
- Humanitarianism

### **Education for Secularism in India**

The following traits characterize education for secularism in India.

- Secular aims
- Democratic organization of educational institutions
- Multiple curriculum
- Science teaching
- Enlightened teachers

The present Indian educational system is trying to create a social climate in the country, in which secular values are sought to be promoted effectively and enthusiastically.

### **Constitutional provisions regarding imparting of religious and secular education**

1. Article 28(1) states that no religious instructions shall be provided in any educational institutions wholly maintained out of state funds.
2. No persons attending any educational institutions recognized by the state or receiving aid out of state fund shall be required to take part in any religious instructions without his consent .in the case of a minor, consent of his guardian is needed

### **Reason for imparting secular education:**

1. Secular education develops a moral outlook
2. Secular education helps in the development liberal attitudes and values
3. It develops wider vision
4. It develops an attitude of appreciation and understanding of others point of view
5. It develops democratic values and humanistic outlook

6. Secular education synthesis materialism and spiritualism
7. Secular education serves as an antidote to religious fanaticism and hatred

In a multi religious country like India, the spirit of secularism is to be developed in order to maintain the unity and integrity of the nation. Education should play a positive role in preparing people for a secular society and a purposeful life. We hope secularism will develop in to a stronger force leading to the social unity of India when institutionalized religions gradually lose their coercive hold on the young generations.

### **Educational implications:**

Many positive steps have been taken to promote secularism in the country. It is laid down in the constitution that religious minorities are free to establish their educational institutions from grant.

Secularism is a philosophy of moral education. Secular behavior springs in the school from the influence of school through the conduct and behavior of teachers themselves and life in the school community as a whole.

All the activities and programs of school must strive for the inculcation of values of love, truth and tolerance

### **The Secular Nation-State**

There is a fundamental bond between the state and education. Modern states depend on the educational system to produce 'good citizens' - in other words, to reinforce national identities. The era of the nation-state as the most effective social and economic unit was the product of certain historical needs that the world may have outgrown. It may be necessary now to reexamine these needs and also the concepts on which they were based. This examination should be undertaken in the context of two opposing currents that influence how history and economics are taught in our schools.

### **TAGORE'S VIEWS ON EDUCATION:**

Tagore's theory of education is marked by naturalistic & aesthetic values.

He had a belief that "The widest road leading to the solution of all our problems is education."

Education can develop a new pattern of life.

Culminating in the realization of Universal man.

Tagore's system of education emphasizes the intellectual, physical, social, moral economic and spiritual aspects of human life.

By which a man can develop an integrated personality.

### **Aims of Education According to Tagore:**

The aims of education as reflected in educational institution founded by Rabindranath Tagore in Santiniketan are as follows:

#### **(1) Self Realization:**

Spiritualism is the essence of humanism; this concept has been reflected in Tagore's educational philosophy.

Self-realization is an important aim of education.

Manifestation of personality depends upon the self-realization and spiritual knowledge of individual.

#### **(2) Intellectual Development:**

Tagore also greatly emphasized the intellectual development of the child.

By intellectual development he means development of imagination, creative free thinking, constant curiosity and alertness of the mind.

Child should be free to adopt his own way learning which will lead to all round development.

#### **(3) Physical Development:**

Tagore's educational philosophy also aims at the physical development of the child.

He gave much importance to sound and healthy physique.

There were different kinds of exercises. Yoga, games & sports prescribed in Santiniketan as an integral part of the education system.

#### **(4) Love for humanity:**

Tagore held that the entire universe is one family.

Education can teach people to realize oneness of the globe.

Education for international understanding and universal brotherhood is another important aim of his educational philosophy.

The feeling of oneness can be developed through the concepts like fatherhood of God and brotherhood of man all creatures are equal on this earth.

#### **(5) Establishment of relationship between man & God:**

Man bears the diverse qualities and potentialities offered by God.

These qualities are inborn and innate.

The relationship between man and God is strong and permanent.

However the dedication to spiritualism and sacredness will lead to the harmonious relationship with man, nature and God.

#### **(6) Freedom:**

Freedom is considered as an integral aspect of human development.

Education is a man-making process, it explores the innate power exists within the man.

It is not an imposition rather a liberal process that provides utmost freedom to the individual for his all round development.

He says, Education has meaning only when it is imparted through the path of freedom".

#### **(7) Co-relation of Objects:**

Co-relation exists with God, man and nature. A peaceful world is only possible when correlation between man and nature will be established

#### **8) Mother tongue as the medium of Instruction:**

Language is the true vehicle of self-expression.

Man can freely express his thought in his mother-tongue.

Tagore has emphasized mother tongue as the medium of instruction for the child's education.

### **(9) Moral and Spiritual Development:**

Tagore emphasized moral and spiritual training in his educational thought.

Moral and spiritual education is more important than bookish knowledge for an integral development of human personality.

There must be an adequate provision for the development of selfless activities, co-operation and love fellow feeling and sharing among the students in educational institutions.

### **(10) Social Development:**

According to Tagore, "Brahma" the supreme soul manifests himself through men and other creatures.

Since He is the source of all human-beings and creatures, so all are equal. Rabindranath Tagore therefore said, "service to man is service to god".

All should develop social relationship and fellow-feeling from the beginnings of one's life.

Education aims at developing the individual personality as well as social characters which enables him to live as a worthy being.

### **National Attitude on Rabindranath Tagore's Vision on Education:-**

Rabindranath Tagore's vision of education, based on the concept of religion of man, is basically not bound to any time frame, and hence can be revived or re-established in any part of the world at any point of time.

The education scene in India in 2010 is somewhat like this, education imparted to the village children is still inadequate in either the utilitarian or holistic terms, or in short education in India could not stabilize the village life of India even after 63 years of independence.

The villagers of India still live with an uncertain future probing hard into their lives, neither are they aligned to provide a great thrust to development of India.

In higher education, the Cabinet of Ministers has approved a bill to allow foreign universities to set up campuses in India to offer their degrees, the education scenario will get more competitive to encourage an improvement in general standard of higher education in India.

Now, the private sector of India through ASSOCHAM has pitched in by expressing an interest to run a few 'innovative universities' on a profit generating basis. Whatever may be the effect of these ventures, one thing is for sure that higher education is going to be a fairly costly affair and a major part of education will be related to the forces of the market, and there is no indication that basic education is going to change in any perceptible manner.

### **KRISHNAMURTY AIMS OF EDUCATION**

For Krishnamurti education is:

- (i) Educating the whole person.
  - (ii) Educating the person as a whole (not as an assemblage of parts).
  - (iii) Educating the person within a whole. (As part of society, humanity, nature, etc.).
- For him education is about preparation for the whole life and not preparation for part of life (like work).
  - Education in the true sense is of helping the individual to be mature and free, to flower greatly in love and goodness.
  - According to this great teacher the main aim of education is to enable the child to develop mentally in such a way that he should know himself.
  - Education should help one to feel freedom of mind and fearlessness.

For Jiddu Krishnamurti, the intentions of education must be the inner transformation and liberation of the human being and, from that, society would be transformed. The function of education is to help us from childhood not to imitate anybody, but to be ourselves all the time. To understand life is to understand ourselves, and that is both the beginning and the end of education.

Modern education is making us into thoughtless entities; it does very little towards helping us to find our individual vocation.

## **SHORTCOMINGS OF THE PREVAILING SYSTEM OF EDUCATION**

Krishnamurti observed the following shortcomings of the Indian education.

The conventional education:

- Makes independent thinking extremely difficult.
- Strangulates spontaneity.
- Leads to dull and lackluster mind.
- Develops fear in the mind to deviate from established standards even if they are legitimate.
- Fails to enable us to understand the higher and wider significance of life.
- Fails to integrate thoughts and feelings.
- Is lopsided and doesn't provide overall growth of the individual.
- Trains us only to seek personal gains and security and fight for ourselves.
- Considers examinations and degrees as criteria for intelligence.
- Merely train the mind to be cunning and avoid vital human issues.
- Helps in making us subservient, mechanical and thoughtless.
- Though it awakens intellectually, leaves us incompetent and uncreative.

## **CHARACTERISTICS OF INTEGRAL LEARNING**

### **Development Of Capacities To Face Challenges.**

If the individual is to grapple with life's problems, intricacies, mysteries, and sudden demands, he must be free from theories and particular patterns of thoughts.

### **Development Of Self Knowledge.**

Education should help an individual discover the true values which come with unbiased investigation and self-expression becomes self-assertion with all its aggressive and ambitions conflicts.

To Krishnamurti the individual is of first importance; not the system, and as long as the individual does not understand the total process of himself, no system can bring order and peace to the world.



Understanding comes only through self-knowledge which is awareness of one's total psychological process.

Education in the true sense is the understanding of oneself for it is within each one of us that the whole of existence is gathered.

### **Integrated Experience**

Krishnamurti says —the right kind of education which encourages the language of technique should help man to experience the integral process of life which is of greater importance.

### **Freedom from readymade ideas.**

According to Krishnamurti ideas have no place in education for they prevent the comprehension of the present and escaping into the future cannot make one aware of what is to be after an idea indicates sluggishness of mind and a desire to avoid the present.

### **Development of free and mature human beings.**

To jiddukrishnamurti, the right kind of education is free from ideology and conditioning. Education in true sense should help the individual to be free and mature and to blossom in love and goodness.

### **Re-education**

Right education comes with transformation of ourselves. We must learn to be compassionate, to be content with little and to seek the supreme for, only then can there be the true salvation of mankind.

### **Development of Right Understanding of Environment.**

We must realize the fact that we are not conditioned by the environment, but we are the environment. We never see that we are the total environment because there are several entities in us, all revolving round the 'me', the self. The self is made of these entities, which are merely desires in various forms. From this conglomeration of desires arises the central figure, the thinker, the will of the 'me' and the 'mine'. A division is thus established between the 'self' and the 'non-self', between the 'me' and the environment i.e. the society. This separation is the beginning of conflict, inward and outward..

### **Development of Wisdom.**

In our desire to acquire more knowledge, we are losing love, feeling for beauty and sensitivity to cruelty. When we become more and more specialized, we are becoming less and less integrated. Wisdom cannot be replaced by knowledge and no amount of explanation or accumulation of facts will free man from suffering. Our education is making us more and more shallow and is not helping us to overcome the deeper meanings of our being and our lives are becoming increasingly meaningless, disharmonious and empty.

### **Development of Love towards Others.**

Only true love and right thinking will bring about revolution within oneself. But it cannot be achieved through pursuit of the ideal of love. What can be done is to keep ourselves free from hatred, greed, exploitation envy and ego.

### **Development of Right Relationship.**

Education should help an individual to cultivate right relationship between individuals and society and this is possible only if he understands his own psychological process. Intelligence lies in understanding oneself and going above and beyond oneself.

### **Development of freedom and integration.**

To educate a child is to help him to understand freedom and integration. To have freedom, there must be order and order is achieved only through virtue. Integration is achieved through simplicity- simplicity in both our inward life and outward needs.

### **Development of creative intelligence.**

The spirit of constant inquiry and the feeling of discomfort in the existing system can bring forth creative intelligence. To keep this spirit alive is cumbersome task. Most people do not want their children to have this kind of intelligence, the reason being the uncomfortability they have to face when the established values are questioned.

### **Development of International understanding.**

As long as the glaring disparities like rich and poor, exploiters and exploited powerful and powerless exist in our society and divisions like nationality religion, caste, color and various dividing loyalties prevail, it is not possible to have brotherhood among men.

If we are to change radically our present human relationship, our only and immediate task is to transform ourselves through self-knowledge. Thus we come back to the central point which is 'oneself'. We normally dodge this point and instead of owning up the responsibility, put the government, religious and ideologies responsible. The government is what we are. The religious

and ideologies are but projection of us. Until we change ourselves fundamentally there can neither be right education nor a peaceful world.

### **Freedom from ideology.**

Jiddukrishnamurti says conditioning of the child's mind to fit a particular ideology, whether political or religious breed's enmity between man and man. In a competitive society we cannot have brotherhood.

### **Freedom and discipline.**

It is only in individual freedom that love and goodness can blossom. Only the right kind of education offers this freedom. Discipline becomes a substitute for love. It is because our hearts are empty that we cling to discipline. Freedom can never be achieved through discipline. Freedom is not a goal or an end to be achieved. A sincere teacher will protect and help the children towards the right kind of freedom.

### **Rewards and punishments.**

Sensitivity can never be awakened through compulsion. Compulsion breeds antagonism and fear. Reward and punishment in any form only make the mind subservient and dull. Discipline may be an effective way to control a child, but it doesn't help him to understand the problems in living.

### **Spiritual Training and not Religious Education.**

Religious education in the true sense is to encourage the child to understand his own relationship to people, Things and to nature. There is no existence without relationships. It is rather impossible to explain this to a child.

## **METHODS OF TEACHING ACCORDING TO KRISHNAMURTI :**

- We should not teach the student 'what to think' and 'how to think'. Allow him freedom to think for himself.
- Study the child thoroughly and employ such methods that suit him best.
- The student should be treated as an equal partner.
- Problem solving and explorative methods should be encouraged.
- Repetition encourages the mind of the child to be sluggish.

## **ROLE OF THE TEACHER**

### **a) Understanding the child**

The right kind of a teacher doesn't depend on a particular method.

He will study each pupil closely.

He is fully aware of the fact that the pupils are living beings who are impressionable, volatile, sensitive, affectionate and often timid.

He knows that he should have a lot of patience and love to deal with them.

The absence of these qualities makes a teacher mechanical in his attitude and shirks away the demands of the profession.

**b) Keen observer**

The teacher should not be tempted to project upon the child his prejudices, hopes and fears.

The ideal teacher will desist from moulding him to fit his idiosyncrasies, prejudices and ideas which gratifies himself.

**c) Integrated Educator**

If a lamp doesn't burn itself, it cannot light other lamps.

If the teacher himself / herself is not an integrated personality, we cannot expect him to help the children become integrated personalities.

**d) Tolerance**

It is necessary to feel perfect tolerance for all, and a hearty interest in the beliefs of those of another religion, just as much as one's own.

### **JIDDU KRISHNAMURTI'S CONCEPT OF AN IDEAL SCHOOL**

According to Krishnamurti an ideal school should have limited number of students because mass instruction cannot help develop integrated personality.

The school of his vision functions without the influence of any ideology. In his school, there is an atmosphere of collective responsibilities. There is sincere co-operation among all the teachers. A student council is formed to discuss all matters relating to the wellbeing of the whole group. An atmosphere of confidence and co-operation prevails in the school.

### **KRISHNAMURTI'S CONTRIBUTION TO EDUCATION**

Education was always close to Krishnamurti's heart.

He established nearly a dozen co-educational schools in India and abroad to translate his ideas into practice

Although the ordinary curriculum was followed in these schools, his main objective in starting these schools was to provide children adequate opportunities and freedom to grow up without any of the national, racial class and cultural prejudice that build barriers between one human being and another and give rise to violence.

His emphasis on the development of an integrated personality through integral approach to education is highly commended by almost all thinkers.

### **Krishnamurti's Critique of Nationalism**

In 1929 Krishnamurti made his famous declaration that truth is a pathless land.

Krishnamurti believed that both nationalism and organized religion are basically divisive, because the sense of identity they foster is exclusive.

Brotherhood is an ideal, he asserted in his later writings; the fact is that men and women do not live in amity.

Krishnamurti's critique of idealism and utopian visions supported a more general critique of the search for self-identity.

All group identities are oppositional and divisive; and he set out to neutralize the desire to find security in group identifications.

### **Conclusion**

Education should play a positive role in preparing people for a secular society and a purposeful life. We must realize the fact that we are not conditioned by the environment. Only the right kind of education offers this freedom in children's mind. Education should help an individual to cultivate right relationship between individuals and society and this is possible only if he understands his own psychological process. Intelligence lies in understanding oneself and going above and beyond oneself.

### **Question for Discussion and Reflection**

1. Explain nationalism with emphasis on Krishnamurti
2. Explain about the concept of nationalism and secularism.
3. Explain the concept and characteristics of integral education.
4. Explain the concept of nationalism with reference to Tagore.

## References:

- Rajesh R. Sharma (2012) Philosophical and Sociological foundation of Education A.P.H. Publishing Corporation, New Delhi
- J. Krishnamoorthy “Letters to the Schools, Krishnamoorthy Foundation India, Madras, 1981, p.72
- R.N. Sharma, Text Book of Educational Philosophy, (New Delhi :Kanishka Publishers, 2002)
- Tagore, “Message” in The English Writings of Rabindranath Tagore, vol iii, p. 753
- Isaiah Berlin, “Kant as an Unfamiliar Source of Nationalism”, in Henry Hardy (ed), The Sense of Reality, p.24

## UNIT-5: EDUCATION AND DEMOCRACY

### COURSE OBJECTIVES

At the end of the course, the student-teachers will be able to:

- acquire the knowledge of democracy
- comprehend the democratic practices in education
- explain the importance and role of education in a democratic society
- apply the knowledge towards the training for democratic citizenship

### INTRODUCTION

Education and democracy are inextricably linked in social thought and practice. Democracy, in all of its historic and contemporary forms, has played a pivotal role in shaping conceptions of public education. How public education is imagined, scripted, and enacted is contested along philosophic, programmatic, and pedagogic dimensions in relation to competing conceptions of democracy. Classic contributors to modern political thought and commentary, as well as those who framed modern arguments, have dealt specifically with the educational necessities of establishing and maintaining a democratic polity. They have generally reflected on the tensions between the socialization of a democratic nation's subjects (i.e. as acculturated, law abiding members) and the education of its citizens (i.e. critically thinking, active participants). Both education and democracy have evolved in response to historic geographic-based concerns (persistent regionalism, westward expansion, rapid urbanization, and globalization), significant demographic shifts (especially the cultural diversity brought by immigration), and economic growth (mostly the imperatives of industrial technologies). Capitalism in all of its historic forms (e.g. pre-industrial, industrial, post-industrial, globalization) and through its dominant technologies (e.g. mechanized agriculture, mass commodity production, transportation, and global information networks) sets limits (e.g. what's acceptable for critical analysis in curricula), provides objectives (e.g. agile job-readiness, rational consumer skills), and shape policy and practice (e.g. corporate bureaucratic form, economic incentives, market based curriculum, emphases on individual choice) in public education.

### MEANING OF DEMOCRACY

Etymologically the term democracy is derived from two Greek words namely, 'Demos' and 'Kratos'. 'Demos' means the 'the people' and 'Kratos' means 'power'. Thus democracy means 'power of the people'.

- Aristotle defined democracy as '**a government of many**'.

- In the words of Abraham Lincoln, **“Democracy is government of the people, by the people and for the people.”**
- Lord Bryce defines democracy as, **“It is a government in which the will of the majority of qualified citizens rests.”**
- For Dewey, **“Democracy denotes a mode of government, a specified practice in selecting “officials and regulating their conduct as officials.”**
- According to the University Education Commission, **“Democracy is the way of life and not a mere political arrangement. It is based on the principles of equal freedom and equal right for its members, regardless of race, religion, sex, occupation or economic stature.”** Thus ‘equal freedom’ and ‘equal right’ are the watchwords of democracy.

## **DEWEY’S CONCEPT OF DEMOCRACY AND EDUCATION**

### *Brief life sketch of John Dewey (1852-1959)*

Dewey was born in 1859 at Burlington in the USA. He graduated from the University of Vermont in 1879 and started his career as a teacher. Thereafter he joined Hopkins University and obtained his Ph.D. degree in Philosophy in 1884. He worked as a Professor of Philosophy at the University of Minnesota, Michigan and Chicago. His last assignment was his professorship of education and philosophy at the University of Columbia, New York. Prof. Dewey delivered lectures on education and philosophy at the University of Peking for a period of two years.

The Government of Turkey invited Dewey to draw up a report on the reorganization of national schools. Prof. Dewey’s philosophy is not simply speculative but based on actual experiences in the classroom. His principles and practices grew out of his experiments in the University Laboratory School, Chicago. He founded this school in 1896, for the chief objective of testing educational theory through experiments. '

### *Dewey’s views on various aspects of education*

Dewey's Philosophy of Education Dewey’s philosophy of education is given various names. ‘Experimentalism’, ‘Functionalism’, ‘Instrumentalism Operationalism’, ‘Practicellism’, ‘Pragmatism’ and ‘Progressivism’. Of course, his philosophy of education is mostly associated with the term ‘Pragmatism’. All these terms indicate the dynamic, ever-changing and performing character of life. Dewey suggested the application of experimental logic. Emphasized that as all experiences cannot be educative, the business of the educator is to select an experience or experiences which would enable the individuals to live creatively, constructively, dynamically and



fruitfully in the changing environment. Action must precede knowledge whatever knowledge we possess has resulted from our activities, our efforts to survive. Only that which has been organized into our impositions so as to enable us to adapt our environment to our needs and to adapt our aims and desires to the situations in which we exist is really knowledge.

### ***Contribution to education***

1. Dewey fused both the psychological and sociological aspects of education.
2. Dewey emphasized democratic values in all dimensions of education. .
3. Dewey laid stress on providing rich and verified activities and experiences to students.
4. Dewey's approach to methodology of teaching led the emergence of the Project Method in education.
5. Dewey advocated that the programmers of the school should be linked with the life of the society. He in this regard, pointed out that the activities should be simplified and that unworthy activities should be discarded.
6. Dewey wanted that the natural interests of the child should be given due attention.
7. Dewey believed in social discipline that could develop through useful activities.
8. Dewey's watchword was social efficiency coupled with individual efficiency.

### ***Evaluation of dewey's work***

Following points of criticism are usually made:

1. Dewey does not suggest any definite aim of education.
2. Dewey attaches more importance to materialism.
3. Dewey does not accept any truth as something permanent.
4. Dewey puts excessive emphasis on individual differences.

Education as a Psychological and Social Process: Dewey does not believe in absolute values. According to Dewey, "Education is the process of reconstruction or reconstitution of experience, giving it a more detailed value through the medium of increased social efficiency". Dewey further observed, "What nutrition and reproduction are to physiological life, education is to social life". He considered education as 'the fundamental method of social progress and reform'. In

sum, he believe that the individual who is to be educated is a social individual and that society is an organic union of individuals. If we eliminate the social factor from the child, we are left only with an abstraction; if we eliminate the individual factor from society, we are left only with an inert and lifeless mass. Education, therefore, must begin with a psychological insight into the child's capacities, interests, and habits. It must be at every point by reference to these same considerations. The powers, interests, and habits must be continually interpreted he believe that all education proceeds by the participation, individual gradually comes to share in the intellectual and together. He becomes an inheritor of the funded capital of civilization. The most formal and technical education in the world cannot safely depart from this general process. It can only organize it or differentiate it in some particular direction. He believe that the only true education comes through the stimulation of the child's powers by the demands of the social situations in which he finds himself.

Dewey's Concept of Social Efficiency Social efficiency broadly speaking includes three elements of efficient industrial development and the art of living together. A man must learn to be economically self-sufficient and at the same time acquire qualities and values of an enlightened citizen. An individual must be able to earn his livelihood. An individual, who is not able to earn his livelihood, is a parasite. Education must take into account economic aspect. An individual should be trained to make the best use of national resources. A school was considered as a 'society in miniature'. Dewey was a firm believer in democratic values. He, therefore, insisted that education should provide suitable opportunities to the students to imbibe democratic values.

## **DEMOCRACY AND EDUCATION**

The university education Commission has explained the relationship of Democracy aligns that each individual is a unique adventure of life. The function of education is guidance of this adventure for the realisation of the potentialities of each individual." Democracy Prof. Dewey in his book "Democracy and Education" has explained very clearly the relationship between education and democracy in these words, "A society which makes provisions for participation in its good of all its members on equal terms and which secures flexible adjustment of its institutions through the interaction of the different forms of associated life is a democratic society. Such a society must have a type of education which gives individuals a personal interest in social changes without introducing disorder." Prof. K.G. Saiyidain explains the functions of education and democracy in his book Education, Culture and Social Order in these words, "Education must be so oriented that it will develop the basic qualities of character which are necessary for the functioning of the

democratic life.” He lists the following qualities to be developed by education for the democratic life:

- (i) Passion for social justice.
- (ii) Quickening of social conscience.
- (iii) Tolerance for cultural and intellectual differences in others.
- (iv) Development of love for work.
- (v) Deep and true love for the country.

### ***Importance of education in democracy***

The following points may be mentioned regarding the importance of education in democracy:

1. Education enables the individual to understand his rights and duties.
2. Education develops the qualities of brotherhood, appreciation of other’s point of view etc. qualities essential for the successful functioning of democracy.
3. Education develops dignity of labour and a sense of personal worth.
4. Education broadens the mental horizon of the individual.
5. Education develops values of equality and fair mindedness important elements of democratic outlook.
6. Education helps to evaluate the policies and programmes of political parties.
7. Education helps to evaluate the merits and demerits of candidates contesting elections.
- 8 Education helps to prevent exploitation.
9. Education helps to develop qualities of followership and leadership.

### **MEANING OF DEMOCRATIC EDUCATION**

**Democratic education** is an educational ideal in which democracy is both a goal and a method of instruction. It brings democratic values to education and can include self-determination within a community of equals, as well as such values as justice, respect and trust. Democratic education is often specifically emancipator, with the students' voices being equal to the teacher's.

Democratic education infuses the learning process with these fundamental values of our society. Democratic education sees young people not as passive recipients of knowledge, but rather as active co-creators of their own learning. They are not the products of an education system, but rather valued participants in a vibrant learning community.

Democratic education begins with the premise that everyone is unique, so each of us learns in a different way. By supporting the individual development of each young person within a caring community, democratic education helps young people learn about themselves, engage with the world around them, and become positive and contributing members of society.

Uniting democratic values with the educational process is not a new idea. Over the last 120 years, leading thinkers from John Dewey to Marian Wright Edelman and Margaret Mead to Paulo Freire have articulated the basic hypothesis that:

*If living in democratic societies committed to human rights creates well-being,*

AND

*If people learn primarily based on the people and environment that surrounds them,*

AND

*If culture is transmitted from one generation to another,*

THEN

*We need to create environments where people of all ages, especially youth, are immersed in the values, practices, and beliefs of democratic societies and human rights.*

## **DEMOCRATIC PRACTICES IN EDUCATION**

Democratic education can take countless forms, each shaped by the adults and young people in a community or educational setting. Here are a few ways in which democratic education is practiced by teachers, young people, schools, programs, and communities (follow the links for specific examples):

- Teachers creatively engaging students. They may work within more conventional school settings, but still provide students with a chance to have choice in their learning. These teachers go beyond the conventional curriculum to build a more relevant and engaging experience that connects to the lives of young people.

- Schools implementing democratic education on a day-to-day basis. They may employ practices like self-directing learning, shared decision-making, individualized project-based work, and student-chosen internships in the community. This includes schools that use the label "democratic schools" and others that practice these values and use other terminology.
- Meaningful youth voice forums providing students with the opportunity to be part of educational planning and decision-making such as through student councils and student-teacher-administrator committees.
- Young people leading reform efforts in their schools and communities.
- Cities and school districts undertaking broad educational reform efforts to personalize learning, break out of the conventional structures and curriculum, and build an "education city".
- Non-profit and after-school programs empowering young people to explore their personal interests and connect to the outside community.
- College and university programs engaging young adults in the development of their own learning plans and in community decision-making. Also, teacher education programs focusing on preparing teachers for democratic and progressive education.
- Parents and youth learning out of school through empowering learning centers and youth centers.
- Policy groups such as youth advisory councils that are involving young people in policy discussions with legislators, governors, and mayors.

## **EDUCATION IN A DEMOCRATIC SOCIETY**

**Education for a Democratic Society:** The objective of education India is to try to achieve the aims laid down in the Constitution. A democratic society aims at instilling a love of liberty, equality and fraternity in its people. And, if India is to be made a truly democratic nation, education should aim at developing these qualities. Hence, education aims at the total and independent of the individual. But in this development it is essential that personal liberty should be in consonance with social justice. Social justice is based on equality. It provides every citizen with the opportunity to pursue his own development without prejudicing the interests of others. One implication is that the government must provide the poor people with the opportunity and the help to get an education Which will raise them to same level as the others, because without this help they cannot secure such education for themselves. And without it, equality will have no meaning.

The most important democratic objective and ideal of education is the evolution of the sense of fraternity because democratic life is impossible without it. This feeling of brotherhood makes little of the differences generated by caste, race, class, profession, sex nation, etc. The future of any democracy depends entirely upon its future citizens and the quality of leadership. Hence, one of the important functions of education is that it should train the educands in democratic leadership. It is a truism that students in democratic leaders of the nation. Education, therefore, must evolve ways and means of training these prospective leaders in the norms of democratic life. For this, it is essential that the student community itself must evolve a democratic pattern, and it must be burdened with much of the responsibilities of running the educations in order to get practical training in social living.

### **TRAINING FOR DEMOCRATIC CITIZENSHIP**

**Training in Citizenship:** A citizen feels that he is a part of the community and that he is there to share its burdens. Attempts should be made to give education for citizenship to promote the cause of liberty and democracy. Citizens are not born, they are to be trained. Therefore, the following strategies may be undertaken in order to develop the sense of citizenship among the students.

1. **Education for citizenship:** It should become a dynamic element in our pattern of education.
2. **Development:** Attempts should be made to inspire the students to develop a sense of co-operation for worthy causes, capacity for critical thought and freedom to place his point of view reasonably.
3. **Debates and discussions:** School should provide activities like debates and discussions on the issues and problems of our country. Mock parliament, mock panchayats, mock-assemblies etc. should be arranged in order to inculcate proper civic values and attitudes.
4. **Excursions:** The schools should organize excursions to places of historic, religious and cultural importance.

**Socialization:** Students should learn to work in the social context and to come into contact with their fellow-men and women in a variety of ways in order to achieve their personal desires.

**Productive work:** Every boy and girl should willingly undertake useful productive work which may be mental or manual as a result of which he does not remain a burden or a parasite on others and can render some service to society.

Special Camps: Special camps like N.C.C. or A.C.C., N.S.S., I.V.S.P., (international voluntary services for peace) should be organized to provide a natural environment for the students to develop a sense of comradeship resulting from free group activities in work and play.

Self-Government: Students should be encouraged to organize self-govt. in order to learn the art of dividing different activities amongst themselves to carry their duties in a disciplined manner and to obey their freely chosen leaders, so much essential for good citizenship.

Relations among students: Teachers should have a good understanding of adolescent psychology and be able to establish sincere and friendly relations among the students.

Cooperative Society: In order to encourage co-operative group work, schools should organize co-operative societies, where they should actively participate.

Pen-friends clubs: Students should be encouraged to organize pen-friends clubs, on national and international level.

Celebrate birthdays of Great men: The school should celebrate birthdays of great men and women of our country like; Lord Krishna, Gautama Buddha, Shankaracharya, M.K.Gandhi, Gopabadhu, Tagore etc., besides the celebration of important days like the Independence Days the Republic Day etc.

### ***Measures for educating and training the students for Democracy***

1. Introduction of self-government in school.
2. Organizations of group activities for providing opportunities to develop democratic values.
3. Use of democratic methods of instruction for allowing them simple scope for free expression.
4. Provision for manual work for developing dignity of labour;
5. Giving equal treatment to all students, irrespective of any consideration.
  - . Recognizing the individuality of each student.
  - . Providing opportunities for social service.
  - . Organization of camps.
9. Organizing programmes of community kitchen where possible.
10. Arranging hostel facilities where feasible.

11. Making equal opportunities for admission.

12. Encouraging different hobbies.

13. Organizing visits to legislatures.

## **MULTICULTURALISM AND EDUCATION**

**Multicultural education** refers to any form of education or teaching that incorporates the histories, texts, values, beliefs, and perspectives of people from different cultural backgrounds. At the classroom level, for example, teachers may modify or incorporate lessons to reflect the cultural diversity of the students in a particular class. In many cases, “culture” is defined in the broadest possible sense, encompassing race, ethnicity, nationality, language, religion, class, gender, sexual orientation, and “exceptionality”—a term applied to students with specialized needs or disabilities.

Generally speaking, multicultural education is predicated on the principle of educational equity for all students, regardless of culture, and it strives to remove barriers to educational opportunities and success for students from different cultural backgrounds. In practice, educators may modify or eliminate educational policies, programs, materials, lessons, and instructional practices that are either discriminatory toward or insufficiently inclusive of diverse cultural perspectives. Multicultural education also assumes that the ways in which students learn and think are deeply influenced by their cultural identity and heritage, and that to teach culturally diverse students effectively requires educational approaches that value and recognize their cultural backgrounds. In this way, multicultural education aims to improve the learning and success of all students, particularly students from cultural groups that have been historically underrepresented or that suffer from lower educational achievement and attainment.

Instructionally, multicultural education may entail the use of texts, materials, references, and historical examples that are understandable to students from different cultural backgrounds or that reflect their particular cultural experience—such as teaching students about historical figures who were female, disabled, or gay (a less common practice in past decades). Since schools in the United States have traditionally used texts, learning materials, and cultural examples that commonly—or even exclusively—reflect an American or Eurocentric point of view, other cultural perspectives are often absent. Consequently, some students—such as recently arrived immigrants or students of color, for example—may be placed at an educational disadvantage due to cultural or linguistic obstacles that have been overlooked or ignored.



The following are a few representative ways in which multicultural education may play out in schools:

**Learning content:** Texts and learning materials may include multiple cultural perspectives and references. For example, a lesson on colonialism in North America might address different cultural perspectives, such as those of the European settlers, indigenous Americans, and African slaves.

**Student cultures:** Teachers and other educators may learn about the cultural backgrounds of students in a school, and then intentionally incorporate learning experiences and content relevant to their personal cultural perspectives and heritage. Students may also be encouraged to learn about the cultural backgrounds of other students in a class, and students from different cultures may be given opportunities to discuss and share their cultural experiences.

**Critical analysis:** Educators may intentionally scrutinize learning materials to identify potentially prejudicial or biased material. Both educators and students might analyze their own cultural assumptions, and then discuss how learning materials, teaching practices, or schools policies reflect cultural bias, and how they could be changed to eliminate bias.

**Resource allocation:** Multicultural education is generally predicated on the principle of equity—i.e., that the allocation and distribution of educational resources, programs, and learning experiences should be based on need and fairness, rather than strict equality. For example, students who are not proficient in the English language may learn in bilingual settings and read bilingual texts, and they may receive comparatively more instructional support than their English-speaking peers so that they do not fall behind academically or drop out of school due to language limitations.

### ***Multicultural Education in India***

The purpose of multicultural education in India -According to Chakra arty (2001) it is two aspects: to make education effective and to ensure that education is available to all children in India. According to India's constitution, article 21A: "The State shall provide free and compulsory education to all children of the age of six to fourteen years." At present, Indian children, depending on their family's status and wealth, may attend one of three types of schools: private schools, English medium schools, or public schools. Children in India's better schools are taught to analyze information and to think critically. However, as India's education is still plagued by the longstanding caste system that encourages only a small part of the society to value and acquire an education, the quality of education in these schools varies greatly. Children from the lower sections of society must attend the crowded public schools where they are "taught" merely to memorize and

then recall information. This approach to education --- parodied by Charles Dickens and his character, the authoritarian schoolmaster Thomas Gradgrind, in the 1854 novel

*Hard Times* -is now generally accepted as an antiquated and ineffective method. Bad management, Chakra arty (2001) says, has been the greatest obstacle to improving education in India's public schools. Despite a number of government initiatives, children in public schools still have a high drop-out rate, and they receive an education that does not prepare them or motivate them for continued education at a university. Thus, the main goal of multicultural education equality education for all India's children -- has not yet been attained. In addition, it can be understood from the National Curriculum Frame work (2005) for the multicultural education in India, the following items should be developed:

- Strengthening a national system of education in a pluralistic society.
- Reducing the curriculum load based on insights provided in 'Learning without Burden'.
- Systemic changes in tune with curricular reforms.
- Curricular practices based on the values enshrined in the Constitution, such as social justice, equality, and secularism.
- Ensuring quality education for all children.
- Building a citizenry committed to democratic practices, values, sensitivity towards gender justice, problems faced by the Scheduled Castes and the Scheduled Tribes, needs of the disabled, and capacities to participate in economic and political processes.
- A renewed effort should be made to implement the three-language formula, emphasizing the recognition of children's home language(s) or mother tongue(s) as the best medium of instruction. These include tribal languages.
- The multilingual character of Indian society should be seen as a source for the enrichment of school life.

## **CONCLUSION**

A common view clearly articulated by the modernization theory claims that high levels of schooling are both a prerequisite for democracy and a major cause of democratization. The evidence in favor of this view is largely based on cross-sectional or pooled cross-sectional regressions. This paper documents that this evidence is not robust to including fixed effects and exploiting the within-country variation. This strongly suggests that the cross-sectional relationship between education and democracy is driven by omitted factors influencing both education and democracy rather than a causal relationship.

## QUESTIONS FOR DISCUSSION AND REFLECTION

1. What is the meaning of Democracy?
2. Discuss about Dewey's concept of democracy and Education?
3. Describe the importance of education in democracy.
4. Which types of training for democratic citizenship?
5. Discuss about multiculturalism and Education.
6. How will you measures for educating and training the students for democracy?
7. Is there no long-run causal relationship between education and democracy? Justify.

## SUGGESTED READING/ REFERENCE BOOK

1. Aggarwal.J.C.(2014), *Philosophical and Sociological perspectives on Education*, Delhi: Shipra Publications.
2. AlokGardia, (2009), *Education and Democracy*, New Delhi: A.P.H.Publishing Corporation.
3. Chowdhry N.K.(2013) , *Indian constitution and Education* , Delhi: Shipra Publication
4. Dewey, J. (1916, 1944) *Democracy and Education*. New York: Macmillan.
5. DigumartiBhaskaraRao (2011), *Curriculum for learning to live together*, Delhi: Mehra Offset Press.
6. Gutmann, A. (1987) *Democratic Education*. Princeton, NJ, Princeton University Press.
7. Jagadish Chand,(2014), *Philosophical Foundations of Education*, Delhi:
8. Rashmi,(2103), *Higher Education in India Issues & concern*, Delhi: Mangalam Publications.
9. VidhyaSagar Reddy, (2016), *Philosophical and Sociological Perspectives on Education*, New Delhi: Astha Publishers & Distributors.

## **UNIT - 6: MEANING AND NATURE OF CURRICULUM**

### **COURSE OBJECTIVES**

At the end of the course, the student-teachers will be able to:

- acquires the knowledge of the terms and concepts used in curriculum development.
- understands the meaning of curriculum.
- applies the knowledge in analyzing the different concepts of curriculum.
- develops skill in planning and implementing manifold activities of not only open curriculum but also hidden curriculum
- develops interests in studying books, journals, and articles on concept of curriculum
- appreciates the contribution of curriculum as a cultural map.
- develops a desirable positive attitude towards multi-conceptual frame work of curriculum

### **INTRODUCTION**

The curriculum is the heart of schooling, the education process. Education and curriculum are two sides of the same coin. While education is a process, curriculum is a means to the process. While education is learning, curriculum signifies situations for learning. While education deals with how and when, curriculum deals with what. While education is the product, curriculum is the plan. All resources available at school i.e. the school building, equipment, varieties of instructional materials including books, equipments, software's, hardwares exist for just one purpose-for supporting effective implementation of the curriculum. The entire set of educational activities-the curricular, co-curricular, and extra-curricular activities as well as the organization of teaching-learning strategies and the evaluation schedule flow from the school curriculum. In education it is generally identified with a course of study, subjects prescribed for a course. In fact subjects form only a part of curriculum and they do not constitute the whole of it. The term curriculum stands for the totality of planned learning experiences offered to students in a school. Thus, curriculum means the total situation selected and organized by the institution and made available to the teacher to operate and to translate the ultimate aim of education into reality. Curriculum can be called the pivot around which various classroom activities and entire school programmes are developed. When people talk about curriculum, they use various phrases such as meaning of curriculum, concept of curriculum, definition of curriculum, structure of curriculum, dynamics of curriculum, changing concepts of curriculum, foundations for curriculum, open curriculum, hidden curriculum,

models of curriculum development, determinants of curriculum, curriculum process, curriculum design, approaches to curriculum development, curriculum transaction and curriculum evaluation. All these have been discussed in the course of knowledge and curriculum. The unit-VI provides a conceptual framework regarding the meaning, definition, concept, structure and dynamics of curriculum.

## **MEANING OF CURRICULUM**

Curriculum is one of the most important items in the educative process. The curriculum, in fact, is the fundamental problem which determines the ‘warp’ and ‘woof’ of the process of education. What to do and how to do are the very essence of curriculum.

Etymologically, the term curriculum is derived from the Latin word “currere” which means run or run-way or to run a course. Thus curriculum means a course to be run for reaching a certain goal.

The curriculum refers to a specified course of study at a school, college, or university or the aggregate of the courses of study given in a school, college or university. The stated curriculum of a programme constitutes a small part of the total learning milieu, but it is obviously the most tangible one, and reflects the philosophy and objectives underlying the educational programme.

A survey of the following definitions of “curriculum” by various educators reflect the modern concept of curriculum and their classification.

A curriculum means, the total situation (all situations) selected and organized by the institution and made available to the teacher to operate and to translate the ultimate aim of education into reality.

In the words of Cunningham, curriculum is a tool in the hands of the artist (the teacher) to mould his material (the pupil) according to his ideal (objective) in his studio (the school). The material is highly self active, self-determining human being who reacts and responds consciously.

Curriculum may be defined as the “social environmental in motion”. It is the sum total of all the activities and experiences provided by the schools to the learners for achieving the desired objectives. The course of studies are merely a suggestion for curriculum activities and procedures, a guide for teaching to follow.

## **DEFINITION OF CURRICULUM**

**Curriculum** refers to the means and materials with which students will interact for the purpose of achieving identified educational outcomes.

Curriculum definitions fit five categories:

1. Curriculum as a product - program, document, electronic media, or multimedia
2. Curriculum as a program of study - usually courses offered, curriculum sequences of study in standards as benchmarks, gateways,
3. Curriculum as intended learnings - goals, content, concepts, generalizations, outcomes
4. Curriculum as experiences of the learner - activities, planned and unplanned.
5. Hidden curriculum - what students learn that isn't planned - unwritten, unofficial, and often unintended lessons, values, and perspectives that students learn in school.

## **CONCEPTS OF CURRICULUM**

There is available a multiplicity of concepts of curriculum since educationists give their own different interpretations of the content and functions of curriculum. Let us discuss three such concepts by three different thinkers, which represent three major contributions to the body of knowledge on curriculum. The first concept, stated by Albert Oliver, refers to curriculum merely as the educational program consisting of three important elements, such as studies, activities and guidance. The second concept, described by Philip Phenix, is based on a carefully thought out scheme of values which constitute the aims and objectives, or purposes of education. The third concept, given by Hilda Taba, looks at curriculum as the function of the public school, she lists the three functions as preserving and transmitting cultural heritage, serving as an instrument for transformation of culture, and working as a means for individual development.

### **Curriculum as the Educational Program**

The first concept is that curriculum may be referred to simply as the 'educational program'. The educational program may be supposed to consist of three basic elements, viz., 1) the program of studies, 2) the program of activities and 3) the program of guidance (Albert Oliver).

The 'program of studies will refer to the listing of the subjects for each class or grade. This list may include, for each grade, subjects and levels of information considered suitable for the level, for eg. English, Science, World History, Physical Education, Music, Art, etc. The areas of study identified for the schools are, generally, uniform. The listing of subjects emphasizes the exploration of culture because the basic function of the school is to transmit the cultural heritage of mankind to

the young. Since the heritage is huge, and not all could be transmitted, there is an attempt to select and organize the information in the curriculum. The organizing results in labeling of the different areas of information at Science, Mathematics, History, etc. The curriculum constructors and the teachers must be able to think beyond this programmes of studies, which constitutes just an element in the wider educational programme.

The programme of activities is believed to vitalise the curriculum. It is found that the curriculum should contain more than the selected content, which represent the cultural heritage, because many pupils fail to learn the cultural background unaided by suitable activities. So the 'educational program should include actual pupil experiences represented by activities, in addition to the cultural experience' represented by the studies. This view of curriculum recognizes that the school is concerned not only with having every child learn a body of knowledge, but also have him experience a method of facing life.

This recognition of the importance of a program of activities, covers all levels of schooling, from the elementary level to the college, but with an obvious shift of emphasis. At the elementary level, the "activity concept tends to be incorporated into the daily program." The elementary pupil's class work may assume such a character, that the program of studies and the program of activities are blended together indistinguishably. For e.g. in the arithmetic class, pupil groups may be found working on activities, which will help develop number concepts. At the same time, the elementary school programme provides for school activities outside the realm of formal subjects such as student government, clubs, assemblies, games, sports meet, educational tour, etc.

At the secondary level, a less integrated programme of activities obtains. The programme of studies here is given such an emphasis that activities other than reading, recalling and reciting are termed as 'co-curricular', or 'extra-class'. It is now common for many secondary schools to designate certain periods as 'activity periods'. Certain other activities come after school hours, but they also are part of the planned educational program, such as student council, athletics, clubs, etc.

At the college level, there is even great separation between the programme of studies and of activities. Here the 'programme of activities' refers to the life of students on the campus. In the universities in the West, there is a Dean for academic affairs and a Dean for the non-academic life of students. Except for his possible personal interest in some activity such as dramatics, games, or music, the typical college professor, who is a specialist in cultural heritage know little about the extra – class activities of students. But although the programmes of studies and of activities are not integrated explicitly, there are elements of both in the overall curriculum concept in higher

education. Anyway, the importance given to the programme of activities, as a part of the overall educational programme, will depend upon the educational philosophy on which it is based.

The 'programme of guidance', the third element in the curriculum, helps to solve the individual learner's problems, which center in interpersonal and group situations: Guidance is an integrative force for the individual and for the educational programme., Formerly guidance was associated with "job placement", But today, the concept has expanded to become 'composite of personal services'. Now, guidance is considered as an integral part of the total educational programme. The programme of guidances has been found to have validity in the class room, because there are as many problems growing up as there are pupils. Thus, guidance gives an opportunity to build individuality into the personality. "Better than the program of studies, which emphasizes the past and the present, guidance cut across time barriers. "It mainly looks to the future, because 'its ultimate goal is to help the pupil to become increasingly competent to face his own problems and to make his own decisions.

Thus, the emerging concept of curriculum considers the educational programme as made up of the three fundamental elements *viz.*, the programme of studies, the programme of activities and the programme of guidance. The ultimate goal in curriculum designing is concern for the individual, and the creating of conditions that will improve learning.

### **Curriculum as the Scheme of Values**

A second concept of the curriculum, stated that what shall be taught in the school must be based on a principle of selection which can be stated as a scale of values, or aa set of criteria. Here, the concept of curriculum is a question of values (PhilipH.Phenix). Any noble idea, feeling or action which tends to safeguarding the society is termed as value. "The curriculum is a set of proposed construction embodying the preferred direction of student development." It is based on a scheme of values which constitute the aims, Objectives or purposes of education. The curriculum is so fashioned as to help to achieve the aims, realize the objectives and fulfill the purposes.

We all have a great many interests such as biological, survival, physical and mental comfort, economic sufficiency, self-expression, companionship, and understanding of the natural and social worlds. Pursuits of these interests give life its meaning and direction. The satisfaction or attainment of these interests is values, such as health, security, freedom, friendship, and knowledge.

Under this concept, six types of values have been suggested as underlying the decisions regarding the construction of the curriculum.



Firstly, education should meet the basic need of man to be human. There are six suggested constituents of a curriculum for developing essential humanity in man. They are, elementary physical skills, basic social skills, the ability to use symbols such as language, numbers etc. constructive activities, play and moral responsibility.

Secondly, there are the educational requirements created by the actual society of which the learner is a member. These requirements are, the language, which is in actual use in the society, the manners and customs prevalent in the society, the occupations, determined by the social conditions, for livelihood, defence, religion, etc., and the common values upon which the society rests. These requirements must find a place in the school curriculum, to satisfy the actual social needs.

The next set of needs or values, the curriculum must incorporate, are those that are required for the creation of a better social order or an ideal society, as different from the actual society. The school is an important means of effecting the desired improvements, for bringing about a new social order. "The social ideal embodied in the curriculum should be an advance over what now is, but should not be so radical a departure that all connection with the imperfect conditions of actual life is lost. "Thus the student must be prepared to work for an achievable social order, and not for a dream. So, the curriculum must include provision for the study of cultures other than one's own culture: it should try to achieve occupational balance, by teaching occupations of both the present society and the future ideal society.

The fourth set of values consists of the actual needs of the individual in society. Though it is not possible to separate personal and social values entirely, the unique qualities and capabilities of each individual constitute important values. So, a curriculum must be constructed for each individual. Since individual curricular are expensive the aim is attempted to be achieved through methods like, high teacher – student ratio, tutorial system, ability grouping of students, etc. Individual curriculum also meet the requirement of exceptional students. A well-developed system of testing is also necessary for individual development.

The fifth set of values concern the needs of the ideal individual as different from those of the actual individual. The school curriculum must include provision for meeting the needs of the ideal individual also. One must have some conception of the ideal individual to be able to select the relevant teaching material. The ideal individual possesses physical intellectual, moral, aesthetic and religious qualities.

The last kind of values relates to the cultural tradition which belongs to all the five sets of values. A cultural value may be defined as widely held beliefs or sentiments that some activities,

relationships, feelings, goals are important to the community's identity or well-being. This kind of value is based on the claims of the cultural tradition. So a part of the curriculum must consist of materials, which just help to preserve and extend the cultural heritage, but has no practical use. This meets the ideal of pure scholarship or education for the sake of education.

The integration of all such values is known as value system. One value serves and is served by another and with them forms a system of values, a total life. Thus, educational objectives, values and education go side by side without separation in every thought, word and action which are only three aspects of man's consciousness.

### **Curriculum as the Function of Public School**

A third concept of curriculum looks at it as the function of the public school. In a free society with a complex culture, the different strata of society participate in the work of determining what should be the components of the curriculum (HildaTaba).

The deciding of the function of the school is a complex task and it involves a debate of the many issues of a free society, like in India such as the balance between freedom and control, between change and tradition, who should shape the public policy, etc. But there is a consensus regarding the role of education in society. It is believed that formal education can reduce poverty and distress, prevent child delinquency and crime, promote the well-being of the individual, protect the welfare and stability of the state, and generally achieve all good causes.

In view of the heated controversy regarding the nature of relationship of education to society, there have arisen many variations in the conceptions of what the essential function of the public school is. One view is that schools have the responsibility of inducting the young into the culture in which the school exists, but there are sharp differences, about which aspects of culture should be transmitted, and in what measure. A second view looks upon education as an agent of change, and thus, the function of the school is looked upon as one of introducing changes in the existing culture, rather than preserving in intact. A third view of the function of the school is that it should uphold the ideals of individual development, which are quite independent of cultural norms.

As it is obvious, there are overlappings of these views of the function of the public school. Within each view, again there are sharp conflicts regarding the nature of the curriculum, Therefore, it would be appropriate to discuss the function of school education and the resulting components of the curriculum, under three headings. 1) education as the tool for preservation and transmission of cultural heritage. 2) education as an instrument for transforming culture, and 3) education as the means for individual development.

Under the first function of education as the tool for preservation and transmission of culture, the preservation of the cultural heritage is stressed by one group of theorists. The persons who hold this view argue that since all cultural traditions have roots cultural continuity is possible only if education preserves this heritage by passing on the truths worked out in the past to the new generation thus developing a common cultural background and loyalties. What is meant is the transmission of the accumulated wisdom of the race and of basic truths. This heritage is basic to education because it uses the past to clarify or even to determine what is important in the present. This group of theorists also argue that the heritage must be modified by a recognition of the role of new experience and change. There must be a reconciliation of the common heritage with the new and independent insight because scientific methods of thought, curiosity, and a readiness for change are also necessary for sound education. It is a question of relating tradition to experiment, or the ideal to the means. It means, that, while emphasizing, experiment and change, one must realize that the basic ideals of what constitutes a good man come from tradition.

Another group of theorists, called rational humanists and classicists argue that the chief function of education is to develop rationality, since this quality is the essence of human nature. Since rationality is essential, the subjects of greatest rational content should have priority in the curriculum. The eternal, universal truths are believed to be contained in the classical literature of the great books. These subjects are referred to as liberal arts, since they contribute to the liberalizing of education. This is an argument for the preserving function of education, and for the uniformity of curriculum, which contains mainly the great books of the past.

As it is obvious, the logical consequence of this viewpoint is a rejection of technical subjects, and of vocational education in general, because of their supposed narrowing influence. Vocational or technical education is considered as mere training, not education and is looked upon as unnecessary encroachment on liberal education. These theorists, subscribing to the concept of 'basic education' emphasize three points, regarding the curriculum of the public school. First is the emphasis on intellectual development as the distinctive function of public schools. This intellectual development must stress the understanding of principles and the ability to handle and to apply complex ideas. Second is the assertion that this type of intellectual training is possible only through the acquisition of the basic skills and disciplines, such as reading, writing and arithmetic at the lower level and logic, history philosophy, mathematics, science and art at the higher levels. This leads to the assumption that there is a hierarchy of subjects, formed according to their power to enhance intellectual development. The traditional liberal arts subjects are believed to be at the top of this hierarchy. Third is the complete rejection of the current functions of the school, such as

education for democratic citizenship, for moral values, for ability to deal with social problems, and for vocations. A concern for these studies will supposedly harm the development of intelligence.

There are of course, many criticisms about this view of this function of the public school. The second function of the public school is that it must help in transforming the culture of the society in which it exists, besides preserving culture. It says that education must play a creative role in modifying and reshaping culture, which means reshaping society. John Dewey was the most articulate proponent of the role of education as the instrument of social transformation. He placed emphasis on two types of responsibilities of the school, one being social and the other being individual development.

The concept of education as a reconstruction of society, included the understanding that education reflects the cultural setting of the society that it appreciates the fact of change in modern culture, and that education is a moral undertaking and, so involves value judgements. Going further, education is looked upon as a tool, not only to foster changes in society, but to change the very social order. Thus education is looked upon as management and control of social change, and as social engineering, by a forward looking group of educators, called reconstructionists. In this reconstructionist scheme, an exalted role is given to education and schools. The educators are expected to examine the social forces and the social institutions, and translate this knowledge of culture and society into a curriculum, which will help students to understand the social forces and institutions. The total educative impact of the school must bring about changes in beliefs, personality and social arrangements.

But many question the capacity of formal education and schools to assume a leading role in changing the society, the social structure and the culture. The sociologists call it unrealistic for schools to be animated by goals which differ radically from those of the culture in which they work. The educational institutions can pursue only those aims which the society considers desirable. Historically speaking the changes in educational aims have only followed, not preceded, changes in society's ideals, and culture.

The third functions of the school is the bringing about of individual development in the child. This is attempted to be achieved through focusing educational effort on the development of all the powers of the child, such as creative imagination, individually, physical and emotional powers etc. The result of this is the idea of the development of the 'whole child' and the idea of the 'child centered school'. The curriculum is but solely to meet the needs and interests of children. The main purpose of this approach is to put the child in the centre of educational activity, and to

allow him to develop into a unique personality in an atmosphere of freedom. But, this view of individual development is linked with the emphasis on the social origins of the individual's abilities. The society of which a person is a member, socializes the individual. But the school corrects the deficiencies in socialization which occur in society, because of the limitations imposed by the social structure.

There are serious arguments about the relative importance of the subject-centered or cultural orientation, child-centered or activity orientation and the problem-centered or social orientation in education. But the fact is the child centered education is inevitably a society-centered and cultural-centered education.

All the above three views about the function of the school have definite implications for the curriculum. They help to decide curriculum practices, such as studying contemporary problems rather than ancient history; they provide the theoretical basis for choosing between the classics and modern literature, as part of school study, they are relevant to the problems of guidance, of individualization of curriculum content, and of methods of teaching.

## **STRUCTURE OF THE CURRICULUM**

The curriculum system is a set of components, for achieving broad educational goals. These components comprise plans for a program of learning opportunities arranged within curriculum domains (aims, goals and objectives) and include suggestions for subject matter, curriculum designs, instructional modes (methods and organization) and evaluative procedures. These concepts are briefly defined in the following paragraphs.

i) *Curriculum Domains*: The curriculum domain is defined as “a grouping of learning opportunities planned to achieve a single set of major educational goals”. Thus the identity of the domains for which plans are made for a particular school center is dependent upon the major educational goals selected by the planners. We recognize, of course, that many factors determine the goals of a particular school center, and it is to be expected that goals will differ among centers. Nevertheless, we suggest as a broad classification of goals or objectives by domains for our reference in this and other chapters of this book, three sets of goals or objectives that seem to us to be of great present and future significance: intellectual development, value development and skill development.

Aims refer to ultimate goals which are proposed by the education system. The term goals refer to the long-term end. Objectives are the milestones to achieving the aims or endpoints of the educational system of a country. Educational objectives are desired learning outcome of education;

sometimes it refers to explicitly worded statements specifying the behaviour the learners should be able to exhibit in some measurable form. The learning outcomes refer to the knowledge, attitude, skills, etc., that a learner acquires as a result of some learning experience. These often include intended as well as unintended results of learnings.

ii) *Subject matter*: Subject matter in each discipline consists of facts, concepts, rules and generalization. Facts are based on observations of events that have either occurred in the past or exist in the present. Concepts are the name given to the categories formed as a result of classifying factual data. All learners form concepts and give them names in order to make sense of the various stimuli in the world. Rules and generalizations are statements that link two or more concepts. They are predictive in nature contain more than one element.

iii) *Curriculum design*: Curriculum design is the process of drawing up curriculum proposals including what to include and how to present in such a manner as to advance the changes of implementing the curriculum with understanding and success. Learning experiences facilitate change in behaviour and as a result of this attainment of aims and objectives. Various learning experiences deal with the human being's functioning in particular situations, their interests of problem solving. These learning experiences provide cognitive (mental) affective (emotional) and conative,( physical) experiences or their mix.

The curriculum designing is the creative aspect of curriculum development. The planning group responsible, for example, for developing plans in the human relations domain for a population of middle school children, having collected and analysed essential data and identified goals, would need to create or select a general pattern - a design - for the learning opportunities to be provided. Among their alternatives would be 1) a subject design utilizing specific studies in the social sciences and humanities; 2) a scope and sequence plan built around a selection of persistent human relations (scope); 3) an analysis of the essential skills of human relations to be taught as the basis of activity and skills groups; 4) a selection with the students of individual interests and problems related to human relations in the classroom, school and community; 5) and others, including combinations of the foregoing. The design plan ultimately anticipates the entire range of learning opportunities within the domain for this population, or at least the points of further planning.

The curriculum system, as we have viewed and presented it includes the implementation of the curriculum design, or instruction. Each learning opportunities involves some mode, that is, way of happening.

#### *iv) Evaluative Procedures*

The curriculum system also includes a plan for evaluation of the curriculum in relation to its goals. Our treatment of evaluation recognizes both formative and summative evaluation. Formative procedures are the feedback arrangements which enable the planners and implementers of the curriculum to make adjustments and improvements throughout the planning or implementing, process. The summative evaluation comes at the end and deals directly with the evaluation of the total curriculum plan; this evaluation becomes in effect feedback for the planners to use in deciding whether to repeat, modify, or eliminate the plan with another population.

### **DYNAMICS OF CURRICULUM**

There are essentially eight curriculums at work in most educational settings: the explicit, implicit, null, extra, rhetorical, societal, concomitant and phantom curriculum.

#### **The Explicit Curriculum**

Explicit means "obvious" or "apparent," and that's just what the explicit curriculum is all about: the subjects that will be taught, the identified "mission" of the school, and the knowledge and skills that the school expects successful students to acquire.

Overt, explicator written curriculum is simply that which is written as part of formal instruction of the schooling experience. It may refer to a curriculum document, texts, and supportive materials that are overtly chosen to support the intentional instructional agenda of a school.

Cuban (1992) calls it an intended curriculum (recommended, adopted, official). It serves as a documented map of theories, beliefs, and intentions about schooling, teaching, learning, and knowledge-evidence in the development of teacher proof curriculum.

Curriculum-in-use The formal curriculum (written or overt) comprises those things in textbooks, and content and concepts in the district curriculum guides. However, those "formal" elements are frequently not taught. The curriculum-in-use is the actual curriculum that is delivered and presented by each teacher.

Cuban (1992) calls it the taught curriculum (implicit, delivered, operational) where teacher beliefs begin altering the curriculum/teaching style. Relates to Hidden curriculum (see below).

Received curriculum Those things that students actually take out of classroom; those concepts and content that are truly learned and remembered.

Cuban (1992) calls it the learned curriculum. "The gap between what is taught and what is learned—both intended and unintended—is large."

In a nutshell the open curriculum refers to the explicit obligation that are found in every learning institution to which school participants must ready to discharge their duty with sense of responsibility bind by legal contract. The open curriculum is otherwise called as actual curriculum or visible curriculum or official curriculum. Sometimes referred to as the *hidden curriculum*, the implicit curriculum refers to the lessons that arise from the culture of the school and the behaviors, attitudes, and expectations that characterize that culture.

The hidden or covert curriculum -That which is implied by the very structure and nature of schools, much of what revolves around daily or established routines.

Longstreet and Shane (1993) offer a commonly accepted definition for this term.

. . . the "hidden curriculum," which refers to the kinds of learnings children derive from the very nature and organizational design of the public school, as well as from the behaviors and attitudes of teachers and administrators.... "

Examples of the hidden curriculum might include the messages and lessons derived from the mere organization of schools -- the emphasis on:

- sequential room arrangements;
- the cellular, timed segments of formal instruction;
- an annual schedule that is still arranged to accommodate an agrarian age;
- disciplined messages that concentration equates to classrooms where students are sitting up straight and are continually quiet;
- students getting in and standing in line silently;
- students quietly raising their hands to be called on; competition for grades, and so on.

The hidden curriculum may include both positive or negative messages, depending on the perspective of the learner or the observer.

The term hidden or unstudied curriculum is used to designate those organizational aspects of school life and the informal, interpersonal relations among the members of the school community that serve unofficially, and often insidiously, the function of socialization.



The concept “hidden curriculum” was developed by Benson Snyder’ (1971) and used by educators, sociologists, and psychologists in describing the informal system. It refers to the “implicit demand (as opposed to the explicit obligations of the ‘visible curriculum) that are found in every learning institution and which students have to find out and respond to in order to survive within it”. The “hidden curriculum” refers to the three R’s - “rules, regulations, and routines”-to which school participants must adapt. The lesson is clear in the way in which classrooms are organized, the reward system, and the moral socialization which is passed on through the three R’s.

Many alternative names exist for “the hidden curriculum”: unwritten, unstudied, tacit, latent, unnoticed. David Hargreaves suggests that many of these names are inappropriate because the phenomenon has received so attention in recent years that it is no longer “hidden” or “unstudied”. He therefore suggests a new term: “paracurriculum”-“that which is taught and learned alongside the formal or official curriculum”. In his analysis of the research done on the “paracurriculum”, he finds that the research falls into two major categories: 1) The social-psychological aspects of the paracurriculum from functionalist-conservative or radical-conflict points of view; and 2) the sociological aspects from a functionalist conservative account or the more radical-conflict position. We will refer to these perspectives in our discussion of the informal system.

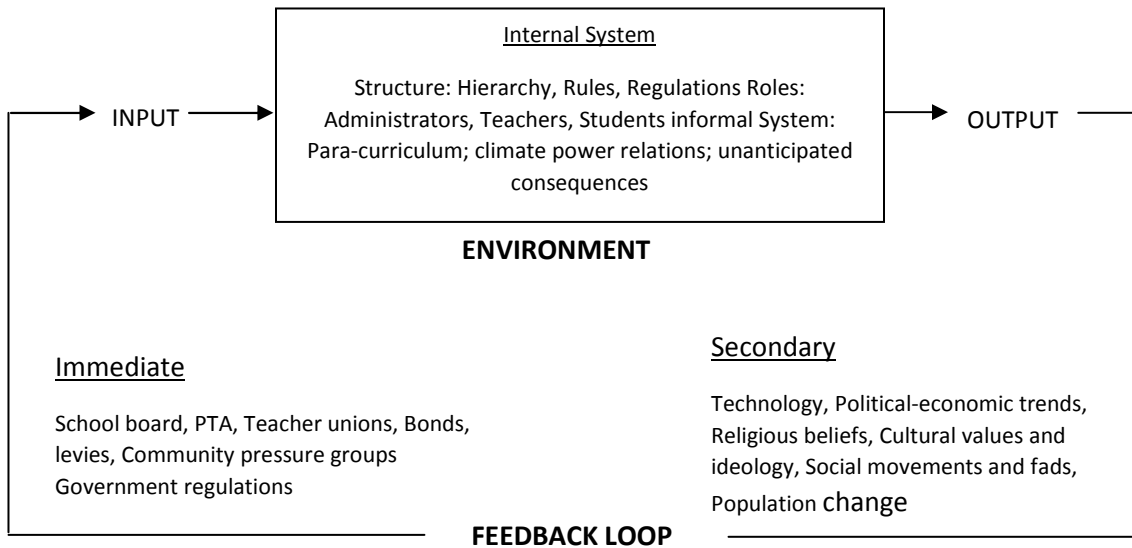
From the systems perspective, the “paracurriculum” is but one part of the total informal system, and we can understand it only by understanding the context in which it exists. Therefore, we return to our systems model to review other elements which make up the informal system.

### **The Open Systems Approach and the Para-curriculum**

The internal system of the school has both a formal aspect (that of roles and structure) and an informal one, which includes the para-curriculum, the atmosphere or climate of the school, power relationships and its unanticipated consequences of the formal school structure.

What really happens in school is also affected by environmental influences on the school. Consider the model below, and note some environmental elements which affect the internal system:

## ORGANIZATION



The school's environment includes the composition and size of the community, the activity level of parents, the background of the students, the support services of the school, the legislative and financial support, political and other pressure groups, and many other influences which are unique to each individual system. These environment influence the student's motivation, aspirations and achievement. Stressing cognitive learning (open curriculum) without considering the personal, emotional and even spiritual state of the individual, is only considering half of learning. Educational program should improve the learners self-concepts, awareness skills and sense of personal integrity.

### The Null Curriculum

This aspect of curriculum refers to "the options students are not afforded, the perspectives they may never know about, much less be able to use, the concepts and skills that are not a part of their intellectual repertoire"

The null curriculum - That which we do not teach, thus giving students the message that these elements are not important in their educational experiences or in our society.

### Extra-curriculum

The fourth aspect of curriculum is that of the extra-curriculum or *co-curriculum*. This curriculum represents all of those school-sponsored programs that are intended to supplement the academic aspect of the school experience. Athletics, band, drama, student government, clubs, honor societies and student organizations, and school dances and social events all fall under the heading

of extracurricular activities. Participation in these activities is purely voluntary and does not contribute to grades or credits earned toward advancement from one grade to the next or to graduation. Extracurricular activities are typically open to all, though participation often depends on skill level.

Rhetorical curriculum Elements from the rhetorical curriculum are comprised from ideas offered by policymakers, school officials, administrators, or politicians. This curriculum may also come from those professionals involved in concept formation and content changes; or from those educational initiatives resulting from decisions based on national and state reports, public speeches, or from texts critiquing outdated educational practices. The rhetorical curriculum may also come from the publicized works offering updates in pedagogical knowledge.

Societal curriculum Cortes (1981) defines societal curricula as:

"...[the] massive, ongoing, informal curriculum of family, peer groups, neighborhoods, churches organizations, occupations, mass, media and other socializing forces that "educate" all of us throughout our lives. "

**Concomitant curriculum-** What is taught, or emphasized at home, or those experiences that are part of a family's experiences, or related experiences sanctioned by the family. (This type of curriculum may be received at church, in the context of religious expression, lessons on values, ethics or morals, molded behaviors, or social experiences based on a family's preferences.)

**Phantom curriculum** -The messages prevalent in and through exposure to media.

## **CHANGING CONCEPTS OF CURRICULUM**

The term **curriculum** refers to the lessons and academic content taught in a school or in a specific course or program. In dictionaries, *curriculums* often defined as the courses offered by a school, but it is rarely used in such a general sense in schools. Depending on how broadly educators define or employ the term, curriculum typically refers to the knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet; the units and lessons that teachers teach; the assignments and projects given to students; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate student learning. An individual teacher's curriculum, for example, would be the specific learning standards, lessons, assignments, and materials used to organize and teach a particular course.

When the terms *curriculum* or *curricula* are used in educational contexts without qualification, specific examples, or additional explanation, it may be difficult to determine precisely what the terms are referring to—mainly because they could be applied to either all or only some of the component parts of a school’s academic program or courses.

Saylor and Alexander have classified the concepts of curriculum into four categories. These are curriculum as a plan, curriculum as experiences, curriculum as subject matter or content and curriculum as objectives.

### **Curriculum as a Plan**

“Curriculum is a plan or programme for all experiences which the learner encounters under the direction of the school” (Oliva, 1982).

Carter V. Good (1959) defines curriculum as “a general overall plan of the content or specific materials of instruction that the school should offer the student by way of qualifying him for graduation or certification for entrance into a professional or vocational field.”

Tyler and Hilda Taba (1962) define curriculum “as a plan for action, or a written document, which includes strategies for achieving desired goals or ends.”

Galen Saylor defines curriculum “as a plan for providing sets of learning opportunities for persons to be educated”.

David Pratt (1980) defines “curriculum as an organized set of formal educational and/or training intensions”.

Wiles and Bondi view “curriculum as a plan for learning whereby objectives determine what learning is important”.

West Burg and Steimer (1971) define the “curriculum as a plan for providing sets of learning opportunities to achieve broad goals and related specific objectives for an identifiable population served by single school center. Thus curriculum can be regarded as anticipatory or indented.”

“A curriculum is the formulation and implementation of an educational proposal, to be taught and learnt within schools or other institutions and for which that institution accepts responsibility at three levels: its rationale, its actual implementation and its effects” (Jenkin and Shipman, 1975).

In the words of Kerney and Cook, “curriculum is a complex of more or less planned or controlled conditions under which students learn to behave and to behave in their various ways. In it, new behaviour may be acquired, present behaviour may be modified, maintained or eliminated, and desirable, behaviour may become both persisted and viable”.

### **Curriculum as an Experience**

E.M.Draper suggests another dimension to curriculum “The curriculum is defined today as the total learning experience which pupils have, in and out of learning institutions, under the guidance of the faculty.

According to CarterV.Good, “Curriculum is a body of prescribed educative experiences under school supervision designed to provide to the individual with the best possible training and experiences to fit him for the society of which he is a part and to qualify him for a trade or profession”.

“Curriculum is that reconstruction of knowledge and experiences systematically developed under the auspices of the school (or university) to enable the learner to increase his or her control of knowledge and experience” (Tanner and Tanner, 1980)

The Secondary Education Commission (1952-54) states that “curriculum includes totality of experiences pupil receives through the manifold activities that go on in the school, classroom, library, laboratory, workshop, playground and in numerous informal contacts between teachers and pupils.” In other words the whole life of school is curriculum which can touch the life of students at all levels and helps in evolution of a balanced personality.

According to Crow and Crow, “curriculum includes all the learners experiences in and outside the school that are included in a programme which has been devised to help to develop mentally, physically, emotionally, spiritually and morally.”

According to Bobbitt (1918), “Curriculum is that series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects of what adults should be”.

Anderson refers to curriculum as the whole of the interacting forces of the total environment provided for pupils by the school and the pupils’ experiences in that environment.

According to Saylor and Alexander (1966), “Curriculum encompasses all learning opportunities provided by the school”.

According to Harnack (1968), “Curriculum embodies all the teaching learning experiences guided and directed by the school”.

Smith et al., (1957) define “curriculum as a sequence of potential experiences set up in school for the purpose of disciplining children and youth in group ways of thinking and acting”.

Foshay (1969) opines that “curriculum encompasses all experiences a learner has under the guidance of the school”.

John Dewey define “curriculum as dealing with the experiences of the learners. This view considers almost anything in school, even outside of school as part of the curriculum”.

Caswell and Camphell (1935) define curriculum as “all the experiences children have under the guidance of teachers.”Shepherd and Ragan state that “the curriculum consists of the ongoing experiences of children under the guidance of the school”. It represents a special environment.... for helping children achieve self-realization through active participation within the school.

Glen Hass (1987) contends that “curriculum is all of the experiences that individual learners have in a programme of education whose purpose is to achieve broad goals and related specific objectives, which is planned in terms of a framework of theory and research or past and present to professional practices.” The curriculum is thus a list of planned learning experiences offered to the students under the direction of the school, in other words, curriculum is a blueprint of experiences that have been planned for the students.

### **Curriculum as a Subject Matter**

Historically and currently, the dominant concept of the curriculum is that of subjects and subject matter therein to be taught by teachers and learned by students. In high schools and colleges, the term ‘curriculum’ has been and still is widely used to refer to the set of subjects or courses offered and also to those required or recommended or grouped for other purposes, thus such terms as the “college preparatory curriculum”, “science curriculum” and “premedical curriculum” are commonly used. In curriculum terminology, program of studies is more properly used in these connections.

Beauchamp (1968) insisted that “a curriculum should be a written document and noted that a most commonly included feature is an outline of the subject matters to be taught”. He also explained that ‘subject matter embraces whatever is to be taught in the school; in school subjects, in selected disciplines, in problems of living, or in a pattern organized in any other way”, but emphasized that “whatever the mode of expression, the subject matter is the substantive hard core

of the curriculum”. The lists of subjects offered in a particular grade or school is frequently referred to as the curriculum.

Although we agree with Beauchamp that the curriculum plan must encompass subject matter, the latter term is too closely associated with the organized subjects to be considered identical with what we prefer to call curriculum content. Content as learning opportunities utilizing both knowledge classified in subjects and knowledge and experiences that cut across or are independent of subjects is a concept more compatible with theories of curriculum planning that we can accept.

According to Doll (1978), “Curriculum is the formal and informal content and process by which learners gain knowledge and understanding, develop skills and alter attitudes, appreciations and values under the auspices of that school”.

Curriculum can be considered in terms of subject matter (Tamil, English, Mathematics, Science, Social Science) or content (the way of organization and assimilation of information). Historically and currently the dominant concept of the curriculum is that of subjects and subject matter there in to be taught by teachers and learned by students.

Curriculum refers to the set of subjects or course offered and also those required or recommended or grouped for other purposes; thus such terms as the college ‘preparatory curriculum’ ‘science curriculum’ and ‘premedical curriculum’ are commonly used.

The Encyclopedia of Educational Research define the “Curriculum as programmatic activities intended to extend the school’s responsibility which as present is limited to its so called formal syllabus or course of study in such a way as to embrace the individual, social and psychological development of its pupils”.

The curriculum is the school’s total program for learners. Generally we find that the concept for the curriculum is that of subjects and subject matter taught by teaches and given in the text books. In spite of efforts made in the improvement of the concept of the curriculum for last 50 years, the concept of curriculum as subjects matter continues to be the basis of the dominant curriculum design. The concept of curriculum as subject and subject matter has been presented in the theories relating to principles for selections, sequence and class placements of subject matter. The concept of curriculum as a subject matter follows the following procedure for curriculum planning:

1. Various social and educational factors are taken into account by curriculum experts to decide the subject to be taught to a particular age group.
2. Interests of the students, difficulty of their age group and sequence are used as criteria to decide the subjects and subject matter to be taught to the students belonging to a particular age group and particular area of location.
3. Methods of teaching are planned and implemented for the purpose of providing mastery of knowledge as subject matter of the subjects selected in curriculum.

### **Curriculum as an Objective**

B.F. Skinner views the curriculum as being formulated according to behavioristic objectives. The curriculum is the series of experiences which children and youth must have by way of attaining activity-based objectives.

W. W. Charters (1923) viewed curriculum as a series of objectives that students must attain by way of a series of learning experiences

Posner viewed “Curriculum as consisting solely as objectives or ends and instruction as the means of their attainment”.

According to Hilda Taba, “Curriculum usually consisting of statement of aims and objectives indicate the selection and organization of content, it either implies or manifests certain patterns of learning and teaching. Because the objective demand or because the content organization requires it includes a program of evaluation of the outcomes”.

A curriculum is a structured series of intended learning outcomes (Johnson, 1967). This explanation emphasizes that learning outcomes and not learning experiences constitute the curriculum. These outcomes are linked with objectives.

### **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. Explain the concept of curriculum.
2. Give an account of various definitions of the term curriculum.
3. Describe the curriculum in terms of plan
4. Discuss the curriculum in terms of experience
5. What is the general idea of curriculum? How is it different from the syllabus?
6. What are the basic principles of curriculum construction?



7. List the components of curriculum.
8. What is the rationale for the classification of curriculum concepts? How will you classify them?
9. On what scheme of values can curriculum be based? How are these values useful as a basis for curriculum.
10. It is possible for school curriculum to attempt a transformation of the culture of a society? What are the impediments?
11. List various aspects of curriculum.
12. List various curricular, co-curricular and extra- curricular activities of the school.
13. Explain of curriculum in terms of objectives.
14. Explain the curriculum as a system.
15. Compare and contrast curriculum and instruction.

#### **REFERENCE BOOKS**

- Ornstein, C and Hunkins, P (1988) curriculum: Foundations Principles and issues, Prentice Hall, Englewood cliffs, New Jersey.
- SaylorG. and Alexander, M 'Planning curriculum for schools, Holt. Rinehart and Winston, Inc. New York.
- KumaraswamiPillai, K: Curriculum, Teaching and Evaluation Sivakami Printers, Annamalainagar.
- Eisner, E. W (1993) Invitational conference on the hidden consequences of a national curriculum, Educational research, October.
- Khaparde, M. S and Raina, V.K (Eds.) Special issue on curriculum development, Journal of Indian Educaiton, XXV (3) November 1999 NCERT, Sri AurobindoMarg, New Delhi.
- Kalra, R.M. and Singh, R.R. (1987). Curriculum construction for youth development, Sherling Publishers, New Delhi.

## **UNIT: 7 - PRINCIPLES OF CURRICULUM DEVELOPMENT**

### **COURSE OBJECTIVES**

At the end of the course, the student-teachers will be able to:

The student-teacher educator:

- acquires the knowledge of curriculum development.
- understands the various types of curriculum designs.
- Understands the various stages of curriculum development.
- applies the knowledge of curriculum development in teaching-learning situation.
- develops skills to use various types of curriculum approaches for different levels of education.
- develops interest in various issues of curriculum designs.

### **INTRODUCTION**

The term curriculum design or curriculum organization refers to the arrangement of the elements of a curriculum into a substantive entity. According to Saylor and Alexander, the pattern or framework or structural organization used in selecting, planning and carrying forward education experiences in the school is called curriculum design. Provides a conceptual framework regarding principles of curriculum development, Types of curriculum and models of curriculum development.

### **NEED FOR CURRICULUM DEVELOPMENT**

Curriculum development is a process of improving the curriculum. Various approaches have been used in developing curricula. Commonly used approaches consist of analysis (i.e need analysis, task analysis), design (i.e objective design), selecting (i.e choosing appropriated learning/ teaching methods and appropriate assessment method) formation (ie formation of the curriculum implementation committee / curriculum evaluation committee) and review ( i.e curriculum review committee).

Thus process of curriculum development is essential for need analysis or task analysis, curriculum design, selection of appropriate methods of teaching- learning and evaluation , formation of curriculum implantation committees at various levels of education and reviewing the effectiveness of existing educational programme.

### **Principles of Curriculum**

Curriculum refers both organized and informal activities of school life. School life need not imply life of the child within the four walls of the school alone, but extents beyond that. The place

and importance of the curriculum in the educative process needs no reemphasis. The general aims of education receive concrete expression through the curriculum. It translates ideals into action. It is the crucial link between objectives and outcomes. As King and Brownell write “Deliberately Designed activity of life is education, deliberately designed portion of education is schooling, the heart of schooling is curriculum.” The following are the basic principles of curriculum construction.

i) *Principle of Totality of Experiences*: In the first place, it must be clearly understood that, according to the best modern educational thought, curriculum in this context does not mean only the academic subjects traditionally taught in the school but it includes the totality of experiences that pupil receives through the manifold curricular, co-curricular and extra-curricular activities.

ii) *Principle of Child-Centeredness*: Child’s nature, concern, motive and need should be of primary consideration in the construction of curriculum. Child is the central point round which all the curricular activities in school involve and develop. Curriculum should be adjusted to bring nearer to the child rather than the child bringing nearer to the pre-determined curriculum.

iii) *The Principle of Creativity*: Even a child has got some creative power. In the curriculum the students should be provided an opportunity for creative work. Perfect development of the child’s personality is impossible without an opportunity to express his creative power. The child should be stimulated for creative work and given an opportunity for the development of hidden powers. iv)

*Principle of Conservation and Creativity*: An effective curriculum must be based on the principle of conservation and creativity. While framing the curriculum we should include those subjects and experiences which help in the conservation of cultural heritage. There should be scope for their further modification in light of the changing needs and situations. A modern curriculum cannot be static. Subjects should be included in the curriculum, which will enable the child to exercise his constructive and creative powers.

v) *Principle of Integration*: The curriculum should not split up into water-tight academic subjects. Various subjects included in the curriculum at a particular stage of education should be integrated and correlated with many other as well as with the real life of pupils. The school curriculum should promote unified studies which have direct connection with life.

vi) *Principle of Flexibility*: In order to serve the varying needs and concerns of individual on the one hand and society on the other, curriculum should follow the principle of flexibility and dynamism. It should allow desirable changes and modifications of its contents from time to time in order to keep it upto date.

vii) *The Principle of Utility*: It is a very important principle that at the time of curriculum construction utility instead of 'special knowledge' or logical sequence should be the base. Only that which is useful to the individual and society should be included in the curriculum, and that which is not useful should be excluded, however, important matter it may be. Nunnally rightly says, "while the plain man generally likes his children to pick up some scraps of useless learning for purely decorative purposes, he requires, on the whole, that they shall be taught what will be useful to them in later life".

viii) *Principle of Character Formation*: Aim of curriculum identifies itself with development of character and personality in the students. It should train their desirable traits and qualities of character through the program of rules, regulations and routines. Affective education should form part of curriculum for this character training.

ix) *Principle of Mental Discipline*: One major task of curriculum is to train the various mental faculties or powers of the learner for their efficiency and precision. Mental powers of individual is to be developed through the cognitive training and practice.

x) *The Principle of Social Fulfilment*: The curriculum should be connected with the social life of the people. Since man is a social being, he cannot be isolated from the society. Therefore, while constructing of the curriculum we cannot ignore the areas of aspects of social life of the people. The social principle of curriculum construction will help for training in citizenship. Curriculum should be constructed according to the social context of the children.

xi) *Principle of Relating to Community Life*: The curriculum should be vitally and organically related to community life. It should allow to child to come into close contact with the life around him. Infact the curriculum should grow out of community life. This means due importance should be given to social function and productive work which is the backbone of organized human life.

xii) *Principle of Training for Leisure*: The curriculum should be so designed as to train the students not only for work but also for leisure. Attempts should be made to include variety of co-curricular and extra- curricular activities - social, athletic sports and games and dramatics, etc. Such a curriculum will help the adolescence to release their pent up emotions in a socially desirable channel.

xiii) *Principle of Correlation*: Curriculum should not ignore the natural affinity that exists in between the subjects. It should aim at giving a correlative view of knowledge to students instead of compartmentalizing the subjects. For this, it should combine and correlate between theory and practice of knowledge.

## Stages of Curriculum Development

**The curriculum development process consists of the following six stages:**

1. Assessment of educational needs
2. Formulation of objectives
3. The selection of learning experiences to attain these objectives.
4. The selection of content through which learning experiences may be offered.
5. The organization and integration of learning experience and content with respect of the teaching learning process
6. Evaluation of all the above phases.

### **Guidelines for formulating Educational Objectives**

Since objectives specify expected outcomes (endpoints) we need to give serious thought to the following guidelines while formulating them:

**Matching:** The objectives should be related to the broad goals and aims of education from which they are derived. For example, the objective of understanding of certain scientific facts should enable the student to apply the knowledge gained in practical problems. The point of emphasis here is that the attainment of the objectives should lead the students to attain the overall goal of education.

**Worth:** Worth relates to whether attaining an objective has value in the life of the student in the present or future. Since our knowledge base is continually changing, the objective needs to be updated, modified or eliminated to improve the quality of education and of human life. The objectives should be useful, meaningful and of relevant to the need of the students.

**Wordings:** The statements of the objectives should be worded properly, briefly and obviously so that students can easily understand the intended outcomes.

**Appropriateness:** All objectives should be derived from and cater to the needs and interests of the students. Any ambiguity in the statement of an objective may create confusion in the mind of both the teacher and the students. In such a case the process of education will lose direction.

**Logical grouping:** Sometimes objectives lack proper organizational coherence, especially when the learning experiences and their evaluation procedures are decided. The objectives should be grouped according to some common idea or in terms of domains-cognitive, affective and psychomotor (conative). Proper grouping (classification) of the objectives will help plan and develop a more meaningful curriculum in terms of its content, methods and evaluation.

**Revision:** The objectives require periodic revision because students' needs, realm of knowledge, academic agenda, instructional strategies, evaluation techniques etc., change at a very fast pace these days. Revision of objectives will have a recurring impact on the curriculum and make it an on – going process. The curriculum should have the flexibility to accommodate changes in the society.

### **Third phase: The selection of learning experience**

After the aims and objectives are defined, we must think of the appropriate means which are required in order to achieve the ends. The means of securing behavioural changes are through learning experiences. The learning experiences may be put into certain categories. This classification pertains to three areas viz. physical, mental and emotional experiences. Physical experience is concerned with conation (faculty of will) and volitional activity. Mental experience is concerned with cognition (faculty of knowing) and thinking activity. Emotional experience is concerned with affection (faculty of feeling) and act of value clarification or value building.

The relationship between a learning experience and the resulting behaviour is a conditional one. The relationship is dependent on the existence of several other conditions. Therefore, the learning experiences should be chosen very carefully.

These experiences may differ from goal to goal as mentioned in phase one. The teacher has to make use of his knowledge of the pupils in his class and the environment for selecting suitable learning experiences.

Emphasis on individual needs results in an activity-based programme, experience based programme, self-directed learning, affective learning whereas emphasis on social needs results in a core programme.

The term learning experiences connotes learning activities which shape the learner's orientation to the content and ultimately their understanding of it. In essence, it refers to the teaching-learning process the methods followed and the activities planned to facilitate the teaching-learning process. Various teaching methods are used by teachers such as, inquiry strategies, lecture, panel discussion, team teaching, symposium, seminar, conference, tutorial, discussion, project, demonstration, etc. Similarly there are various learning activities, such as viewing films, conducting experiments, undertaking fieldtrips, viewing videos, taking notes, working on assignments, interacting with computer programs, participating in discussions, listening to speakers etc. The teaching methods generate learning activities. Teaching methods and learning activities are two sides of the same coin. Some curriculum planner differentiate content from experience. They should

remember that content and experiences do not exist independent of one another. On the contrary, both content and learning experiences comprise the overall curriculum.

### **Criteria for Selecting Learning Experiences**

There are few questions which should be addressed before we select learning experiences. They are listed below:

- Do the learning experiences function the way we wish them to in the light of the overall comprehensive aims and the specific objectives of the curriculum?
- Will the students be able to apply the knowledge gained to practical situations?
- Is it feasible in terms of time, staff expertise, resources, etc., to learn the content of the curriculum in the specified time.
- Do the learning experiences enable students to develop thinking skills and rational powers?
- Do the learning experiences stimulate in students a greater understanding of their own existence as individuals and as members of a group/ community /society?
- Do the learning experiences foster in students an openness to new experiences and a tolerance for diversity?
- Do the learning experiences allow students to address their concerns, needs and interests?
- Do the learning experiences cater to total personality development of students in cognitive, affective and conative domains?

The questions will help us to select appropriate learning experience for a given set of objectives. Thus, criteria for selecting experiences are expressed by the questions. Besides, we should be able to create proper environment: Physical and psychological, for optimal learning. The experiencing of content cannot be divorced from the environment in which the experiences occur. Students who work in a creative environment are more likely to be stimulated and excited about their learning.

The educational environment should address social needs security needs, and belongingness needs, as well as the development of inner awareness, appreciation and empathy for others. It should enable students to master intended learning It should stimulate purposeful student activity and allow for a depth and range of activities that facilitate learning.

### **Criteria for Environment**

Brian Castaldi (1977) has suggested four criteria for designing educational environments. They are adequacy, suitability, efficiency and economy.

Adequacy refers to the space planned and also environmental control. This criterion address the sufficiency in terms of space, light, visual display, learning material and acoustics (hearing).

Suitability refers to the contribution and facilitation of provided learning environment for effective learning of students.

Ensuring efficiency involves attending to those characteristics of educational space that are likely to improve its instructional effectiveness or operational characteristics. It refers to the attainment of greatest amount of learning with the least amount of effort by students and teachers.

Final criterion, economy, relates to actual savings, in terms of capital outlay, that an be achieved by the initial architectural design or by a modification of an existing environment for a particular aspect of the curriculum. Economy deals with the cost of teaching some part of the curriculum in the environment provided. It also relates to economy of students' and teachers' efforts. Time is a resource, and curricula are designed to make maximum use of time to achieve basic program goals and objectives.

#### **Fourth phase: The selection of content**

Curriculum deal with the question, what shall be included for purpose of learning? After that they deal with how to present or arrange the what that is selected for learning so that students can learn or experience it. In other words, first they deal with knowledge and content specifically, and then they deal with teaching, and learning experiences.

Curricularists who view the world from a traditional philosophical posture “discover” knowledge by using their senses. Also to them knowledge is objective; it can be measured and therefore tests.

Those who view the world from a progressive posture invent knowledge according to their relationships with others and the environment. The meaning and truth of a child's experience depend on their relationship to the situations in which he/she is acting.

Those who are part of the romantic position view knowledge and content from an existential or phenomenological epistemology. To these individuals, knowledge and reality refer to the a immediate inner experience of the Self. Knowledge and truth in this view are self-awareness or



self-insight. This form of truth is extend beyond the Self as a person attempts to understand other human beings.

Content refers to the compendium of information which comprises the learning materials for a particular course of a given grade (Parker and Rubin, 1966). This information may consists of facts, concepts, principles, laws, theories and generalizations, as in the case of mathematics or science courses, or it may consists of a description of events, trends or categories, as in the case of a history course.

Content is more than just information to be learned for school purposes. Information, according to some educationists is considered as mere acquisition of facts or rote memory and knowledge as a mental process that takes shape in the mind or an intellectual process, it must bear some relationship to “some questions with which the learner is concerned” and it must fit into his more direct acquaintance so as to increase its efficacy and deepen its meaning (John Dewey, 1916).

Some curriculumists might conclude that content (subject matter) is really another term for knowledge. Content is a compendium of facts, concepts, generalizations, principles and theories similar to disciplined knowledge. Additionally, school content does incorporate methods of processing information. All curriculum content should enable students to gain understanding and to apply that understanding to daily living -present and anticipates.

When selecting content the curriculum planner must take into account the potential of content to address all the cognitive, social and psychological dimensions of the individual student. Considering content in terms of its meaning as knowledge allows or enables the curriculum planner to be more effective in the content-selection process.

The selection of subject matter or content is the principal concern of many curriculum makers. The content is an important part of curriculum as every learning experience involves content.

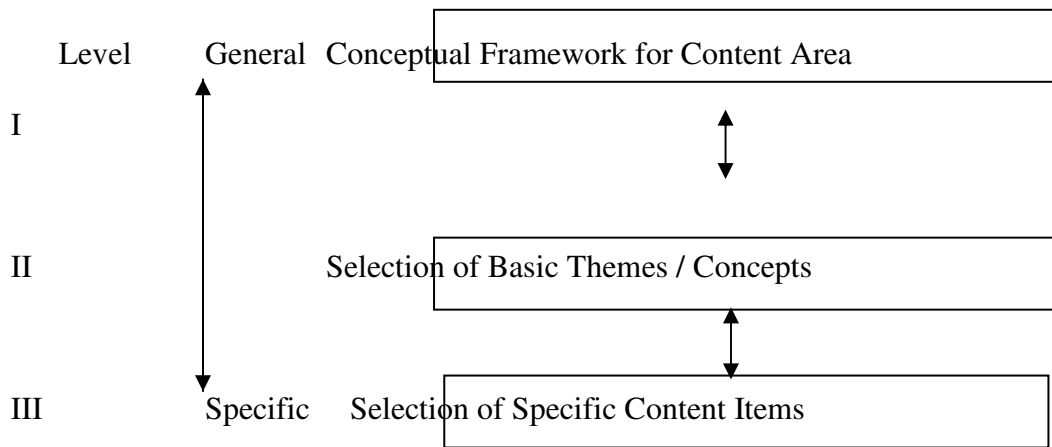
One importance point in considering content is that it cannot be directly related to the general aims of education. Directly relating content to the aims implies an illicit curriculum process. If the general aims of education are directly related to the school subjects, the aims may remain as the general aims of certain school subjects and it may mean that individual teachers may have quite different objectives.

We should not forget that the general aims of education must be translated into more specific operational goals before they can exert some influence of the teaching learning process.

Specific aims help to spell out operational statements of the behaviour expected. It is impossible to set up proper learning experiences to bring about behaviour without the operational statements.

The content chosen for the curriculum process must be feasible to develop the appropriate learning experiences on the part of the pupils.

The content is usually considered to be the most important component of developing curriculum. However this exclusive importance given to content is educationally misplaced and indefensible. To put content at the centre of the curriculum is to put the cart before the horse. The overall approach to the curriculum shall determine our approach to the task of selection of content. For example, in a process-based approach, only such content will be selected which supports the chosen process (es). Even in a subject – based curriculum, one has to be clear about knowledge, principle, generalization, theories, techniques and procedures that can be developed through the chosen content. The content is thus a powerful means to attain the aims of teaching a particular content.



**Fig. Three Levels of Selection of Content**

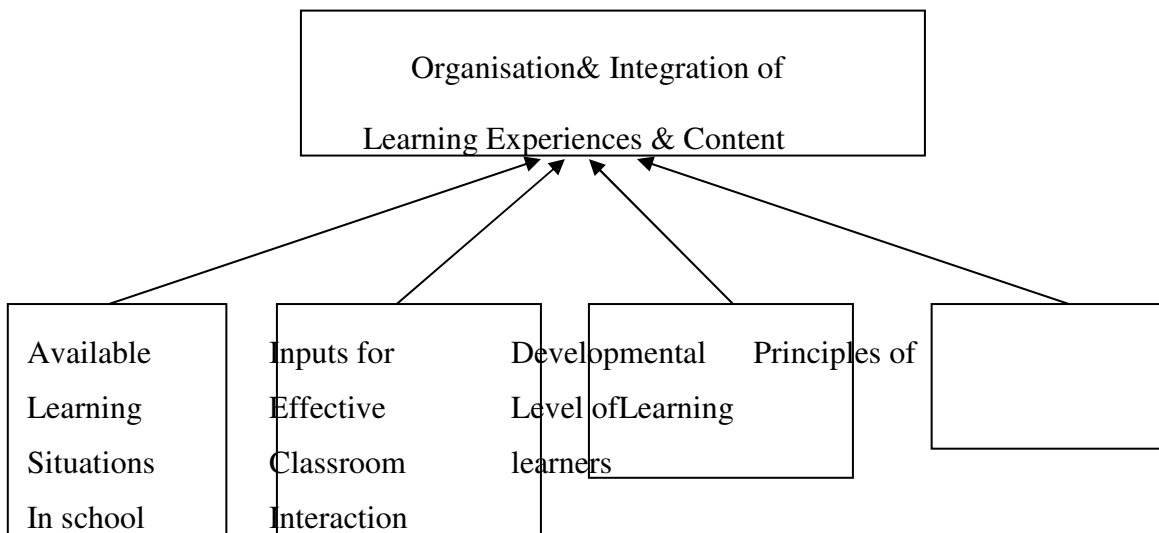
The process of selection of content can be viewed at three levels. The first level deals with selection and clarification of the conceptual framework related to the content areas. The so called modern mathematics of the 1960s and the conventional mathematics provide a good example of this.

The second level is concerned with selection of basic themes or key concepts which along with other basic themes or concepts constitute the framework of knowledge in a given subject. Basic operations, the number system, the set theory are some of its examples. These themes / key

concepts have hierarchical relationship with each other. Some of these have broad connotation (e.g. the number system) while others have limited connotation (e.g. prime numbers). The third level is the most specific. At this level the content items are matched with the basic theme/concept they belong to and also with the objectives of the curriculum.

**Criteria for the selection of content**

The content and objectives are interdependent and constitute a major dimension of curriculum development. Generally content refers to subject matter or the compendium of facts, concepts, generalization, principles and theories. By content we imply learning experiences besides subject matter. The curriculum content should enable students to gain and apply knowledge in day-to-day life. The content selected should contribute to the student’s knowledge or understanding of the reality of human life. The following diagram make this discussion clear.



**Fig. Principles of Organizing and Integrating Content and Learning Experiences**

Let us talk the criteria of content selection in detail. At the macro level the criteria for the selection of content should be based on the socio-political and educational philosophy of the society or the nation. At the micro level the criteria should suit the specific objectives set for meeting the students needs. Some of the criteria for content selection are discussed as follows:

- 1. Self-sufficiency:** This criteria helps the students to attain maximum self-sufficiency and that too in the most economical manner i.e., economy of teaching efforts and educational resources, students efforts and extent of generalizability of subject matter. In other words, we can say that

the content should help the student become self-reliant and self-sufficient. This criterion is the means by which learners can actualize their potential and crystallize their identities

2. **Validity:** Validity relates to the authenticity of the content selected. The content selected should be valid to the extent that it flows from and supports the goals and objectives of curriculum. The content should be usable in day – to- day life. In other words validity refers to the extent to which the content adequately covers the subject matter of the course and the objectives specified for the course of study.
3. **Utility:** The utility criterion is concerned with the usefulness of the content. The usefulness can be interpreted in different ways. For example, the content learned by the students should be useful in his/her job situations, or how content enables the individual to gain an accurate perception of his/her self-identify and to attain meaning in his/her life or content has direct application to on going life and to social and political issues.
4. **Learnability:** This criterion relates the optimal placement and appropriate organization and sequencing of content. The selected content should not be out of the range of students experiences, intellectual abilities etc., In other words, the content should be such that it can be perceived, understood and assimilated by the learners for whom it is intended.
5. **Feasibility:** Feasibility as a criterion of content selection compels curriculum planners to analyse and examine the content in the light of the time and resources available to the students, the expertise of current staff, costs involved, the existing legislation contemporary socio-political climate, etc., Despite the fact that there are several options available, the students do have limitations as far as the pace of their learning is concerned.

## 6. Significance

Content to be learned is significant only to the degree to which it contributes to the basic ideas, concepts, principles, generalizations, and so on, of the overall aims of the curriculum, and to the development of particular learning abilities, skills, process and attitude formation.

While selecting the content it is necessary to decide which concepts and ideas connected with the learning experiences are significant. It is a difficult task. To achieve this task successfully there must be a high degree of coordination between the persons who prepare the content and the persons who teach it.

## 7. Relevancy of content to the present needs

The criterion of relevancy becomes more and more important as efforts are made to improve the schools and to educate a larger number of persons. We know by experience that many students

do not have interest in the lessons, if the content of those lessons is not related to their current experiences. The curriculum should have a cosmopolitan orientation in order to reflect the diversities of the culture. Moreover, the teaching of subjects like social studies should be relevant to the present day events. The contents should also help in the broadening of horizons for tomorrow. Otherwise, what is being taught in the schools today will be behind the times.

## **8. Interest**

The subject matter must create interest in the pupils. It should satisfy the needs of the learner. This criterion will be fulfilled when the subject matter in different subjects is useful in solving pupils, problems or in fulfilling pupil's goals. The content of the curriculum must be selected with students' interests in mind. The criterion of students' interests should be weighted and adjusted to allow for students maturity, their prior experiences, the educational and social value of their interests and the way they are expected to interact within society.

## **9. Orientation of democratic values**

This criterion implies that education will help in providing intelligent direction of social change through the selection of curriculum content. It means that the instructional programme should focus upon the development of moral values, effective thought process the skills of democratic qualities.

## **Fifth phase - Organization and Integration of Learning experiences and content**

Next important task is the organization and integration of experiences and content. This involves combining of all information about experience. There is no common organizing principle. Each type of experience will be focused by different things. The subject centered curriculum is focused upon the school subjects, inherent organization of content and their internal divisions, while the learner centered curriculum is focused on different categories of activities, concerns, interests, needs, impulses of children. The problem centered curriculum is focused on areas of living or social functions and the problems of living.

Emphasis on school subjects results in academic subjects, disciplines, Broad field or correlated programmes; emphasis on individual needs results in an activity-based programme, experience-based programme, incidental education, de-schooling programme or affective learning whereas emphasis on social needs results in community life, social function or socialization programme.

The essential task at this stage is to develop sequences of educational activities based on selected experiences and content. This fusion of selected experiences and content has a definite purpose which is derived from educational objectives. Hence it is called a sequence of learning experiences. The organizing principles of this integration and sequence should ideally be derived from the learning situations available in schools and classrooms, inputs needed for effective classroom interaction, the development levels of learners, and principles of learning by children for whom the curriculum is meant.

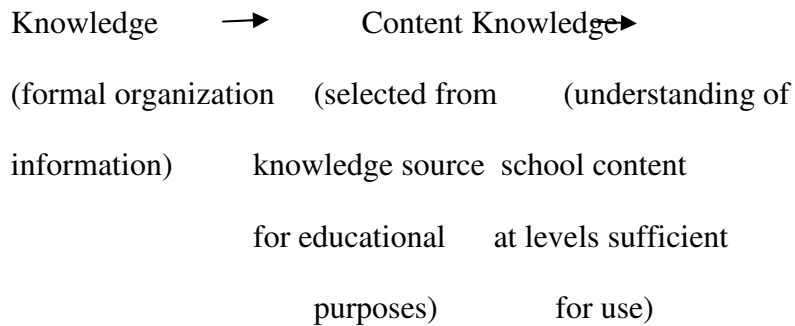
Bruner talks of three modes of learning viz., enactive, iconic and symbolic.

- Enactive mode of learning is activity based, the learner acts and learns as result of action process.
- Iconic mode of learning is based on the use of images and diagrams.
- Symbolic mode of learning is based on the use of a symbol system.

It must be remembered that there are alternative ways of sequencing and integrating content and learning experiences. Besides, a particular approach to sequencing and integration of content shall have certain implications for classroom methodology and administration of school. A change in sequencing and integration of content and learning experiences is bound to affect classroom methodologies or school administration or both. It must be understood that the most effective sequencing and integration of learning experiences and content depends upon certain and dependable knowledge about how knowledge is acquired and how it accumulates over time and how this accumulated knowledge can be best organized for easy recall and use later on. Unfortunately, we do not have dependable answers to these questions. Yet the task of sequencing and integration of content and learning experiences must somehow be accomplished as best as it can be.

Quite often, this sequencing and integration is determined by the size and scope of units and the overlap and interrelation among units. If modular units are to be developed, the scope would be more specific and overlap with the preceding or the following unit would be minimal if not absent. Sometimes the entire curriculum has a built in overlap and interrelation even though at surface level it may be divided in chunks of units, lessons, activities and projects.

## Organising the Content



### Figure: Organization of Content

Organization of content or knowledge depends on the philosophical views of the scholar.

Curriculum planners who favour subject centred designs might consider that the school curriculum organizes knowledge into specialized networks (distinct domains) whose relationships influence the particular types of meanings that can be derived from them (Paul Hirst). Subject centred advocates view knowledge as things and relationships that are real and awaiting discovery in the outer world.

Learner centered advocates consider that the school curriculum organizes personal knowledge rather than objective knowledge. To them, knowledge relates to the individual's process of personalizing the outer world as his/her inner potential interacts with outer reality.

According to Bruner, knowledge is a model we construct to give meaning and structure to regularities in experience. The way we organize knowledge is an invention for referring experiences economical and connected. We invent concepts such as force in physics, motive in psychology, style in literature as a means to the end of comprehension.

Curriculum planners usually use two organizers-logical and psychological. In following the logical organization, they organize content according to certain rules, to make in manageable. Certain concepts are central to the content, and others are prerequisite to other concepts.

In following the psychological organization, they organize content by going from the students' immediate environment to a more distant environment. Content, in other words, should be organized so that the concrete is experienced first, then the more abstract. This psychological factor is a key principle of sequencing content.

Once the content is identified it needs to be appropriately organized. If the curriculum is a plan for learning as indeed it is, its content should be logically organized so that it facilitates the attainment of educational objectives. One of the most potent factors that determines the way

learning takes place is the organization of the curriculum. If a curriculum has not been systematically organized, it shall lack direction and it shall not help attain the objectives which it was supposedly based.

Curriculum organization is both a difficult and a complex task.

The organization of the components or elements of curriculum, exists along two basic organizational dimensions-horizontal and vertical.

(i) Horizontal organization engages the curriculum worker with the concept of scope and integration that is, the side-by-side arrangement of curriculum elements. (ii) Vertical organization, which centers on the concepts of sequence and continuity, is concerned with the longitudinal placement of curriculum elements

### **Principle of Articulation**

**Articulation** refers to the interrelatedness of various aspects of the curriculum.

As a principle of curriculum organisation articulation is concerned with continuity, consistency and interdependence of curricular offerings of a specific grade or successive grades; and it exists in two forms-horizontal (latitudinal) articulation, and vertical (longitudinal) articulation.

Horizontal articulation refers to the organization of the content in such a way that each unit of a subject, or a subject in a Grade leads to parallel ones in the same Grade. Vertical articulation refers to the organization of the content in such a way that each subject and its units in a grade lead to parallel ones in the successive Grade. Thus, as per the principle of articulation, the curriculum, from the kindergarten through secondary to the university, is a continuum; and each part of it's content grows out of the preceding part; and contributes to the subsequent parts of the content.

The principle of articulation helps to eliminate gaps in the knowledge between two units of a subject, and two subjects of the curriculum in the same grade (or Stage) and those in different Grades (or Stages); and thus it contributes to effective learning.

Articulation situations present three main problems in the school. They are, first the interdisciplinary controversy. This signifies, that no apparent relationship is seen between the different classes, where they teach different subjects in succession. Such treatment of the different subjects, like English, mathematics etc, as 'watertight compartments' fail to foster potential interrelationships. The second problem is the absence of relationship between theory and practice in teaching. These two aspects must be brought closer together, and the theory made meaningful by



using it in practical situations. The third problem relates to the bringing of the school into relationship with the life of the surrounding community. There may be strikes, elections and other controversies in the community but they must be handled in class situations, by the teachers.

Some of the ways to bring about articulation are 1) Team teaching is one way for teachers of different subjects to cooperate in an inter disciplinary manner 2) Important events-local, national and international, help to strengthen the school-community relationship 3) Active agreement between subject-teachers on achieving uniform procedures and minimum standards, can effect both vertical and horizontal articulation 4) Major program reorganization into such arrangements as correlation, fusion, core and experience patterns will help articulation. 5) The new cooperative 'work-study' plan followed in schools, help to correlate classroom theory with the world of work, for e.g., teaching nursing in actual hospital situations, and making it 'patient-centred.'

Whatever the device or approach that is followed, its effectiveness will depend upon the degree to which teachers at all levels have a common understanding of the total program.

### **Principle of Balance**

**Balance** refers to appropriate weightage to each aspect of curriculum design. Curriculum should be balanced in terms of subject matter and learner.

A balanced curriculum is one in which students have opportunities to master knowledge and to internalize and utilize it in ways that are appropriate for their personal, social and intellectual goals. Because the curriculum can be viewed from different frames of reference-subject matter, discipline, concerns and interests of children, student experience, values and persistent problems of life-the curriculum components that are to be balanced will take on different forms and dimensions. However regardless of the design, the components must be balanced.

Adjustments of balance must be made in several points in the curriculum, which indicate the complexity of the balance. The problem are 1) Should the schools take on more responsibilities, some of which normally belong to the home? 2) Should more time be given to teaching sciences and mathematics than to humanities, in view of the rapid technology improvement? 3) What should be the amount of attention given to the gifted, the retarded and the normal children; 4) What should be the ratio between the old and the new knowledge, brought into the curriculum? A way out may be according to Searles, 'New wine in old bottles' 5) Will theory for excellence be a worthy rallying point for curriculum endeavours, or will this lead to unhealthy class distinction between the intelligent and the not so intelligent? 6) The cry for excellence leads to more working days, more

homework, and so, lesser leisure for the pupil. 7) Should there be a greater emphasis on individual or on society? The individual needs are given more attention, in a democracy than in an authoritarian society. Good attention may be paid to both individual and society 8) To what extent should the cooperative principles be followed in curriculum planning and in the learning situation? At the primary, secondary and higher levels? Should the parental role be greater than that of the laymen? How much control should be local state and national?

Many people are asking for greater or lesser emphasis on certain method, content or learning materials in the educational programme. A satisfactory balance will have to be made on the basis of the impact on the learners, and on the basis of our philosophies or objectives.

Another important problem of balance, apart from those listed above is the question of general education and special interest education. Some of the problems of balance involve value judgments, and the others affect and are affected by organizational decisions; the above problem comes under the latter category. General education is referred to as common learning or survival education. It covers that part of the total educational program which seeks to prepare individual for life in society viz., functions of citizenship and problems of daily living. At the same time, people have special interest which set them off from others, like in medicine, law, engineering, teaching etc. So special interest education has to be given to all according to their needs and aptitudes. As one progresses from elementary school decreases and specialized education emphasis increases.

### **Principle of Continuity**

**Continuity** refers to the subsequent relationship. It suggests that the curriculum should possess vertical reiteration—that is, the skills and concepts should be “recurring” and there should be “continuing opportunity for these skills to be practiced”. In other words, continuity deals with vertical manipulation or repetition of curriculum components. Continuity, in general, is a time dimension, in which relationship between “now” and “later” are discovered and strengthened.

To ensure continuity, many steps can be taken. These are:

1. Introduction of a new administrative unit, namely the junior high school is between the elementary school and the high school (6+3+3). Upgraded school at the elementary level, under which nearly grades will be replaced by levels consisting of blocks of 3 or 2 years, for e.g, the primary block 3 years. This idea can be introduced in the high school also, with suitable modifications
- 3) Orientation work can be done in the school of effect continuity; the third grade teacher meeting the II grade pupils, guide books to parents, who are to send their children to the school for the first time.
- 4) T. V. viewing by pupils of junior high school about work in the high

school, by lower-graders about work in high classes 5) The guidance program, both individual and group, can bring out learning obstacles and thus can help continuity and articulation.

### **Sixth phase- Evaluation**

The final stage in the curriculum process is the coming to conclusion about the success or failure of the educational enterprise. This is done by means of some measurement or assessment of the behaviour changes. As a result of formal education, certain behaviours are expected. We have to find out in this stage whether those behaviours have actually occurred. We have to assess whether the students actually acquired the facts, the knowledge, the skills, the attitudes, the beliefs and the values that were intended.

There is a certain amount of the interdependence between one phase and another discussed above. As we have to translate the aims into various kinds of goals, some fore-thought must be given to the main processes of evaluation. Similarly, the various aspects of evaluation may affect the derivation of goals, the selection of experiences and their organization into sequences. Curriculum process is therefore represent as a cycle and the curriculum must be envisaged as subject to continuous scrutiny and constant revision.

The evaluation can be done for assessing the modification of studentsbehavior.It is called student evaluation.

Student evaluation aims at assessing the changes in the students' behaviour. These changes in behaviour can be accessed through:

- oral, written or practical tests.
- Responses during interactive teaching-learning sessions, discussions in different kinds of situations, etc.
- Written products of different kinds, e.g. assignment responses, term papers, project report. etc.

The process of evaluation is undertaken in order to determine the strengths and weakness of existing or an under-construction curriculum so that improvements can be made in curriculum design. Evaluation results are primarily a function of judging the effectiveness of the curriculum. The need to evaluate a school curriculum arises out of the following reasons:

- to cope with the recent advancement in the field of knowledge
- to remove redundant material from the curriculum which has become obsolete.

- to identify the gap between the requirements of the next grade and the objectives of this grade and to fill in these gaps with appropriate learning experiences.
- to make the curriculum more efficient in achieving the envisaged objectives, and
- to assess the extent to which the latent curriculum has been achieved in terms of behavioural objectives.

In brief the curriculum evaluation is the process of assessing whether curricula are achieving their aims and/or can be judged to be worthwhile.

## **TYPES OF CURRICULUM**

There are various patterns adopted by curricularists in organizing the curriculum by giving importance to a particular idea or aspect as the focus of the curriculum organization. However, the different patterns available are modification or integration of three basic design types: (1) Subject-centred designs, (2) Learner-centered designs and (3) Problem-centred designs. Each category comprises several examples. Subject centred designs include subject designs, discipline designs, broad field designs and correlation design. Learner-centred designs are those identified as child centred designs, experience designs, romantic / radical designs and humanistic designs. Problem-centred designs consider life situation designs, core designs (social function designs) and social problem designs (reconstructionist designs).

The choice of a particular approach to the curriculum design indicates

- the bases of decisions about the types of experiences to be included in the educational programme.
- the role of teachers, students and other agencies in the process of curriculum planning.
- the choice of method for determining the selection and organization of learning experiences provided by the school.
- the factors influencing the selection of objectives.
- the use of subject matter or content.

### **.Subject-centered designs**

Subject-centered designs are by far the most popular and widely used curriculum designs. This is because knowledge and content are well accepted as integral parts of the curriculum. Schools have a strong history of academic rationalism; furthermore, the materials available for school use also reflect a content organization.

The category of subject-centered designs has the most classifications of any of the designs. The subject –centered approach includes four types of curriculum designs namely. Subject -area design, Discipline design, Broad-field design and Correlation design.

**(i). Subject-area design**

A type of subject-centred curriculum in which subject is treated as a largely autonomous body of knowledge is called subject-area curricula. This design is based on a belief that humans are unique and distinctive in their intellect; the searching for and the attainment of knowledge are the natural fulfillment of that intellect. This design pays more attention to knowledge, it divides accumulated knowledge system into subjects.

The curriculum plan appears neatly divided into subjects, which themselves frequently are subdivided into divisions corresponding to school grades and even marking and reporting periods. Thus the relative orderliness characterizes the subject design.

According to Morrison subject matter curriculum contributed most to the literacy of the individual and that literacy skills should be the focus of the elementary curriculum. This orientation to subject matter reflected a mental discipline approach to learning and a perennialist orientation to subject matter. Morrison also felt that such design could allow a student at the secondary school level to develop interest and competence in one subject area. However, he proposed that a variety of courses should be offered to address the needs of different students.

In the subject matter design, the curriculum is organized according to how knowledge has been developed in the various subject areas. With the explosion of knowledge and the resulting specializations in the various fields of knowledge, subject divisions have not only become more numerous but also exceedingly complex.

To educators, each separate subject represents a specialized and unique body of content. The basis for content organization is primarily the division of labour accepted by academic scholars, who have, over the years, agreed on ways in which to organize subject - history, anthropology, literature economics, mathematics, chemistry, and so on. It argues to organize the curriculum into lots of subjects. Each subject purposely sets forth its special qualified knowledge system.

The organization of curriculum content also assumes that these subjects are systematized primarily on chronological basis, pre-requisite learning, whole to part mastery and deductive learning.

Thus, proponents of the subjects design have going for them the undeniably strong argument that knowledge is of necessity at the base of the curriculum. Knowledge is organized into disciplines, and school subjects organized out of these disciplines can be the skeleton of the curriculum. Whether the ultimate organization presents the subjects through Morrison's 'institutions', our 'domains', or through 'new' subject organizations, it is still basically a subjects design focused on the intellectual development of the learner.

Lecture, recitation, and large group discussion are major instructional techniques utilized in this design.

This design lays emphasis on verbal activities. Knowledge and ideas are best communicated and stored in verbal form. Learning is primarily a verbal activity. The prime advantage of the design is that it introduces students to the essential knowledge of society. Also, the design is easy to deliver because complementary text-books and support materials are commercially available.

#### **(ii). Discipline Design**

Like the separate subject design, the discipline design's basis is the inherent organization of content. Whereas the subject design does not make clear the foundation basis upon which it is organized, the discipline design's orientation does specify its focus on the academic disciplines. This design plays more attention to knowledge system. The subjects are arranged logically so as to be learned and remembered by students more conveniently.

King and Brownell proponents of this design, indicate that a discipline is specific knowledge that has the following essential characteristics: a community of persons, an expression of human imagination, a domain, a tradition, a mode of inquiry, a conceptual structure, a specialized language, a heritage of literature, a network of communications evaluative and effective stance, and an instructive community.

Disciplined knowledge is the key aspect of this curriculum design. Content for the school curriculum is determined in part by identifying or creating a discipline's structure and using this foundation as a guide for selecting the school content and organizing it for learning. The school is a microcosm of the world of intellect and that the disciplines reflect that world. Even though proponents of the discipline view as necessary experiencing the disciplines in the school, they stress understanding the conceptual structures and the processes of the disciplines. This is perhaps the essential difference between the disciplines design and the subject matter design. In this discipline design, the students experience the disciplines so that they can comprehend and even conceptualize,

whereas in the subject matter design the students are considered to have learned if they just acquire knowledge and information.

In the discipline design students are encouraged to see the basic logic or structure of each discipline – the key relationships, concepts, and principles – and to understand the discipline’s modes of inquiry. To Bruner, learning occurs when the student recognizes the key ideas and fundamental principles of a discipline and notes the interrelationships of these ideas and also their applicability to many situations. The learner, by recognizing the fundamental and general ideas that constitute the structure of the discipline, will be able to continually broaden and make more sophisticated his or her knowledge.

A most attractive notion of the disciplines approach expounded by Bruner was that “any subject can be taught in some effectively honest form to any child at any stage of development” Contrary to what many persons had held, Bruner argued that students are able to comprehend the fundamental principles of any subject at almost any age. And children can thus understand the structure and operations of a discipline at any age-such understanding does not need to await adolescence or adulthood.

### **(iii). Broad - field design**

The broad field design eliminates the sharp demarcations that exist in the traditional subject design; it seeks rather to bring together into a broad organization of the subject matter, the knowledge and understanding pertinent to whole area of study. It represents an effort to “fuse” and “integrate” the subject matter of closely related disciplines or school subjects.

The basic consideration in Broad field design is of ways to bring into a broad organization of those subject matter elements which have certain relationship. It fosters actual ‘fusion’ of closely related knowledge. The bringing out of ‘apparent ties’ tend to make learning more meaningful.

### **(iv). Correlation design**

Correlation is a design employed by those who do realize that there are time when separate subjects require some linkage in order to reduce fragmentation of curricular components. Correlation is an attempt to eliminate the isolation and compartmentalization of subjects without radically overhauling the subject curriculum. It emphasizes on giving the relationship between the knowledge to the learner.

Almost any part of the curriculum can be organized in this design. Courses in literature can be correlated with courses in art and music by connecting them through various themes, such as

Romanticism. Sciences and Mathematics are easily correlated because Mathematics provides a powerful tool for dealing with science content. But, not all correlated designs link content from different subject fields. Courses from within the same field – such as history and geography or history and sociology – can be correlated as well. Because correlated subjects maintain their identity, however a true curriculum synthesis does not take place. Knowledge of the subjects is by nature inter-related and interdependent. So, the subjects should be taught by combining correlating their identical contents to the learners.

### **Learner-centered Design**

All curricularists are concerned with creating curricula that are valuable to students. In response to those educational planners who consider that in creating curricula of value one must emphasize subject matter, educators early in the 20<sup>th</sup> century asserted that students are the centre or focus of the programme. Supporters of this posture, largely progressives, advocated what have come to be called learner-centered design. The emphasis on the child displaced the emphasis on subject matter. In addition, when subject matter was presented, it was no longer separated into “narrow” divisions but was “integrated” around units of experience or activity. The idea that a solution to a problem required using methods and materials from several subject fields was inherent in the learner-centered curriculum. Learner-centered designs include child-centered designs, experience designs, romantic or radical designs and humanistic designs.

#### **(i). Child-centered Design**

At times, especially when the learner-centred design was first gaining a foothold in educational thinking, its advocates insisted that virtually all school learning activities should be centered on the felt needs and interests of the child. Many of these early advocates rejected the traditional notion of the child as a miniature adult and accepted the romantic metaphor of the child as a flower that would unfold naturally with the proper “educational gardening.”

Rousseau wrote, “God makes all things good; man interfere with them and they become evil.” But Rousseau was not for child anarchy. He called for “well – regulated liberty” that was to be assumed within the competence levels of the child. Teachers were thus to pique a child’s curiosity by providing direction using means that were appropriate for the developmental stage of the child. Rousseau noted that as a child approaches adolescence, “much skill and wisdom are required to lead him toward theoretical studies.” Teachers were to provide the pupil with opportunities to observe nature and learn on his own. “Put the problems before him and let him solve them himself...Let him not be taught science, let him discover it”



Proponents of this design also drew on the thinking of some other early pedagogical giants. Heinrich Pestalozzi and Friedrich Froebel argued that children would attain self – realization through social participation; they voiced the principle of learning by doing. Their social approach to education furnished a foundation for much of the work of Francis Parker.

Parker believed that the methods of instruction should be patterned by the child's natural approach to learning. He suggested that because children learn to speak a language by using words, they should be taught reading by a word method. Thus, teachers were encouraged to perfect ways of involving children in conversations in order to teach reading. To teach geography, Parker urged teachers to take children on field trips and have them make sketches of landscapes and simple maps. This would be more productive than reading a textbook. This approach, which became known as the Quincy system, attracted national attention.

William Kilpatrick emphasized social purpose in learning through project method. He argued that “if teacher want to educate to think and plan for himself, then let him make his own plan”. He emphasized self -directed learning.

John Dewey suggested that the curriculum should be organized around human impulses—the impulse to socialize; the impulse to construct; the impulse to inquire, to question, to experiment, and the impulse to express or to create artistically. Dewey, like Parker, viewed education as a social process that served a social function. Through education the individual had his or her capacities freed so as to achieve social aims. Dewey viewed the development of individuality in the child, the person, as something developing continuously, not something given all at once and readymade. He emphasized the guidance of teacher in the process of learning by students

Progressive Education Association Commission on Secondary Curriculum (New York, 1958) has classified the needs of children into four broad areas:

1. Area of personal living
  - a. The need for personal health
  - b. The need for self-assurance
  - c. The need for a satisfying world picture and a workable philosophy of life.
  - d. The need for a range of personal interests
  - e. The need for aesthetic satisfaction
2. Immediate personal social relationships

- a. The need for increasingly mature relationship in home and family life, and with adults outside the family
- b. The need for successful and increasingly mature relationship with age mates of both sexes.
3. Social – Civic relationships
  - a. The need for responsible participation in socially significant activities.
  - b. The need for social recognition
4. Economic relationships
  - a. The need for emotional assurance of progress towards adult status.
  - b. The need for guidance in choosing an occupation and for vocational preparation.
  - c. The need for wise selection and use of good and services.
  - d. The need for effective action in solving basic economic problems.

The curricula that focusses on these common needs of the students are called Child-centred Designs.

### **(ii). Experience-centred Design**

Experience-centred curriculum designs closely resembled the child-centred designs in that they used the concerns of children as the basis for organizing the children's school world.

However, they differed from child-centred designs in their view that the interests and needs of children cannot be anticipated and, therefore, a curriculum framework cannot be planned for all children. After the children arrived at school, programs could then be created that were focused on their unique interests. The unique need and interests of the children would determine the actual curriculum. Growth and learning were considered to be completely dependent on the active participation of children in activities that were suitable with their unique needs. Subjects were only furnished to help children solve problems of their own choosing.

The teacher was responsible for identifying and cultivating children's unique interests, even forming new ones that were prized by the community and consistent with the evolution of society.

Many current advocates of the child-centred design have however taken unfavourable position when considering their design in relation to the subject-centred design camp. They assume an either or posture – one either supports a design with content at the center or a design with the child at the center. Many have counseled against such an either – or stance. For example, Dewey

pointed out that there were false ideas in both camps. The learner was not a “tabularasa” - a passive receiver of established subject matter content. Neither was the learner the starting point, the center and the end of school activity.

Dewey argued that educators had to attend to the subject matter of the curriculum. The various studies incorporate the cumulative outcomes of the efforts, the strivings and the successes of the human race generation after generation’. But, educations could not ignore the child in curriculum design because the child had to be viewed as fluent, embryonic and vital: ‘Abandon the notion of subject-matter as something fixed and readymade in itself, outside the child’s experiences; ease thinking of the Child’s experiences as something hard and fast ... and we realize that the child and the curriculum are simply two limits which define a single process. Just as two points define a straight line.

Several current curriculum specialists have argued that we need to meld our curricular concerns as relating to both the subject matter or content of the curriculum and the child and his or her needs and experiences. In their definition, Tanner and Tanner identify the curriculum as the reconstruction of knowledge and experience, systematically developed under the auspices of the school. Other curriculum reformers have translated the ideas of the experience movement into courses emphasizing touching, feeling and Gestalt psychology. Still others have emphasized life experiences, with credit for working in community based, career-based activities intended to prepare students for adult responsibility and work and courses that deal with social problems and personal experiences.

### **(iii). Romantic (Radical) Design**

The radical reformers (Paul Goodman, A.S., Neill, Ivan Illich, John Paul) expressed considerable distain toward established method of schooling, compulsory schooling, adult authority and school rules. They referred to students as prisoners, to teachers as prison guards (who disliked their students) and to schools as prisons (which keep youths locked up, restricted from free expression and democratic procedures). In general, school is considered to be a highly discriminatory place that sorts and tracks students for various jobs that extend class differences in society.

These radical reformers really seek to do away with the notion of a planned curriculum; they propose instead to center all experiences in the school on the children’s present needs. The school would provide opportunities to learn and possible contents to be considered, but all would be arranged as a ‘smorgasboard’. The children would pick what they need and decide what they need.

As Holt argued, we cannot know, at any moment what particular bit of knowledge or understanding, child needs most and best fits his model of reality. Only he can do this. The child may not be expert at these decisions, but he can do it a hundred times better than we can. For Holt, adults don't plan the learning experiences, rather they let the child know what is available and where he can look for it.

In lieu of school, Ivan Illich recommends small learning networks characterized by the following: Educational objects – that is, shops, libraries, museums, art galleries, and so on – that are open to learners; peer matching that is, identifying and bringing together students who wish to engage in a particular learning activity; skill exchanges – that is, exchanges between those who are competent in a particular skill, and who wish to teach it, and those who wish to learn it; and educators-at-large – that is, counselors who serve as advisors to students and parents and intellectual initiators and administrators who operate the networks.

Ivan Illich has stimulated large numbers of disciples to further the idea of deschooling, and a good deal of radical reform literature related to the political and economic concept of educational revisionism.

The social issues according to Counts, involved racial and class discrimination, poverty and unemployment – and progressive education had ignored these issues. The social issues today are similar, although the list is larger; racial, ethnic and sexual inequality; poverty, unemployment, and welfare; computers and technology; political oppression and war; the threat of nuclear disaster; environmental pollution; disease, hunger and depletion of the earth's resources.

According to Brameld, students and teachers must not only take positions; they must also become change agents to improve society. As for the curriculum, it had to be transformed to coincide with a new socio-economic-political education; it had, in other words, to incorporate realistic reform strategies. For reconstructionists, analysis, interpretation and evaluation of problems are insufficient; commitment and action by students and teachers are needed. Society is always changing, and the curriculum has to change; students and teachers must be change agents. A curriculum based on social issues and social services is ideal.

The reconstructionists, including such recent proponents as Mario Fantini, Harold Shane and Alvin Toffler, seek a curriculum that emphasizes cultural pluralism, internationalism and futurism. Students are taught to appreciate life in a world of many nations – a global village – with many alternatives for the future. A reconstructionist program of education: (1) critically examines the cultural heritage of a society as well as the entire civilization; (2) is not afraid to examine

controversial issues; (3) is deliberately committed to bring about social and constructive change; (4) cultivates a future planning attitude that considers the realities of the world; and (5) enlists students and teachers in a definite program to enhance cultural renewal and interculturalism. In such a program, teachers are considered the prime agents of social change, cultural renewal and internationalism. Teachers are organized not to strengthen their own professional security, but rather to encourage widespread experimentation in the schools and to challenge the outdated structures of society. They are considered to be the vanguard for a new social order – somewhat utopian in nature.

#### **(iv). Humanistic Design**

The humanistic model of education stems from the human potential movement in psychology. Within education it is rooted in the work of Arthur Jersild, who linked good teaching with knowledge of self and students, and in the work of Arthur Combs and Donald Snygg, who explored the impact of self-concept and motivation on achievement. Other names for this orientation have been affective education, open education and existential education. The focus of humanistic designs has been on the learners-especially students' self-concepts.

A humanistic curriculum emphasizes affective rather than cognitive outcomes. Carl Rogers assumes that people can enhance self-directed learning by drawing on their own resources to improve self-understanding, to learn self-concepts and basic attitudes, and to guide their own behaviour. The educators' task is to set the educational environment such that these personal resources can be tapped. Such an environment encourages genuineness of behaviour, empathy and respect for self and others. Individuals given such an environment will naturally develop into a fully functioning person. Individuals able to take self initiated actions and responsibility for those actions is capable of intelligent choice and self-direction. Furthermore, having acquired knowledge relevant to the solutions of problems, these persons are critical learners. They are also able to approach problem situations with flexibility and intelligence and to work cooperatively with others. They are internally guided with regard to their socialization process. They do not wait for or work for the approval of others.

Advocates of humanistic education contend that the present school curriculum has failed miserably by humanistic standards, that teachers and schools are determined to stress cognitive behaviour and to control students not for their own good but for the good of adults. Humanists emphasize more than affective processes; they seek higher domains of consciousness. But they see the schools as unconcerned about higher planes of understanding, enhancement of the mind, or self-

knowledge. Students must therefore turn to such out-of-school activities as drugs, yoga, transcendental meditation, group encounters, psychotherapy, and sexual therapy.

Humanists would attempt to form more meaningful relationships between students and teachers; they would foster student independence and self-direction, and they would promote greater acceptance of self and others. The teachers' role would be to help learners cope with their psychological needs and problems, to facilitate self understanding among students and to help them develop fully. This approach adds the affective component to the conventional subject matter curriculum that is already in place. Those who support this design do not favour either content or experience or intellect or feeling; rather, they strive to blend the subjective or intuitive with the objective. They urge that the curriculum be so organized as to provide students with more alternatives from which they can choose what to feel. Students are challenged to take responsibility for and to appreciate other choices, and the power to make choices.

This approach stress participation; it emphasizes power sharing, negotiations, and joint responsibility. It is essentially non authoritarian. It also stresses the whole person and the integration of thinking, feeling and acting. It centers on the relevance of subject matter in the light of students' basic needs and lives. Throughout the curriculum, students are confronted with situations that make them realize that the development of self is a legitimate objective of learning.

Weinstein and Fantani recommended three tiered structure in curriculum. One tier is comprised of reading, computation and writing skills. The basic subject matter of the subject matter curriculum is found at this tier. The second tier consists of those activities designed to draw out the learners' latent talents and abilities. This tier is highly individualized, as is the first tier. It stresses the development of individual creativity and the exploration of interests. The third tier is concerned with group inquiry. It consists mainly of social issues and problems that are related to the self in society. Here students get a chance to explore who they are as individuals and as members of a group. They analyze issues and identify common themes. They can develop their own personalities, increase their skills in interpersonal relations, and become more cognizant of their feelings and concerns.

### **Problem-centred Design or Society Centered Design**

Problem-centred design stress the importance of the survival of human and society. It focuses on the problems of living – on the perceived realities of institutional and group life – both for the individual and for society in general. Problem-centred curriculum designs are organized to

reinforce cultural traditions and also to address those community and societal needs that are currently unmet. They address individual's problems as well.

Even though these designs place the individual in a social setting, they are unlike learner-centred designs in a major way. Problem centred designs are planned before the arrival of students. However problem-centredcurricularists realize that because their concern is with genuine life problems, they will sometimes have to adjust to cater the concerns and situations of learners.

The curriculum organized with this design depends in large part on the nature of the problem areas to be studied. Contents selected must be relevant to the problem under consideration. For this reason, the content often cuts across subject boundaries. It must also be based, to a major extent, on the needs, concerns and abilities of the students. This dual emphasis on both content and the development of learners distinguishes problem-centred designs from the other major types of curriculum designs.

Because problem-centred designs draw on social problems and the needs, interests and abilities of learners, several variations exist. Some focus on social functions or areas of social living or persistent life situations, approaches that are based on the belief that the curriculum design should follow the persistent functions, areas or life situations in man's existence as a social being; others centre on contemporary social problems or problem of community life and some are even concerned with the social action or reconstruction of society. The reconstruction approach is based on the belief that the improvement of society through direct involvement of the schools and their students to be a primary goal of the curriculum. What seems to distinguish these various types is the relative degree of emphasis they place on social needs as opposed to individual needs. The common denominator of these three design theories is a curriculum design that features social activities and/or community problems rather than subjects of objectives.

#### **(i). Life-situations Design**

The persistent life-situations design is perhaps the best known variation of the problem-centred designs. The life-situations design proposed by Florence Stratemeyer and her associates was based on a principle derived from studies on the transfer of learning. They concluded that the students would find their school learning more meaningful, and would thus be able to directly apply it to life, if the problems they study in school were in fact similar to those they faced out of school.

Using such a design, based on recurring life situations, educators could assist students in broadening their insights and deepening their generalizations about problems relating to the real world.

Stratemeyer created a master list of persistent life situations for the educators to follow. The key aspects of this list are presented below:

A. Situations calling for growth in individual capacities

- i. Health
- ii. Intellectual power
- iii. Responsibility
- iv. Aesthetic expression and appreciation

B. Situations calling for growth in social participation

- i. Person-to-person relationships
- ii. Group membership
- iii. Inter-group relationships

C. Situations calling for growth in ability to deal with environmental factors and forces

- i. Natural phenomena
- ii. Technological phenomena
- iii. Economic-social-political structures and forces.

Doak S. Campbell (1935) explained the concept of social function design: Studies of group life show that there are certain major centers about which the activities of individuals and the plans and problems of the group tend to cluster. These centers, which may be referred to as social functions, tend to persist and to be common for all organized groups. Since these centers or social functions represent points about which real life activities tend to gather and organize it is considered reasonable that a curriculum which is concerned with guiding children into effective participation in the activities of real life may appropriately use these social functions as points for emphasis and orientation in outlining the curriculum.

**(ii). Core Curriculum**

The two ideas common to the concept of core 'are that they provide experiences needed by all youth and the experiences cut across subject lines'. Thus core means all the essential things required for all the students.



According to Bossing, the 'core curriculum' designates those learning experiences that are fundamental for all learners because they drive from our common, individual needs and our civic and social needs.

"The total organizational activities of that part of the school curriculum devoted to the determination of the personal and social competencies needed by all and the procedures, materials and facilities by which the school assumes the adequacy of the learning experiences essential to the development of those competencies" is known as core program.

According to some experts, 'the core curriculum refers to a pattern of the experience curriculum organized into a closely integrated and interrelated whole in which there is one division. The core program is devoted to the development of the common competencies needed by the all and the other division emphasizes the development of competencies based upon the recognition of individual differences in interests, attitudes, aptitudes and capacities, the entire curriculum utilizing constitutively the same basic principles of learning teaching methods and problem organization.

The core curriculum design centers on general education and is based on problem arising out of common human activities. The core programs of middle, junior high, and high schools are frequently based on analysis of social problems. Vars described structured core programs as 'categories of human experience that embrace both the personal problems, interests, and needs of students and the problems confronting contemporary society'. Education Policies Commission, Education for All American Youth (1944) recommended a 'common learnings' core for high schools and junior colleges that would include six areas, four of which emphasized social problems: i) Civic responsibility and competence, ii) Understanding of the operation of the economic system and of the human relations involved therein, iii) Family relationships, iv) Intelligent action as consumers, v) Appreciation of beauty and vi) Proficiency in the use of language.

This type of core is problem centred rather than learner centred. It is carefully planned before the students arrive, but with the notion that adjustment can be made if necessary. This design is usually taught in a block time format, whereby two or more normal periods for teaching the core component are scheduled together. One teacher assumes responsibility for this block of time and also manages a counseling function. Although content is part of this design, the common needs, problems, and concerns of learners comprise the central focus.

The focus on problems proceeds in different ways in each core class, but certain characteristics for problem solving are recommended by the advocate of core as illustrated below.

The recommendations make sense today, as they did when core was popularized by Faunec and Bossing.

1. The problem is selected by either the teacher or the students.
2. A group consensus is made to determine important problems and interest of the class.
3. Problems are selected on the basis of developed criteria for selection.
4. The problem is clearly stated and defined
5. Areas of study are decided, including dividing the class by individual and group interests.
6. Needed information is listed and discussed;
7. Resources for obtaining information are listed and discussed
8. Information obtained and organized
9. Information is analyzed and interpreted
10. Tentative conclusions are stated and tested.
11. A report is presented to the class on an individual or group basis
12. Conclusions are evaluated
13. New avenues of exploration toward further problem solving are examined.

The advantages of the core design are that it unifies content, presents subject matter relevant to students, and encourages active processing of information. Further, because it presents subject matter in a relevant form, it fosters intrinsic motivation in students. Albert and Albery state that this design makes it possible for students to attack directly problems they consider crucial in the contemporary society. It encourages students to view the community as a laboratory for learning. Because the design encourages cooperative learning, its advocates claim it fosters democratic practices in the classroom.

### **Reconstructionists Design**

Reconstructionists feel that the curriculum should address contemporary social problems and even social action projects aimed at reconstructing society. Many such educators consider themselves to be in social orientation camp, or what some have called social Reconstructionism. These individuals, interested in the relation of the curriculum to the social, political and economic

development of society, believe that through the curriculum, educators will effect social change and ultimately create a more just society.

Social action through the school curriculum seems to us directly related to the educational philosophy of reconstructionism, as far removed as that philosophy is from the other socially focused designs we have considered. That is, while the social activities and community-centred approaches aim toward social improvement, they do not call on the schools to lead in social action and reform movements as does reconstructionism.

Brameld outlined the major features of this approach to curriculum. He noted that reconstructionists were committed to creating a new culture. Brameld was convinced that in the midst of a revolutionary period-the times demanded that educators harness the school for social reconstruction. The continuing problems at the national and global level – war, poverty among affluence, crime, racial-conflict, unemployment, political oppression, and disregard for the environment – all called for a major shift in society. If society was to survive, it would be because the common people in the industrial system – and the public service system – would gain control. Once in control, these persons would release and equitably use society’s resources to solve the problems of democracy. Brameld placed the working people, in a new sense of collective strength, in control of all principle institutions and resources. This was necessary if the world was to become genuinely democratic. He challenged teachers to join forces with these organized working people.

Brameld also believed that the school should help the individual to develop as a social being and also as a skilled planner of the social reality. The individual must come to learn that he or she must satisfy his or her personal needs through social consensus. The schools not only had this obligation to educate children in the value of the collective they also needed to point out the urgency for the change.

The fact that reconstructionists stress the notion of change and the needs to plan for tomorrow bring in mind a series of pressing questions raised by two great reconstructionists, Virgil Clift and Harold Shane, as they explore new directions for Educators and new decisions for curriculum specialists.

1. What policies shall govern our future use of technology?
2. At a global level, what shall be our goals and how can we reach them?
3. What shall we identify as the ‘good life’?

4. How shall we deploy our limited resources in meeting the needs of various groups of people?
5. How shall we equalize opportunity, and how shall we reduce the gap between the 'haves' and 'have-nots'?
6. How can we maximize the value of mass media, especially television?
7. What shall be made of psychological, chemical and electronic approaches to behaviour modification?
8. What steps can we take to ensure the integrity of our political, economic and military systems?
9. What, if anything, are we willing to relinquish, and in what order?
10. And, what honourable compromises and solutions shall we make as we contemplate the above questions?

These questions deal with social issues that are generic – meaning they were relevant yesterday, they are relevant today and they will be relevant tomorrow and they are relevant for most school subjects and grade levels. The way we deal with these issues or problems will make the difference about the society we are and will become.

The social reconstructionist curriculum has the primary purpose of engaging the learner in analyzing the many severe problems confronting humankind. However, the exact content and objectives are to be decided by those who actually create such a curriculum. The curriculum is to engage students in a critical analysis of the local, national, and international community. Also, attention is to be given to the political practices of the business and government groups and their impact on the economic realities of the workers. Such a curriculum must propose industrial and political changes that will ultimately modify the social fabric of the nation and perhaps the world.

## **MODELS OF CURRICULUM DEVELOPMENT**

The curriculum development model can be classified into technical-scientific approach and nontechnical-nonscientific approach. The term technical-scientific emphasizes that the curriculum development model involves intellectual and rational approach based on the views of experts and demands of subject matter. The term nontechnical-nonscientific stress that the curriculum development model involves learner-centred approach based on the students' perceptions of their needs and preferences.

## **The Tyler's Curriculum Inquiry Model**

Tyler's model of curriculum development is an ends-means approach. Tyler mentioned that those involved in curriculum inquiry must try to define the four basic components of curriculum. They are: (1) purposes of the school; (2) educational experiences related to the purposes; (3) organization of these experiences and (4) evaluation of the purposes.

By 'purposes', Tyler was referring to objectives. He indicated that curriculum planners should identify these general objectives by gathering data from three sources – the subject matter, the learners and the society. After identifying numerous general objectives, the curriculum planners were to refine them by filtering them through two screens – the philosophy of the school and the psychology of learning. As a result of such screening the specific instructional objectives were formulated.

Tyler then discussed how to select educational experiences that would allow the attainment of objectives. Learning experiences had to take into account both the previous experience and the perceptions that the learner brings to a situation. Also, the experiences were to be selected in light of what educators know about learning and human development.

Tyler next talked about the organization and sequencing of these experiences. He stated that the ordering of the experiences had to be somewhat systematic so as to produce a maximum cumulative effect. He thought that organizing elements, such as ideas, concepts, values and skills should be woven as threads into the curriculum fabric. These key elements could serve as organizers and means and methods of instruction and they could relate different learning experiences among different subjects. The ideas, concepts, values and skills could also link content within particular subject courses – for example, English and mathematics. Indeed, much of the discussion today on the conceptual structures of courses or curricular content is drawn from Tyler.

Tyler's last principle deals with evaluating the effectiveness of planning and actions. Tyler considered evaluation to be important in curriculum development. He realized that it was necessary if educators were to find out whether the learning experiences actually produced the intended results. Also, it was necessary to determine whether the program was effective or ineffective. It could guide where the program should be maintained or modified. An evaluation should relate to all of the objectives. The Tyler's curriculum inquiry model is represented in the following figure.

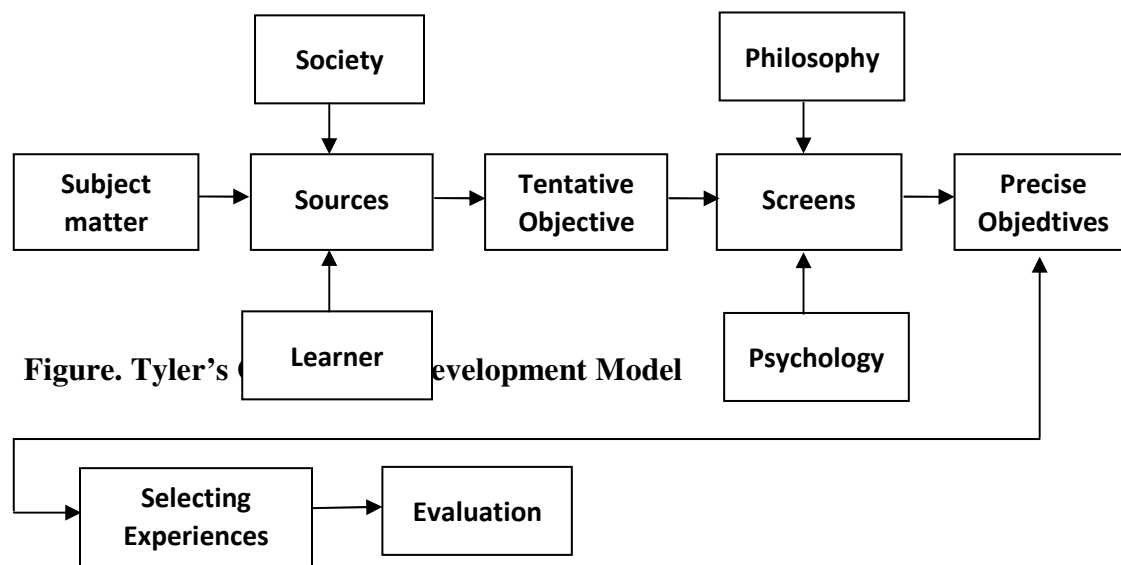


Figure. Tyler's Development Model

### The Taba's Grass-Roots Rationale Model

Hilda Taba believed that those who teach curriculum should participate in developing it. She advocated the “grass-roots approach” for curriculum development.

According to Taba, the curriculum should be designed by the users of the program. Teachers should begin the process by creating specific teaching-learning units for their students. She advocated that teachers take an inductive approach to curriculum development – starting with specifics and building to a general design – as opposed to the more traditional deductive approach – starting with the general design and working toward the specifics.

Taba noted seven major steps to her grass-roots model in which teachers would have major input:

1. *Diagnosis of Needs*: The teacher (curriculum designer) starts the process by identifying the needs of the students for whom the curriculum is to be planned.
2. *Formulation of Objectives*: After the teacher has identified needs that require attention, he or she specifies objectives to be accomplished.
3. *Selection of Content*: The objectives selected or created suggest the subject matter or content of the curriculum unit. Taba pointed out that not only should objectives and content match, but the validity and significance of the content chosen needed to be determined as well.
4. *Organisation of Content*: A teacher cannot just select content, but must organize it in some type of sequence, taking into consideration the maturity of the learners, their academic achievement and their interests.

5. *Selection of Learning Experiences*: Content must be presented to pupils or pupils must engage in an interaction with the content. At this point, Taba discussed the instructional methodologies that will involve the students with the content.
6. *Organization of Learning Activities*: Just as content must be sequenced and organized, so must the learning activities. Often the sequence of the learning activities is determined by the content that is sequenced. But the teacher needs to keep in mind the particular students whom he or she will be teaching.
7. *Evaluation and Means of Evaluation*: The curriculum planner must determine just what objectives have been accomplished. Evaluation procedures need to be considered by the students and teachers.

The grass-roots approach has made it abundantly clear that a broad base of involvement of the users of the curriculum is essential for effective curriculum decision-making. Curriculum making requires compromise among administrators from the central office, supervisors from the local school and teachers, students and community members. Traditionally, the central office staff is charged with directing those actions that enable the various participators to engage in curriculum development. In a non-traditional approach members of the community and teaching profession are given primary responsibility for developing the curriculum.

## **Conclusion**

**The process of curriculum development** involves six steps such as assessment of educational needs, formulation of objectives, selection of learning experiences to attain these objectives, selection of content through which learning experiences may be offered, The organization and integration of learning experience and content with respect of the teaching learning process and evaluation of all the above phases.

There are several approaches through which curriculum can be designed and organized. These approaches are generally grouped into the following three categories.

**Subject-centred approach**: The subject-centred approach is one of the most widely used methods for organizing educational experiences. In this approach, the subject matter becomes the basis around which learning experiences are organized and the mastery of subject matter becomes the basis for attainment of educational objectives. In subject-centred curriculum, the chief responsibility of the curriculum planners is to determine the subjects to be offered by the school and the body of knowledge to be covered within each subject. For example, the subjects or the

programme of studies may be divided into areas like English, Tamil, Science, Social Science, Mathematics and so on. Another concern of curriculum planners engaged in this activity is to devise ways of evaluating a students mastery over the subject matter through formal tests, problem-solving situations, etc.**Learner-centred approach:** Learning is what we build into behaviour from experience. We learn best from those situations that help us solve our problem, satisfy our desire, fulfil our interest or meet our needs. This approach to curriculum development seeks to present through school experiences the methods which an effective citizen uses in solving problems, pursuing his interest or meeting his needs. The curriculum plan will thus focus on the emerging needs of the students in their present lives. This approach prepares the student to face the present rather than the future. A student confronted with a problem utilizes his intelligence and experiences based on his past knowledge to reach an intelligent decision. For this, the appropriate learning experiences need to be planned which are psychologically most sound and purposeful to the student. The curriculum would consist of topics such as an understanding of changes during puberty, peer group interaction, developing self-concept, adjustment, personal values, etc. In other words, the issues should relate to the developmental stages of the student. **Social problems approach:** The advocates of this approach believe that the learning experiences should be organized in terms of the major activities of the human being as he/she lives in his/her culture. This inculcates in the pupil, an awareness of the current social issues and problems and enables him/her to effectively resolve social problems. Through social-problems approach, courses may be developed in areas such as environmental problems, racism, population, communication, technology and so on. In this approach to curriculum planning/ development, learning objectives are framed after the social problem or issue has been analysed; the subject matter drawn from any source pertinent to the problem.

**The curriculum development model** can be classified into technical-scientific approach and nontechnical-nonscientific approach. The term technical-scientific emphasizes that the curriculum development model involves intellectual and rational approach based on the views of experts and demands of subject matter. The term nontechnical-nonscientific stress that the curriculum development model involves learner-centered approach based on the students' perceptions of their needs and preferences.

### **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. Discuss the subject-centered curriculum designs.
2. Describe the learner-centered curriculum designs.



3. Describe the problem-centered curriculum designs.
4. Outline the Tyler's model of curriculum development.
5. Summarize the Hilda Taba's model of curriculum development.
6. Describe the nature of the curriculum process.
7. Establish the importance of formulation of objectives in curriculum development.
8. List the criteria for the selection of content
9. What are the three modes of learning?
10. Explain the principles of organizing and integrating content and learning experiences.
11. What are the three levels of objectives?
12. Briefly describe the three levels of selection of content with the help of examples.
13. Write a note on assessment of educational need.
14. How can knowledge about the process of curriculum construction enable the teacher to improve the teaching-learning process?
15. What do you mean by measurement and evaluation.
16. Explain the guidelines for formulating educational objectives.
17. Discuss the criteria for the selection of content.

### **Reference Books**

1. Bhati, B.D. and Sharma, S.R. (1992) *Principles of Curriculum Construction*, Kanishka Publishing House, Delhi.
2. Ghosh, P.P. (2004) *Effective Curriculum Construction*, Pioneer Publishers, Jaipur.
3. Kumaraswami Pillai, K. (1980) *Curriculum Teaching and Evaluation*, Sivakami Printers, Annamalai Nagar.
4. Ornstein, C. and Hunkins, P.F. (1988). *Curriculum Foundations, Principles and Issues*, London, Prentice Hall International Ltd., U.K.
5. Saylor, J.G. and Alexander, W.M. (1973) *Planning Curriculum for Schools*, Holt Rinehart and Winston, Inc., New York.
6. Tanner, D. and Tanner, L.N. (1975) *Curriculum Development: Theory into Practice*, Macmillan Publishing Co. Inc., New York.

## UNIT-8 RESOURCE OF CURRICULUM

### Objectives

- Students to know their communities, value. language, Educational goals through knowledge
- Students to know about importance of school time table, syllabus, textbooks, and co-curricular activities
- Analysis various sample of text books, children's literature and teacher hand book

### Introduction

All knowledge is fragile, and no person can know everything. What is known, the facts and certainties of knowledge, are organized into bodies of knowledge, like geography, that are constantly changing. Knowledge, what humans come to know, begins in vicariously created, scattered, discrete human consciousness. It is also social and culturally created because it is "human" knowledge.

Psychologist Jerome Bruner points out in *Acts of Meaning* (1990) that individual human knowing of the world and self is culturally embedded. As a cumulative entity, knowledge is part of the cumulative overarching knowledge of all human social and cultural consciousness. Knowledge is held in common and shared, a synthesized knowledge that provides ways to understand and comprehend the world.

Students in schools study knowledge that is packaged and ready to be learned. In colleges and universities, students invest extensive amounts of time in specialized chunks of it called majors or, more specifically, disciplines of knowledge. In studying a body of knowledge, they encounter the theories, philosophies, history, methods, perspectives, and inquiry traditions that form the core content of a discipline.

Knowledge can be generally categorized in different ways. Dividing knowledge into the informal and the formal is one way. Informal knowledge is held personally, often without being verifiable or made credible in other ways. It is what you know and use to guide your thinking and behavior. It may not be proven or validated but it is useful because it works in satisfactory ways.

*Informal knowledge*, personally held, is your own creation and not necessarily held to be the same by another person. Although two person may share informal knowledge, each may know it differently. It can also be cooperatively known with others, such as the distinctive personal walk-about knowledge: ways to behave, rules, the ordinary social and cultural acquired things that guide

our daily ways of living and participation in the public life. In schools, it is the classroom rules and the unspoken but assumed appropriate set of behaviors for walking about, going to the rest room and the library, and speaking to others.

As a second, general kind of knowledge, formal knowledge is collectively organized and specialized, forming sanctioned body of knowledge for anyone to acquire and use. Formal knowledge is proved, standardized, and useful because it is true and applicable under specifiable conditions. It has been proved or validated as formal knowledge through a consensual confirming process. That is why you could verify an answer from the knowledge base in geography. This formalizing is often referred to as knowledge production and use (Eraut, 1985) and represents a cycle of action forming a process that certifies its use as suggested in the knowledge cycle (Rich, 1981; Short, 1973).

It can be the formal applied knowledge of the electrician, the plumber, and the farmer, or the commercial knowledge of the shop owner and real estate agent, validated in applied activities. It can be technical knowledge used by the engineer, the draftsman, or the architect. IT is also the academic and professional knowledge of the professor, researcher, and other scholars, a created body of facts, concepts, ideas, procedures, and multiform data held together by a system or thought.

In each case, the knowledge creation occurs in a culture of disciplined work. This is particularly important for the formal knowledge that underlies the work of teachers, medical personnel, lawyers, and others in the pursuit of science. Curriculum also exists as a body of formal disciplined knowledge in the field of education.

## **Syllabus**

- Curriculum based on a thorough knowledge of the students and their communities, Their values, their language and their educational goals
- Time table, syllabus, text books and co-curricular activities
- Critical analysis of various samples of text books, children's literature and teachers' Handbook.

## **Curriculum and community:**

Accordingly they can best be understood by categorizing them on these bases: the conformists, the reformers, the futurists, and the radicals.

***The conformists:*** The conformists believe that the existing order is good one-the best of all possible worlds. While problems obviously exist in that social order, in the eyes of the conformists those problems are of lesser consequence and can be handled by mature adults. Accordingly, the essential task of the curriculum is to indoctrinate the young: help them understand the history of this society, teach them to value it, and educate them to function successfully in it. Curriculum workers with a conformist intent begin curriculum development by identifying the needs of the existing society and its institutions; curriculum objectives are derived from those needs. The teacher is usually expected to serve as a advocate for the free-enterprise system, helping students understand why it is so much better than competing systems.

***The Reformers:*** Those classified as reformers see society as essentially sound in its democratic structure but want to effect major reforms in the social order. The major vehicle is the curriculum: course should be developed that will sensitize students to emerging social issues and give students the intellectual tools they need to solve social problems. Thus curriculum workers should begin ***the task of curriculum development by identifying social problems.*** ***Those social problems-such*** as racism, sexism, and environmental pollution-then become the center of classroom activity. The teacher is expected to play an active role in identifying the problems, in “raising the consciousness” of the young, and in helping students take actions to bring about the needed reforms.

***The Futurists:*** Rather than being attuned to the present problems of the society, futurists look to the coming age. They analyze present development, extrapolate from available data, and posit alternative scenarios. They highlight the choices people have in shaping this coming age and encourage the schools to give students the tools to create a better future for them. In a sense, they might be described as reformers intent on solving the problems of the year 2020. In their view, the school curricula should have such a futurist orientation, focusing on the developments likely to occur and involving students in thinking about the choices they have and the consequences of the choices they make. Rapidly advancing and clear-cut new technologies will force schools to change rapidly. Gradual improvements of the educational process will not suffice.

***The Radicals:*** one of the leading exponents of such an approach is Paulo Freire (1970), the Brazilian educator whose pedagogy of the oppressed made a significant impact on radical educators in this country. In Freire’s view, the goal of education is conscientization, a process of enlightening the masses about inequities inherent in their sociocultural reality and giving them the tools to make radical changes in that social order that restricts their freedom. He makes the process explicit in

explaining how he teaches reading. Adults learn to read by identifying words with power-words such as love and person that have pragmatic value in communicating with others in the community.

They create their own texts that express their perceptions of the world they live in and the world they want. They learn to read to become aware of the dehumanizing aspects of their lives, but they are helped to understand that learning to read will not guarantee them the jobs they need.

***Language and value:*** values it seem to be primarily engaged in what might be termed “educational consciousness-raising,” attempting to sensitize educators to the values issues that lie at the hearts of both the hidden and the stated curricula. Their intent is primarily a critical one; thus they sometimes have been identified as “critical theorists.” Because many have argued the need for reconceptualizing the field of curriculum, they often are labeled as reconceptualists.

In their inquiries, value-oriented theorists tend to examine issues such as the following:

1. In what ways do the schools replicate the power differentials in the larger society?
2. What is the nature of a truly liberated individual, and how does schooling inhibit such liberation?
3. How do schools consciously or unwittingly mold children and youth to fit into societal roles predetermined by race and class?
4. As curriculum leaders determine what constitutes legitimate knowledge, how do such decisions reflect their class biases and serve to inhibit the full development of children and youth?
5. In what ways does the schools’ treatment of controversial issues tend to minimize and conceal the conflicts endemic to the society?

The major value-oriented theorists

***James macdonald:*** Basic to all his work is his view of the human condition. Central to that human condition is a search for transcendence, the struggle of the individual to actualize the whole self. Much influenced toward the end of his career by the writings of Carl Jung, Macdonald (1974) used almost mystical metaphors in “A Transcendental Developmental Ideology of Education” to speak of this journey toward transcendence as the primary concern of all humans.

Although Macdonald has been criticized for being too mystical and vague, the cumulative effect of his work has been to challenge curriculum leaders to rethink their basic assumptions

and to conceptualize their field. In his view, the curriculum offered by most schools is seriously of autonomous and self-actualizing individuals.

**Michael Apple:** Michael Apple is a critical theorist who seems to be concerned primarily with the relationship between the society and the school. Central to Apple's (1975) critique of the society and its schools is his use of the term hegemony to mean an organized assemblage of meanings and practices, the central effective and dominate system of meanings, value, and actions which are lived. Hgemony in this sense permeates the consciousness of the society as a body of practices and a set of meanings determined by the dominant culture.

One crucial way in which this cultural hegemony influences educators is in their perception of science. In this telling critique of what might be termed "educational pseudoscience." Apple (1975) noted that almost all educators reply on a narrow and strict view of sciences, one that values only rationality and empirical data in this service of predictability and control and that ignores the close relationship between science and art, science and myth.

### **Language and curriculum:**

The humanities are home to language. A useful definition of language is a process of symbolic interaction, a deceptively simple explanation of human interacting using conforming symbols of sound and sight or utterances by tongue and voice. Languages such as Spanish, English and happiness come to mind, perhaps as part of your curriculum experience. Language are formed of alphabetic symbols arranged in patterns. Understanding that patterning is called linguistics, or the study of the way that any language is structured, the elements that make it up, and their functions. Think of the familiar alphabet you are using, which is essential for most languages.

Range further over the language landscape and you find different alphabets and different languages, the Cyrillic alphabet of Russian, the Arabic alphabet of Middle Eastern languages and alphabets for languages in China and Japan. There is another side to language, and that is language of movement: body posture; a gesture; voice intonation; and culturally expected movement, as in a bow or diverting of the eyes, which an utterance or other movement, convey unspoken social and cultural meaning as part of the language of interactions.

Classrooms are places of language as symbolic interactions, alphabetic patterns, enriched by movement such as a look given by a leaner, body posture, or a particular intonation or utterance. In the classroom and curriculum materials, symbols are encoded in pictures, images and spoken or illustrative representations as well as printed language. Language gives expression to love, grief,

caring, and other emotions: it is not just formalized language but the social and cultural dimensions that make language so important in being human.

### **Curriculum and their Goals:**

Curricular goals are those outcomes that the school system hopes to achieve through its curriculum. Here it is important to make a distinction between educational goals and curricular goals. Educational goals are the long-term outcomes that the school system expects to accomplish through the entire educational process over which it has control, as Brown (2006) found a survey that was conducted with educators, parents, and employers as to what type of skills they believed students should be developing. The following is a prioritized list of survey responses:

1. Critical-thinking skills
2. Problem-solving strategies and effective decision-making skills
3. Creative-thinking processes
4. Effective oral and written communication skills
5. Basic reading, mathematics and writing abilities
6. Knowledge of when and how to use research to solve problems
7. Effective interpersonal skills
8. Technology skills
9. Knowledge of good health and hygiene habits
10. Acceptance and understanding of diverse cultures and ethnicities
11. Knowledge of how to effectively manage money
12. Willingness, strategies, and ability to continue learning.

### **Meaning of Time-Table:**

The School time-table is a chart which indicates all the activities undertaken by each member of the staff and the students in each class or on form or workshop at a particular time of the day when the school is functioning. It is the school mirror which reflects the school programme.

Time table is an outline of the days' work in a school which indicates:

1. Time of the beginning and ending of the school day
2. Time of beginning and ending of the school day
3. Subjects and activities being undertaken by students in each class, in each period and by an each teacher

4. Days on which every subjects is taught.
5. Name of the teachers teaching a particular subjects in a particular period and in a particular room.
6. Room or place where each activity is going on.
7. Recess Break or interval time.

### **Significance of the school Time-Table: Spark Plug of the School**

1. Brings System in the school: Without the time-table, there will be chaos and confusion all around in the school. In the school absence of the time table, the school life will come to a stand still and become a free for all affairs.
2. Eliminates wastage of Time and Energy: Undoubtedly all planned programme eliminate wastage of time and energy and it is equally true in the case of a school time-table. The entire school work is, by and large, equitably distributed among the members of the staff.
3. Ensures Due Attention to every subjects or activity: In framing the time-table, due attention is given to every subjects. Periods are allotted to different subjects according to their importance and their fatiguing nature.
4. Develops Moral Values: It helps to develop qualities like punctuality and regularity both in the teachers and the taught by placing before them a set programme of activities.
5. Ensures Regular and Even Progress: Regular and even progress is ensured because time-table prevent laxity and shortages.
6. Provides a psychological Environment: It has got a psychological value leading to the removal of fatigue which may occur due to prolonged hours of teaching and learning. It brings new motivation and stimulation to teachers and students.
7. Ensure Equitable Distribution of Time to Different Subjects and Activities: Time-table helps in avoiding the allotment of too much or too less work to one teacher.
8. Develop good Habits: It helps in developing regular habits of work in students as well as teachers.
9. Facilitates advance planning by the teachers and students: Time-table helps in chalking out plans in a systematic manner.
10. Ensures Efficiency: There will be no looseness, duplication of effort and repetition of items and activities. Everybody in the school system knows what to do at a particular time.



## **Form of a School Time-Table**

The form of a time-table depends upon the nature of activities carried on in a school. The more the number and variety of activities, the more types of time-tables. In an ordinary school four forms of time-table i.e.

1. Master Time-table indicating the entire programme of the school.
2. Class time-table.
3. Teacher's time-table.
4. Vacant period time-table.
5. Games time-table.
6. Co-curricular activities time-table.
7. Home work time-table.

### **General Considerations Underlying School Time-table Construction:**

The construction of a time-table makes large demands of the ingenuity and skill of the Head. Framing of a time-table is a time absorbing task. Some of the chief factors which determine the construction of a time table are:

1. Departmental regulations.
2. Type of school
3. Amount of time available
4. Relative importance of a subject
5. Incidence of fatigue
6. Principle of justice
7. Principle of variety
8. Principle of free period for teachers.
9. Principle of play and recreation.
10. Principle of optimum utilization.
11. Principle of local variation.
12. Principle of initiation.
13. Principle of elasticity.

**Flexibility of Time-Table:**

Many programmes have been evolved in progressive schools which provide flexibility and the common features are:

1. The instructional material is organized into larger meaningful units built around the needs
  - a. and interests of the students
2. There is provision for some long periods for partical activities.
3. There are certain “unassigned” periods in which the students may engage themselves in some worthwhile hobby.
4. There is no rigidly and the teachers are at liberty to alter the daily programme according to the special circumstances connected with the needs and interests of the students. Of course this has to be pre-planned and in consultation with other teachers so that they may accordingly modify their programmes.

**Syllabus:**

There has been some confusion between the syllabus and the curriculum. The syllabus is a defensible map of core skills, knowledge, competences, capacities to be covered, with affiliated statements of standards. Oxford English Dictionary tells us that the term syllabus has evolved to refer to a summary of what is to be taught and learned. The term was used to refer to a statement, a table of contents, or heads of study. The syllabus has traditionally been defined as an authoritative outline, schema or structure for courses of study.

In current terms, Westbury defines the syllabus as a guide or tool for teachers. We define the syllabus as an official map of a school subject. That is it provides teachers with a rationale and outline of the school subject in question to be taught and learned, and description of so operational ways of appraising standards for gauging student performance.

**Textbooks:**

The definitions for Textbooks are wide and varied. One common definition is that a textbook is a printed and bound artefact for each year or course of study (Encyclopedia of Education, 2008b). They contain facts and ideas around a certain subject.

Textbooks are not like other books. Today, textbooks are assembled more than they are written. They are not usually written by a single author, nor are they a creative and imaginative endeavor. They are, in fact, usually specially made by a corporation to follow a set standard

curriculum for a school system or larger organization, such as a province (Encyclopedia of Education, 2008b).

### **Pedagogy of Textbooks:**

Throughout the 19th and 20th Centuries, textbooks were used mainly as a static means to teach curriculum. The printed textbook has been the means with which knowledge is organized and distributed. They have served to gather a body of knowledge, a mechanism for introduction to learning and as a reference material (Bierman, 2006).

For at least a thousand years, the goal pedagogically for textbooks and school was the memorization of definitions, rules or other facts (Wakefield, 1998). In fact, for quite a long period, textbooks were undifferentiated by age. This allowed for older students to help younger ones, rather than a teacher who may have to work with students from very low grades to upper grades having to attempt to reach each grade level individually.

As time has passed, the textbook has become further entrenched in the educational system. However, current pedagogy has shown a further trend towards more balanced methods of instruction that still include the textbook.

### **The Present of Textbooks:**

Although there are many other learning materials available in this period, research in wealthy nations shows that the vast majority of teachers still continue to rely heavily on the textbook as their core teaching resource (Encyclopedia of Education, 2008b). This is in spite of the fact that the majority of textbooks still have a prescribed style of presentation and knowledge base that is in stark contrast to many advances in pedagogical research, such as Multiple intelligences, personalization of learning and Universal Design for Learning.

However, there is a movement towards understanding of knowledge to take the place of memorization. While lessons derived from textbooks may continue to dominate the classroom, much of the time these are augmented and coordinated with a full set of learning materials, such as audio and visual files, graphics, exercise books and computer access materials. These so called “learning packages” are replacing the basic textbook in many cases (Encyclopedia of Education, 2008b). Even while using basic textbooks, most of these now have an objectives section, to aid student in understating what knowledge they will be able to gain from this chapter and what skills they should garner from this unit. As well, understanding and extension questions at either the start or end of a chapter allow students to synthesize and cement their newly acquired knowledge.

Dramatic changes in technology have changed the relationship between information, students and their access. No longer can a static resource hold the student's attention, when they can access up to date information on any subject through an internet connection to the Internet (Bierman, 2006).

As well, a concern with the static textbook is that it is not accessible to all students. One reading level for all is not designed to provide learning to students with learning disabilities or even physical handicaps, such as students who are blind or have low vision. Textbooks publishers are increasingly providing digital copies of their texts and activities, so students can access them through screen readers and other specialized Assistive Technology (Stahl, 2004)

### **The Future of Textbooks:**

As the nature and accessibility of knowledge continues to change and grow, the textbook will have to continue to change as well. Textbooks will have to change from being a static printed volume to negate being out of date as soon as they are in the hands of students.

Textbooks should continue to grow into guides for both students and teachers, coordinating different resources from animations and simulations to interactive exercises. These will include electronic interfacing, and focus on developing critical thinking skills rather than the transmission of knowledge (Cunningham, Duffy, & Knuth, 2000).

### **Characteristic of Good Textbook:**

1. ***Adequate Subject Matter:*** It should be based on psychological needs and interest of the students, Pupils' environment, age of the students, link with the indian culture and tradition, varied topics and practical utility as well as informative.
2. ***Style:*** The style should be based on the maxims of simple of difficult, known to unknown, concrete to abstract. Logic manner should be adopted for the presentation of subject matter. The style should appeal to the readers.
3. ***Suitable vocabulary and structures:*** The vocabulary should be controlled. It should be properly selected and graded. The introduction of vocabulary should be progressive within series of readers. The new words and structures should be repeated. Every reader should give an index of words and structures at the end. At the end of the book, a glossary of difficult words and structures should be given.
4. ***Pictures and illustrations:*** The illustrations should make the subject matter clear. The should be sufficient inNumber. The readers for junior level should have illustrations

occupying more space and quite large in size. The should be attractive. Too many ideas should not be conveyed in one illustration

5. **Developing language skill:** It should provide necessary facilities for developing the necessary language skills of speaking, reading and writing in the young learners.
6. **Proportion and order:**A lesson should not be very long. There should be plausible proportion between prose, poetry bibliography, lesson etc. Two topics of the same kind should not be in continuation. Proportion of content and structural words should be maintained
7. **Exercises:** There should be sufficient number of exercises at the end of every lesson. The instructions about the exercises should be brief and clear. Varied exercises should be presented. Exercises should be well selected and graded.
8. **Opportunity of oral work:** It should provide sufficient opportunity for oral work. The lessons should be based on the possibility of introductory oral work.
9. **Technical Characteristics:** Paper should be of good quality. Printing should be attractive. Size of the type should be bold for juniors and small for seniors. Binding should be proper. The cover should be thick and durable with some interesting illustration over it. A jacket should be added to the cover. The book should be handy. Price should be moderate.

## **Co-curricular Activities**

### **Meaning and Concept of Co-curricular Activities:**

Co-curricular activities otherwise called extracurricular activities, are defined as all student activities outside the curricular including all non-curricular activities. These activities consist of various endeavors that students can become engaged in to develop their interests, gain skills and contribute to the community. These activities develop various facets of the personality development, facilitate in the development of various domains of mind, intellectual development and aesthetic development. Creativity enthusiasm, energetic, leadership qualities, positive thinking are some of the facets of personality development which are the outcome of these activities.

A Co-curricular activity is defined as program, which provides curricular-related learning and character building experiences. Activities that are carried out inside the classroom, in the laboratory or in the workshop and have reference to the prescribed courses are called curricular activities.

## **Importance of Co-curricular Activities:**

The specific importance of these Co-curricular activities

- (1) ***Need –Based Education:*** Only teaching is not possible to fulfil entire needs of children. But Co-curricular activities are helpful for fulfilling the needs of the children. With creative good environment and proper guidance, co-curricular activities can develop various kinds of skills of the students in different areas.
- (2) ***In Physical development:*** Curricular work gives the children passive and physically inactive. But Co-curricular activities gives the children to help the normal growth and development of the body. Various kinds of games and athletic lead to the physical development of students. These are develops students health, body, stamina, and health habits.
- (3) ***Essential for emotional development:*** Nowadays most of the students are affected classroom stress that we have seen daily newspaper some students were struggle with their teachers, some students use dangerous weapon to beat their teachers etc. For this, Co-curricular activities must in the daily classroom activities.

## **Short benefits of Co-curricular activities:**

1. To a greater extent, the theoretical knowledge gets strengthened when a relevant co-curricular activity I organized related to the content taught in the classroom
2. Co-curricular activities stimulate playing, acting, singing, recitation, speaking and narrating in students.
3. Activities like participation in game debates, music, drama, etc., help in achieving overall functioning of education.
4. Co-curricular activities enable the students to express themselves freely through different activities.
5. Co-curricular activities help to develop the spirit to healthy competition.
6. Co-curricular activities guide students how to organize and present an activity, how to develop skills, how to co-operate and co-ordinate in different situations-all these helps in leadership qualities.
7. Co-curricular activities provide the avenues of socialization, self-identification and self-assessment when the child comes in contact with organizers, fellow participants, teachers, and people outside the school during cultural activity.
8. Co-curricular activities make students perfect in decision making.

9. Co-curricular activities inculcate the values to respects other's views and feelings.
10. Co-curricular activities develop a sense of belongingness, provide motivation for learning.
11. Co-curricular activities develop the values like physical, psychological, ethic, academic, civic, social, aesthetic, cultural recreational and disciplinary values.

**Different types of Activities organized in a school:**

**Physical activities:** Vivekannanda has rightly says – “What Indian needs today is not the Bhagawat Gita, but the football field.” So that we should need some Co-curricular activities for the Physical development. The activities include N.C.C, sports and games, athletic, exercise, gardening etc. These activities facilitate and develop the human bodies. Different activities like games, mass drill, cycling, gardening, etc. can be organized at primary level. These activities can help for physical development of the students. Students should be encouraged to participate in N.C.C, Boy Scouts, Girls Guide, etc.

**Social Activities:** A Number of co-curricular activities should be introduced in a school curriculum to provide training in group life. Junior Red cross, social education, labor squads N.C.C., N.S.S. Services on special occasion etc are some of the activities which are common in our school. These activities generally ae of two types. Some of these activities are administrative and provides social training. These activities may include student self-government, celebrating social and religious function, organization of school cooperative society or store and school bank, visit to civic institution i.e. assembly courts etc. The second types of social activities are related to social services-such as N.C.C., N.S.S., Red Cross society etc. Different service activities like school cleaning, watering plants, cleaning roads and helping the poor people at their need will help the students to develop service mentality. The children learn teamwork, social work an sacrificing individual interest for society through co-curricular activities. Another type of co-curricular activity is centered on the community, altruism and helping others. They can also involve contributing to environmental causes like local neighborhood clean-ups, campus clean -ups or tree-planting projects etc. Raising funds for a charitable cause by obtaining pledges or donations is another form of community service.

**Organization of school societies:** Societies like the history society, the literature society, the planning forum, the religious society, etc. Should be activated under the supervision for the headmaster and teaching staff. Separate periods being allotted for the purpose will have an indirect effect on their academic achievement.

School Excursion: School should plan excursion in the form journey to distant places, trips to historical sites, visit to factories, radio stations etc, it develops the outlook of the students' vision, enriches curricular experiences and supplements classroom learning. It gives them much new information and changes their attitude and interests.

**Educational activities:**

1. Creative and cultural activities
2. Leisure time activities and hobbies
3. Literally and academic activities
4. Organization of debates and discussion
5. Multipurpose activities and project

Note: Teachers should conduct any two or three activities given above.

**Principles of organizing of Co-curricular Activities:**

1. Proper Selection
2. Wide range
3. Definite and worthy objective
4. Growth of programme
5. Adjustment in the time table
6. Providing necessary facilities
7. Acquiring pupil participations
8. Opportunity for all
9. Specified time date and place
10. Providing guidance
11. Balancing teacher workload

**Challenges in Implementing Co-curricular activities:**

1. Parents
2. Teachers school administrators who place priority on academic
3. Infrastructure facilities that can be used for co-curricular activities in schools are also limited.
4. Lack of clear incentives
5. Interference with studies
6. Lack of staff



7. Lack variety
8. Defective time schedule

### **Role of a teacher in organizing curricular activities:**

The Teacher must be a good planner so that different activities of the organization could be carried out systematically throughout the year

1. It should be the duty of the teacher to give more and more opportunity to the child while performing co-curricular activities.
2. The Teacher should act as innovator by introducing some innovative programmes.
3. The teacher must be a good organizer so that the students experienced maximum of it.
4. He should too act like as director, recorder, communicator, coordinator, so that the student and child could gained maximum of finer aspects of co-curricular activities.

### **Critical analysis of Text Books**

#### **What is Textbook Analysis?**

Textbook analysis is the systematic analysis of the text materials including the structure, the focus, and special learning assists. Teachers may assume the text is "sacred" and follow it without thought or write it off as useless. Either approach is a disservice to students. Many textbook publishers and writers have developed texts with useful elements, if we are willing to figure out what they are.

#### **How can Textbook Analysis help your students?**

Students in the general learning population may have an easier time of "figuring out" how to use the textbook than those in the special education population. With help from the teacher, the text materials can begin to make more sense. If structure is explained students can get a better idea of where they are going in the course. If the teacher understands focus or bias, he/she can make additions or deletions as needed to keep the presentation balanced. If Learning assists are understood, they have a better chance of being utilized.

#### **How can you implement Textbook Analysis in order to effectively meet the diverse learning needs of students?**

When a new textbook is adopted, it can be helpful if you can hear what the sales staff has to say about the book. You will discover what their intent was with organization as well as with particular features of the book. If sales staff is unavailable, take a look at the promotional materials. See what they are proud of. It may be useful in your planning.

Study the Table of Contents to see the content scope and sequence. Have students look at this organization with the idea of figuring out patterns. Cooperative Learning groups can be effective in comparing observations. Organization may be simply chronology for a history text, but is the same period of time covered in the same number of pages? If not, why not? In Geography, are the headings all continents? Or are there some chapters on entire countries?

### **What are the different types of Textbook Analysis?**

There are many ways to analyze a textbook, depending on the intent of the analysis. Purchasers may want to know reading levels, costs, ancillary costs, etc. After the text has been purchased, however, the analysis by the teacher, which can help instruction include the Structure of the Text, the Focus of the Author, and the usefulness of the learning assists.

### **Definition of children's literature:**

Being classified as literature that is designed to help children to understand, and emphasize with, the world views and experiences of others, including other children (see, for example, Huck, Helper, Hickman & Kiefer, 2001; Saxby, 1997; Tomlinson & Lynch-Brown, 1996/2002)

**McDowell (1973) and Hunt (1996)**, the definition of children's literature includes explicit reference to intended readership. For them, the term 'children's literature' is applicable to books written for, and read by, that group referred to as 'children' by any particular society. It need not have any other specific characteristics or qualities.

**Lesnik-Oberstein (1996, p. 17)** who defines 'children's literature' as "a category of books the existence of which absolutely depends on supposed relationships with a particular reading audience: children".

### **Children's literature: Genre and text-type**

The words 'genre' and 'text-type' can be used in two very different ways. In line with traditional usage (particularly in literary contexts), a number of academic researchers use the word 'genre' to refer to socially constructed categories that describe written and oral texts such as, for example, novels, short stories, poems, lectures, and academic articles. Here, these are described as text-types, the term genre being reserved for the classification of texts according to primary communicative purposes such as instructing, explaining, arguing, describing, classifying and recounting. Texts may be mono-generic or multi-generic. Thus, for example, a text belonging to a particular text-type such

as a short story, may include a variety of different genres such as description, classification, explanation and recount (see, for example, Houia-Roberts, 2003).

According to Winch et al. (2004, p. 339), children's literature can play an important role in cognitive and linguistic development, providing "a locus for the activation of . . . speaking and listening skills, giving them purpose and direction", and a place "where children encounter in a non-threatening way a diversity of possible perspectives on philosophical issues, worldviews, social ideas, and cultural practices". If any of these essentially pedagogic functions are to be realized, teachers need to understand the organizational and linguistic characteristics of different genres and text-types in making selections and deciding on appropriate methodologies.

### **'Good' children's literature:**

Stewig (1980), whilst arguing that the most important factor in evaluating children's literature is the responses of children themselves, he notes that evaluation need not only be external (based on children's responses), but can also be internal (based on a set of pre-established criteria). So far as internal evaluation of children's storybooks is concerned, he includes characterization, dialogue, setting, plot, conflict, resolution, theme, and style, but makes no mention of illustration (pp. 13-15).

Hillel and Mappin (1995) state that evaluation criteria should include considerations of literary merit, challenge, readability and appeal, noting (p. ix) that "the elusive quality 'literary merit' is taken to include notions of beauty in visual or linguistic terms and the overall cohesion and harmony of the work". "challenge is considered in terms of the importance of the issues raised in each book, the seriousness with which they are treated and the intellectual dexterity that is called for to unpack the meanings embedded in the work".

### **Evaluative criteria of children's literature:**

Tomlinson and Lynch-Brown (2002) propose a series of evaluative criteria that relate to

*(a) fictional elements (p. 22),*

*(b) visual elements (p. 28) and*

*(c) nonfictional elements (p. 170).*

These evaluative criteria are outlined below.

### ***Fiction elements***

- ***Plot*** - A good plot produces conflict in order to build the excitement and suspense that can easily invite children to get involved.
- ***Characters*** - Characters must be memorable.<sup>1</sup> The main characters in an excellent work of fiction for children are fully-developed, undergoing change in response to life-altering events.<sup>2</sup>
- ***Setting*** - The setting is an integral part of a story, which includes time and place. Although setting is often vague in traditional literature for children, detailed descriptions of settings can be an effective way of engaging children's interest.
- ***Theme*** - Themes in children's books should be worthy of children's attention and should convey truth to them. Furthermore, themes should be based on high moral and ethical standards. A theme must not overpower the plot and characters of the story, however; children read fiction for enjoyment, not for enlightenment.
- ***Style*** - Style is the way in which an author tells the story; it is an aspect of the writing itself, as opposed to the content. Style should be appropriate in relation to content. The elements of style include word choice, sentence selection and book organization. The words should be appropriate to the story told; sentences should be easy to read but melodic, and the

### **Visual elements**

- ***Line*** - Lines are the stroke marks that form part of the picture. The line of a picture generally defines the objects within the picture. Artists may choose to use lines that are dark or pale, heavy or light, solid or broken, wide or thin, straight or curved, or have combinations of these elements. The lines of the picture should help to create and convey both the meaning and the feeling of the story.
- ***Color*** - Color can be described in terms of its hue, lightness, and saturation. Colors must be used to complement text. For example, soft warm tones are associated with calmness and contentment. Colors should change appropriately according to the story lines. If the events and mood the story change during the course of the story, then the colors should change to reflect the shifts in the story.<sup>3. 4</sup>
- ***Shape*** - Shapes are evaluated for their simplicity or complexity, their definition or lack of definition, their rigidity or suppleness and their sizes. For example, negative or blank space may be used to highlight a particular object or to indicate isolation or loneliness. The shapes in a picture,

the spaces surrounding the shapes and the proportion of objects in relation to one another are important aspects of non-verbal messages.

- **Texture** – Texture conveys the impression of how a pictured object feels and can add a sense of reality to illustrations. Textures can be rough or slick, firm or spongy, hard or soft, jagged or smooth.

- **Composition** - Composition includes the arrangement of the visual elements within a picture and the way in which these visual elements relate to one another. The compositional characteristics of illustrations can help to convey an overall sense of unity and can reinforce aspects of textual meaning.

### **Non-fiction**

- A clear, direct, easily understandable style is critical
- Captions and labels should be clearly written and informative
- Facts should be accurate and current.
- Personification should be avoided
- Attractive presentation
- Movement from known, simple and general to unknown, more complex and specific
- Stereotyping should be avoided
- Format and artistic medium should be appropriate to the content
- Depth and complexity of subject treatment must be appropriate for the intended audience

### **Children's literature: Language features**

The majority of those who have written about children's literature have done so with children for whom the language of the text is a first language in mind. as in many other countries, many children are exposed to literature written in their mother tongue literature written in the primary language of scholastic instruction literature that has been translated from another language into their first language and/ or the primary language of scholastic instruction, and literature written in other languages such as, for example, English. Many of the books to which they are exposed that come into the first three categories are story books (including picture story books), but those that come into the fourth category involve a range of different genres and text-types, including, for example, the types of text to which Tomlinson and

## **Teachers' Handbook:**

### **Teachers' (Code of Ethics) Regulations:**

#### Code of Ethics

- The Teacher's responsibilities to the Pupils in his/her care
- The teacher shall give foremost consideration to the pupil's Well-being.
- The teacher shall direct his/her whole professional effort to assist the pupil to develop his/her whole personality including his/her ability to work.
- The teacher shall foster in his/her pupils honesty, integrity, and consideration for others and shall do nothing, by precept or example, to discredit these qualities.
- The teacher shall act, and shall be seen to act, with justice.
- The teacher shall exercise authority in accordance with the law of the land and with evolving concepts of the pupil's needs and rights.
- The teacher shall recognize that each child is an individual and that children can differ in what is required for the promotion of their education.
- The teacher shall recognize an obligation to assist all pupils under his/her charge to develop their talents suitably and to the fullest extent feasible.
- The teacher shall recognize that s/he should work with parents to promote the welfare of pupils, particularly by consulting and involving parents, whenever this is desirable
- The teacher shall make reasonable effort to protect the pupil from conditions harmful to learning or to health and safety.
- The teacher shall not intentionally expose the pupils to embarrassment or disparagement.
- The teacher shall not use professional relationships with pupils for private advantage.
- The teacher shall not disclose information about pupils obtained in the course of professional service unless such disclosure serves a compelling professional purpose or is required by law.

#### **The Teacher's Responsibilities to his/her Colleagues and the Teaching**

##### **Profession**

- The teacher shall respect the professional standing and opinions of his/her colleagues and shall maintain in his/her relations with them the highest standards of professional courtesy.
- The teacher shall be prepared to help in all possible ways junior colleagues and those in training.

- The teacher shall accept the authority of senior professional colleagues while retaining the right to express professional opinion.
- The teacher shall recognize his/her obligation to advance the causes of education and hence the causes of the teaching profession.
- The teacher shall recognize his/her obligation to improve his/her effectiveness as a teacher in every possible way.
- The teacher shall recognize his/her responsibility for his/her own actions and judgments and s/he shall be prepared to stand by their consequences.
- The teacher shall recognize his/her duty to manifest responsibility, individual initiative and integrity in his/her teaching and other professional actions within guidelines laid down for the profession.
- The teacher shall not knowingly make a false statement concerning the qualifications and competence of a candidate applying for a position.
- The teacher shall not accept gratuity, gift or favour that might impair or appear to influence professional decisions or actions.
- The teacher shall not attempt to influence the Minister, the Education Directorates, or an educational board on matters affecting teachers unless so expressly requested by the Minister, Directorates or educational board in his/her official capacity.
- It shall not be correct for any senior professional colleague or any teacher to censure other teachers or to criticize their working the hearing of pupils and/or the general public.
- In the profession, his/her school or the department in which she works into disrepute.
- The teacher shall appreciate that, while as a professional person/s/he must accept responsibility for his/her actions, his/her duty shall be to carry out reasonable instructions from senior professional colleagues. The teacher shall have the right to protest against instructions.

### **The Teacher's Responsibilities to the Parents of his Pupils and to the Community**

The teacher shall recognize the right of a parent to consult him/her, through proper channels, on the welfare or progress of a pupil. The teacher shall recognize the right of a Parent to be consulted about any matter which concerns the future development of his child.

The teacher shall do nothing to undermine lawful parental authority, but shall be prepared to give advice which, in his/her professional view is in the best interest of the pupil.

The teacher shall make every effort to encourage parents to interest themselves actively in the education and welfare of their children. The teacher shall act within the community in a manner which enhances the prestige of the profession.

**Style of teaching:**

1. a calm, relaxed facial expression is characteristic of an effective teacher
2. resist any temptation to use physical contact as a means of controlling disobedience or unruly pupils;
3. be sure to control your anger by dealing with pupils in a positive and  
▪ Assertive manner.

**Question for discussion or reflection:**

1. As a Teacher- Educator how to analyse the text books and its syllabus.
2. Write about need and significance of teachers' hand book.
3. Why co-curricular activities need in the school curriculum.

**References:**

- Abbot, J., Ryan, T. (1999). Constructing knowledge , reconstructing schooling.
- Educational leadership, 57(30), 66-69.
- Apple, M. W. (1975). Scientific interests and the nature of educational institutions.
- In W. Pinar(Ed.), Curriculum theorizing: For reconceptualists(pp.120-13). Berkeley, CA:McCutchan.
- Allan A. Glatthorn. FlyodBoschee. Bruce M. Whitehead. (2009). Curriculum Leadership: *Strategies for Development and Implementation*.
- Aggarwal, J.C. (2010). Organisation and practice of modern India education
- Thomas W. Hewitt. (2006). Understanding and Shaping Curriculum: What We Teach and Why.

**UNIT-9 CURRICULUM AS PROCESS AND PRACTICE**

**COURSE OBJECTIVES:**



At end of the course the student teacher will be to

- acquires knowledge of the Curriculum
- understands about personnel participated in development of curriculum
- applies the knowledge in meritocracy and its impact on curriculum
- develops skill in recreation of norms in society.

## INTRODUCTION

The word curriculum originated in ancient Rome and meant a chariot race course. Imagine Julius Ceaser talking about which team of horses, driver, chariot would run the curriculum fastest.

Today we talk about the school curriculum and curriculum guides which are documents from the results of planning and development. Therefore, are these documents the curriculum? Or what is a definition of curriculum?

Curriculum probably has a greater variety of definitions than any other word used in education.

- Is curriculum *everything* that happens within the school, including extra class activities, guidance, and interpersonal relationships.
- Is curriculum that which is taught both *inside* and *outside* of school *directed* by the school.
- Is curriculum everything that is *planned* by school personnel.
- Is curriculum a *series of experiences* undergone by learners in school.
- Is curriculum that which an individual learner *experiences as a result of schooling*.

Generally, curriculum as a set of subjects, you face a much simpler task than the school that takes upon the responsibility for all experiences the learner has both inside and outside the school.

## CURRICULUM

“**Curriculum**” is a term used in a number of related ways.

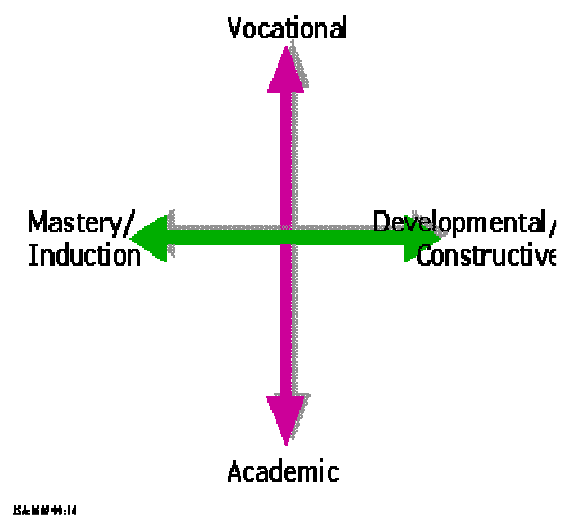
- First, it can refer to the overall content of what is to be taught, which specifies the content of by far the largest part of compulsory schooling.
- Second, it can refer to the underlying principles of the approach to teaching and learning, as in a "developmental curriculum" or a "competency-based" curriculum.

- Third, it can embrace both elements, and refer to the overall "what", "how" and "why" of teaching. Note that on the whole it is a "teaching side" — rather than "learning side" — term.

### Forms of Curriculum

For our present, practical purposes, we can let the form (if not the content) of the curriculum be dictated by the question, *"What are you teaching this material for?"* Students have a variation on this: *"Why do we have to learn this?"*

We can set up a model which works along two dimensions: (click on the labels if you want to go straight to the associated notes)



The teacher is required to achieve the aims of education. For that purpose, he has to employ suitable instructional methods and procedures.

But this he/she can do only when he knows what efforts he is to make and in what order. In other words, he should know the content of curriculum which consists of subjects, activities and experiences in the properly graded form. Curriculum is in fact the 'warp and woof' of the whole educational process.

### Curriculum process

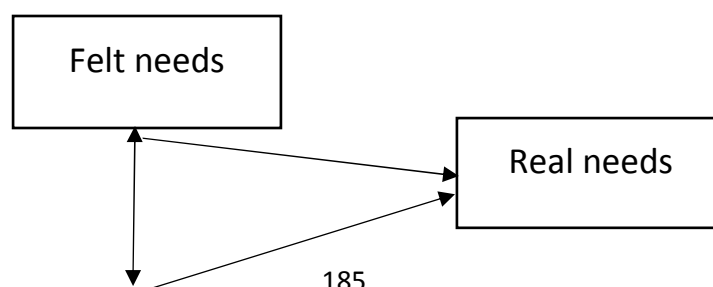
The curriculum process consists of the following six phases:

1. Assessment of educational needs
2. Formulation of objectives
3. The selection of learning experience to attain these objectives
4. The selection of content through which learning experience may be Offered.
5. The organization and integration of learning experience and content and Content with respect of the teaching learning process
6. Evaluation of all

### **First phase: Assessment of Educational Needs**

Curricula are formed to enable students to learn socially desired behaviours. Because the background of students differ, it is essential to diagnose the gaps, deficiencies and variations in these backgrounds. Need assessment is an important first step in determining what the curriculum should be for a given population during a particular period of time. The curriculum developers should, therefore, identify the target students and prepare their profile.

There are two means of need assessment. First, the curriculum developers assess educational needs through specially mounted surveys. They go to the field (the target group) and study the areas where educational inputs are required. Besides educational needs, they also collect background information about the target group. The needs assessed through field studies are known as felt needs. The second means of needs assessment is the analysis of existing data, such as education commissions' reports, Government policies, etc. The policy documents can provide useful guidelines for framing curriculum. Similarly, every institution has its objectives to be achieved. The priority areas can be identified from the secondary sources. The needs assessed through the secondary sources are known as observed needs. Considering the potential and limitations of the education systems (i.e., what the education system can do to achieve/ meet the needs of the target group), the curriculum developers can prepare a list of priority areas, know as real needs, after thorough analysis of the felt and observed needs.



Observed  
needs

### **Second phase: Formulation of objectives**

The effective development of curriculum depends on the feasibility of deriving specific and particular objectives from the general aims. In the process of defining specific aims we have to spell out of the ultimate goals, mediate goals and finally the proximate goals. The ultimate goals are the expected outcomes of categories of behaviour. They can be understood by an analysis of records of behaviour and generalization about it. The ultimate aims may be considered as the expected end products of an education carried out over a period of time. They are the kinds of behaviour that the educator expects the students to exhibit as a result of education they have received. In other words they are the statements of desirable acts, feelings, attitudes and knowledge in a pattern and exhibited in an appropriate situation.

Mediate goals are the modes of expected behaviour over the education period during different stages. The patterns of behaviour change from one age to the other. The behaviour expected of a fifteen years- old pupil cannot be accepted of a ten- year old pupil. Mediate goals are the statements of intended behavior in different situations at different stages.

Proximate goals are concerned with the classroom. They may be said to be most specific statements of intended, behavioural outcomes possible in a classroom situation. Even though they are specific, they are not discrete but linked with the other phases of the curriculum process.

### **Third phase: The selection of learning experience**

After the aims and objectives are defined, we must think of the appropriate means which are required in order to achieve the ends. The means of securing behavioural changes are through learning experiences. The learning experiences may be put into certain categories. Thus classification pertains to three areas viz. Physical, mental and emotional experiences. Physical experience is concerned with conation (faculty of will). Mental experience is concerned with cognition (faculty of knowing) and thinking activity. Emotional experience is concerned with affection (faculty of feeling) and act of value clarification or value building.

The relationship between a learning experience and the resulting behaviour is a conditional one. The relationship is dependent on the existence of several other conditions. Therefore, the learning experience should be chosen very carefully.

These experiences may differ from goal to goal as mentioned in phase one. The teacher has to make use of his knowledge pupils in his class and the environment for selecting suitable learning experiences.

Emphasis on individual needs results in an activity-based programme, experience based programme, self-directed learning, affective learning whereas emphasis on social needs results in a core programme.

The term learning experience connotes learning activities which shape the learner's orientation to the content and ultimately their understanding of it. In essence, it refers to the teaching-learning process the methods followed and the activities planned to facilitate the teaching-learning process. Various teaching methods are used by teachers such as, inquiry strategies, lecture, panel discussion, team teaching symposium, seminar, conference, tutorial, discussion, project, demonstration, etc. Similarly there are various learning activities, such as viewing working on assignments, interacting with computer programs, participating in discussions, listening to speakers etc. The teaching methods generate learning activities. Teaching methods and learning activities are two sides of the same coin. Some curriculum planner differentiate content from experience. They should remember that content and experiences do not exist independent of one another. On the contrary, both content and learning experience comprise the overall curriculum.

#### **Fourth phase: the selection of content**

Curriculum deal with the question, what shall be included for purpose leaning? After that they deal with how to present or arrange the what that is selected for learning so that students can learn or experience it. In other words, first they deal with knowledge and content specifically, and then they deal with teaching, and learning experience.

Curricularists who view the world from a traditional philosophical posture discover knowledge by using their senses. Also to them knowledge is objective, it can be measured and therefore tests.

Those who view the world from a progressive posture invent knowledge according to their relationship with others and the environment. The meaning and truth of a child s experience depend on their relationship to the situations in which he/she is acting.

## **AN ENACTED PROCESS**

A third fundamental aspect of current curriculum theory noted by Smith focuses on curriculum as process. It places the emphasis on the interaction among teacher, student, parent, and knowledge rather than on syllabus and or on an end product. The focus is on what is actually taking place in the classroom as well as the learning process itself. Critical thinking, listening and communication are important components of process curriculum. Often an emphasis is placed on thinking about planning justifications of procedures, and actual interventions. As well as providing feedback and changes during the curriculum process.

One of the earlier curriculum planning approaches involved the instructional design process. The instructional design process often referred to as ISD. Emerged from psychology laboratories and helped establish the first systematic approach to the development of instructional materials and teaching strategies. Instructional design is the systematic development of instructional specifications using and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs. It includes development of instructional materials and activities and try out and evaluation of all instruction and learner activities (Shulman, 2003). Robert Gagne (1985) The conditions of Learning and theory of instruction and principal of instructional design (Gagne, Briggs, & Wager, 1992) describe this approach. Gagne (as cited in Willwerth, 2003) one said

### **Curriculum as praxis/Awareness**

The focus here is to create a differentiated learning environment that encourages students to engage their abilities to the greatest extent possible, including taking risks and building knowledge and skills, in what they perceive as a safe, flexible environment. In that regard a differentiated learning environment should do the following

1. Assess students before a unit of instruction to determine what they already know.
2. Adjust the core curriculum by content (below to above grade level) process (concrete to abstract) and product (simple to complex)
3. Provide assignments tailored for students of different levels of achievement.
4. Have high expectations for all students
5. Provide educational experiences which extend, replace, or supplement standard curriculum.

6. Have student participate in respectful work
7. Have students and teachers collaborate in learning
8. Put students in situations where they don't know the answer often
9. Differ the pace of instruction.

## **CURRICULUM AS PROCESS AND PRACTICE**

Curriculum planning is at the heart of school reform. The accountability movement has put responsibility of student achievement squarely on schools. As a part of this process, district policies and programs provide a framework that can help or hinder a school or school district's efforts to provide a high- quality learning.

Merely defining the aims of education is futile. There should be well planned efforts to achieve the aims of education. We must think of knowledge, activities, experiences and other influences which help in the achievement of aims of education environment for its students.

### **Curriculum need and Importance**

1. Achievement of educational aims;
2. Criteria of suitable teachers;
3. Selection of suitable methods;
4. Reflects trends in education;
5. Providing suitable knowledge;
6. Providing suitable activities and experiences;
7. Providing wholesome influences.

There are three main factors of educational process

**(a) The aims of education**

**(b) The curriculum**

**(c) The instructional methods.**

Curriculum enables the teacher to select suitable methods of teaching. 'How to teach' will be determined by 'what to teach'.

A second aspect of studying curriculum is to focus on the different types of curriculum practice and the setting in which they occur. This requires an exploration of the type of curriculum work and the multiple layers of institutions and agencies in which the various types of work are done, from schools and academic research setting to commercial publishing houses and federal and state governmental agencies. For example, what does the council of chief state school officers have to do with curriculum and what curriculum work do they carry out? What do you know about policy making or the role of the federal government in Washington in educational matters and particularly curriculum? Questions such as those frame the study of curriculum and help you to perceive the magnitude of existing knowledge to be understood, not only for teachers but for any one working in and with curriculum often the assumption appears to be that the created knowledge you are studying to become a practitioner derives solely from knowledge made by scholars and those who inquire about education generally or curriculum in particular. Practice knowledge from experience contributes an experimental, tentative knowledge that in the immediacy of the classroom life with the curriculum-in-use sustains practice and as it proves out enters into the knowledge base.

### **Reflects Trends in Education**

Curriculum is a means to achieve the aims of education which are dynamic and go on changing with the changing social requirements. Naturally, the curriculum will reflect the trends in education. For example, modern education places following demands on the curriculum:

- (a) **Providing Suitable Knowledge** - Curriculum should include suitable knowledge which will help in the achievement of aims of education.
- (b) **Providing Suitable Activities and Experiences** - Curriculum includes well selected activities and experiences needed for the development of pupils according to social requirements.
- (c) **Providing Wholesome Influences** - Curriculum should provide wholesome school programme to develop the desirable behaviour patterns in the pupils.

Thus curriculum is an important instrument or means to achieve the ends of education.

### **ROLE OF THE STATE IN THE DEVELOPMENT CURRICULUM**



## **Curriculum Development:**

Ever since the term curriculum was added to educators' vocabularies, it has seemed to convey many things to many people. To some, curriculum has denoted a specific course, while to others it has meant the entire educational environment. Whereas perceptions of the term may vary, it must be recognized that curriculum encompasses more than a simple definition. Curriculum is a key element in the educational process; its scope is extremely broad, and it touches virtually everyone who is involved with teaching and learning.

Curriculum development at the system level is usually of a “generic” nature, while ‘site-specific’ approaches are more applicable for the remaining levels. Moreover, the process of curriculum development can be seen as narrow or broad.

## **ROLE OF THE STATE IN THE DEVELOPMENT OF CURRICULUM**

### **State level curriculum implementation**

The available feedback from the states indicates that, for the most part, they have revised their curricula along the lines recommended by the 1986 NPE and 1988 NCF. However, several have made adjustments that respond to specific local needs or socio-political pressures. Following are some highlights that reflect the dynamics of curriculum implementation at the state level.

### **Language**

All states (except Tamil Nadu) have adopted the three language formula. Although it was envisaged that only one language (mother tongue or regional language) would be taught at the primary stage, many states have taken the initiative and introduced a second and third language at this level. For example, Punjab state recently decided to introduce English along with the regional language in class 1. In the state of Sikkim, English is taught as a subject and used as the medium of instruction beginning in class I. The policy of using English as the medium of instruction beginning in class I is being implemented in almost all the private, unaided schools throughout the county.

Another interesting variation encompasses classical language teaching an area that the NCF did not address. Most of the Hindi-speaking States, and even central school organizations, have made provisions for teaching Sanskrit as a third language. In fact, to accommodate the study of

Sanskrit along with other languages, some states have even made provision for the teaching of a Fourth language.

### **Other scholastic areas**

Several States have modified the NCF science and social sciences recommendations. For example, in place of the integrated science approach, they have opted for the teaching of history and geography only at the upper primary Stages.

### **Non- scholastic areas**

In India, work experience, arts and health and physical education are generally categorized as non- scholastic areas. The curriculum framework has emphasized that these areas are essential for all around development of the child's personality. However, being non-examination subjects. These areas are not taken seriously by the teachers and the students. In some states, Art's has not been made a compulsory subject at the secondary Stage. In the states and schools where arts are a compulsory or optional area, only the visual arts are taught. Performance arts like music and dance are taught only in a limited number of schools. In the states of Punjab, Haryana and Himachal Pradesh, arts have been clustered with home science and agriculture and the students have been given the option to choose anyone of these areas.

### **Values education**

The NCF also envisaged that values education should permeated all aspects of school life and, therefore, should be integrated into all the curriculum areas. However, States like Haryana, Goa, Himachal Pradesh, Karnataka, Punjab, Sikkim, Tamil Nadu, Andhra Pradesh and Uttar Pradesh have all introduced moral education or moral science as independent subject areas, with distinct time allocations. Apparently, this has occurred in the light of place that, given the progressive weakening of the moral fabric of society, the integrated approach does not provide values education with the prominent place it deserves.

### **Competency- based textbooks**

After the identification of MLL (minimum levels of learning) introductory advocacy programmes were launched to promote the concept as an approach to curriculum development, teaching and learning and pupil evaluation. A number of States have since produced primary-stage competency-based textbooks in different curricular areas.

Most school personnel think intrastate schooling matters are exclusively handled by their state department of education.

The respective roles of local, state and federal government in curriculum innovation and development in schools can be defined in general terms. Pupils and teachers meet at the local level, where final judgements are made on details of content and method. But teachers work within imposed limitations. The local school board has broad delegated authority to structure their work. The state has legal responsibility for provision of suitable education for all pupils, including minimum standards for instruction. The federal government touches the curriculum lightly with no direct legal authority to teach except in limited situations such as the military academics and in – service training for federal employees.

Curriculum improvement calls for procedures to locate and test new content and methods and making certain that innovations accepted for use will bring more educational gain than loss. Those who promote a “national curriculum” to insure the country’s safety or to satisfy the public interest reveals seek changes with more obvious emphasis on what they believe to be national interest.

## **MERITOCRACY AND ITS IMPACT ON CURRICULUM**

The "most common definition of meritocracy conceptualizes merit in terms of tested competency and ability, and most likely, as measured by IQ or standardized achievement tests." In government or other administration systems, meritocracy, in an administrative sense, is a system of government or other administration (such as business administration) wherein appointments and responsibilities are assigned to individuals based upon their "merits", namely intelligence, credentials, and education, determined through evaluations or examinations

A word coined by Michael Young (*The Rise of Meritocracy*, 1958) for government by those regarded as possessing merit; merit is equated with intelligence-plus-effort, its possessors are identified at an early age and selected for an appropriate intensive education, and there is an obsession with quantification, test-scoring, and qualifications.

In fact, meritocracy is just an extension of a general system of rewarding merit, and elements of such a system clearly have been present in one form or another throughout human history. There are, it can be argued, at least two different ways of seeing merit and systems of rewarding it.

1. *Incentives*: Actions may be rewarded for the good they do, and a system of remunerating the activities that generate good consequences would, it is presumed, tend to produce a better society. The rationale of incentive structures may be more complex than this simple statement suggests, but the idea of merits in this *instrumental* perspective relates to the motivation of producing better results. In this view, actions are meritorious in a derivative and contingent way, depending on the good they do, and more particularly the good that can be brought about by rewarding them.

2. *Action propriety*: Actions may be judged by their propriety--not by their results--and they may be rewarded according to the quality of such actions, judged in a result-independent way. Much use has been made of this approach to merit, and parts of deontological ethics separate out right conduct--for praise and emulation--independent of the goodness of the consequences generated.

In one form or another both these approaches have been invoked in past discussions of merit, but it is fair to say that the incentives approach is the dominant one now in economics, at least in theory (even though the language used in practice often betrays interest in the other categories--more on which presently). Although the praiseworthiness of "proper" actions is not denied in economic reasoning, the economic justification of rewarding merit tends to be grounded in consequences. Adam Smith (1776 and 1790) made this distinction forcefully and proceeded to provide one of the first systematic analyses of the use of incentive systems as they operate naturally in societies and how they can be further sharpened. The distinction between the propriety and merit of an action is described by Smith (1790, II.i.1-2, p. 67) in the following way:

There is another set of qualities ascribed to the actions and conduct of mankind, distinct from their propriety and impropriety, their decency or ungracefulness, and which are the objects of a distinct species of approbation. These are Merit and Demerit, the qualities of deserving reward, and of deserving punishment upon the beneficial or hurtful effects which the affection proposes and tends to produce, depends the merit or demerit, the good or ill desert of the action to which it gives occasion.

Indeed, the practice of rewarding good (or right) deeds for their incentive effects cannot but be an integral part of any well-functioning society. No matter what we think of the demands of "meritocracy" as it is usually defined, we can scarcely dispense with incentive systems altogether. The art of developing an incentive system lies in delineating the content of merit in such a way that it helps to generate valued consequences.

### **Merit Rewarding as a System**

The derivative character of merit leads us to the central question as to what the "valued consequences" are and how the success and failure of a society are to be judged. Once an instrumental view of merit is accepted, there is no escape from the contingent nature of its content, related to the characterization of a good or an acceptable society and the criteria in terms of which assessments are to be made.

Even though the typical "objective functions" that are implicitly invoked in most countries to define and assess what is to count as merit tend to be indifferent to (or negligent of) distributive aspects of outcomes, there is no necessity to accept that ad hoc characterization. This is not a matter of a "natural order" of "merit" that is independent of our value system. The dependent nature of merit and its reward has to be more fully understood to see the nature and reach of merit-based systems.

This dependence is the main reason behind the "standstill" that has to be overcome. There are also, however, other tensions that arise within the general approach of merit-based rewards. Actions are rewarded for what they help to bring about, but the rewarding is not valued in itself.

There is some tension also in the feature that the extent of inequality that an incentive-based system has to tolerate would depend crucially on what motivates people to act in one way rather than another. Various proposals for the development of cooperative values have been considered in this context.

### Meritocracy and Additional Features

The Fontana Dictionary of Modern Thought (1988), somewhat exaggerated the "extremism" of the chosen views of merit and its reward, but it drew attention to the fact that the idea of "meritocracy" must be seen as something quite a bit more demanding than the rewarding of merit according to some agreed criteria of social success.

There would seem to be at least three substantial departures from the kind of general system of rewarding meritorious actions they are:

1. *Personification and genetics*: In the incentive approach to merit, it is characteristic of *actions*, not of people as such. But conventional notions of "meritocracy" often attach the label of merit to people rather than actions. A person with standardly recognized "talents" (even something as nebulous as "intelligence") can, then, be seen as a meritorious person even if he or she were not to

use the "talents" to perform acts with good consequences or laudable propriety. This "personal quality" of merits sometimes gets invoked even in a largely incentive-oriented system of economic reasoning, with which the "personal quality" view is basically in conflict.

Some people are seen as being just more meritorious than others, and may indeed have been born more talented. In some versions of personification, the inborn talents are seen not only as being variable between one person and another (for which there may be considerable evidence), but also as distributed according to some other readily distinguishable characteristic, such as skin colour or the size of the nose (for which the evidence seems very problematic, to say the least). When used in this form, personification can encourage meritocratic acceptance of--rather than resistance to--inequalities of achievement (often along racial and ethnic groupings), which are present in many contemporary societies.

2. *Deserts and entitlement:* An incentive argument is entirely "instrumental" and does not lead to any notion of intrinsic "desert." If paying a person more induces him or her to produce more desirable results, then an incentive argument may exist for that person's pay being greater. This is an instrumental and contingent justification (related to results) --it does not assert that the person intrinsically "deserves" to get more.

Desert implies a very strict sort of entitlement, such that the title precedes and determines the selection, while qualification is a much looser idea. A prize, for example, can be deserved because it already belongs to the person who has given the best performance; it only remains to identify that person. Prize committees are like juries in that they look backward and aim at an objective decision.

When this idea of desert is combined with rewarding "talents" as such indeed, even the possession of talents (rather than the production of desirable results with them) the connection with the incentive rationale of meritocracies is fairly comprehensively severed.

3. *Distribution independence:* A system of rewarding of merits may well generate inequalities of well-being and of other advantages. But, as was argued earlier, much would depend on the nature of the consequences that are sought, on the basis of which merits are to be characterized. If the results desired have a strong distributive component, with a preference for equality, then in assessing merits (through judging the generated results, including its distributive aspects), concerns about distribution and inequality would enter the evaluation.

Since distributive concerns would come in only inter alia in these accountings, an incentive system of rewarding merits may still generate much inequality. Nevertheless, there would then be something within that consequential system of evaluation that would work, to a varying extent, against generating more inequality.

In mostly in modern meritocracy, however, the selected objectives tend to be almost exclusively oriented toward aggregate achievements (without any preference against inequality), and sometimes the objectives chosen are even biased (often implicitly) toward the interests of more fortunate groups (favouring the outcomes that are more preferred by "talented" and "successful" sections of the population). This can reinforce and augment the tendency toward inequality that might be present even with an objective function that, inter alia, attaches some weight to lower inequality levels.

None of these three additional features of meritocracy is necessary for a general system of rewarding merits on incentive grounds. What are often taken to be "meritocratic" demands have moved, in many ways, so far away from their incentive-based justification that they can scarcely be defended on the classic incentive grounds. These ad hoc additions call for close scrutiny, especially given the hold they have on popular discussions--and sometimes even professional deliberations--on this subject.

## **VALUING RITUALS IN SCHOOLS AND ITS CELEBRATIONS**

Traditions and rituals have a way of connecting people to each other and their heritage. When this happens, we feel part of something bigger than ourselves. Rituals and traditions also have a way of promoting understanding of other cultures or at least the experience of others. In the current education field there seems to be a movement heading towards educating the whole person or the realization that education is more than just imparting knowledge. It seems these traditions and the rituals that brought them to life have been around for a long time. Our culture teach by experience and guidance and viewed holistic experiences as the most valuable experiences.

Schools can certainly be a place where rituals and traditions are honoured and practiced, so that what the community values is evident and those that belong to the school community will feel connected and part of something bigger than themselves. Certainly, making a change to a ritual when it is considered necessary, after much consideration, is part of growth and reflection. When the changes in a school or education are born out of arrogance, convenience, expedience or greed, there is a tendency that important traditions and rituals that made the school unique are lost and the

community is left wondering what happened to their school, why are the students so disengaged, why don't the parents care... If the school you belong to does not have any rituals or traditions, consider starting one. It could be as simple as greeting people as you pass them in hallway or something more involved. If traditions and rituals exist, consider why they are there, the history of them, what message do they convey.

Now a days it has become a routine work of many schools to celebrate and value rituals.

## **RECREATION OF NORMS IN SOCIETY**

Social Norms are unwritten rules about how to behave. They provide us with an expected idea of how to behave in a particular social group or culture. For example, we expect students to arrive to class on time and complete their work.

The idea of norms provides a key to understanding social influence in general and conformity in particular. Social norms are the accepted standards of behavior of social groups. These groups range from friendship and work groups to nation states. behavior which fulfills these norms is called conformity, and most of the time roles and norms are powerful ways of understanding and predicting what people will do.

There are norms defining appropriate behavior for every social group. For example, students, neighbours and patients in a hospital are all aware of the norms governing behavior. And as the individual moves from one group to another, their behavior changes accordingly.

Norms provide order in society. It is difficult to see how human society could operate without social norms. Human beings need norms to guide and direct their behavior, to provide order and predictability in social relationships and to make sense of and understanding of each other's actions. These are some of the reasons why most people, most of the time, conform to social norms.

## **RELATIONSHIP BETWEEN POWER, IDEOLOGY AND THE CURRICULUM**

Ideology refers to the idiosyncratic and culture-bound ways of thinking and the prevailing ideas that characterize a person or a group. Terms like democracy, freedom, and civil rights reflect ideological considerations that are Judaic-Christian and European, hallmarks of western civilization. Curriculum taught in schools is an ideological product Ideology also enters into the



preparation of professionals. Earning a degree places you in classroom where faculties introduce different ideas about education and schooling There are the isms progressivism and constructivism.

Perspective on and understanding of these curriculum ideologies can have several benefits. First, when educators understand their own conceptual frameworks and the range of ideological options available to them, it can help them to more effectively clarify and accomplish their own curriculum and instructional goals. Second, when educators have perspective on and understand the range of philosophical beliefs that colleagues can hold, this can enable them to better understand the nature of curriculum disagreements that inevitably take place in schools, be more accepting of others, and more effectively work with people of differing opinions. Third, when educators understand the way in which language is used differently in each of the four ideologies, it can assist them in more effectively communicating and negotiating curriculum decisions with colleagues, curriculum committees, school boards, and their communities. Fourth, when educators have perspective on and understand the differences between the curriculum frameworks influencing the current public dialogue about education, it can facilitate their ability to more effectively contribute to the public debate about educational issues. Fifth, when educators have an understanding of the ideological pressures exerted on them by society and colleagues, this can help them put those pressures in perspective and minimize—as warranted—their influence (Cotti&Schiro, 2004). In addition, when working with others on curriculum, if educators can acknowledge and clarify the conflicts and tensions that exist among colleagues who hold different beliefs about education and who use words in different ways to express their beliefs, there arises the potential to enable those colleagues to better understand and appreciate their differences and to more constructively work together.

### The Curriculum Ideologies

The Social Efficiency ideology, the Scholar Academic ideology, the Learner Centered ideology, and the Social Reconstruction ideology are the names given to the curriculum ideologies.

The Scholar Academic Ideology Scholar Academics believe that over the centuries our culture has accumulated important knowledge that has been organized into the academic disciplines found in universities. The purpose of education is to help children learn the accumulated knowledge of our culture: that of the academic disciplines. Acquiring an understanding of an academic discipline involves learning its content, conceptual frameworks, and ways of thinking. Teachers should be mini-scholars who have a deep understanding of their discipline and can clearly and accurately present it to children. Scholar Academics assume that the academic disciplines, the

world of the intellect, and the world of knowledge are loosely equivalent. The central task of education is taken to be the extension of the components of this equivalence, both on the cultural level, as reflected in the discovery of new truth, and on the individual level, as reflected in the enculturation of individuals into civilization's accumulated knowledge and ways of knowing. An academic discipline is viewed as a hierarchical community of people in search of truth within one part of the universe of knowledge. The hierarchical communities consist of inquirers into the truth (the scholars at the top of the hierarchy), teachers of the truth (those who disseminate the truth that has been discovered by the scholars), and learners of the truth (students whose job it is to learn the truth so that they may become proficient members of the discipline). The aim of education for Scholar Academics is the extension of their disciplines by introducing young people into them. This involves making youth members of a discipline by first moving them into it as students and then moving them from the bottom of the hierarchy toward its top. Extension of a discipline is accomplished through the transmission of its knowledge and ways of thinking to students. The curriculum provides the means of this transmission, and it derives both its meaning and its reason for existence from the academic disciplines. Scholar Academics' major concern is to construct curriculum in such a way that it reflects the essence of their discipline.

The Social Efficiency Ideology Social Efficiency advocates believe that the purpose of schooling is to efficiently meet the needs of society by training youth to function as future mature contributing members of society. Their goal is to train youth in the skills and procedures they will need in the workplace and at home to live productive lives and perpetuate the functioning of society. Subscribers to the Social Efficiency ideology believe the essence of learners lies in their competencies and the activities they are capable of performing. Youth achieve an education by learning to perform the functions necessary for social productivity. Teachers manage instruction by selecting and using educational strategies designed to help learners acquire the behaviours prescribed by their curriculum. Instruction is guided by clearly defined behavioural objectives, and learners may require a lot of practice to gain and maintain mastery of skills. Social Efficiency educators' first job is to determine the needs of society (or another more specialized client). The things that will fulfil these needs are called the terminal objectives of the curriculum. Educators must then find the most efficient way of producing a product—the educated person—who meets the terminal objectives of the curriculum and thus fulfils the needs of society (or the client). Social Efficiency ideologists believe the most efficient achievement of a curriculum's terminal objectives results from applying the routines of scientific procedure to curriculum making. Central to Social Efficiency conceptions of scientific procedure is the assumption that change in human behaviour

(that is, learning) takes place within a fairly direct cause-effect, action-reaction, or stimulus-response context. This conception requires Social Efficiency educators to predetermine the relationships between cause and effect, action and reaction, and stimulus and response, and to predict the causes, actions, and stimuli (that is, the learning experiences) that will lead to the desired effects, reactions, and responses. Thus, three things that play an important role in the Social Efficiency ideology are the concept of learning (or change in human behavior), the creation and sequencing of learning experiences (the causes, actions, and stimuli which lead to the desired effects, reactions, and responses), and accountability to the client for whom educators work.

The Learner Centered Ideology Learner Centered proponents focus not on the needs of society or the academic disciplines, but on the needs and concerns of individuals. They believe schools should be enjoyable places where people develop naturally according to their own innate natures. The goal of education is the growth of individuals, each in harmony with his or her own unique intellectual, social, emotional, and physical attributes. Learner Centered educators believe people contain their own capabilities for growth, are the agents who must actualize their own capabilities, and are essentially good in nature. In addition, people are viewed as the source of content for the curriculum; their ends are considered to be the appropriate ends for the curriculum. This leads Learner Centered advocates to treat the concept of growth as the central theme of their endeavours. Growth of learners in terms of their unfolding in conformity .

## **Conclusion**

The Curriculum is the heart of schooling, the education process. Education and Curriculum are two sides of the same coin. The role of school is very important in the development of the student's carrier. So without curriculum process and proper planning the education system can't lift our growing society.

## **QUESTIONS FOR DISCUSSION AND REFLECTION**

1. Discuss on curriculum as process and practices.
2. Mention the important role of government in the development of Curriculum.
3. Write short notes on Curriculum.
4. What is Meritocracy and its impact on Curriculum.
5. What are the recreation norms in our society?

## **SUGGESTED READINGS**

1.Allan A.Glatthorn, Floyd Boschee, Bruce M.Whitehead,(2009),Curriculum Leadership strategies for development and implementation.

2.Thomas W.Hewitt(2006), Understanding and shaping Curriculum “what we teach and why”.

3. Vijay Kumar (2009), “Curriculum Development and Instructional Technology.

- <http://webserver3.ascd.org/handbook/demo/curricrenew/pocr/sectioni.html>
- [www.educationworld.com](http://www.educationworld.com)
- [www.edweek.org](http://www.edweek.org)
- [www.ed.uiuc.edu/EPS/educational-theory](http://www.ed.uiuc.edu/EPS/educational-theory)

## UNIT-10: CURRICULUM CHANGE AND INNOVATION

### OBJECTIVES:

At the end of the course the student teacher will be able to

- acquires the knowledge of need-based Curriculum
- understands about factors related to development and assessment of curriculum
- applies the knowledge in hidden curriculum
- develops skill in teaching strategies for developing resilience in children

### INTRODUCTION

In education, a **curriculum** plural: **curricula** or **curriculum**s is broadly defined as the totality of student experiments that occur in the educational process. The term often refers specifically to a planned sequence of instruction, or to a view of the student's experiences in terms of the educator's or school's instructional goals. In a 2003 study Reys, Reys, Lapan, Holliday and Wasman refer to curriculum as a set of learning goals articulated across grades that outline the intended mathematics content and process goals at particular points in time throughout the K–12 school program. Curriculum may incorporate the planned interaction of pupils with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives. Curriculum is split into several categories, the explicit, the implicit (including the hidden), the excluded and the extra-curricular.

#### **Need-based curriculum**

Before planning the curriculum, diagnosis helps in general analysis of problems, conditions and difficulties. The purpose is to generate a new emphasis and new ideas about the curriculum, by knowing thoroughly from various sources such as students cumulative records, teachers recordings, parents interviews, children's cases and their IQ achievement.

The need based curriculum is charged with high motivation for learning and as a result, student learn not only the content but also concomitant learning regarding values, skills, attitudes, appreciations, and so on. Thus, the curriculum helps to achieve ultimate goals of education. Nevertheless the curriculum has certain serious limitations. It is difficult to define the needs of individuals and of a group. As the curriculum focuses on needs of individuals, it may possibly fail

to train students to shoulder social responsibilities. Further, needs as “organizing centers” may not help the planner to cover the entire content matter through certain specified activities. Above all, need based curriculum discounts the structure of knowledge and method of discovery which are important aspects of any content area.

### **FACTORS RELATED TO DEVELOPMENT AND ASSESSMENT –**

1. **Curriculum evaluation.** The participant is guided through an analytical schema to plan the evaluation of curricula.
2. **Student assessment.** Participants examine considerations about student assessment that are regularly included in curriculum materials.
3. **Assessment of learning outcomes in specific content areas.** Strategies and special modalities for the assessment of learning outcomes are analyzed for content areas recently included in curricula.

Following these activities is a “Resources” section which contains a list of discussion papers and other resources referred to in the activities, and a series of additional reading materials.

### **Conceptual framework**

Curriculum evaluation is a necessary and important aspect of any national education system. It provides the basis for curriculum policy decisions, for feedback on continuous curriculum adjustments and processes of curriculum implementation.

The fundamental concerns of curriculum evaluation relate to:

- Effectiveness and efficiency of translating government education policy into educational practice;
- Status of curriculum contents and practices in the contexts of global, national and local concerns;
- The achievement of the goals and aims of educational programmes.

Student assessment is an important aspect of curriculum evaluation which helps to facilitate the understanding of the impact and outcome of education programmes. A fundamental measure of the success of any curriculum is the quality of student learning. Knowing the extent to which students have achieved the outcomes specified in the curriculum is fundamental to both improving teaching and evaluating the curriculum.

## **Curriculum evaluation**

The term “evaluation” generally applies to the process of making a value judgment. In education, the term “evaluation” is used in reference to operations associated with curricula, programs, interventions, methods of teaching and organizational factors. Curriculum evaluation aims to examine the impact of implemented curriculum on student (learning) achievement so that the official curriculum can be revised if necessary and to review teaching and learning processes in the classroom. Curriculum evaluation establishes:

- Specific strengths and weaknesses of a curriculum and its implementation;
- Critical information for strategic changes and policy decisions;
- Inputs needed for improved learning and teaching;
- Indicators for monitoring.

Curriculum evaluation may be an internal activity and process conducted by the various units within the education system for their own respective purposes. These units may include national Ministries of Education, regional education authorities, institutional supervision and reporting systems, departments of education, schools and communities.

Curriculum evaluation may also be external or commissioned review processes. These may be undertaken regularly by special committees or task forces on the curriculum, or they may be research-based studies on the state and effectiveness of various aspects of the curriculum and its implementation. These processes might examine, for example, the effectiveness of curriculum content, existing pedagogies and instructional approaches, teacher training and textbooks and instructional materials.

## **Student assessment**

The ultimate goal of curriculum evaluation is to ensure that the curriculum is effective in promoting improved quality of student learning. Student assessment therefore connotes assessment of student learning. Assessment of student learning has always been a powerful influence on how and what teachers teach and is thus an important source of feedback on the appropriateness implementation of curriculum content

## **Meaning of hidden curriculum –**

A **hidden curriculum** is a side effect of an education, which are learned but not openly intended such as the transmission of norms, values, and beliefs conveyed in the classroom and the social environment.

Any learning experience may teach unintended lessons. Hidden curriculum often refers to knowledge gained in primary and secondary school settings, usually with a negative connotation where the school strives for equal intellectual development (as a positive aim). In this sense, a hidden curriculum reinforces existing social inequalities by educating students according to their class and social status. The unequal distribution of cultural capital in a society mirrors a corresponding distribution of knowledge among its students.<sup>1</sup>

## **Role of hidden curriculum in developing resilience in children**

Student resistance can be a very important problem for the instructors in universities. Student resistance includes the conscious and pre-planned behaviors towards the information presented to them in the classroom and the institutional practices. Typically, student resistance takes the form of passive or active non-compliance with roles and outputs expected of them as students. The purpose of this paper is to investigate the effects of hidden curricula on student resistance

Students may adopt resistant behavior as a result of the teaching methods that the teachers employ, unclear expectations, authoritarian teaching practices, unsuitable mandatory classes, subjects being taught above the readiness of the students, feelings of inadequacy, or a personal dislike of the teacher. Students resist activities that they perceive as too hard, or too boring, or activities that they do not like (Brookfield, 1990; Alpert, 1991; Pauly, 1991; Cusick, 1992; Spaulding, 1995; Mc Fadden, 1995). However, not all student resistance should be perceived negatively. Although resistance might disturb class climate and harm both teachers and students, there might be positive aspects of student resistance. For example, student resistance can be a tool for students to struggle for identity, autonomy, and voice; it can produce cognitive and cultural change; and it can confront inequalities in power (Nacon, 2005) Just as there are many different reasons for student resistance, there are also many different types of resistance behavior. In the literature, these types have been grouped in various ways (Chan & Treacy, 1996; Higginbotham, 1996),



but are most often categorized as active and passive (McLaren, 1994; McFarland, 2004). Passive resistance is tacit; students do not directly show their reactions; instead they generally complain about and criticize the teacher. In active resistance, students show their reactions clearly by challenging or rebelling against authority.

### **Hidden curricula in higher education**

Theoretical publications and research on hidden curricula have mostly focused on students in primary and secondary schools. However, the concept is equally applicable for higher education. Hidden curricula in higher education are visible in the assumptions and values of teaching staff, the expectations of students, the social structures and informal rules of institutions of higher education, and the educational systems in which they are embedded. In order to be successful in higher education, one must demonstrate not only intellectual ability, but also adaptability to the hidden curriculum (Snyder 1971). In higher education the informal demands expected from students include showing a business-like and detached attitude with respect to the subjects of study, working with theoretical constructions, using professional jargon and abstract concepts, conquering uncertainty, anxiety and nervousness, and developing the desire to compete and win (Bergenhengouven, 1987). As with the research on hidden curriculum, research on student resistance has also been conducted mostly at the primary and secondary school levels. There have only been a few studies on higher education (Kearney, Plax, Smith & Sorensen, 1988; Burroughs, Kearney & Plax 1989; Kearney, Plax & Burroughs 1991; Margolis & Romero, 1998; Margolis, 2001; Gair, 2003). Additional research on student resistance at higher education levels needs to be done for two reasons: first, to contribute to the theoretical understanding of student resistance theory and hidden curricula, and second, to improve the completion rates of students whose resistance behavior contributes to their leaving school without obtaining a degree. Due to the fact that there are only a few studies of hidden curriculum and student resistance in higher education, and theoretical and empirical knowledge is a wide-open field, the following study was designed to contribute to our understanding at an undergraduate level.

### **Teaching strategies for developing resilience in children.**

Resilience is the ability to ‘bounce back’ from life’s difficulties. For many young people it is vital to help them develop resilience strategies that promote well-being and develop coping mechanisms. Many resilient teenagers are seen as resourceful and are emotionally and mentally balanced.

**Andrew Fuller** is a clinical psychologist and **Generation Next** speaker, he describes resilience as “the happy knack of being able to jump through the pitfalls of life – to rise above adversity and obstacles.”

### **Tips for building resilience in children\***

#### **1. Make connections**

Teach children how to make friends and develop empathy. Encourage them to be a friend in order to get friends. At school, watch to make sure that one child is not being isolated. Connecting with people provides social support and strengthens resilience.

#### **2. Teach children to help others**

Children who may feel helpless can be empowered by helping others. Ask for help with a task they can master. At school, brainstorm with children about ways they can help others.

#### **3. Daily routine**

Following a routine can be comforting to children, especially younger children who crave structure in their lives. Encourage children to develop their own routines.

#### **4. Take a break**

Although it is important to stick to routines, endlessly worrying can be counter-productive. Show children how to focus on something besides what’s worrying them.

#### **5. Self-care for children**

Teach child the importance of making time to eat properly, groom themselves, exercise and rest. Children need ‘down time’ to relax, so make sure that not all free time is filled with a scheduled activity.

#### **6. Goals**

Teach children to set reasonable goals and move toward them one step at a time. Moving toward that goal and receiving praise for doing so will focus children on what they have accomplished.

#### **7. Nurture a positive self-view**

Help children remember ways that they have successfully handled hardships in the past and how this can help them handle future challenges. Help children learn to trust themselves to solve problems and make appropriate decisions.

#### **8. Be optimistic**

Even when children are facing very painful events, help them look at the situation in a broader context. A positive outlook enables children to see the good things in life and keep going even in the hardest times.

## **9. Self-discovery**

Change and tough times are often when children learn the most about themselves. Help children to see that this is a good time to find out “what they are made of.” Change can be scary for young people, help them to see that change is part of life.

## **10. Make home a safe haven**

In high school, taunting and bullying can intensify – home should be a haven, especially as your teen encounters more freedoms and choices and looks to home to be a constant, safe and emotionally secure place in his or her life.

## **Common Components of Resilience**

While each model has its favorite components of resilience, we looked across the various models and found that the following components kept re-appearing.

### **Individual Behaviors, Attitudes, and Competencies**

- Physical health supports resilience, including getting enough sleep, eating well, exercising, and enjoying good health.
- Social and emotional competencies that promote resilience include stress management; a sense of control over one’s life; positive relationship to self-including self-efficacy, self-regulation, and self-esteem; hopefulness and goal-setting with the motivation and perseverance needed to reach those goals; and social competence.
- Cognitive competencies that help include insightfulness and general skills such as problem-solving, information processing, and intellectual ability.

### **Family, School, and Community Support**

- A positive and supportive family, including warmth, stability, cohesiveness, a positive parenting style, and high expectations.
- Presence of a caring adult outside the family, such as a teacher, counselor, coach, or mentor
- Belonging to groups and institutions, like schools, clubs, organizations, and religious communities.
- Promote positive social connections between staff and students, among students, and between schools and home.

- Nurture positive qualities, such as empathy, optimism, or forgiveness, and give students a chance to use them.
- Notice and reinforce qualities that are key to resilience.
- Avoid focusing on failure or negative behaviors.
- Teach by example, which is an effective approach; train staff to develop the same qualities.
- Apply restorative justice techniques can help schools by giving students a structured opportunity to work difficulties out by encouraging reflection and empathy.
- Foster feelings of competence and self-efficacy.
- Set high expectations for students; teach them to set realistic, achievable goals, and also how to reach out for help when needed.

### **Strategies to Help Students Recover from a Traumatic Event**

**In addition, here are strategies that schools can use to help students recover from a traumatic event:**

- Supportive relationships are key to recovery: Make sure students have time to talk with caring adults and have the opportunity to express their feelings and ask questions.
- Schools can provide supports to parents by sponsoring parent meetings.
- Stay flexible! Children's responses to a traumatic event will be varied not just in intensity, but also in recovery time; it is important for schools to avoid a one-size-fits-all response to recovery.
- After a traumatic event, students may feel nervous, anxious, or unsafe so try to reassure students that they are safe, and keep to familiar routines.
- School administrators can provide extra support to teachers, such as training, time to unwind and ways to connect with other teachers for support.

### **Curriculum revision and evaluation**

Evaluation is closely associated with curriculum development, less so with other areas of curriculum work. Additionally, the role of Evaluation varies depending on the location

### **Curriculum Development, Revision, and Evaluation Processes**

Education has substantial resources for curriculum development and instructional support. The company's team of talented, experienced curriculum specialists, curriculum project managers,

content and copy editors, and multimedia designers work to ensure Connections students are presented content, instructional resources, and activities that prepare them to be active, knowledgeable participants in a global networked society. These individuals apply their deep expertise in online instruction and academic disciplines to the development of curriculum that supports 21st century readiness for every student. Using the Framework for 21st Century Learning<sup>1</sup> process, they work to integrate supportive technologies, inquiry- and problem-based instructional approaches, and higher order thinking skills into all curriculum development efforts. Connections Education aligns its curriculum to the Common Core State Standards as well as individual state standards, and also reviews and aligns with national standards such as National Council of Teacher of Mathematics (NCTM), National Science Teachers Association (NSTA), National Council for the Social Studies (NCSS), and National Education Technology Standards wherever possible.

**Connections curriculum development is guided by these key principles:**

- Curriculum fosters breadth and depth of understanding in subject area.
- Content is aligned to national and state standards.
- Curriculum is supported by quality, reputable, recently published textbooks and/or proven instructional resources and materials.
- Content and assessments are aligned, accurate, and unbiased.
- Content is current, relevant, and provides real-world applications.
- Content is appropriate for the learner (age, ability, background, reading level, learning style, etc.).
- Instructional design is adaptable and flexible in order to best meet individual needs of Learning Coaches and students.

Instructional design provides students opportunities to improve learning skills using technological tools (e.g., virtual labs, interactive tools, Teachlet® tutorials, business software, online calculator).

Navigation is intuitive and age-appropriate.

Lesson structure is consistent and supports learning sequence of motivation, instructional content, application activities, review of key concepts and assessment.

Central to the Connections curriculum design process is the systematic analysis of curriculum offerings. The analysis phase consists of formative, summative, qualitative, and quantitative measures to determine the value and effectiveness of the curriculum offerings. This multi-level evaluation system incorporates regular reviews of student performance, user feedback, assessment

performance analysis, and district, state, and national content standards and assessments. Connections curriculum development also emphasizes innovation, effective implementation, evaluation of student learning, and continuous improvement, and the company strives to regularly provide new curriculum options that leverage the interactivity and engagement potential of online resources. Connections always seeks to balance enhancements and additional options with the recognition that students have a wide range of learning styles and needs. Decisions about improvements and updates to curriculum are also guided by feedback from a variety of critical stakeholders: teachers and administrators, students and parents, school boards, and outside evaluators such as accrediting organizations and sponsors. Therefore, central to the Connections curriculum development process is a research based development framework designed to support not only quality course development but a feedback loop that ensures continuous improvement. This systematic instructional design process incorporating the elements of analysis, design, development, implementation, and evaluation often referred to as ADDIE:

1. **Analysis:** Prior to course development, a thorough analysis of state graduation requirements, school or board requests, and competitive positioning is completed. Feedback on current courses from student academic performance, user feedback, usability reviews, and national and state standards alignments are incorporated into the analysis.
2. **Design:** Within the design phase, the curriculum team attends to the set of standards around which the course is written, instructional strategies, content, and visual and technical design of the course. Attention is focused on the course's purpose and audience, as well as the course's organization, instructional approach, and instructional resources. Consideration is also given to the role of technology, the level of student engagement, and student learning styles.
3. **Development:** Beginning with a course map which focuses on standards alignment and the identification of the enduring knowledge present in the course, the development lifecycle incorporates unit-by-unit course development and revision, content analysis and review, editorial review and revision, and a detailed quality assurance appraisal. Procedures for ensuring internal consistency, bias-free content and assessments, instructional effectiveness, and the appropriate use of intellectual property are implemented throughout the development phase.
4. **Implementation:** Each school year brings the implementation of newly developed courses. Before full release, demo courses are created, evaluated by teachers, and suggestions are implemented and effective implementation is supported by updated and ongoing training for all.

5. **Evaluation:** The intent of the evaluation phase is to determine the level of student success, and the impact of the course design on student performance. Evaluation occurs throughout the delivery of the course and includes student performance, internal lesson and assessment analysis, and feedback from students, Learning Coaches, and teachers. Essential user feedback is gained through WebMail messages, the StarTrack system, the Connexus® feedback tool, and our annual Parent Satisfaction survey.

### **Tyler's objective-centered model**

One of the earliest curriculum evaluation models, which continue to influence many assessment projects, was that proposed by Ralph Tyler (1950) in his monograph. Basic principles of curriculum and instruction. As explained in this work and used in numerous large-scale assessment efforts, the Tyler approach moved rationally and systematically through several related steps:

1. Begin with the behavioral objectives that have been previously determined. Those objectives should specify both the content of learning and the student behavior expected Demonstrate familiarity with dependable sources of information on questions relating on narration
2. Identify the situation that will give the student the opportunity to express the behavior embodied in the objective and the evoke or encourage this behavior thus if you wish to assess oral language use identify situation that evoke oral language.
3. Select, modify, or construct suitable evaluation instruments and check the instruments for objectivity reliability and validity
4. Use the instruments to obtain summarized or appraised results
5. Compare the results obtained from several instruments before and after given periods in order to estimate the amount of change taking place.
6. Analyze the results in to determine strengths and weaknesses of the curriculum and to identify possible explanations about the reason for this particular pattern of strengths and weaknesses.
7. Use the results to make the necessary modification in the curriculum.(as cited in Glatthorn, 1987, p 273)

The Tyler model has several advantages. It is relatively easy to understand and apply. It is rational and systematic. It focuses attention on curricular strengths and weaknesses rather that begin concerned solely with the performance of individual students It also emphasizes the importance of a

continuing cycle of assessment, analysis, and improvement. As Guba and Lincoln (1981) pointed out, however, it suffers from several deficiencies. It does not suggest how the objectives themselves should be evaluated. Its emphasis on the prior statement of objectives may restrict creativity in curriculum development, and it seems to place undue emphasis on the pre-assessment and post-assessment, ignoring completely the need for formative assessment.

### **Stufflebeam's context – Input process-product model**

These obvious weaknesses in the Tyler model led several evaluation experts in the large 1960s and early 1970s to attack the Tyler model and to offer their own alternatives. The alternative that had the greatest impact was that developed by a Phi Delta Kappa committee chaired by Daniel Stufflebeam (1971) this model seemed to appeal to educational leaders because it emphasized the importance of producing evaluative data for decision making. In fact decision making was the sole justification for evaluation. In the view of the Phi Delta Kappa committee.

To service the needs decision makers, the shuffle beam model provide a means for generating data relating to four stages of program operation context evaluation, which continuously assesses needs and problem in the context to help decision makers determine goals and objectives input evaluation which assesses alternative means for achieving those goals to help decision makers choose optimal means process evaluation which monitors the processes both to ensure that the mean are actually being implemented and to make the necessary modifications and product evaluation , which compare actual ends with intended ends and leads to a series of recycling decisions .

### **During each of these four stage specific steps are taken**

- The kinds of decisions are identified
- The kinds of data needed to make those decision are identified
- Those data are collected
- The criteria for determining quality are identified
- The data are analyzed on the basic of these criteria
- The needed information is provided to decision makers.(as cited in Glatthorn 1987, pp 273-274)

The context-input-process-product (CIPP) model. As it has come to be called has several attractive features for those interested in curriculum evaluation. Its concern for the formative aspects of evaluation remedies a serious deficiency in the Tyler model. Finally the very detailed guidelines and forms provided by the committee provide step-by-step guidance for users.



The CIPP model, however has some serious drawbacks associated with it its main weakness seems to be its failure to recognize the complexity of the decision-making process in organization. It assumes more rationality than exists in such situations and ignores the political factors that play a large part in these decisions. Also as Guba and Lincoln (1981) noted. It seems very difficult to implement and expensive to maintain.

1. The Tyler model: Tyler model is one of the best models. He published basic principles of curriculum and instruction in 1949 in which he discussed the rationale for examining the problems of curriculum inquiry the following needs to be defined:

1. Purposes of school
2. Educational experiences related to these purposes
3. Organization of these experiences
4. Evaluation of the purposes

Here, this model purpose is connoted to objectives. Curriculum planners should identify the general objectives from three board sources:

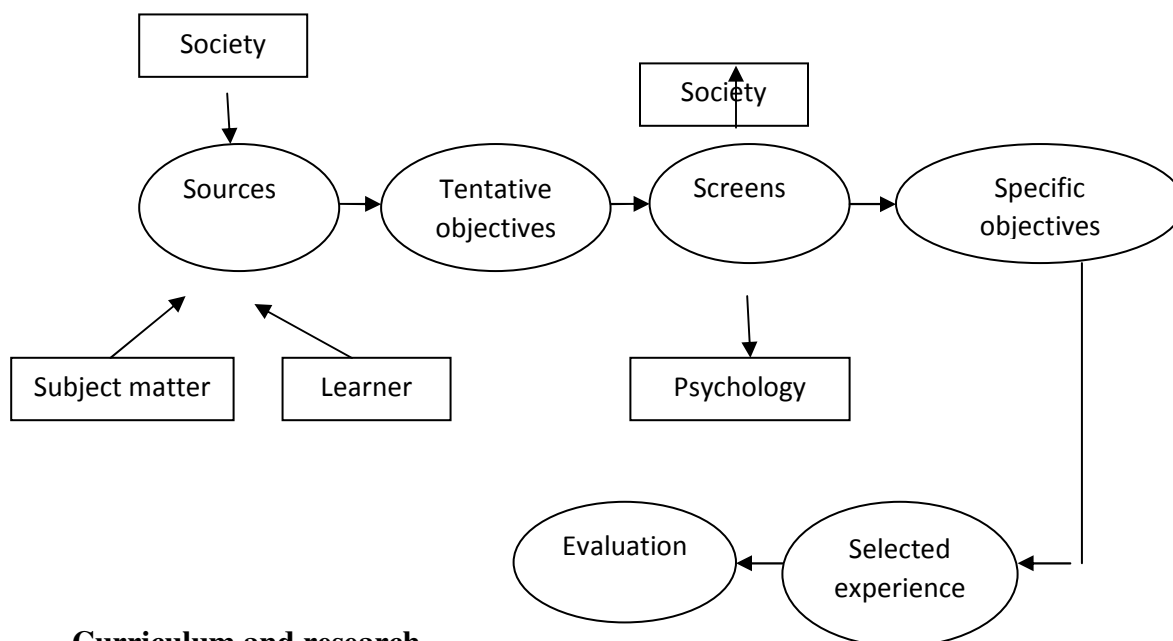
- 1.subject matter
- 2.Learners
- 3.Society

These identified objectives need to be filtered/refined through two screens. i.e. philosophy of the school and psychology of learning, which help in going for specific instructional objectives.

The attainment of objectives depends on the learning experience and the perception that learner bring to the situation. Experience can be selected from the educator's know how about learning and human development. Then the basic element such as ideas, concept, values and skills should be interwoven within the subjects.

Finally, he says that evaluation is an important principle which deals with effective of planning and action.

As such Tyler did not visualize any diagrammatic representation of the model.



### Curriculum and research

Curriculum research is one of the best ways to respond to the three types of research questions (NRC, 2002), descriptive, causal, and process, within a program that is synergistic, integrated, and complete. Across the different phases, and within them, there are iterative cycles, each of which must “work” to proceed and reveal weaknesses if they do not work, and thus offer tests of construct validity that are both more frequent and more trustworthy than tests in most other approaches (cf. Johnson & Onwuegbuzie, 2004). Further, because it is result-centered, rather than theory-centered, the CRF minimizes seductive theory-confirming strategies that tend to insidiously replace the intended theory-testing strategies, and maximizes strategies that attempt to produce specified patterns of data and thus mitigate confirmation bias, stimulating creative development of theory (Greenwald et al., 1986). This type of scientific research both constrains decisions to be consistent with what has been scientifically verified (James, 1958) and liberates, by broadening the range of possibilities (Dewey, 1929). The CRF makes the relationships among theory, research, design, and practice more salient and accessible.

### CURRICULUM CHANGE AND INNOVATION

Change is the law of nature. Change always makes things better. Curriculum change and curriculum improvement are used interchangeably and no distinction is made between the two.

Changing curriculum also involves changing individuals. According to Coffey and Goldner, changing individuals includes two types of changes:

1. Cognitive aspect – the way the child is habituated to his world around and how he perceives it.
2. Affective aspect- his emotional orientation.

Types of curriculum change

There are varied types observed in curriculum. According to different curricularists, the following types of change can be seen:

According to Warder Bennis, the curriculum change could be:

1. PLANNED CHANGE:
2. COERCION
3. INTERACTION CHANGE:
4. NATURAL OR RADOM CHANGE:

Robert- Chin considered three types of changes in curriculum:

1. EMPIRICAL -RATIONAL
2. NORMATIVE-RE-EDUCATIVE

### **Curriculum innovation**

Many schools spend a lot of time working together on curriculum change. This a very crucial time and valuable time for all schools. Gone are the days when we could sit back, relax, plan ahead for our summer break. Our cushioned presumption that our schools see no reason to make significant changes has gone by.

The curriculum needs a review every year and a review that must look into what is the most suitable for our learners of tomorrow. We need to shirk away from the confidence that as educators we are already serving the needs of our learners well.

Some of the broader areas where curriculum shift and innovation is needed could range from:

- Reorganizing the curriculum around themes if our curriculum is based on themes...adding on new subjects of study
- Review the time allocation and bifurcation of periods done for each of the subjects allocated from

KG to X...do we need to give more time for activities?

- Do we need to allocate longer blocks of time for some subjects?
- Do we need to readjust the school timings to accommodate exploration and innovation?
- Have we provisioned enough in the curriculum to meet the needs of learners of all abilities and interests?
- Is the stress in our curriculum design on developing pupils' learning skills

We need to carefully research and learn from the strengths of our previous practice and not hesitate to make necessary revision. Gone are the days when School leaders often had to overcome deeply embedded resistance to change. Our apprehensions can no longer revolve around getting the highest score or 100% first divisions in the board exams. The effort has to begin from the KG or Cycle I or Foundation.

Successful schools must and do go through a systematic process of investigation, consultation, planning and evaluation of the school curriculum. Complementing this effort of the school leader should be a strong team of heads of departments, subject matter experts, well trained and seasoned teachers who can bring to the table years of learning and experience. This involvement of key stakeholders would also ensure that everyone involved in innovation of the curriculum would have a clear understanding of the rationale behind innovation and the roles and responsibilities of individuals.

### **Factors that impact such an ambitious move are:**

in specific areas

- Lack of minute planning by the team member spearheading the change
- Failure to adhere to timelines
- Evaluation and criteria for evaluation of learning at varying stages
- Teacher support and training and lack of a rigorous professional development programme for teachers

Most of all this needs positive thought, courage and conviction from the school leader to ensure that learning at school in the new academic year through curriculum changes would make learning enjoyable for learners apart from achieving more.

### **Need and importance**

Every successful concept and project in life requires a proper framework and planning. This relates to all processes, including education. Whenever we embark on any new plan or procedure,

we need to make sure that we have all the plans drawn up. What is on offer, what are the resources that we have, what are the steps, which we need to take and what are the goals that we need to achieve are some elements that need to be looked upon. A similar set of constraints when applied to education in schools and colleges gives birth to curriculum. A curriculum is a set of courses, including their content, offered at a school or university. The curriculum often contains a detailed list of subjects and the elements of teaching them.

John Franklin Bobbitt's "The Curriculum" published in 1918 mentions curriculum as an idea that has its roots in the Latin word 'race-course'. He also explained "The Curriculum" as the course of deeds and experiences through which children grow up into adults and get going for success in the society. A curriculum is more than putting together a set of academically required subjects. It must consider all aspects of the student life, the learning needs of students, the time available for the sessions and the teachers' idea, capability and workload. Now that we know the constitution of a curriculum, let us study its importance in the lines that follow.

### **Significance of Curriculum**

#### **In Elementary Schools**

In elementary schools, the curriculum is primarily drawn by the educational boards or some central society. They study the needs of the kids and all other feasibilities before selecting courses and drafting a curriculum. Here, the students have least choice in their subjects and study based on a universal curriculum, which works on all sections of the students' psyche and aid in the total development of the student. No area is left untouched. Hence, the curriculum aids in the proper development, while the child comes to terms with his or her own inclination. Therefore, at primary school levels, the curriculum aims at providing a structured platform, which gives every child an equal opportunity to excel.

#### **In High Schools**

At high school levels, teenagers can take their own liberty in choosing their path. Though complete autonomy does not rest with a student, a level of choice is very evident. This helps in the development of the teenager, with added importance of being given the field of his own choice. At this stage, the development is more focused and rampant, enhanced through a proper curriculum. Without an effective curriculum, a student would not be able to understand or meet the challenges of the society.

## **At College & Higher Education**

At a higher stage of education, an unprecedented autonomy is provided to the students. The students can opt for a more focused curriculum, based on their choice of subjects. A student will graduate, post-graduate or attain a doctorate based on the choice of his subjects and the mode of his study, both or either one determined by him. The curriculum here is reduced to just a framework that is very flexible yet very important. The curriculum chosen by the student will go on to determine the shape of his career. A curriculum prepares an individual with the knowledge to be successful, confident and responsible citizens.

## **Conclusion**

Curriculum is much more than classroom instruction. It is not confined to the four walls of the classroom. All the experiences provided by the school both inside and outside the school are under curriculum. Curriculum change and innovation is the need of the hour. So for the present era student's innovation and change in curriculum is very important.

## **QUESTIONS FOR DISCUSSION AND REFLECTION**

- 1.Explain the factors that affect the development of curriculum assessment.
- 2.Write down the Role of Hidden Curriculum.
- 3.Explain the teaching strategies for developing resilience in children.
4. Briefly explain the about Curriculum and Research

## **SUGGESTED READINGS**

- 1.Allan A.Glatthorn, Floyd Boschee, Bruce M.Whitehead,(2009),Curriculum Leadership strategies for development and implementation.
- 2.Thomas W.Hewitt(2006), Understanding and shaping Curriculum “what we teach and why”.
3. Vijay Kumar (2009), “Curriculum Development and Instructional Technology.

- [www.cited.org](http://www.cited.org)
- [www.nsd.org/library/publications/jsd/ginsberg222.cfm](http://www.nsd.org/library/publications/jsd/ginsberg222.cfm)
- [www.edtrust.org](http://www.edtrust.org)
- [www.infed.org/research/b-actres.htm](http://www.infed.org/research/b-actres.htm)

&&&&&&&&&&

**TAMIL NADU TEACHERS EDUCATION UNIVERSITY**

Chennai-600 097

***Course Material for B.Ed.( Second Year)*****VALUES AND PEACE EDUCATION***Prepared by***Unit I** VALUE EDUCATION*Dr. M. Soundararajan, Professor and Head, Department of Value Education***Unit II** FOSTERING VALUES*Dr. M. Soundararajan, Professor and Head, Department of Value Education***Unit III** PEACE EDUCATION*Dr.R.Rajalakshmi, Assistant Professor, Department of Value Education***Unit IV** PROMOTING CULTURE OF PEACE*Dr.R.Rajalakshmi, Assistant Professor, Department of Value Education***Unit V** APPROACHES AND STRATEGIES*Dr.R.Rajalakshmi, Assistant Professor, Department of Value Education***Tamil Nadu Teachers Education University****Chennai-600 097**

## VALUES AND PEACE EDUCATION

### UNIT I: VALUE EDUCATION

#### OBJECTIVES:

The student teachers will be able to:

1. understand the concept of values education.
2. explain the role of values.
3. understand the need and importance of value education
4. explain the fostering culture of peace through education.
5. identify and apply the practices for value development and clarification.

#### INTRODUCTION

In this modern society, education continues to be regarded as a good source of development of both individual and societies. Education plays an important role in the socio-economic development as well as in the ethical development of individuals. Societies considered education as an instrument for improving the socio economic conditions of their subjects and an instrument for promoting the qualities of tolerance, justice, sharing, and cooperation etc., of their citizens. The societies think that inculcation of these qualities in the citizens would contribute to the establishment of organised societies. The two distinctive roles that are expected from education are: 1. the development of socially-oriented citizens with good citizenship qualities, who would be helpful in the development of organised societies. 2. the development of socio-economic conditions of citizens and also the development of economic, social and political aspects of societies. It is for these reasons, education is universally aspired by all and value education is also acclaimed for the same reason.

Value education has a paramount role to play in creating a society that is tolerant, humane, socially cohesive and ethically righteous. If knowledge is left without being tempered by values and morals, the power generated by such knowledge would only be disastrous and catastrophic in its effects. Education in values is an integral component of the programme of education. Values are integral to the process of education. They are not additions. All education is, in a sense, value education. Education is a process of bringing about 'desirable' changes in the way one thinks, feels and acts in accordance with one's concept of the good life. In this sense, education necessarily involves the transmission of values.



Value education is not value imposition or value indoctrination. It is not a direct inculcation of certain values and morals. It is a process of helping the pupils to think freely and critically on values, to act responsibly and with courage and conviction. Value education does not intent to promote passive conformity or blind obedience to whatever values that are taught. However, it recognises that blind following of habit out of fear of authority or regard to tradition, customs or conventions is a stage in development of ones values. But eventually it should lead to developing in the pupils the capacity to think critically and appraise independently, of situations with principled judgements.

## **VALUES**

### **Meaning and Definition**

According to its verbal meaning value signifies that quality of an individual or thing which makes that individual or thing important, respectable and useful. The quality may be internal or external or both.

Values means something that is precious, dear, worthwhile, valuable and estimable and hence worthy of possession. Value is a standard. A value may be described as an emotional attitude, which motivates a person directly or indirectly to act in the most desirable way preferred by him or her. Values are defined as ‘beliefs upon which man acts by preferences’. The Oxford Dictionary define value as something of great worth or importance or standard or principle that is valuable in life.

Values are the guiding principles of life which are conducive to all round development. They give direction and firmness to life and bring joy, satisfaction and peace to life. They bring quality to life. Thus “Value is something or anything which appeals us, satisfying our needs, whether it is material or non-material, satisfaction and desirability are common elements in it.”

Values regulate and guide human behaviour and action in our day to daily life. Values are embedded in every word we select and speak, what we wear, ways in which we interact, our perceptions and interpretation of others reactions in what we are say and so on.

Values are formed on the basis of interests, choices, needs, desires and preferences. These comprise the nuclei of value formation. Values have a selective or directional quality. When preferences acquire certain definiteness, intensity and stability, these become the criteria for judgement, choices, action and grounds for decision-making in behaviour. Value thus is considered to be an enduring belief upon which human beings act by preferences.

Values involve the processes of thinking, knowing/understanding feelings and action. These involve feelings i.e. strong liking for something, feeling deeply about the things one values and so on. People's action often give us clues as to what they value. If we try noticing what a person does in spare time when he or she is not being coaxed or threatened to do a particular activity, we may get some ideas about what he/she values.

Generally, value refers to the 'desirable'. It is difficult, however to define what is desirable, what kind of things/actions are good. What is desirable today may not be a desirable tomorrow and what is desirable here may not desirable elsewhere. Desirable is when our actions promote the general good in terms of the norms and ideals of a particular society and in terms of the consequences of our practices and action.

According to John Dewey, The value means primarily to prize, to esteem, to appraise and to estimate. It means the act of cherishing something, holding it dear and also the act of passing judgement upon the nature and amounts of values as compared with something else.

The Dictionary of Education (1959) defines values as, “The things in which people are interested – things they want to desire to be or become; feel as obligatory, worship or enjoy.”

Kane (1962) states “Values are the ideals, beliefs, or norms which a society or the large majority of a society’s members hold.”

According to Cuber (1962), “Values are ideas and beliefs which people cherish. These ideas contain or express the judgement which people have, of the relative importance of things.”

Rokeach (1973) defines values, “as an enduring belief, a specific mode of conduct or end along a continuum of relative importance.”

M.P. Hunt (1975) looks at values, “as a judgement concerning the worth of an object, person, group or situation. Value judgement contains evaluative rating terms, such as good, bad, moral, immoral, beautiful, ugly etc.”

N.K. Dutt (1986) says that “a value is defined as an endeavour which satisfies need system, psychological as well as physiological needs. Almost all human beings have the same physiological needs but differ in their psychological needs, hence differ in their values and styles of life.”

The committee on Religious and Moral Instruction (1959) defined moral and spiritual values as, “anything that helps us to behave properly towards others is moral value.”

## **CONCEPT OF VALUES**

In view of the noted philosopher A.C. Garnett in *Religion and Moral life* (1955) observed that on account of the ambiguity of the term 'Value' it should be avoided except where the contextual meaning is clear.

According to Maslow, Values are defined in many ways and mean different things to different people. As a matter of fact, it is so confusing semantically that I am convinced we will soon give up this catch-all word in favour of more precise and more operational definition.

The concept of values refers to the criteria used for determining levels of goodness, worth or beauty. Values are estimable and hence worthy of being possessed. The most popular meaning of the concept of values is given by Dewey, John is *"To value means primarily to prize, to esteem; but secondarily it means to appraise, to estimate. It means, that is, the act of cherishing something, holding it dear and also the act of passing judgement upon the nature and amount of values as compared with something else. To value in the latter sense is to value or evaluate"*.

Value education is that form of education that stresses the acquisition of living values by learners. It inculcates universal and ethical values such as compassion, courage, honesty, tolerance and truthfulness (Aggrawal, 1992). This helps in nurturing balanced individuals thus creating a humane society. Values are what promote human beings to personhood. These values are inherent in all people and acting contrary to them negates one's personhood. Animals live by instinct; they are driven by instinctive forces and are not answerable to their acts. These instincts drive them to find food, shelter, and to procreate. Human beings are gifted with an intellect that helps them reason about the right course of action especially in moral aspects.

Values represent the aspirations of religions and philosophies that aim to guide people along the path to a better existence. Peoples who practice values develop inner strength and can resist common human weaknesses. Values are beauty and grace of life. They are essential constituents of civilisation. Our values given an indication of our character and determine our moral and ethical choices.

According to Allport, 'Value is a belief upon which a man acts by preference'. Rokeach defined value 'as an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence' and value system for him is 'as an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of

relative importance'. According to Hill 'Values are individual beliefs to which people attach significant worth and by which they organize their life. Hence it can be said that values are principles before us that guide and direct our behaviour. Things or ideas are valuable because, we value them and desire to possess them or desire to cherish them.

W.H. Kilpatrick has explained the concept of values as, "That out of man's capacity for goal seeking behaviour arise his wants and efforts and out of these come in consciously chosen goals. Because goals conflict, man is led weigh his goals against each other".

It is generally accepted that values are at the root of all types of behaviours, including those that are morally, politically or economically motivated. Values are subtle and are exhibited through behaviour. Values are our convictions that guide our behaviour. They help us in deciding what is right and what is wrong. Parsons (1951) opined that the basic social function of values is to motivate and control the behaviour of group members.

Values shape behaviour of both individuals as well as of organizations. The behaviour of individuals affects the behaviour of organization if the individual is a part of organization. Values are used to characterize societies and individuals, to trace change over time and to explain the motivational bases of attitudes and behaviour. Values are more significant to our functioning as individuals and as people. Values exert desirable influences on the way that individuals select, behave and evaluate their worlds.

Values have three basic elements namely, cognitive, affective and volitional. Thus a value goes beyond the cognitive domain to an affective domain to incorporate a volitional element or disposition to act.

An individual organizes his values in a hierarchical way because they differ in their importance to him. Human needs and social demands determine the values of a person apart from his cultural background. It is also said that 'Values are global in nature and culture specific'.

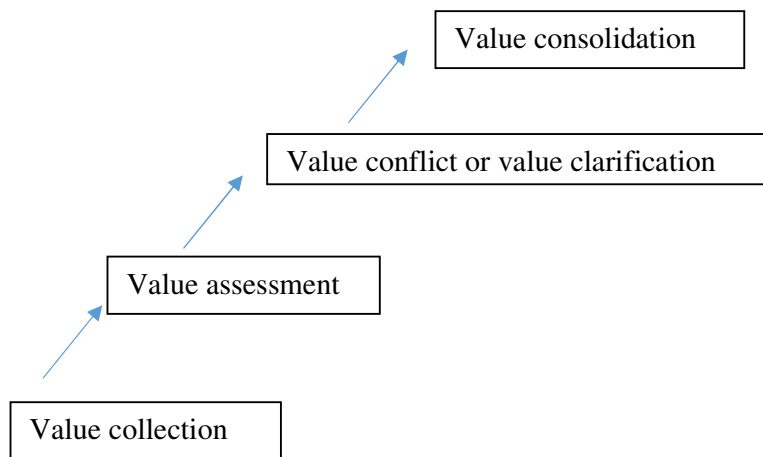
The process of acquiring values begins at birth. That is, primarily values are learned at home but in due course they will change according their experience. Values differ from generation to generation. Different regions may have different values and different cultures have different values. Values changes over time within the same society. They are influenced by the changing needs and present situations of the society. Therefore culture has a strong influence on the values.

Values are relatively stable and persistent. It is accepted that if a person's behaviour can be predicted by his values. Values are the determinants of attitudes and behaviour of an individual. Values are self-imposed rules, or ethical policy we adopt in order to travel through life with a clear ethics.

Thus the concept of value may be concluded as they are prized, precious, worthwhile, estimable, desirable, dear and valuable material things such as property, money, good appearance, children etc., as well as non-material and abstract beliefs/ideas such as truth, desire, justice, honesty, piety, self-respect etc.

### **VALUE DEVELOPMENT**

According to Marmar Mukhopadhyay of NIEPA, value development takes place as shown in the fig 1.1



**Fig 1.1: Stages of Value development**

The human behaviour is determined by the consolidated values. It is the consolidated values that provides predictability of human behaviour; and indeed, the very foundation of the personality that has been described as the style of the man/woman.

### **PERIODS OF DEVELOPMENT**

Sociologist Morris Massey has described three major periods during which values are developed.

#### **The Imprint Period**

Up to the age of seven, we are like sponges, absorbing everything around us and accepting much of it as true, especially when it comes from our parents. The confusion and blind belief

of this period can also lead to the early formation of trauma and other deep problems. The critical thing here is to learn a sense of right and wrong, good and bad. This is a human construction which we nevertheless often assume would exist even if we were not here (which is an indication of how deeply imprinted it has become).

### **The Modeling Period**

Between the ages of eight and thirteen, we copy people, often our parents, but also others. Rather than blind acceptance of their values, we are trying them on like a suit of clothes, to see how they feel. At this age we may be much impressed with religion or our teachers. You may remember being particularly influenced by junior school teachers who seemed so knowledgeable--maybe even more so than your parents.

### **The Socialization Period**

Between 13 and 21, we are very largely influenced by our peers. As we develop as individuals and look for ways to get away from the earlier programming, we naturally turn to people who seem more like us.

Other influences at these ages include the media, especially those parts which seem to resonate with the values of our peer groups.

## **KOHLBERG AND MORAL DEVELOPMENT**

Kohlberg (1971) who was influenced by John Dewey and Jean Piaget, postulated cognitive developmental series of stages of moral development. According to him the stages follow the same order in all the children but the rate at which they will attain mastery of various stages may vary also. Kohlberg believes that we should stimulate children to move to higher moral stages, arguing that this is constitutional, philosophically justified and socially useful.

Kohlberg (1984) proposed that moral thinking is based on an individual's thinking regarding justice, fairness, and equity. He stated that children's thinking about right and wrong begins with operant conditioning. As the child matures, he is able to think about right and wrong in terms of reciprocal activities and then progresses to conventional thinking where he begins to think in terms of important group members such as parents, teachers, or friends before moving to a society-maintaining orientation of following laws and regulations. Theoretically, some people move to post-conventional thinking where they accept principles

in a contract and select their own moral principles. This theory is best described as social-cognitive since reasoning and concepts of justice evolve from a sequence of perspectives on the world: egocentric, individualistic, interpersonal, organizational, societal, and universal.

Kohlberg (1977) elaborated Piaget's theory of moral development and identified three levels of morality. He assumed that the development of the capacity for moral judgment is continuous and gradual. The three levels of moral development is divided into six stages. Each of the six stages are defined by 12 basic moral aspects, issues or values.

### **Level I: Pre conventional/Premoral**

Moral values reside in external, quasi-physical events, or in bad acts. The child is responsive to rules and evaluative labels, but views them in terms of pleasant or unpleasant consequences of actions, or in terms of the physical power of those who impose the rules.

*Stage I - Moral motives are defined in terms of avoiding punishment.*

- Egocentric deference to superior power or prestige, or a trouble-avoiding set.
- Objective responsibility.

*Stage II – It is the desiring for obtaining rewards to have favours returned.*

- Right action is that which is instrumental in satisfying the self's needs and occasionally others'.
- Relativism of values to each actor's needs and perspectives.
- Naive egalitarianism, orientation to exchange and reciprocity.

### **Level II: Conventional/Role Conformity**

Moral values reside in performing the right role, in maintaining the conventional order and expectancies of others as a value in its own right.

*Stage III – Moral conscience functions to avoid disapproval and dislikes by others.*

- Orientation to approval, to pleasing and helping others.
- Conformity to stereotypical images of majority or natural role behaviour.
- Action is evaluated in terms of intentions.

*Stage IV - It functions to avoid censure by legitimate authorities and the resulting guilt level.*

- Orientation to "doing duty" and to showing respect for authority and maintaining the given social order or its own sake.
- Regard for earned expectations of others.
- Differentiates actions out of a sense of obligation to rules from actions for generally "nice" or natural motives.

### **Level III: Post conventional/Self-Accepted Moral Principles**

Morality is defined in terms of conformity to shared standards, rights, or duties apart from supporting authority. The standards conformed to internal, and action-decisions are based on an inner process of thought and judgement concerning right and wrong.

*Stage V – Motivation lies in the desire to maintain the respect of an impartial spectator judging the terms of community welfare.*

- Norms of right and wrong are defined in terms of laws or institutionalized rules which seem to have a rational basis.
- When conflict arises between individual needs and law or contract, though sympathetic to the former, the individual believes the latter must prevail because of its greater functional rationality for society, the majority will and welfare.

*Stage VI – Conformity to moral principles serves to avoid self-condemnation.*

- Orientation not only toward existing social rules, but also toward the conscience as a directing agent, mutual trust and respect, and principles of moral choice involving logical universalities and consistency.
- Action is controlled by internalized ideals that exert a pressure to act accordingly regardless of the reactions of others in the immediate environment.
- If one acts otherwise, self-condemnation and guilt result.

### **AIMS OF VALUE EDUCATION**

Education is not merely acquiring knowledge, gathering and correlating facts, it is to see the significance of life as a whole. Education means self-culture and self-improvement. This is the perennial source of illumination of various walks of life.



Education is to be perceived as an outcome but as an experience in itself, which will enable student to live safe, healthy and fruitful life and become responsible citizens who make positive contributions to the society.

Value education aims at transforming a mind into healthy, innocent, natural and attentive, capable of higher levels of sensitivity and perception. It develops moral, spiritual, aesthetic and social values in a person. It teaches to preserve whatever is good and worthwhile in the culture we inherited. It helps us accept and respect the attitudes and behaviours of those who differ from us.

Education for values aims at promoting broader capabilities, attitudes and skills that matter not just in schools but also life beyond schools, making the world a better place not just for themselves but also for their family, friends, colleagues and others. Education for values

underpins the understanding that values are to be inculcated in students not just, for their own interest but also for the common good reflecting the balance between individual's interest and larger interest. The focus therefore cannot only be improving of academic knowledge, practical and technical skills mostly tied to market needs and employability but also holistic education focusing on the emotional and relational skills conducive to health and wholeness of the society and the nation. The aim of holistic development of students can thus be located in education for values. Education in values also prepares student for the world of work. The attitudes and values of hard work, discipline, cooperation, communication skills etc. enable them to develop healthy interpersonal relationships at home and in school which in turn facilitate their better adjustment on the job.

At the individual level, fostering values in school students therefore needs to be seen as an investment in building the foundation for lifelong learning and promoting human excellence. The capacity to listen patience, endurance, cooperation, team work, positive attitude towards study, work and life are the hallmarks of a good student or a person. So values, in fact, promote both academic as well as human excellence. In this sense education for values humanizes education.

At the societal level, education for values aims at promoting social cohesion and national integration for transforming societies, nations and creating a better world. It can contribute to create the aspiration for transformation of the culture of war, violence and greed into a culture of peace; where people learn and understand more about each other's uniqueness, human rights and fundamental freedom; where people learn to care and share to

live together in a just, peaceful and compassionate society both in their immediate contexts and in the world at large.

The aim of values education is to encourage young people's awareness of having values and their corresponding relationship to the world in which they live. It is therefore necessary to try and convey the idea of which values people in our society regard as necessary (and through which our society is shaped today). A democratic society demands that an individual should have many skills, among them the skill to deal with conflicting values and to take independent decisions. It demands a critical faculty as well as competence to judge based on your moral principles. Democratic societies must therefore take an interest in that such skills be encouraged. Educators and teachers as well as parents are not just there to practise behaviour based on values, but are mainly there to help adolescents to understand the rules which society has developed, to be able to apply them independently and also to participate in political discussions regarding any possible changes to these rules. For this reason, we need educators who do not insist on their own interpretation of moral principles, rather educators who help adolescents to develop their own skills in applying morals to their lives.

Value education system that aims to enrich the level of our understanding and respect for such values and aims to bring us maturity of mind is called value-based education. Only a value-based education can give our youth the altruistic and benevolent sense of living for others; as Swami Vivekananda said, "*They alone live who live for others*".

Parents and society try to fix certain values on children. Learning experiences and social interaction offer an outlook and attitudes of children are transformed accordingly. If curriculum is outlined likewise and based on values, particular values are bound to reflect through learning process. According to Evan Smith- 1. Value based teacher can only fix certain values. As the teacher so the values. 2. Educational system is a by-product of social and cultural advancement. Both formal and non-formal agencies are equally responsible to create necessary values for the development of personality of students

## **TYPES OF VALUES**

Classifying values has always been a complicated task and have been classified differently. This is due to the fact that there are no hard and fast rules to classify values as they are closely interlinked and interrelated. Values are sometimes classified according to the needs and demands of the society.

### **Personal Values**

Personal Values are personal to an individual both in terms of their possession and their use. It is a desire and cherished by the individual irrespective of his or her social relationship. Each and every individual like to imbibe these values at their personal level. These values make a person good for himself. Examples: ambition, cleanliness, discipline, honesty, loyalty, contentment, courage, creativity, determination, dignity of labour, diligence, excellence, hope, maturity, regularity, punctuality, self-confidence, self-motivation, simplicity, accomplishment, purity etc.

### **Social Values**

Social values are certain behaviours and beliefs that are shared within specific cultures and social groups. These values are cherished and practiced because of our association with others. It imposes the interaction of two or more persons. Social values are always practised in relation to our neighbours, community, society, nation and world. These values are good for the society and form the basis of the relationship of an individual with other people in society. Examples: courtesy, charity, civic duty, fairness, goodness, neighbourliness, trust and truth, accountability, brotherhood, dutifulness, forgiveness, freedom, friendship, gratitude, hospitality, justice, love, patience, repentance, responsibility, service, sharing, sympathy, team spirit, tolerance etc.

### **Moral Values**

Moral values are those values that enable an individual in making a distinction between right and wrong and good and bad etc. It particularly refer to the conduct of man towards man in the various situations in which human beings come together. They reveal a person's self-control. Example: fairness, justice, equality, human dignity, honesty, integrity, sense of responsibility, compassion etc.

### **Spiritual Values**

Spiritual values are characterized by the process of 'reflecting on non-material dimensions of life and acquiring insights into personal experiences, which are of enduring worth. They are related to soul and immaterial reality related. They are intangible and are not concerned with material things. They need not be religious values. They affect the individual in his relations with himself'. Spiritual values are eternal and they do not change. They are real ideas. These are concerned with the realisation of the 'Self' and being one with 'Divinity'. Examples: truth, beauty, goodness, unity, pure, love, joy, self-giving, contentment, wisdom, dispassion, self-discipline, devotion to God, etc.

**Cultural Values**

Cultural values are the standards of what is acceptable or unacceptable, important or unimportant, right or wrong in a community or society. It gives importance to preserve cultural practices, ceremonies, traditions and way of life which might be threatened by the materialistic culture of modern times. They maintain the integrity of language, behaviour, and traditional rites. Examples: hospitality, codes of conduct, social order, tolerance, gentleness, non-violence, love etc.

**Ethical Values**

Ethical values are a set of moral principles that apply to a specific group of people, professional field or form of human conduct and interaction. Ethics are based on the awareness that a human being is essentially spiritual and intrinsically valuable. Ethical values respect human rights through self-restraint, non-aggression, integrity, justice and honesty. A person with ethical values can be trusted and will be respected and revered. These values presuppose moral courage and the power to act according to one's moral convictions even at the risk of financial, emotional or social security. These relate to our personal behaviour with our fellow beings. Among these we include values like honesty and truth etc. All moral values are also covered under ethical values.

**Behavioural Values**

Behavioural values refer to all good manner that are needed to make our life successful and joyous. They are those values which will express our conduct and behaviour in our daily life. Behavioural values will adorn our life and spread cordiality, friendliness, love all around. Example: cordiality, integrity, trustworthy, kindness, loyalty etc.

**Instrumental Values**

Instrumental values are such values that are useful in deriving some other benefit through them such as economic gain or an increase in status. Example: education, political power etc.

A subject is said to have instrumental value when it is pursued, not for its own sake, but for some ends beyond itself. Instrumental values include preparatory or introductory, practical or utilitarian, socialising and conventional values.

**Intrinsic Values**

Intrinsic value are values which are judged well, not for something else, but in and of themselves. Intrinsic values are such values that are pursued and possessed for their own sake. It refers to the value of an object has solely by virtue of its 'intrinsic properties'. Intrinsic values are said to be inherent in themselves. They are supposed to be invaluable in an absolute sense. Examples: goodness, beauty, artistic expression, happiness, truth and bliss. They themselves are the ends and not the means for achieving some other end.

### **Aesthetic Values**

Values which give us pleasure and happiness are known as aesthetic values. Aesthetic values represent and seek to emulate the beauty of the Divine through the arts. To intensify appreciation, to strain and alert every sensitivity to a full appreciation of a value is to treat it as an aesthetic value. Things and activities which gives joys of beauty are aesthetic values. Example: beauty, taste, architecture, calligraphy and literature.

### **Democratic Values**

A person with democratic outlook is characterized by – respect for individuality, equal treatment to all, irrespective of their sex, caste, language, religion, colour, race, family status etc. ensuring equal social, political and religious rights to all, impartiality and social justice and respect for the democratic institutions.

According to National Curriculum framework for School Education (2000), “Truth, righteous conduct, peace, love and non-violence are the core universal values that can become the foundation for building the value based education programme. These five universal values represent the five domains of human personality – intellectual, physical, emotional, psychological and spiritual - are correlated with the five major objectives of education, namely, knowledge, skill, balance, vision and identity. In addition, key qualities like regularity, punctuality, cleanliness, self-control, industriousness, sense of duty, desire to serve, responsibility, enterprise, sensitivity to equality, fraternity, democratic attitude and sense of obligation to environmental inculcation and nurturance of moral , ethical, humanities and constitutional values.

### **NEED AND IMPORTANCE OF VALUE EDUCATION**

Value education has a special role in our country with different diversities in religion, ethnicities, cultures and language backgrounds. Such education is to foster in the long run a culture of 'unity in diversity', a culture of tolerance for pluralism and a culture that promotes peaceful means for resolving problems and issues.

Ghandhiji considers value as an inseparable component in the full flowering and development of personality. These values are also considered as determinants of human behaviour. They play a vital role in the lives of every individual. Values are enduring and they facilitate standards that guide the conduct of human beings.

In this present modern era, there has been a substantial erosion of values, the fabric of society is being frayed and age-old ties are breaking up and hence value education aims to provide direction for personal, emotional, social, cultural, ethical, moral, humanistic and spiritual development. There has been a rise in the number of cases of children with emotional disturbance, anti-social behaviour and drug abuse. The magnitude of value crisis indicates the need for value education in schools and demands conscious, planned, persistent and purposive efforts by teachers. Value education needs to be an integral component of curricular and co-curricular activities.

Education becomes meaningless unless accompanied by knowledge of values. Educated and intelligent people with poor values in life not only make their own life miserable but also bring more harm to the society than good. The goals of education are not just to produce individuals with knowledge and memory but also to produce individuals with values. Superstition, ignorance, intolerance and narrow perceptions lead to fights, riots and war, making life miserable to everyone. The consumerist and commercial ethos of our times have made the primary goal of education to be to acquire material success and power. In this competitive world, the goal of education is to acquire material success and power. As a result, the basic values like honesty and tolerance are neglected in personal and public life of people, resulting in the rise of crime, violence, cruelty, greed and apathy to human sufferings. There is a need to overcome the narrow casteist, communalist, linguistic and regional divides among the people and to promote unity, social and national outlook. Values of idealism, altruism, selflessness and service to fellow humans are vanishing from our life. There is also a need to develop sensitivity to the beauty of art, literature, craft and nature.

A number of modern values such as democracy, equality, liberty, fraternity, global perception, international co-operation, environmental protection of human rights have developed in recent decades. These values are to be inculcated in the children right from childhood. Children inherit their values from their parents, teachers and those around them. The information on values they get from these sources has to be supplemented or corrected through value education in the school. They should be made aware of the importance of leading value-based lives. Values should be deliberately inculcated, directly or indirectly, so

that along with mainstream curriculum, they also acquire necessary knowledge and skills that prepare them to be responsible citizens.

The National Curriculum Framework (2005) stress on education for peace in schools as a counteracting measure to the unprecedented violence that exists globally, nationally and locally. It also opines that education for peace, tolerance, justice, intercultural understanding and civic responsibility. It embodies joy of living and encompasses respect for human rights, justice, tolerance, cooperation, social responsibility, respect for cultural diversities, in addition to a firm commitment to democracy and resolving conflicts non-violently.

Education without values is not Education at all. In these circumstances, the need to reorient education and the school curricula with value education should receive priority. There is a need for country wide concerted efforts in this respect. A majority of the children are studying in schools today and they would become tomorrow's full-fledged citizens. Anything imbibed at an impressionable age would have long lasting effect. If they come out of schools with a value-laden bent of mind, the country's future would be in safe hands.

### **Importance of Values in school**

- i) Good values are the spontaneous manifestations of a sound character and values form the central pole around which our actions, desires and ambitions are organized.
- ii) Values guide our behaviour and give meaning to our existence.
- iii) Values assist us to take right decisions and make choices.
- iv) Values give direction and firmness to life and help us to be morally sound.
- v) Values set goals for achievements and they motivate, define and colour all our activities in cognitive, affective and conative domains.

The development of values is influence by a complex network of environmental factors – home, peer group, community, the media and the general ethos prevailing in the society. Schools and teachers have an important role to play in this but the extent to which it can be effectively done depends upon the nature and extent of school exposure, the physical conditions and the professional commitment and idealism of teachers. Schools by virtue of their institutional nature are eminently suited to contribute to some aspects of value development and are severely limited in relation to others, this feature of schools should not be lost sight of.

The schools should:

- a. kindle the moral and aesthetic sensibilities of children through exposure to appropriate objects, events and experiences.
- b. enhance awareness and sensitivity to moral aspects of major issues and concerns of modern life like poverty, illiteracy, human rights, environment, population, peace.
- c. develop the ability to reflect with an open mind on the moral dimension of contemporary social events and incidents of everyday occurrence.
- d. helps students to understand and appreciate the values of democracy, secularism, social justice, scientific temper and other values supportive of social cohesion and national unity.
- e. enable students to develop a concern for and commitment to these values and
- f. provide appropriate opportunities for students to practice and live by these values.

#### Values needed to be inculcated among school students

1. Care for public property.
2. Cleanliness
3. Cooperativeness
4. Consideration of others
5. Freedom
6. Hardwork
7. Honesty
8. Love for one's country
9. Justice
10. Non-violence
11. Scientific temper
12. Secularism
13. Self-discipline
14. Service to people
15. Team spirit
16. Truth

B.M.T. Ramji in his book, "Value-oriented School Education", has suggested that the students should be encouraged to acquire the following values:

1. Cleanliness



2. Courage
3. Courtesy
4. Dignity of manual work
5. Joy
6. Manual work
7. Peace
8. Purity
9. Service
10. Truth
11. Universal love.

### **SOURCES OF VALUES**

Human values are not abstract principles developed by academics or preachers, but life-embedded ideas and precepts, along with their various justifications. Though human values are not divinely ordained rules of behaviour or commandments set in stone, they are related to differing cultures, unique persons and situations and are developed and expressed in human terms for the human aims that they collectively represent.

Values are the treasures of life, making us wealthy and rich. Values are friends which brings happiness. A life filled with values is a life of self-respect and dignity. The soul is able to come closer to God and life becomes real and meaningful. Values bring independence and freedom, expand our capacity to be self-sufficient and protect us from external influences. These values can be trapped from different sources like socio-cultural tradition, religion and constitution.

#### **Socio-cultural tradition**

Institutionalized relationships of the members of a given society which determine their behaviours are called social traditions. In every society, there is a set of system of working that regulates the behaviours of members in a certain forms of relationships. Thus social institutions reflect social traditions, cultural basis and its various dimensions. For example, family, marriage, religion, economy, education, caste, law and order and art and amusement etc. as social institutions of a society regulate the life styles of the people.

Cultural traditions are well established traditions concerned with the values or beliefs, ideas, practices etc. Thus the behaviour and belief of individuals in a society depends on the established traditions of that society. Indian culture is a composite culture, blended with

social institutions, customs, values, beliefs of different races and communities. In spite of its cultural diversity, a basic cultural unity has been maintained in India. India's cultural unity lies in universality, humanism, saintliness, manliness, tolerance, non-violence, love, peace and individuality with fullest expressions. The essential characteristics of Indian culture is appreciation for others, way of life, religion and culture, adjustment, harmony, secularism and good will. Socio-cultural traditions provide the purpose, meaning and rationale of life of the people. Education helps the young ones to gain values from their society and its cultural traditions. At the same time education should help to impart knowledge to eliminate undesirable traditions like evils of caste system, feeling for rich and poor, superstitious, exploitations from the society. The characteristic elements of social and cultural traditions should be regarded as rich source of values. The parents, teachers and society must initiate the young minds for enculturation, sensitization to traditions, acceptance to traditions, living in accordance with culture, promotion of cultural tradition by cooperating with others etc to inculcate values through socio-cultural traditions.

### **Religion**

Religion is not the only source of essential values, it certainly is a major source of value. There is no religion, which does not emphasis values and virtues in the process of preparing noble human beings for tomorrow. Peace, harmony, happiness and freedom from sufferings can only come by acquiring tolerance, love, humanism and thorough understanding of the religious percepts. The practice of religion transforms the man into universal, finite into infinite, self-centered into the self-expressive. Religion purifies man's inner life and makes him fit for the pursuit of spirituality.

Religion teaches human beings the purpose of life and gives answer to several basic questions, which worry them. It removes all kind of duality. It also deals with the spiritual and moral problems of the human beings. In the words of Dr.S. Radhakrishnan "True religion is in the heart of man, not in man-made creeds. It believes in the spiritual nature of man, the essential divinity of the human soul. All religions emphasise this aspect. Man has within him the power by which he can rise to the heights of achievement. He shakes off shame and sorrow and conquers darkness."

Worship, rituals and morality of an individual is based on his religion. Religious value is the faith in God, an attempt to understand God, fear of divine worth and thinking, believing and behaving according to ethical codes prescribed in the religious books, religious leaders and teachings. The religious values are expressed through behaviour are going on pilgrimage, worshipping God and speaking truth. Religion is nothing but a spiritual quest. It is the

reaction of the whole man to the whole reality. According to Gandhiji's view "Religion is the expression of the permanent nature of man. Religion purifies and elevates one's nature. It arouses in man a sense of spiritual restlessness, a kind of thirst which enables the individual to cultivate and develop a sense to the right and good and make him truly moral man". Gandhi believes that religion involves a conscious and sincere love and striving for truth.

Secularism based on respect for other's faith, good teaching of all the religions of the world should be guiding force of the life. Tolerance, accommodation, and love for humanity with universal outlook have been bases for peace in society. Teachings of religious leaders and scriptures act as the good source of knowledge of reality and truth.

All religions advocate, profess and promote various values, binding man back to its source and his fellow human beings and other creatures. The values recognised by all religions include: truth, goodness, beauty, modesty, non-violence, hard work, determination, forgiveness, contentment, mutual cooperation, love, respect for others view, purity of conduct, selfless action, sacrifice of one's pleasure for others etc. Every religion encourage man to lead life in consonance with these values in order to achieve spiritual bliss or self-realization. According to Dr. Radhakrishnan 'All religions are friends and partners in the pursuit of spiritual life. All religions are bound together in a holy partnership to advance the cause of peace, justice and freedom'.

### **Constitution**

India became an Independent country on August 15, 1947 and a democratic constitution was established on January 26, 1950. The Indian society upholds a set of values namely, democracy, socialism and secularism, which guide the life of the individuals and group functioning. These three basic values are stressed in the preamble of the Constitution of India as "*We, the people of India, have solemnly resolved to constitute India into a Sovereign, Socialist, Secular, Democratic Republic*" and to provide security to all its citizens.

India constitution provides preferment for the basic values of democracy, socialism and secularism. These values are the guiding principles for all individual and group functioning. Constitution predicts a new social order based on democracy, socialism and secularism. The principles relating to these values are: a) Democratic principles such as freedom, tolerance, equality, and respect for other's view, sharing, and Scientific temper of mind. b) Socialist principles like respect for equality in status and opportunity, equitable distribution of wealth, maximising production of wealth and c) Secular principles such as respect for all religion, freedom of worship and management of civic affairs.

The idea of what values should be fostered through education has been best expressed in the Constitution of India. The Indian Constitution has explicitly laid down fundamental duties of its citizens in Article 51A, emphasizing that every Indian citizen would:

- ‘promote harmony and spirit of common brotherhood, transcending religious, linguistic and regional or sectoral diversities;
- renounce practices derogatory to the dignity of women;
- value and preserve the rich heritage of our composite culture;
- protect and improve the natural environment;
- develop the scientific temper;
- abjure violence and
- strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement’.

The democratic social order is our national objective. The Constitution of India, lays emphasis on the above four pillars of democracy. The four basic principles of our Indian constitution are: 1. Justice – Social, Economic and Political. 2. Liberty – of thought, expression, belief, faith and worship. 3. Equality – of rights and opportunity and to promote among them all. 4. Fraternity – assuring the dignity of the individual and the unity and integrity of the Nation.

The fundamental rights and values conferred by our constitution have been evolved out of the philosophical, social and cultural traditions of India. The fundamental rights guaranteed in the Indian Constitution, also reflecting the values held by the Indian nation, are classified under seven groups:

- Right to Equality
- Right to particular freedom
- Right against exploitation
- Right to freedom of religion
- Cultural and educational rights
- Right to property
- Right to constitutional remedies

The values expected from the citizens of the country can be seen in the ten fundamental duties laid down in the Constitution as follows:

- To abide by the Constitution and respect the National Flag and the National Anthem.
- To cherish and follow the noble ideals which inspired our national struggle for freedom.
- To protect sovereignty, unity and integrity of India.
- To defend the country.
- To promote the spirit of common brotherhood amongst all people of India.
- To preserve the rich heritage of our composite culture.
- To protect and improve the natural environment.
- To develop the scientific temper and spirit of enquiry.
- To safeguard public property.
- To strive towards excellence in all spheres of individual and collective activity.

The directive principles of the Indian Constitution are aimed at establishment of economic and social democracy pledged for in the Preamble. They cover a wide range of State activity and lay down objectives in social, economic, legal, educational, administrative, cultural and international fields that the State is required to follow the ideals and the State should strive for it.

Our constitution assured provision for promotion of basic values, equality for all the citizens before the law and equality of educational opportunities, justice in human spheres and freedom of faith and expression etc. Apart from enacting suitable laws, Planning Commission has been formulating comprehensive Five Year Plans for development and change in accordance with constitutional provisions and directive principles.

### **STATUS OF VALUE EDUCATION IN THE CURRICULUM**

India evolved different systems of education in accordance with the changing needs of the times. The Gurukula system characterises the most important feature of the ancient Indian Education. Education was conceived as an effective means of attaining spiritual liberation from the bondage of ignorance. Under the Buddhist system, the attainment of liberation by the individual ceased to be the ultimate aim and the person who succeeded is acquiring enlightenment was expected to work for the good of the fellowmen instead of remaining satisfied with his own nirvana. Ever since India achieved its political freedom it has made

systematic efforts to transform itself into a secular democratic republic. This means that the education system must make its contribution to the development of habits, attitudes and qualities of character which will enable its citizens to shoulder worthily the responsibilities of democratic citizenship. The Secondary Education Commission realises the need for religious and moral instruction in schools stressed the importance of “the influence of the school through the conduct and behaviour of teachers themselves”. With the rapid and unprecedented development and growth of democratisation of education, the Indian school system has undergone a transformation from a restricted to a mass education system.

Education is a methodological approach towards learning basic Facts about humanity. The main of value education is to cultivate essential values in the students so that the civilization helps them to develop. Value education and its curriculum is to supplement education, so that education becomes complete, realising the objective of wholeman.

Curriculum including hidden curriculum, co-curricular activities, school culture and the teachers are sources of value education. Curriculum can provide knowledge and understanding values. In addition to the knowledge component, attitudinal aspects are also to be interwoven with the process of teaching-learning. This will empower students to make appropriate value judgement and to act accordingly when such a situation arises. Teacher educators must have a planned, purposive and conscious approach for inculcation of values among teacher trainees.

According to the Indian Education Commission (1964-66), “We would like to emphasize that the consciousness of values must permeate the whole curriculum and the programme of activities in the school”. The curriculum is expected to be repository of values and spirit of value education is visible when different subject matters are taught while transacting curriculum, teachers and students become value conscious, if this is applied in curricular and co-curricular activities of the school, then education and its curriculum is complete. The value education curriculum should include the following according to the age of the students: Concept development and knowledge of value, understanding the concept of value through clarifications of their experiences, analysis of situation and theories and providing learning experiences. Apart from usual subjects in curriculum, it should oriented towards value development, importance should be given to practice in clarification and justification of values. This helps the students to bring their values to conscious level which in turn helps to harmonies e and justify values. Thus, value education is always essential to

shape one's life and to give him an opportunity of performing himself on the global stage. So the value education curriculum should be framed to fulfil the above needs.

In the context of the socio-political climate prevalent in the country, we need a system of education which besides strengthening democracy, national unity and solidarity should further strengthen democracy as a form of Government and way of life. The moral and spiritual well-being of the nation should be promoted through a conscious and deliberate educational effort in the field of moral and spiritual values.

Present education system deals with imparting knowledge of "Apara Vidya" i.e. study of Physics, Chemistry, history, biology etc; as well knowledge of scriptures and Vedas. The knowledge which we possess through the present education system is Apara Vidya which means that although we have knowledge of the world we do not have knowledge of our own self, of the supreme reality which is beyond time and space. We get knowledge of the external world. Today's education system is designed in such a way that a human being will achieve materialistic success and superficial achievements but he will lack virtues like kindness, honesty, compassion, righteousness, peace, love, non-violence etc. Human beings have become individualistic and self-centered. This infuses in them jealousy, Hatred and rivalry. Stability of society is threatened by the breakdown of ethics. The basic aim of education should be to produce men of knowledge and culture. Values such as Patriotism, anti-untouchability, dignity of individuals, endurance, social service, justice, national integration find no place in today's world of corruption, violence, intolerance and money-making.

### **VALUE DEVELOPMENT AND CLARIFICATION**

According to Hipple, T.W. (1969), "Values are conscious, unconscious motivators and justifiers of the actions and judgement". He quoted the views of R.Safaya on the development of values as follows:

<b>s.no</b>	<b>Technique</b>	<b>Description</b>
1.	Precept - ideal	Presentation of the ideal behaviours of parents and teachers
2.	Influence	Use of approval and disapproval of acts, humour.
3.	Identification	Identification with a child hero from a story, novel, scripture or identification with a desirable group or individual.

4.	Association and conditioning	Creating situations of enjoyment: satisfaction in various co-curricular and curricular programmes.
5.	ventilation	Providing an outlet through verbal and written statements on controversial issues.
6.	Parable and Allegory	Short stories, songs, poems, depicting healthy attitudes.
7.	Psycho-drama	Creating artificial situations to affect children's mind positively.
8.	Role-playing and Socio-drama	Acting out certain situations by taking various roles and looking at solutions of value problems.

Value clarification is a complex system of behavioural modification involving various concepts, ideas, and applications. Value clarification helps students to develop their own values and moral standards by teaching them a decision making process. Value clarification is a technique for encouraging students to relate their thoughts and their feelings and thus enrich their awareness of their own values. Value clarification also aims to teach children how to make moral decisions. Through exercises and discussion, students should be made aware of the influences to their values and to explore acknowledge what they truly value in their lives.

### **FAMILY VALUES**

Family values, sometimes referred to as familial values, are traditional or cultural values (that is, values passed on from generation to generation within families) that pertain to the family's structure, function, roles, beliefs, attitudes, and ideals. Family traditions are usually defined as 'a combination of social ideals, personal attitudes, ideas and environment derived from our parents or relatives, while family values usually refer to how we frame our personal life in our relationship with our family members to maintain harmony. The values of a family depend on the dynamics of the family. It will also depend on education, culture, and the society in which the family lives. The family values will be different for each family as well as for each generation. As values are integrated with culture, religion as well as socially determined attitudes, behaviour and customs, an evaluative and critically questioning methodology is required for the promotion of family values.

### **CHARACTER EDUCATION**

Character education is an umbrella term generally used to describe the teaching of children in a manner that will help them develop as personal and social beings. However, this



definition requires research to explain what is meant by "personal and social being". Concepts that fall under this term include social and emotional learning, moral reasoning/cognitive development, life skills education, health education; violence prevention, critical thinking, ethical reasoning, and conflict resolution and mediation. Lickona (1996) mentions eleven principles of successful character education. It seems to have been applied in the UK and the United States.

Comprehensive character education addresses many tough issues in education while developing a positive school climate. It can be effective in any school setting, as our National Schools of Character demonstrate. Educators from this diverse array of schools have transformed their school cultures, reduced discipline referrals, increased academic achievement for all learners, developed global citizens, and improved job satisfaction and retention among teachers.

Character education includes and complements a broad range of educational approaches such as whole child education, service learning, social-emotional learning, and civic education. All share a commitment to helping young people become responsible, caring, and contributing citizens.

Because students spend so much time in school, our schools offer a critically important opportunity to ensure that all students get the support and help they need to reach their full potential. Schools that embrace character education become places people want to be because they bring out the best in everyone.

An eclectic approach is also implicit in the 11 Principles of Effective **Character Education** prepared by Lickona, Schaps and Lewis (2000):

1. Promote core ethical values as the basis of good character.
2. Define character comprehensively to include thinking, feeling, and behavior.
3. Promote core values intentionally and proactively through all parts of school life.
4. Are caring communities.
5. Give students opportunities for moral action.
6. Have meaningful and challenging academic curriculums that respect learners.
7. Develop students' intrinsic motivation.

8. Have professionals who exemplify core values and maintain a moral community.
9. Require moral leadership from educators and students.
10. Recruit parents and community members as full partners.
11. Evaluate school character, student character, and adults as character educators.

**To be effective in schools, character education must involve everyone—school staff, parents, students, and community members—and be part of every school day.** It must be integrated into the curriculum as well as school culture. When this happens and school communities unite around developing character, schools see amazing results. Character education is not new—and it is something we can all agree on. It was an important objective for the first schools and today it is mandated or encouraged in most states. The current movement is simply a reminder of education’s long history of stressing shared values and character.

## **SCIENCE OF LIVING**

Science of Living (Jeevan Vigyan; Jeevan = Life and Vigyan = Science) is a detailed program that complements the current educational approach with spiritual and value based learning. While both mental and physical development is needed for a student's growth, Jeevan Vigyan adds a third pillar – that of emotional intelligence and morality (or values) – to education in schools and colleges.

Every one of you should have an aim. But do not forget that on the quality of your aim will depend the quality of your life. Your aim should be high and wide, generous and disinterested; this will make your life precious to yourself and to others. But whatever your ideal, it cannot be perfectly realised unless you have realised perfection in yourself. To work for your perfection, the first step is to become conscious of yourself, of the different parts of your being and their respective activities. You must learn to distinguish these different parts one from another, so that you may become clearly aware of the origin of the movements that occur in you, the many impulses, reactions and conflicting wills that drive you to action. It is an assiduous study which demands much perseverance and sincerity. For man's nature, especially his mental nature, has a spontaneous tendency to give a favourable explanation for everything he thinks, feels, says and does. It is only by observing these movements with great

care, by bringing them, as it were, before the tribunal of our highest ideal, with a sincere will to submit to its judgment, that we can hope to form in ourselves a discernment that never errs. For if we truly want to progress and acquire the capacity of knowing the truth of our being, that is to say, what we are truly created for, what we can call our mission upon earth, then we must, in a very regular and constant manner, reject from us or eliminate in us whatever contradicts the truth of our existence, whatever is opposed to it. In this way, little by little, all the parts, all the elements of our being can be organised into a homogeneous whole around our psychic centre. This work of unification requires much time to be brought to some degree of perfection. Therefore, in order to accomplish it, we must arm ourselves with patience and endurance, with a determination to prolong our life as long as necessary for the success of our endeavour.

As you pursue this labour of purification and unification, you must at the same time take great care to perfect the external and instrumental part of your being. When the higher truth manifests, it must find in you a mind that is supple and rich enough to be able to give the idea that seeks to express itself a form of thought which preserves its force and clarity. This thought, again, when it seeks to clothe itself in words, must find in you a sufficient power of expression so that the words reveal the thought and do not deform it. And the formula in which you embody the truth should be manifested in all your feelings, all your acts of will, all your actions, in all the movements of your being. Finally, these movements themselves should, by constant effort, attain their highest perfection.

All this can be realised by means of a fourfold discipline, the general outline of which is given here. The four aspects of the discipline do not exclude each other, and can be followed at the same time; indeed, this is preferable. The starting-point is what can be called the psychic discipline. We give the name "psychic" to the psychological centre of our being, the seat within us of the highest truth of our existence, that which can know this truth and set it in movement. It is therefore of capital importance to become conscious of its presence in us, to concentrate on this presence until it becomes a living fact for us and we can identify ourselves with it.

In various times and places many methods have been prescribed for attaining this perception and ultimately achieving this identification. Some methods are psychological, some religious, some even mechanical. In reality, everyone has to find the one which suits him best, and if one has an ardent and steadfast aspiration, a persistent and dynamic will, one

is sure to meet, in one way or another – outwardly through reading and study, inwardly through concentration, meditation, revelation and experience – the help one needs to reach the goal. Only one thing is absolutely indispensable: the will to discover and to realise. This discovery and realisation should be the primary preoccupation of our being, the pearl of great price which we must acquire at any cost. Whatever you do, whatever your occupations and activities, the will to find the truth of your being and to unite with it must be always living and present behind all that you do, all that you feel, all that you think.

To complement this movement of inner discovery, it would be good not to neglect the development of the mind. For the mental instrument can equally be a great help or a great hindrance. In its natural state the human mind is always limited in its vision, narrow in its understanding, rigid in its conceptions, and a constant effort is therefore needed to widen it, to make it more supple and profound. So it is very necessary to consider everything from as many points of view as possible. Towards this end, there is an exercise which gives great suppleness and elevation to the thought. It is as follows: a clearly formulated thesis is set; against it is opposed its antithesis, formulated with the same precision. Then by careful reflection the problem must be widened or transcended until a synthesis is found which unites the two contraries in a larger, higher and more comprehensive idea.

The vital being in us is the seat of impulses and desires, of enthusiasm and violence, of dynamic energy and desperate depressions, of passions and revolts. It can set everything in motion, build and realise; but it can also destroy and mar everything. Thus it may be the most difficult part to discipline in the human being. It is a long and exacting labour requiring great patience and perfect sincerity, for without sincerity you will deceive yourself from the very outset, and all endeavour for progress will be in vain. With the collaboration of the vital no realisation seems impossible, no transformation impracticable. But the difficulty lies in securing this constant collaboration. The vital is a good worker, but most often it seeks its own satisfaction. If that is refused, totally or even partially, the vital gets vexed, sulks and goes on strike. Its energy disappears more or less completely and in its place leaves disgust for people and things, discouragement or revolt, depression and dissatisfaction. At such moments it is good to remain quiet and refuse to act; for these are the times when one does stupid things and in a few moments one can destroy or spoil the progress that has been made during months of regular effort. These crises are shorter and less dangerous for those who have established a contact with their psychic being which is sufficient to keep alive in them the flame of aspiration and the consciousness of the ideal to be realised. They can, with the

help of this consciousness, deal with their vital as one deals with a rebellious child, with patience and perseverance, showing it the truth and light, endeavouring to convince it and awaken in it the goodwill which has been veiled for a time. By means of such patient intervention each crisis can be turned into a new progress, into one more step towards the goal. Progress may be slow, relapses may be frequent, but if a courageous will is maintained, one is sure to triumph one day and see all difficulties melt and vanish before the radiance of the truth-consciousness.

When we reach the degree of perfection which is our goal, we shall perceive that the truth we seek is made up of four major aspects: Love, Knowledge, Power and Beauty. These four attributes of the Truth will express themselves spontaneously in our being. The psychic will be the vehicle of true and pure love, the mind will be the vehicle of infallible knowledge, the vital will manifest an invincible power and strength and the body will be the expression of a perfect beauty and harmony.

## **CONCLUSION**

Values are a matter of developing appropriate behaviour and habits, right attitudes and understanding, ability in discriminating and choosing right from right and wrongs. Values can, therefore, be inculcated by creating the right atmosphere and promoting learning by examples rather than precepts. Education without values is waste. Education should be given with moral values. Educating young minds without value will create a menace in the society. The values are the guiding principles of life which help for the all-round development of children.

## **Questions**

1. Explain the concept of values.
2. Describe Kohlberg stages of moral development.
3. Analyse the need and importance of value education.
4. Explain Value development and Clarification.
5. What do you mean by character education?
6. Comment on Science of living.

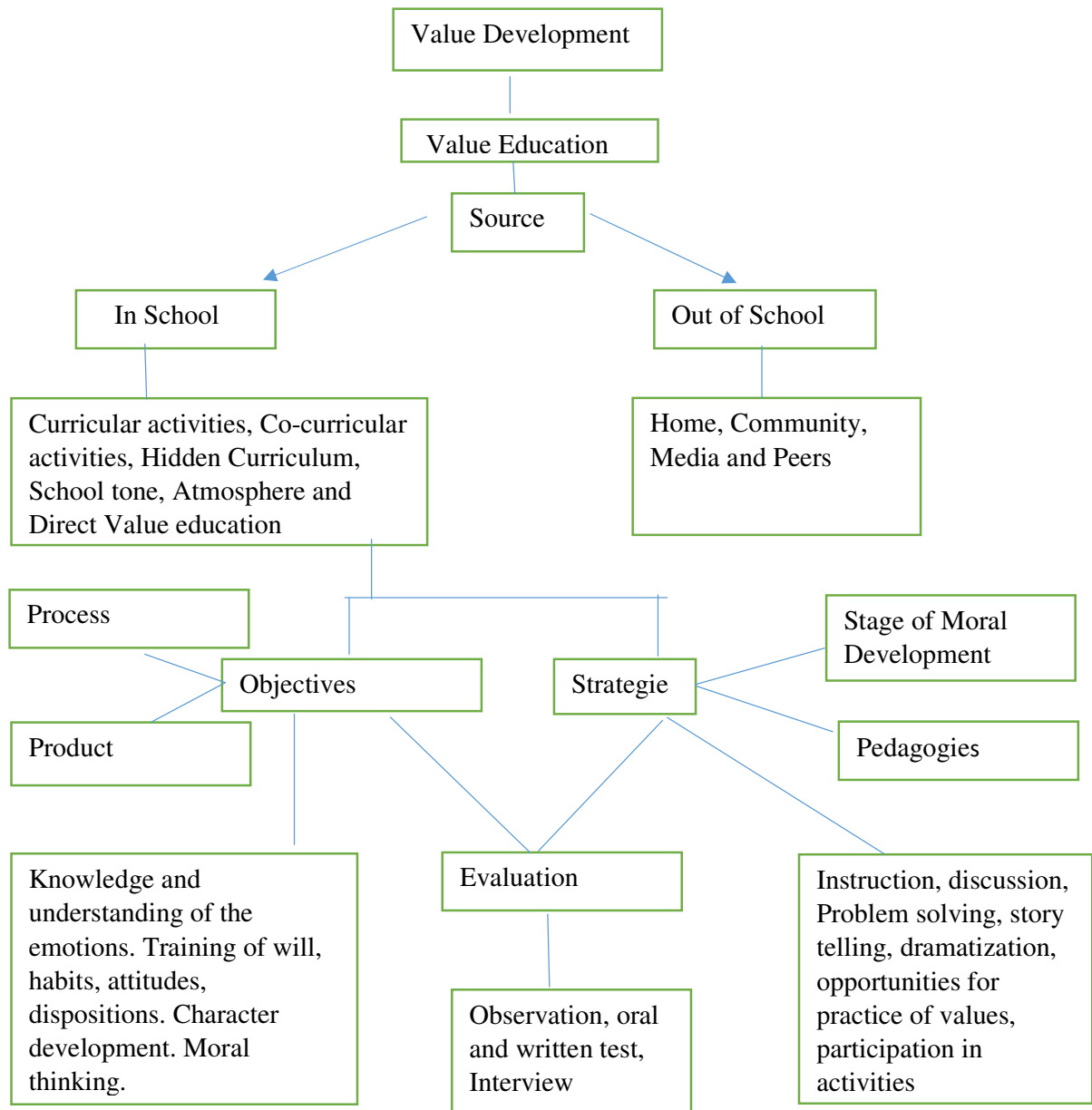
## **UNIT II FOSTERING VALUES**

### **INTRODUCTION**

The effective tools to foster values in the youth are education, mass media and voluntary associations that involve the individuals. The Kothari commission report (1966) suggests that values should be taught to students. Therefore, the National Policy on Education (NPE, 1986), has recommended various radical changes in education. They are as follows: “The growing concern over the erosion of essential values and increasing cynicism in society has brought forces to, the need for re-adjustments in the curriculum in order to make education a forceful tool for the cultivation of social and moral values”. In a pluralistic society like ours, education should foster universal and eternal values. Such value education should help to eliminate traditionalism, religious fanaticism and violence.

### **DEVELOPMENT OF VALUES: ATTITUDES AND PERSONAL QUALITIES**

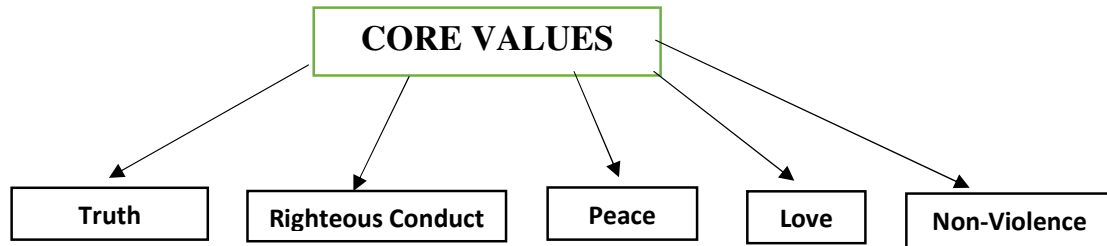
Principal A.R. Seetha Ram of Ramakrishna Institute of Moral and Spiritual Education, Mysore has suggested the following conceptual framework for value education as in fig 2.1.



**Fig 2.1 showing Value Development**

## CORE VALUES

Core values are universally accepted values by all major religions. But they are abstract and sub values are more concrete and observable in behaviour. A brief description of the core values given by NCERT (1987) are as follows



### 1. Truth

Truth is the unchanging reality. It represents the real “T” or the diving principle in each of us. The role of human intellect is to find out the truth. “When one realizes and experiences this truth, one sees that the same truth pervades every other person and object and in essence we all are one”.

### 2. Righteous Conduct

Truth in action be considered as right conduct. It represents unity in thought, word and action of an individual. It cover all aspects of life and concerned not only in one’s own welfare, but in the well-being of all.

### 3. Peace

Peace is the end purpose of all human endeavours and it is a state of emotional equilibrium. Peace and love are closely connected. If love is blocked it will result in loss of peace. When the flow of love is restored, then peace returns.

### 4. Love

Love is the supreme value. It is a form of energy which each individual transmits and receives. The essence of value education is to train students to start the day with love, fill the day with love and to end the day with love.

### 5. Non-Violence

Non –violence means not to injure others either by our thoughts, words, or action. Non-violence is based on the understanding of oneness or underlying unity of all beings.

## WAYS OF FOSTERING VALUES IN CHILDREN



As parents and teachers are mainly responsible for laying foundation of values in children that make them good citizens, their faith in inculcating values in children is indispensable. The task of inculcating values is not an easy task unless the society as a whole resolves to bring about changes to make a society for all and voluntary efforts are initiated to practice values in day-to-day life. It will be unrealistic to expect a teacher to bring about the change if the society does not follow a set of values.

### **Role of Parents**

In olden days, the children had such great regard and love for the parents that they were both to go away from them. They should be careful how they themselves behave in the presence of children for young people have to learn a lot from emulation. A spirit of understanding and sympathy has to be pervade at the home, create a sort of value education and knowledge. From the age of two to five the children looks up to its mother, and so the mother's behaviour, has to be very proper. So you reach the children 'we must always speak the truth', provides a way of ethical education.

Ninety percent of blame for spoiling the behaviour and character of children go to the parents because they show unnecessary affections and give too indiscriminate freedom to them. The endearing nature of parents is fading out rapidly in a mist of affected nature. Most of the parents pay no attention to the anxieties of the growing child. It is not all to shift the responsibility by admitting the child in a 'Top School' and washing their hands off the child.

The problems faced by children affect the smooth running of school life. What is learnt at school turns out to be quite contrary to what actually happens at home. Whatever parents have to do, cannot be overdone at school, however, responsible teachers may be. Knowledge can be given by the teachers; however, the discipline, the rigorous control of the senses and behaviour must be administered by the parents so that the latter also practise the human values and reform their children. Then the children become sacred souls and holy individuals.

Parents must ensure that right values are developed in children. Parents must also volunteer themselves to initiate such efforts that could contribute to the process of inculcating values in society. Plays, books, stories and a congenial environment at home will help a lot in inculcating values.

Sri Sathya Sai Baba (2000), the most powerful advocate of moral education has observed that character is the most precious gift of education. Politics without principles, education without character, science without humanity, and commerce without morality are

not only useless but positively dangerous. He concludes, present day education develops the intellect and basic skills but does little to develop good qualities.

### **Teachers**

Teachers of all levels of education are today faced with the problem of imparting functional type of education to promote human values. Teacher's role is to initiate such education processes and involve students in such processes by which students develop their ability, attitude and other forms of behaviour of practical life in the society in which they live. The influence of school environment is expected to enable students to obtain social competence and individual development. Such an expected influence largely depends upon teacher's positive role in creating and sustaining conducive environment of the school.

Teacher should establish clear standards of behaviour and encourage his students to behave towards himself, towards one another, and towards the whole community in an orderly and considerate way. The teacher should, therefore, develop a rational acceptance of these standards in his students and also the ability to discriminate the right from the wrong.

Traditionally teachers are regarded as the torch bearers of the race and the makers of history. Although their role in this respect has diminished still it must be admitted that they exercise their considerable influence on children.

Teachers to be functional as vehicles of values must themselves be value-oriented. It has been remarked by a great thinker that if a teacher is devoid of values, it is better to take to shop keeping. Gandhiji has observed, "The secret of teaching values is to inspire and kindle the quest among the students by means of one's own example of character and mastery of knowledge. It is by embodying values within themselves that the teachers can really radiate values to their students".

One of the challenges before a modern teacher is how to make value education effective and interesting to the modern youth. The present day youth with all its potential and goodwill to learn seem to concentrate on all other academic subjects except value education. This poses a challenge to all concerned with the all-round development of the pupil through education.

Mazumdar (1983) said, "Values cannot be taught through formal and direct teaching. They can be inculcated only when the institutions provide activity for it and experiences inside and outside the school that promote responsibility, cooperation, honesty, fair play and

self-control. Education for values has to be based on the ideas of supremacy of reasoning over anything else and not only unintelligent conformity”.

All occasions of daily life should be utilised by the teacher to bring his student nearer to the realisation of the ideals. There are occasions when children express wild impulses and passions, and often they are in revolt. Children have their own daily battles of loyalties and friendship, and there are moments of desperate depression and of violent enthusiasm. There are occasions when children get vexed, become sulky and go on strike. With patience and perseverance, the teacher can utilise all these occasions to show the truth and light and to awaken among the children the right sense and the right direction of true progress.

The important aspect in the role of a teacher is that they should set good examples of conduct and behaviour which students may imbibe in themselves. Teachers have to be professionally prepared and made to internalise their role in value inculcation. Since every teacher is a value educator, it is expected that she/ he:

- Would develop a clear vision of his role in value orientation.
- Would be able to identify the potential of different subjects and situations in school for fostering universal human values and be sensitised about his own influences as role models.
- Would be able to analyse his own biases and attitude towards students.
- Would evolve a positive approach to authentic orientation related to different religions related values.
- Would be a good communicator.
- Would be able to delineate stage specific strategies.
- Would be able to incorporate moral themes while teaching subjects.
- Would be able to devise a number of innovative ways for value education to be applied in the classroom.

Ordinary Teachers can bring about extraordinary transformation in the society. A teacher should practice what he preaches. Teachers are a role-model for the students. Their actions convey more than their words. Students learn values from what the teachers are rather than from what they say. Teacher makes a maximum impact on the personality of a student in the formative years. Students imbibe virtues and vices knowingly and unknowingly from these role models. Teachers demonstrate the appropriate behaviour of their students by their actions. Teachers must have healthy attitude and should possess rich values. Teaching is all

about attitude-positive/ negative towards their job of imparting quality education. Teacher should act as a friend, philosopher and guide. A teacher is not only a source of information but is also a mentor and guardian. For this teacher must respect the teaching profession, love her subjects and students, Students will seek inspiration from teachers who have high self-esteem. A decade back or so the role of a teacher was limited to being a source of information. But today this place is shared by books, coaching classes, multimedia technology etc. So the role of a teacher is marginalized. Role of a teacher has increased manifold. In modern times we are experiencing transition. A teacher can maintain values and nurture them. A teacher has an immense potential of bringing about a sea change in the society by demonstrating essential values of head and heart. Teacher can impart values in students by giving them instructions through discussion, experimentation and lectures and by the following mentioned ways:

- Teachers can maintain a case-study register to closely observe the students and note down the positive and negative traits of their personality.
- Teachers should also tell the students to maintain a spiritual diary in which they will surrender themselves to God and take an oath to follow the path shown by him.
- By organizing cultural and sports events values like team spirit, sharing, spirit of cooperation, patience, courtesy etc can be imparted.
- “Thought for the Day” should be employed in assemblies. Moral thoughts trigger in them moral thinking.
- Teachers should give importance to cooperative learning.
- Skits, role plays propagating moral values can be performed by students under the guidance of teacher.
- Teacher must tell the students to go to the libraries- the treasure house of knowledge. Classics available in the library are morally rich and inspiring.
- Teacher must explain the students the importance of meditation & yoga practices for realization or the attainment of oneness with God.
- Every day a Teacher must spend at least 5 minutes on moral lecturing.
- Impart knowledge of foreign languages to make them know different cultures.
- Organize games, excursions, visits to places of historical importance. Club activities like nature club, literary club, wildlife prevention club, social service camps, blood donation etc.

- Suicidal tendencies in students should be curbed. They must be prepared by the teacher to face the challenges of life fearlessly and with courage.

The most important agent for building the character of the student is a teacher. Swami Vivekananda says that “character is nothing but a bundle of habits formed through repeated acts. It comes through “Samskaras” or past impressions. Character building can change the nation. As strong foundation is required for a strong building, strong character is required for nation-building.

Thus Teachers Society play an important role in the nation building by character building of the students. The best and the greatest profession in the world is that of a teacher, because the future of a nation depends upon the type of teachers who shape the future generations. Every teacher plays the most important role in shaping the students as enlightened citizen. Swami Vivekananda’s words should not be forgotten by the teachers- “Arise, Awake and Stop not till the goal is achieved”.

### **Society**

The child is initiated into learning in the society to which he/she is a bonafied member with all facilities at disposal. The society may be assigned new roles to play effectively and vigorously towards development and inculcation of values of multi-dimension. The society is expected

1. To create homogeneous environment so as the learners may take up valuable lessons on ethics, behaviour, adjustment, living together, sympathy and service
2. To reflect simplicity, honesty, kindness, and fairness in their conduct, for development of positive habit, attitude, inner capacity, and feeling and wish to live
3. To provide maximum freedom for fuller growth with experiences (Spencer) and with facilitation of desired suggestion and persuasion (Stuart Mill).
4. To explain its traditions, rituals, mythological stories, consequences and contribution to the modern order of society
5. To take the valuable lesson from Gandhian thoughts, ‘*do not hear ill, do not speak ill and do not see ill of others*’
6. To narrate the cultural-socio-economic life patterns and the values the society members should continue to give quality lessons taking from the scriptures of *Vedas, Upanishads, Geeta, Koran, Bible* and the preaching of the great men and the saints
7. To make the children emotionally integrated for practicing the values of oneness, unity, neighbourhood, code-conduct, love and sympathy for the poor. The values of co-operation, sincerity and commitment can be learnt in the society

8. As the children are the working force and asset to the society vis-à-vis the nation, they require learning the '*value of dignity of labour*'

### **Peer Groups**

Peer group is from age-matched, like-minded, harmonious relationship between people of equal status, an informal group, it can meet the young people for friendship, security, self-esteem, identity, and many other needs, and thus into the peer group values and behaviour of children and young people formed an important sources of influence. Youth are interested in participating in peer group activities, and loyal to the peer groups. Peer group is a prime factor in society which influences the values of children. The peer group persists as a factor of environment throughout life, of course changing with time and maturity, but forcing the individual to live up to his/her "reputation" in the group. Furthermore, peer group's values and interest are mostly influenced by positive and negative peer pressure.

When children are small, their minds are not developed enough to understand such things, but as they grow older more and more peer pressure situations start arising. Peer pressure is the psychological force exerted by another, or orders, in equal standing, which often influences one into acting or behaving in a manner that is generally inconsistent with one's normal behaviour. Both children and adults fall victim to peer pressure. It is human nature to be influenced by someone who is a part of our friend circle and to be tempted to do whatever he/she is doing.

There are both negative and positive effects of peer pressure. Positive peer pressure is something that impacts child's life in a positive way. Parents can use child's peers to their advantage by making use of positive peer pressure tactics. Parents should appreciate the good qualities of their child's friends to motivate the child to follow the same. Positive peer pressure helps children to acquire good values, attitude, habits and behaviour. At times friends can help them give an altogether new perspective and attitude towards life, through sharing of opinions and thoughts. They learn to accept the point of view of other people and become more sociable. Children's life can certainly change for better by using positive peer pressure. It can shape their personality and thought process and help them become better human beings.

### **Religion**

Worship, rituals and morality of an individual is based on his religion. Religious value is the faith in God, an attempt to understand God, fear of divine worth and thinking, believing

and behaving according to ethical codes prescribed in the religious books, religious leaders and teachings. The religious values are expressed through behaviour are going on pilgrimage, worshipping God and speaking truth.

Religion is nothing but a spiritual quest. It is the reaction of the whole man to the whole reality. Bertocci (1951) says, “The essence of religion is the personal belief that one’s most important values are sponsored by, or in harmony with the induring structure of the universe whether they are sponsored by society or not. S.Radhakrishnan gives his views as, “It is an attempt to discover the ideal possibilities of human life a quest for emancipation from the immediate compulsions of vain and petty moods. It is not true religion unless it ceases to be a traditional view and becomes a personal experience. It is an independent functioning of human mind, something unique, possessing an autonomous character. It is something inward and personal which unifies all values and organizes all experiences. It is the reaction of the whole man to the whole reality. We seek the religious object by totality of our faculties and energies.

According to Swami Krishnananda, “Religion is the language of the spirit in man. It is the urgu of the soul within, the response of the whole that is man to the call of the Absolute.” Vivekananda says, “Of all the forces that have worked and are still working to mould the destiny of the human race, none certainly is more potent than the manifestation of which we call religion.” According to Dr.Radhakrishnan, “Religion tends to converge, if we look on the spiritual facts on which they are based and the moral universalism which they teach”.

According to Gandhiji’s view “Religions is the expression of the permanent nature of man. Religion purifies and elevates one’s nature. It arouses in man a sense of spiritual restlessness, a kind of thirst which enables the individual to cultivate and develop a sense to the right and good and make him truly moral man”. Gandhi believes that religion involves a conscious and sincere love and striving for truth.

Religion involves two disciplines i.e. an external part which is expressed in ceremonies or Shariyats or Karmkands and inner discipline i.e. spiritual part. The external part differs from religion to religion and communities and is dependent upon time and climate of the place. The inner part i.e. spiritualism is the same in all religions.

All religions advocate, profess and promote various values, binding man back to its source and his fellow human beings and other creatures. The values recognised by all religions include: truth, goodness, beauty, modesty, non-violence, hard work, determination,

forgiveness, contentment, mutual cooperation, love, respect for others view, purity of conduct, selfless action, sacrifice of one's pleasure for others etc. Every religion encourage man to lead life in consonance with these values in order to achieve spiritual bliss or self-realization. According to Dr. Radhakrishnan 'All religions are friends and partners in the pursuit of spiritual life. All religions are bound together in a holy partnership to advance the cause of peace, justice and freedom'.

The major religions of world like Hinduism, Christianity and Islam have a common teaching, connotations, orientations for humanity, therefore, they all three show equal or same communication in the pursuit of spiritual life.

### **Hinduism**

Hinduism is one of the oldest and powerful religion of the world. Vedas are one of the oldest literature of the world which means knowledge. The most fundamental values in Hinduism are: Self-control, Ahimsa, self-realization, truthfulness, love and satisfaction.

The chief characteristics of Hinduism is: It is an attempt to know reality as against appearance, it accepts experience as a base for test of truth. Brahman or Atman is the ultimate reality. Maya is material cause of the universe. Ethics starts from the path of positive action and gradually progresses on the path of liberation. It promotes ideals of Purusharthas (doctrine of life) with its four ends namely, Artha, Kama, Dharma, Moksha to realize through four ashramas of Brahmacharya, Grahastha, Vanaprastha and Sanyas. Mystic experience is a vital factor of Hinduism and it is included in all the religions of the world. Morality constitutes an integral part of Hinduism, Modern Hindu ethics discards caste system.

According to Dr. Radhakrishnan "The Hindu Method of religious reform is essentially democratic. It allow each group to get to the truth through its own tradition by means of discipline of mind and morals. Each group has its own historic tradition and assimilation of it is the condition of its growth of spirit ..."

### **Christianity**

The faith of Christianity is centred in Jesus Christ, who is called the God. God is the creator and Redeemer. He is eternally Father, Son and Holy Spirit. Education is regarded as an important activity in Christianity. Education to a Christian is a means of true moral life, enabling the child to learn how to serve the individual as well as society. Christianity insists the following nine Godly habits that will change anybody's life. They are:



- Spend time regularly with God in prayer and bible study.
- Live with a clear conscience.
- Finish what you start.
- Strive for excellence in all what you do.
- Handle criticism in a Godly manner.
- Be peaceful-avoid strife. Live by faith – one day at a time.
- Live by discernment. Be a giver.

## **Islam**

Islam is one of the major religions of the world. It represents a complete way of life, a system of values, a code of conduct, a unique ideology, a socio-economic order and the doctrine of faith in oneness of Allah (God). According to teachings of Mohammad Islam does not admit any dualism in human nature. Man is integral of body and soul. Islam is the complete and perfect code of life for all the human beings. Islam preaches and promotes the following behaviour-based values:

- Honesty
- Humility
- Politeness
- Forgiveness
- Goodness
- Courage
- Reliability
- Patience
- Sympathy.

## **Government**

Government is formed and reformed as part of the process by which humanity is learning to develop a harmonious system of organising resources both locally and globally for a sustainable healthy nation. Government acts as a facilitator for greater participation in the field of education. Steps have been taken in making higher education more relevant and purposeful, and imparting to the students, skills and knowledge which are relevant to the

current trends of the society. Government has established various organization to propagate truth, goodness and beauty. They also imparting cultural values among the Indian citizens.

The report of the Indian Parliamentary standing committee (January 1999) rightly points out that there has been continuous erosion of values in our society, which is reflected in our day-to-day life. The National Curriculum Framework of School Education, India – 2005 also voices serious concern over erosion of values in our society and stresses the need for inculcating values in children to bring about desirable change in the society. So urgent steps must be taken to inculcate values in children. Families as well as schools who lay foundation of future citizens must undertake the task of inculcating values in children at once. Hence the society has the responsibility to ensure that values are inculcated in children and a congenial environment is created to nurture values.

It is said that education is an instrument for social change and social control and it is the only means for bringing about desirable changes in the society. But even after 63 years of independence we have not brought about desirable changes in the society. Thus the progress of a nation and the society depends on how much value the citizens attach to their duties to the nation, society and to fellow citizens. The following recommendations from various committees which were set up during the last six decades dealt with the state of education.

### **Mass Media**

India's most remarkable achievements since independence is in the field of space science and information technology (IT) which includes mass media, mobile technology, internet, direct to home (DTH) etc. The main functions of mass media are surveillance, interpretation, linkage and entertainment. One subtle but extremely important role of mass media is transmission of values. It has also been called the socialisation function. Socialisation refers to the ways an individual comes to adopt the behavior and values of a group. The mass media's portrayal of society plays a vital role in moulding the audience's psychology.

The values and attitudes that get transmitted most often are rather contrary to the values desired by the family, society or school. Propagating myths and derogatory images of women for example is likely to make the young learner, instead of learning that all human beings are equal and all men and women are equal, grow up with prejudices injurious to women and society. Students are required to go through the process of learning in schools by which they are empowered to decode the negative messages that the mass media propagates purely from a commercial and money making point of view. Centred thinking, reflection, social responsibility, questioning, discerning truth and facts, freedom from biases are all

important values and skills to be developed in young learners. There is a need to examine and ensure how these issues and concerns are dealt appropriately in our school system, in curriculum, teaching, the administrative processes, and the institutional ethos and over all climate of the school and how our students are given opportunities to develop their considered opinions and convictions to meet the above challenges peacefully and creatively.

The mass media is responsible for both reflecting values of a society and fostering values to a good extent. The most important and prominent forms of mass media are Television, Radio, Magazines, Newspapers, Pamphlets, Internet, Books, Movies, Music etc. the media influences the behaviour pattern of persons in a different manners. Each of them evolved as a powerful medium in its own way. Values lie at the core of the society. Media evolved and become part of the society over the years. Both tradition and modernization contribute to the development of values. Media is far-reaching and it makes or breaks values. Mass media is the direct and responsible authority to communicate and train the child to the desires and demands of the standard form of culture. Mass media plays a significant role in bringing positive Social change, particularly with respect to education and creating awareness. The mass media have a strong social and cultural impact upon the society. This is projected upon their ability to reach a wide audience with a strong and powerful message.

Mass media with the advent of new technologies carry the news even to the remotest village the moment it happened in any part of the world. Media should play a constructive role in society's development and educate the masses about our community values and tradition. It is high time we realise our own culture and start nurturing it in the young minds instead of blindly following ideologies imported from other countries.

### **Voluntary Organisation**

Values for life and living are also offered by voluntary organizations in India. Voluntary organisations are independent organizations which are established for the purpose of added value to the community as a whole, or a significant section of the community and which are not permitted by their constitution to make a profit for private distribution. Voluntary organisation work for promoting the mental and moral welfare and improvement of the community. They contribute by providing humanitarian aid and meditation, empowerment of society etc.

### **RATH'S PROCESS OF VALUING**

One educational approach to help students make values decision is the values clarification process outlined by Rath. Rath's process of values clarification is one method to

help people identify values or make moral decisions. Values Clarification Process Rath believes that every decision or choice an individual makes is based upon his beliefs, attitudes, and values. Valuing activities allow the individual student the opportunity to identify a personal set of beliefs that aids in the decision-making process.

According to Rath, students need a systematic approach for the development of values. We should be less concerned with the individual value a person selects and more concerned with the process used to arrive at that value. Rath assumes that educators know what processes are most effective in helping students develop their individual system of values. His 7-step process is listed below:

1. ***Choosing Freely.*** Students must be able to select values without coercion from others. The facilitator needs to develop an environment which is conducive to allowing participants to express and choose their values without peer pressure or ridicule.
2. ***Choosing from Alternatives.*** As with any decision-making process, there must be at least two options (or in this case, values) from which to choose. Obviously, if there is only one value to choose from, there is no choice involved.
3. ***Choosing after Thoughtful Consideration of the Consequences of Each Alternative.*** This calls for careful consideration of the risks and benefits of each alternative. The consequences of each alternative must be identified before an intelligent decision can be made.
4. ***Prizing and Cherishing.*** If a person has truly developed a value, he/she should be willing to respect that value. A value is only meaningful if the person believes that the value is worth prizing and cherishing.
5. ***Affirming.*** If a value has met the aforementioned criteria then the person should be willing to publicly affirm and support that value position when appropriate.
6. ***Acting upon Choices.*** The value position one has selected should provide guideposts for behavior. If the value is prized and cherished and selected from alternatives after weighing the consequences of each alternative, the person is likely to exhibit behaviours congruent with the value.
7. ***Repeating.*** A value position which serves as a guidepost for behaviour tends to be applicable in a variety of situations. A value position which influences ones behaviour tends to form a pattern in one's life.

According to Rath, the process of values clarification is more important than the actual value selected. Unless a person satisfies all the criteria listed in the seven-step process, the results or position cannot be considered a value. This method of defining a value, although somewhat concise, eliminates a variety of beliefs, attitudes,

feelings, and opinions from consideration as values. Instead, these terms have been labelled values indicators. They include goals, aspirations, attitudes, interests, feelings, beliefs, activities, and worries.

## **METHODS OF FOSTERING VALUES**

As parents and teachers are mainly responsible for laying foundation of values in children that make them good citizens, their faith in inculcating values in children is indispensable. The task of inculcating values is not an easy task unless the society as a whole resolves to bring about changes to make a society for all and voluntary efforts are initiated to practice values in day-to-day life. It will be unrealistic to expect a teacher to bring about the change if the society does not follow a set of values.

### **Story telling**

Story telling is both an art as well as science. The main aim of storytelling is to elevate man's spirit and to cultivate an inner vision which makes man finally realize his real self and to inculcate certain values in life. Stories on the life of great men and women, saint and heroes will kindle the spirit of inquiry and promote higher ideals and understanding human values. If used effectively, this technique has great potential of inculcating all values. Through delightful, entertaining and purposeful stories, great moral values can be inculcated. An accountability is related to responsibility, it should be cultivated among students through stories which help them to develop character and potentials for good, make careful use of properties, spend wisely the money entrusted to one's care and discharge one's obligations with care. Besides stories of great persons and values they cherished always have a salutary effect on the minds of children.

### **Dramatization**

Story dramatization is identified as one of the expressive arts that are concerned with children's inner imaginative thought and their spontaneous dramatic action in creative ways. Dramatization in young children's expression is spontaneous, improvised and a creative enactment. Using dramatization in the classroom will stimulate awareness of the importance of acting truthfully and honestly, help to recognize how our behaviour affects others. Nowadays dramatic arts are an important means of stimulating creativity in problem solving. It can challenge students' perception about their world and about themselves. Dramatic exploration can provide students with an outlet for emotions, thoughts, and dreams that they might not otherwise have means to express. In today's increasingly polarized and intolerant

culture. The ability to understand others' motives and choices is crucial. Dramatization will help to build responsible global citizen. Drama can be used to promote active learning in any subject to give students a kinaesthetic and empathetic understanding as well as an intellectual understanding of a topic. Drama accomplishes several goals at once enriching students' school experience through art as well as reinforcing traditional academics.

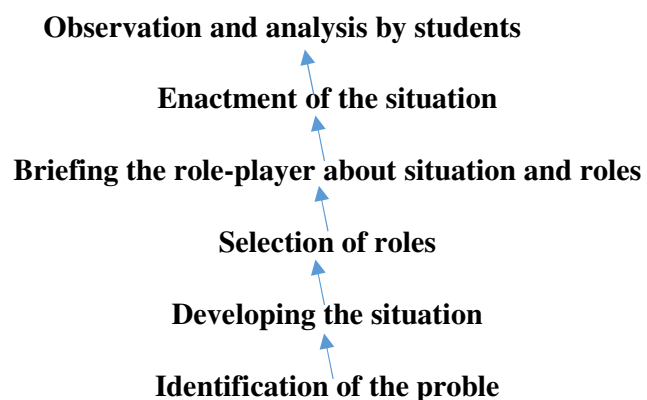
### **Role plays**

Students generally take pleasure in playing the role of other persons. This technique is basically a socio-drama technique. It provides an ideal setting for highlighting values.

According to K.H. Hoover (1976), role-play has the following advantages:

- The enactment of selected situations provides a valuable opportunity for discussion of actual feeling reactions.
- To live for a short while in the shadow of another person offers a significant opportunity for insight into other person's feelings.
- A stimulation of reality may be superior to reality itself for instructional purposes.
- The feelings often concealed in real life come forth during the role playing sessions.
- The technique provides the learner with new insights into possible responses to social situations.
- An analysis of the dramatized situation stresses factors which contribute to actual feeling reactions.
- Role-playing technique combines the joy of acting with learning.

The Procedure for Role-play technique is as follows:



**Fig.2.2 Procedure of Flow-chart of Role-play technique**

## **Personal examples**

Value clarification is a technique for encouraging students to relate their thoughts and their feelings and thus enrich their awareness of their own values. The process of acquiring values begins at birth. Values develop through life and evolve from life experiences. They are formed by combining: intellect, will, emotions and spiritual needs. Through exercises and discussion students should be made aware of the influences to their values, and to explore and acknowledge what they truly value in their lives. As values are the driving force behind most of your decisions and actions, the class activities should focus on engaging students in exercises that force them to wrestle with their values as they apply to subjects such as war, family, future, and a whole range of human relationships and situations.

Children learn to establish values through exercises in which they rank or compare items or opinions based on personal preference. By sharing the personal views in the class, students reveal private information that classmates naturally will compare with their own lives. Students are compelled to state their positions, wither in class discussions, in written exercise or in personal journals. This help the students to reveal and explore some of his attitudes, beliefs, actions, convictions, interests, aspirations, likes, dislikes, goals and purposes.

Personal examples help students to deepen understanding, motivation and responsibility with regard t making personal and social choices; to inspire individuals to choose their own personal, social, moral and spiritual values and be aware of practical methods for developing and deepening them; Autobiographies, biographies and experiences of great and noble persons also provide inspiring values to the learners. Our youngsters can learn from the life experiences of great and noble persons like Gandhi, Dhyan Chand, Jagadish Chandra Bose, Tagore, Abraham Lincoln, Abdul Kalam that they achieved heights of greatness through sheer hard work, devotion, perseverance and determination. Lives of all great men remind us that we can also make our lives sublime.

## **VALUE CRISIS**

Value crisis in a society implies the erosion of traditional values of society or situation of dilemma when there is little balance between traditional values and modern values. There is lack of synthesis. Material values override the ethical, moral, social and spiritual values. At present, India is passing through a periods of value crisis in several fields of national life. It is generally being said that the life of individuals as well as our social life is plagued with the

evil values of corruption, cynicism, disparity, disruption, hypocrisy and violence. It is very unfortunate that our role-models i.e., leaders of various shades fail to inspire us to pursue higher values of life. Several conflicting ideologies are also at work. On the one hand, there is the value crisis of Indianisation and on the other hand value-crisis on account of overemphasis on modernisation and westernisation.

The Education Commission 1964-66 has observed, “ we believe that India should strive to bring science and the values of the spirit together in harmony and thereby pave their way for the eventual emergence of a society which would cater the needs of the whole man and not only to a particular fragment of his personality.”

Crisis is not so much intellectual but rather moral and spiritual. There is lack of development of sound moral vision among human being along with the scientific and technological development. As a result human being can produce such powerful means of destruction like hydrogen and nuclear bombs and destroy the whole world in no time. Wealth worshipped as god, Pride has become a creed. Selfishness is entrenched in the intellect. The ego is flaunted, and desires become an adornment, righteousness has become merely a figurehead in the world, compassion has dried up, gratitude has waned, Hypocrisy has become the hall mark of life and love and affection has become lustful afflictions. Distortion of values is partially due to imbalance between ancient values and explosion of knowledge in war field technology. Atomic weapons, bio-weapon, explosives, missiles etc., are threatening the whole mankind. Developed countries possess all kinds of dreadful weapons and are trying to boss over all developed and underdeveloped countries. Today the entire mankind is living in the shade of fear. Man's very expense is at stake as he is indulging in wicked activities.

Prostitution, illegal marriages, broken home structure, divorce, etc., are also factors responsible for decline of values. Lack of mutual concern between parents at home, disaffection and lack of securities in families are other factors responsible for erosion of values. The role of home, school and society cannot be neglected in the degradation of values. Definitely the living styles of parents leave deep impression on the minds of children.

Even in this dynamic society, values and standard do not change quickly and some of them, at any rate, have an abiding significance. The whole socio- political setting and physical environment in which they have to be worked out are in a state of constant transition and consequently, they have to be interrupted in the light of new condition. Cultural values, the gracious fruit of centuries of co-operative efforts and moral values, which is distinguished, which distinguish men from animals, have been totally changed in these years.



The modern youth receiving education are losing their idealism and living in spiritual vacuum. Moral values have no respect now. Man fails to distinguish between right and wrong, good and evil. Highest respect is being placed on wealth and power. Religious have now become a private affair and stress is being laid on secularization of social relationships. Human relations are becoming impersonal and secondary.

The older generations have lost their sense of morality. Therefore the younger generation completely ignores the traditional or even any idea of value system. Loss of leadership among the teachers is another manifestation of the deterioration of values in the modern society. A teacher has to perform three important activities. People in an industrial society develop a growing sense of insecurity in social relations because of the emphasis on individuals.

## **CONCLUSION**

The present situation in India demands such a system of education which apart from strengthening national unity must strengthen social solidarity through meaningful and purposeful constructive value education by adopting interdisciplinary approach. Emphasis is now on 'Value Education' for the proper development of the human personality. Transmission of values is inherent in the theory of all round development of human personality which is a prominent aim of education.

## **Questions**

1. Explain the development of values.
2. List out the Core values and explain it.
3. Discuss the role of Parents, teachers and Peer group in fostering values.
4. Analyse the Rath's process of valuing.
5. Describe the methods of fostering values.
6. Give an account on Value crisis.

### UNIT III: PEACE EDUCATION

*'Peace is possible for life at all stages and it is up to man to choose his destiny or to suffer from the horrors of war. Today mankind is at the crossroad where he has to choose with courage, determination and imagination.'* - Federico Mayor

#### OBJECTIVES:

The student teachers will be able to:

6. obtain knowledge on the concept of Peace education.
7. understand the concept of aims and objectives of Peace education.
8. explain the conflict resolution education.
9. identify the importance of peace education.

#### INTRODUCTION

Under the present predicament there is a growing realization in the world of education today that children should be educated in the art of peaceful living. As a result, more and more peace concepts, attitudes, values and behavioural skills are being integrated into school curricula in many countries. There is also renewed interest to develop peace-related disciplines such as values education, moral education, global education, etc. In the past we seemed to have assumed that the more knowledge people have, the better they are. Accordingly, we stressed cognitive learning in schools at the cost of developing children's emotional, social, moral and humanistic aspects. The consequence of such imbalanced learning is evident today in the forms of youth unrest with their antisocial attitudes and behavioural problems.

The ultimate goal of education for peace, human rights and democracy is the development in every individual of a sense of universal values and types of behaviour on which a culture of peace is predicated. It is possible to identify even in different socio-cultural contexts values that are likely to be universally recognized...Education must develop the ability of non-violent conflict-resolution. It should therefore promote also the development of inner peace in the minds of students so that they can establish more firmly the qualities of tolerance, compassion, sharing and caring.

#### MEANING

The term 'education' in this context refers to any process – whether in schools, or in informal or non-formal educational contexts – that develops in children or adults the knowledge, skills, attitudes and values leading to behaviour change.

The term 'peace' does not merely imply the absence of overt violence (sometimes referred to as 'negative peace'). It also encompasses the presence of social, economic and political justice which are essential to the notion of 'positive peace' (Hicks, 1985). 'Structural violence' is a term that is used to refer to injustices such as poverty, discrimination and unequal access to opportunities, which are at the root of much conflict. Structural violence is perhaps the most basic obstacle to peace, which by definition cannot exist in a society in which fundamental human rights are violated. The Convention on the Rights of the Child, like other major human rights treaties, calls for the elimination of all forms of both overt and structural violence, and the creation of a society based on the principles of justice and peace.

Peace education is the process of acquiring the values, the knowledge and developing the attitudes, skills, and behaviours to live in harmony with oneself and with others.

Peace education must address the prevention and resolution of all forms of conflict and violence, whether overt or structural, from the interpersonal level to the societal and global level.

#### **DEFINITION**

Peace education is more effective and meaningful when it is adopted according to the social and cultural context and the needs of a country. It should be enriched by its cultural and spiritual values together with the universal human values.

Peace education is an attempt to respond to problems of conflict and violence on scales ranging from the global and national to the local and personal. It is about exploring ways of creating more just and sustainable futures - R. D. Laing (1978)

Peace education is holistic. It embraces the physical, emotional, intellectual, and social growth of children within a framework deeply rooted in traditional human values. It is based on philosophy that teaches love, compassion, trust, fairness, co-operation and reverence for the human family and all life on our beautiful planet - Fran Schmidt and Alice Friedman (1988).

Peace education is skill building. It empowers children to be creative and non destructive ways to settle conflict and to live in harmony with themselves, others, and their world . . . . . Peace building is the task of every human being and the challenge of the human family -Fran Schmidt and Alice Friedman (1988)

Peace education refers to the process of promoting the knowledge, skills, attitudes and values needed to bring about behaviour changes that will enable children, youth and adults to prevent conflict and violence, both overt and structural; to resolve conflict peacefully; and to

create the conditions conducive to peace, whether at an intrapersonal, interpersonal, intergroup, national or international level – UNICEF

Peace education means to learn about and to learn for peace.

Learning about peace means obtaining knowledge and understanding of what contributes to peace, what damages it, what leads to war, what 'peace' means on each level anyway, what is my role in it, and how are the different levels are connected.

Learning for peace means learning the skills, attitudes and values that one needs in order to contribute to peace and help to maintain it.

The basic concepts embedded in the above definitions are that peace education is a remedial measure to protect children from falling into the ways of violence in society. It aims at the total development of the child. It tries to inculcate higher human and social values in the mind of the child. In essence it attempts to develop a set of behavioural skills necessary for peaceful living and peace-building from which the whole of humanity will benefit.

### **CONCEPT OF PEACE EDUCATION**

Very simply, peace education empowers learners with the knowledge, skills, attitudes and values necessary to end violence and injustice and promote a culture of peace.

Ian Harris and John Synott have described peace education as a series of "teaching encounters" that draw from people: their desire for peace, nonviolent alternatives for managing conflict, and skills for critical analysis of structural arrangements that produce and legitimize injustice and inequality.

James Page suggests peace education be thought of as "encouraging a commitment to peace as a settled disposition and enhancing the confidence of the individual as an individual agent of peace; as informing the student on the consequences of war and social injustice; as informing the student on the value of peaceful and just social structures and working to uphold or develop such social structures; as encouraging the student to love the world and to imagine a peaceful future; and as caring for the student and encouraging the student to care for others".

### **CONFLICT RESOLUTION EDUCATION AND PEACE EDUCATION**

Conflict resolution education programs focus on developing critical skills and abilities for a person to deal constructively with conflict. In most cases these programs occur in schools, but they may also be used in after-school programs, community centers, church groups, etc. These programs give children an understanding of the nature of conflict-what conflict is and how it develops as well as what one can do to manage it. Children learn to

appreciate that conflict exists whenever there is a disagreement about goals and/or methods to achieve those goals; and as a result, conflict is natural, necessary, and important. Children learn to understand the dynamics of power and influence that operate in all conflict situations. Furthermore, they become aware of the role of culture in how we see and respond to conflict.

An awareness of the nature of conflict helps children appreciate the variety of ways that people can manage or respond to conflict-another common program component. By learning a range of conflict styles (such as competing, collaborating, accommodating, avoiding, and compromising), children can consider the advantages and disadvantages of each. As effective conflict managers know, no approach to conflict management works all the time; the key is to know which approach is best for the situation at hand. However, conflict resolution education emphasizes that a violent response to conflict is almost never an appropriate response.

An extremely important program component involves providing children with social and emotional skills to prevent conflict and reinforce their use of prosocial strategies in conflict. Some of the skills that conflict resolution education helps develop include effective listening, perspective taking, emotional awareness, and emotional control. Of these, perhaps the most important is perspective taking. When children learn to take the perspective of another, they are increasing their ability to empathize with the other person. The more we empathize with someone, the less we are likely to want to hurt them.

Marc Sommers (2003) suggests that peace education is best understood in terms of the specific skills, attitudes, and knowledge imparted. Peace education programs help people develop communication skills of active listening and assertive speech; problem-solving skills of brainstorming or consensus building; and orientation skills of cultural awareness and empathy. Furthermore, peace education builds positive attitudes about justice, respect, and democracy, though respect for democracy may be expressed indirectly through respect for individual choice. Peace education emphasizes understanding the dynamics of social conflict, warfare, and conflict resolution and the dynamics of peace. In particular, participants in peace education are introduced to the distinctions of negative and positive peace. Participants may learn about different ways of handling conflict, such as negotiation, mediation, or facilitation.

A quick perusal of the definition, characteristics, and content of conflict resolution education and peace education programs suggests that both areas overlap considerably. They basic motivations are similar, the goals for programs are similar, and the key skills and

content are similar. Sommers (2001) notes that similarities are also shared between peace education and many kinds of "values education programs," such as human rights education, antibias training, and tolerance education. These all share a commitment to enhancing the quality of life by emphasizing the dignity of life. In all three examples, violence is rejected and participants are encouraged to find alternative ways of handling problems.

### **CONFLICT RESOLUTION TRAINING**

Conflict is the result of people having differing needs, opinions, and expectations. The reality of conflict is that in any human relationship it is inevitable. More importantly, if handled well, conflict provides a powerful avenue for significant growth. Hence developing good conflict resolution techniques is very important. Conflict resolution involves recognising and managing the particular conflict. This is an essential part of building emotional intelligence, and nurturing relationships. Poorly handled conflict can affect both the employees and the clients thereby impacting the company's bottom-line. The Conflict Resolution Training program provides techniques for individuals in an organisation to resolve workplace conflict and build a common understanding and framework for working through challenging conflict situations. The three critical skills of conflict resolution – Negotiation, Assertiveness and Persuasion and these skills will enable the participants to develop conflict resolution strategies for quickly and effectively recognising, resolving and preventing conflict.

#### **Learning Outcomes**

- Gain a thorough understanding of the sources, causes and types of conflict
- Master all six phases of the conflict resolution process
- Understand the five main styles of conflict resolution
- Learn to apply the conflict resolution process to all types of conflict
- Learn how to break out and use parts of the process to prevent conflict
- Develop communication tools such as agreement frames and open questions
- Master anger and stress management techniques

### **DEMOCRACY EDUCATION**

The contemporary world has witnessed the spread of democracy as the most valid form of government. This trend has become more evident in recent years. Democracy enhances the

development of various aspects of human potential through equality of access to education and

active participation in all aspects of social, economic and political life. It is undoubtedly the very foundation of lasting peace. Peace, human rights, democracy and sustainable development are, in fact, closely interrelated. Without one, the other cannot exist. Democracy is not possible without peace, and truly just peace cannot exist without democracy. Such close relationships and interdependence confirm the appropriateness of the UNESCO programme and action plan to bring together these value goals, and put them in the same declaration, as proclaimed at the

International Conference of Education at Geneva in 1994. However, democracy is not something that can be manufactured and exported. It has to be constantly sought after and nurtured. No constitutional formula can be perfectly designed to produce ready-made democracy. All it can do is to set conditions where democracy can flower if its seeds already exist in the minds of the people. While in this sense, democracy is hard to obtain, there is an inherent desire in human nature to be treated as an equal. Everyone thinks he/she is born free.

Everyone thinks he/she ought to be given a chance to develop his/her potential through broader participation in society's activities. Education for democracy is a lifelong process: it is not limited to a particular level or grade of school education. It needs to be cross-disciplinary and to permeate the entire education process. Education for democracy may take many different approaches, depending on the political system, socio-cultural traditions and history.

Various aspects or dimensions of democracy that education for democracy may take up, include political, ideological, philosophical or conceptual, historical, legal and legislative, cultural, artistic, and literary ones. A selective approach is necessary in choosing from this list, but special attention should be paid to democracy in the day-to-day life of all communities.

Education for democracy ideally presumes the existence of democratic environment, both in the classroom and outside school life. Where such an environment is underdeveloped, it will be necessary to endeavour to eliminate undemocratic conditions, practices and factors. This can be done by ensuring education for all, gender equity, social cohesion, freedom, the recognition of individual human rights and social obligation and responsibility, cultural and national traditions, and active social participation. Student should be made aware of any serious illiteracy, lack of access to education, marked school drop-out rates, and gender gaps

existing in the region, and should be encouraged to contribute to the solution of these problems

## **HUMAN RIGHTS EDUCATION**

Human Rights refer to the “basic rights and freedoms to which all humans are entitled”.

Children’s rights/human rights education and peace education are closely linked activities that complement and support each other. Peace is a fundamental pre-condition without which rights cannot be realised, while at the same time, the ensuring of basic rights is essential to bringing about peace. Rights education usually includes the component of learning about the provisions of international documents such as the Universal Declaration of Human Rights or the Convention on the Rights of the Child. Children are encouraged to understand the impact of rights violations, both at home and abroad, and to develop empathy and solidarity with those whose rights have been denied. Rights education encourages the development of skills that will enable children to act in ways that uphold and promote rights, both their own and others’. It also addresses the responsibilities that come with rights.

All human rights are universal, indivisible, interdependent and interrelated. Education is the most effective means of developing values related to human rights. Education for human rights must develop the ability to value freedom of thought, conscience and belief; the ability to value equality, justice and love; and a willingness to care for and protect the rights of children, women, workers, ethnic minorities, disadvantaged groups, etc. The first step in enhancing understanding and actualizing values related to human rights is to teach students what their shared rights and freedoms are, so that these may be respected and a willingness to protect those of others will be promoted. Teaching and learning activities must focus on values which preserve life and maintain human dignity. Each student should be given ample opportunity to evaluate the realization or non-realization of core values related to human rights in his/her own life. However, forming and maintaining this sensitivity is not enough. Each student must develop an ability to react to violations of human rights.

Core values related to human rights can be explored through experiential learning. Experiential learning essentially involves an exploration of personal feelings, attitudes and values, a process through which the development of cognitive skills can take place, either during the experience or on later reflection. When developing core values for human rights, students need to be exposed to factors contributing to the violation of human rights in practice, such as:



- too much emphasis within a country on economic considerations at the cost of equality and
- justice for common people:
- ignorance of law and customs;
- lack of education;
- the vested interests of a rich and powerful minority:
- poverty;
- inequitable distribution of wealth:
- certain traditional norms with respect to the status of women in society:
- families becoming more nuclear in nature, so that the aged are becoming neglected.

*Human rights and fundamental freedom allow us to develop and use our human qualities, our intelligence, our talents and our conscience and to satisfy our spiritual and other needs. They are based on mankind's increasing demand for a life in which the inherent dignity and worth of every individual will receive respect and protection.*

*The denial of human rights and fundamental freedoms not only is a personal tragedy, but also creates conditions of social and political unrest, sowing seeds of violence and conflict within and between societies and nations. As the first sentence of Declaration of Human Rights states, respect for human rights and dignity 'is the foundation of freedom, justice and peace in the world.'* (Teaching Human Rights, Centre for Human rights, UNO, 1989).

### **AIMS AND OBJECTIVES OF PEACE EDUCATION**

The importance of aims and objectives of education is recognised by all the educational professional, political, non-political and religious associations, organisation and groups at various levels in their memoranda, letters and brochures. It is said that education without clear cut aims is like a rudderless ship.

The aims and objectives of education, suggested in the documents, include individual as well as social aims, with emphasis of social transformation aiming at reconstructing society to make it modernised, productive, participative and valued oriented nation committed to its constitutional obligations.

The following list summarises aims of UNICEF in peace education programmes. These are commonly expressed as knowledge, skill and attitudinal aims.

#### **Knowledge:**

- Awareness of own needs, self-awareness.
- Understanding nature of conflict and peace.

- Ability to identify causes of conflict and non-violent means of resolution.
- Conflict analysis.
- Enhancing knowledge of community mechanisms for building peace and resolving conflict.
- Mediation process.
- Understanding of rights and responsibilities.
- Understanding interdependence between individuals and societies.
- Awareness of cultural heritage.
- Recognition of prejudice.

**Skills:**

- Communication: active listening, self-expression, paraphrasing, reframing.
- Assertiveness.
- Ability to cooperate.
- Affirmation.
- Critical thinking.
- Ability to think critically about prejudice.
- Ability to deal with stereotypes.
- Dealing with emotions.
- Problem-solving.
- Ability to generate alternative solutions.
- Constructive conflict resolution.
- Conflict prevention.
- Participation in society on behalf of peace.
- Ability to live with change.

**Attitudes:**

- Self-respect, positive self-image, strong self-concept.
- Tolerance, acceptance of others, respect for differences.
- Respect for rights and responsibilities of children and parents.
- Gender equity.
- Empathy.
- Reconciliation.
- Solidarity.
- Social responsibility.
- Sense of justice and equality.

- Joy in living.

### **AT DIFFERENT LEVELS OF EDUCATION**

Education for peace is a conceptual framework from which schools may devise a program comprising the transmission of universal values and enduring attitudes and the development of skills which will enable our students to become active global citizens.

Peace education is most effective when the skills of peace and conflict resolution are learned actively and are modeled by the school environment in which they are taught. In a number of countries, emphasis is placed on improving the school environment so that it becomes a microcosm of the more peaceful and just society that is the objective of peace education. This creates a consistency between the messages of the curriculum and the school setting, between the overt and the 'hidden' curriculum. Interventions on the level of the school environment tend to address how children's rights are either upheld or denied in school, discipline methods, how the classroom and school day is organized, and how decisions are made. Training of teachers and administrators is critical to enabling teachers to examine these issues from the perspective of peace education.

A number of countries have developed peace education curricula, usually consisting of activities around themes such as communication, cooperation, and problem solving. Objective: To give empathy to oneself and others; to understand the connection between needs and feelings. Each child draws himself in an assigned imaginary situation. He draws a small cloud above himself and his friend. In that cloud he expresses either with colour or words how each of them feels in that situation. Leader's comment: The leader draws the children's attention to the fact that all of them didn't feel the same in the same situation. At the same time, the leader connects the feelings that often repeat with children's needs. And he gives empathy to both characters in the drawing. For example, this child feels guilty because he thinks he has made a mistake and he is sad because he wants to be accepted. Another child is angry because he thinks he is right. Select a type of difference you want the children to study; e.g., religious differences, racial differences, national differences, occupational differences, intellectual differences, personal and attitudinal differences. Assign children to study these differences by analyzing their foundations, sources, historical developments, etc. This may take the form of a formal lesson, Self-learning, reading, home assignments, bringing outside speakers, etc.

In a number of countries, efforts are underway to upgrade the quality of pre-service teacher education. Training may include a focus on such skills as the use of interactive and

participatory teaching methods, organizing cooperative group work, and facilitating group discussions. The use of these types of teaching methods is essential to quality basic education, and enables teachers to convey values of cooperation, respect for the opinions of the child, and appreciation of differences. Participatory teaching and learning strategies can be used throughout the curriculum, and are an essential component of efforts to promote peace through education. Pre-service teacher education in peace education is an important feature of the programme in Sri Lanka, with one national teacher training college designated as the focal point for the development of pre-service training programmes in peace education, integrated into each of the traditional subject areas.

### **IMPORTANCE PEACE EDUCATION IN THE PRESENT SCENARIO**

Over the past 50 years of global events and human experience in general have given the quest for peace. At the close of the 20<sup>th</sup> century, peace is no longer considered as the absence of war but it is conceptualised to include harmony at all levels of human endeavour. According to UN, Education for peace is a conceptual framework form which schools may devise program comprising the transmission of universal values and enduring attitudes and the development of skills which will enable our students to become active global citizens. The frameworks is as follows:

- Each member of the global society is bound by principles relating to human welfare, such as justice, liberty, responsibility, equality, dignity, security, democracy and solidarity.
- Each member of the society is an active participant in a local community and is in turn committed to a global harmony reflective of the diversity of the human population.
- Each member of the global society must act individually and communally toward guardianship of our world as a whole, guaranteeing the right to a sustainable future.

The implementation of this conceptual framework recognizes the practice of peaceful relations at all levels: personal, familial, communal, inter-cultural and global. It entails a process of knowledge acquisition and skill building which affects the behaviour of individuals and groups and provides a model for the formal and informal curriculum of the school. Education for peace is a process and condition which permeates all aspects of school life, with implications for learners, teachers and administrators and it extends beyond the school to society as a whole.

Schooling and other educational experiences that reflect approach to peace education should function as 'zones of peace'. Where children are safe from conflict in the community. Develop a climate, within the school or other learning environment that models peaceful and rights-respectful behaviour in the relationships between all members of the school community, teachers, administrators, other staff, parents, and children. Demonstrate the principles of equality and non-discrimination in administrative policies and practices. Draw on the knowledge of peace-building that already exists in the community, including means of dealing with conflict that are effective, non-violent, and rooted in the local culture. Handle conflicts whether between children, or between children and adults in a non-violent manner that respects the rights and dignity of all involved.

## **CONCLUSION**

Perhaps more than ever, there is a need for innovative and successful approaches to developing the defences of peace in the minds of all humanity. We have witnessed the consequences of not attending to these needs in the many and varied international, interethnic, and intergroup conflicts around the globe. Fortunately, there are wonderful programs and practices in the area of conflict resolution education and peace education that have proven effective in building peaceful behaviour and peaceful orientations. We know these kinds of education can make a difference. By allowing others to know of the possibilities, we can help sow the seeds of peace.

## **Questions**

1. Discuss the concept of Peace education.
2. Peace education is a conflict resolution training – Justify.
3. What do children learn in conflict resolution education?
4. Critically analyse the importance of Peace education.
5. Enumerate the aims and objectives of peace education.

## UNIT IV

### PROMOTING CULTURE OF PEACE

#### OBJECTIVES

- To obtain knowledge on culture of peace.
- To understand sustainable economic and social development.
- To examine the respect for human rights.
- To analyse equality between women and men,
- To develop skill in fostering democratic participation.
- To understand about tolerance and solidarity.
- To develop participatory communication and the free flow of information and knowledge.
- To analyse international peace and security.

#### INTRODUCTION

Peace education is an essential component of quality base education. Peace education is the process of promoting the knowledge, skills, attitudes and values needed to bring about behaviour changes that will enable children, youth and adults to prevent conflict and violence, both overt and structural; to resolve conflict peacefully; and to create the conditions conducive to peace, whether an intrapersonal, intergroup, national or international level.

#### CULTURE OF PEACE AND NON-VIOLENCE

##### **Culture of Peace:**

A culture of peace is an integral approach to preventing violence and violent conflicts, and an alternative to the culture of war and violence based on education for peace, the promotion of sustainable economic and social development , respect for human rights, equality between women and men, democratic participation, tolerance, the free flow of information and disarmament.

Since the late 1980s, several educators have amalgamated various dimensions of PE under the umbrella term 'culture of peace' (Adams, 1989, 2000; Boulding, 2000; Goodman, 2002). In this view, the overarching goal of education for peace is both the reduction of violence and the transformation of mindsets that emphasize cultures of war. Through a

culture of peace lens, peace educators explore cultures of violence more deeply and aim to transition cultures of violence to cultures of peace.

Culture of peace aims for the transformation of values, attitudes and behaviors within each individual, leading to a culture shaped by peace, rather than by war and violence. A culture of peace is one where the definition of security will have changed from just national security to include human security. The criteria for the agenda and success of our leaders will have shifted from wealth, power and domination to harmony, inclusiveness, respect, integrity and healing (of self, family, community and nation). There will have been a shift away from low citizen political involvement, combined with powerful non-democratic institutions, including the military, information industry and corporations, toward regular, well subscribed elections, a code of ethics for government, a comprehensive justice system, public participation (civic engagement), a sustainable global economy based on localism, education for everyone, and a compassionate health and welfare system. We will have redefined the value system from power as a reference point (combined with a —poverty of vision|| ) to community as a reference point, with the well-being of all citizens coming before the self interest of the few. The concept of community will have expanded beyond people to include: animals, fish, birds, plants, air, water, earth and wind, all seen as interconnected, interdependent, cooperative and mutually supportive.

A culture of peace represents an everyday attitude of non-violence, and fierce determination to defend human rights and human dignity. Peace will be a permanent feature of all social institutions, especially schools, the economy, and the political scene. The media, sports and relationships will all be premised on peace. Hope, persistence, solidarity, inclusiveness and morality will be the norm. Principles of tolerance, open mindedness, sustainability, participation and democracy are paramount. A global awareness and perspective, cooperation and a deep respect for interdependency are key features of this culture. Responsibility and accountability, the sharing and free flow of information and notions of empowerment and emancipation are central tenets of a culture of peace.

Intercultural understanding leading to sustainable dialogue, cross-cultural exchanges and a shared vision of peace are cornerstones of a peaceful culture. Mutual support, empathetic listening and unwavering respect for human rights and dignity are solid anchors for peaceful cultures. Constant striving for justice, freedom, non-violence, equity, equality and ongoing, rigorous critique of the status quo are the roots of a culture of peace. Respecting the role of history, the arts and peoples' lived stories is central to creating a peaceful culture.

## Non-Violence

Nonviolence has been defined as “both an attitude and a course of action that seeks to build a community of caring”

Nonviolence has two closely related meanings. (1) It can refer, to a general philosophy of abstention from violence because of moral or religious principle. (2) It can refer to the behaviour of people using nonviolent action.<sup>66</sup> Much of the general philosophy of nonviolence has 'active' or 'activist' elements, in that they accept the need for a means of struggle to achieve political and social change. Thus, for example, the Gandhian *ahimsa* is a philosophy and strategy for social change that rejects the use of violence, but at the same time sees nonviolent action (also called civil resistance) as an alternative to passive acceptance of oppression or armed struggle against it.

In general, advocates of an activist philosophy of nonviolence use diverse methods in their campaigns for social change, including critical forms of education and persuasion, mass noncooperation civil disobedience and nonviolent direct action and social, political, cultural and economic forms of intervention.

In modern times, nonviolent methods of action based on the philosophy of nonviolence have been a powerful tool for social protest and revolutionary social and political change. There are many examples of their use. Mahatma Gandhi led a decades-long nonviolent struggle against British rule in India, which eventually helped India win its independence in 1947.

Because of nonviolence is an effective way for social struggle in recent centuries, it, therefore, has become an important way to deal with problems. And when nonviolence is the essential way to deal with problems for social change, nonviolence is also related to peace and regarded as means to peace. That is why nonviolence and peace go hand-in-hand. Nonviolence is an important step in the process of peace.<sup>73</sup> And peace, accept an end to be reached, can be used as a way when it is brought to get involved with nonviolence. It is called ‘peaceful means’.

Peaceful means, in some aspect, are equal to nonviolent methods or nonviolent acts. In this sense, peaceful means and nonviolent methods can be used as a synonym. Nonviolence called peaceful means ‘in another term is emphasized even in the UN Charter stated in Article 2 No. 3 of Chapter 1: All members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered’.<sup>74</sup> It is regarded as the means to settle international disputes to secure international peace.



## **CONFLICT**

The term *conflict* conjures up either positive or negative associations and these are both reflected in various definitions. Brickman defines conflict as “behaviour by one party that injures or damages the interest of another party, regardless of whether either party is aware of conflict or has any hostile feelings toward the other”. Coser (1967, p. 8) states that conflict is “a struggle over values and claims to scarce status, power, and resources in which the aims of the opponents are to neutralize, injure or eliminate the rivals”.

### **Conflict Prevention and Resolution**

The concept of conflict resolution typically focus on the social-behavioural symptoms of conflict, training individuals to resolve inter-personal disputes through techniques of negotiation and (peer) mediation. Learning to manage anger, “fight fair” and improve communication through skills such as listening, identifying needs, and separating facts from emotions, constitute the main elements of these mechanisms. These mechanism should aim to “alter beliefs, attitudes, and behavior i.e from negative to positive attitudes toward conflict as a basis for preventing violence.

Conflict resolution study the phenomenon of conflict and analyse ways to bring it uner control, bringing their insights and concepts to bear on actual conflicts, be they domestic or international, so as to foster better and more effective relations among states and peoples. Conflict resolution is about ideas, theories and methods that can improve our understanding of conflict and our collective practice of reduction in violence and enhancement of political processes for harmonizing interest.

Conflict resolution is a central part of an administrator’s job and the manner in which administrators respond to conflict reveals their attitudes and values, and also helps to determine the future of their schools. Value conflict resolution approaches are proactive in nature. Conflicts are a common phenomenon in spheres where teamwork is required. To avoid that care is to be given to any sensitive issue that is being handled by more than one person at a time.

With regard to values, however, Bion (1961) characterises conflict resolution according to three underlying basic assumptions:

- Dependence: the well-being of the individual, to be secured through dependence upon another object (person, institution, idea);
- Expectancy: the well-being of the individual in the future to be obtained through the intercourse of pairs of objects (persons, institutions);

- **Fight-Flight:** secure the well-being of the person through fighting for self-actualization and destroying or evading (person, institution).

The culture of peace and non-violence is therefore a commitment to peace-building, mediation, conflict prevention and resolution, peace education, human rights education, education for non-violence, tolerance, acceptance, social cohesion, mutual respect, intercultural and interfaith dialogue and reconciliation, together with development considerations. It is a conceptual as well as a normative framework envisaged to instil in everyone a global consciousness and firm disposition to dialogue.

The culture of peace is a collective attempt to create paths for harmonious coexistence, and regain the capacity to think about peace and order as dynamic forces of social, economic and political life, which endure through myriads of actions inspired by mutual respect and sincere attachment to non-violence. Given its mandate and its experience, UNESCO has been designated by the United Nations General Assembly as lead agency for the implementation of all resolutions related to the “culture of peace”, defined as consisting “of values, attitudes and behaviours that reflect and inspire social interaction and sharing based on the principles of freedom, justice and democracy, all human rights, tolerance and solidarity, that reject violence and endeavour to prevent conflicts by tackling their root causes to solve problems through dialogue and negotiation and that guarantee the full exercise of all rights and the means to participate fully in the development process of their society”. This conceptual and institutional framework gave rise to thousands of activities worldwide.

### **FOSTERING A CULTURE OF PEACE THROUGH EDUCATION**

Education is the key to uniting nations, bringing human beings closely together. In many parts of the world, civil society suffers because of situations of violent conflicts and war. It is important to recognize the crucial role of education in contributing to building a culture of peace and condemning instances in which education is undermined in order to attack democracy and tolerance. A culture of peace and non-violence goes to the substance of fundamental human rights: social justice, democracy, literacy, respect and dignity for all, international solidarity, respect for workers’ rights and core labour standards, children rights, equality between men and women, cultural identity and diversity, Indigenous peoples and minorities rights, the preservation of the natural environment to name some of the more obvious thematics.

Education is a key tool in combating poverty, in promoting peace, social justice, human rights, democracy, cultural diversity and environmental awareness. Education for

peace implies an active concept of peace through values, life skills and knowledge in a spirit of equality, respect, empathy, understanding and mutual appreciation among individuals, groups and nations.

The educational action for promoting the concept of peace concerns the content of education and training, educational resources and material, school and university life, initial and ongoing training for teachers, research, and ongoing training for young people and adults. A culture of peace must take root in the classroom from an early age. It must continue to be reflected in the curricula at secondary and tertiary levels. However, the skills for peace and non-violence can only be learned and perfected through practice. Active listening, dialogue, mediation, and cooperative learning are delicate skills to develop. This is education in the widest sense. It is a dynamic, long term process: a life-time experience. It means providing both children and adults with an understanding of and respect for universal values and rights. It requires participation at all levels - family, school, places of work, news rooms, play grounds, and the community as well as the nation.

Education is a cornerstone in the peace building process. As today's youth become increasingly desensitized to violence, the roles of schools and the curriculum they represent assume great importance. Schools have the power to shape the attitudes and skills of young people toward peaceful human relations. Through teaching young children values of respect, tolerance, and empathy, and by equipping them with the necessary skills to resolve conflict in a non-violent manner, they are provided with the tools they need, now and in the future, to foster peaceful relations at home, at school and around the world.

### **Fostering Culture of Peace in the Classroom**

These are not just lessons for the classroom but lessons for life of immediate relevance, empowering individuals to achieve a just society in which all human rights of all persons are valued and respected. Peace education applies to the contents of all curricula, at every level in the education system. Peace education is the all-round education of each individual. Peace education should be extended to all learners, including refugee and migrant children, children from minorities and disabled with the objective of promoting equal opportunities through education. The training of teachers, education workers and all education stakeholders, including staff from ministries of education is crucial. Educators promote the development of the whole person, so as to enable everyone to contribute to society in a caring and responsible manner. In order to recruit and retain the best teachers, governments should give priority to adequate salary, which must provide teachers with a

reasonable standard of living for themselves and for their families, as well as the means of enhancing their professional qualifications by developing their knowledge and improving their cultural resources. Governments must also focus on providing attractive working conditions including small class sizes, career paths and more opportunities for professional growth and development, financial and other incentives, and support systems for new teachers, such as mentoring programs. Education is a participatory and interactive process of instruction and learning, and the curriculum and pedagogy should give prominence to understanding the wealth of distinctive cultural and linguistic characteristics, in response to globalization. The educational context should provide programs addressing psychological and physical violence, including cyberbullying, through violence prevention, conflict resolution and mediation in all levels of education.

### **INNER PEACE**

Inner Peace (or peace of mind or inner calmness) refers to a state of being mentally and spiritually at peace, with enough knowledge and understanding to keep oneself strong in the face of discord or stress. Being "at peace" is considered by many to be healthy (homeostasis) and the opposite of being stressed or anxious, a state where our mind performs at an optimal level with a positive outcome. Peace of mind is thus generally associated with bliss, happiness and contentment. Peace of mind, serenity, and calmness are descriptions of a disposition free from the effects of stress. In some cultures, inner peace is considered a state of consciousness or enlightenment that may be cultivated by various forms of training, such as prayer, meditation, tai chi or yoga, for example. Many spiritual practices refer to this peace as an experience of knowing oneself. Finding inner peace is often associated with traditions such as Hinduism and Buddhism. People have difficulties embracing their inner spirituality because everyday stressors get the best of them; finding peace and happiness in the little joys of life can seem like a lot of work, and results do not seem all that gratifying. Achieving spirituality is a step-by-step process; there are ways through by which one can become more spiritual every day. Through inner peace, genuine world peace can be achieved. In this the importance of individual responsibility is quite clear; an atmosphere of peace must first be created within ourselves, then gradually expanded to include our families, our communities, and ultimately the whole planet.

### **TOLERANCE**

Tolerance is peaceful coexistence and the ability to keep on going. It is the ability to allow the existence, occurrence or practice of something you do not necessarily like or agree

with, without interference. It is the inner strength to face and transform difficulties with depth and maturity. While tolerance recognizes individuality and diversity, it removes divisive masks and defuses tension created by ignorance. When there is lack of love there is lack of tolerance. It is an inner strength which enables the individual to face and transform misunderstandings and difficulties. It develops ability to accommodate the problems of everyday living.

According to UNESCO (1995), which defined tolerance as an active attitude rather than a passive acceptance: Tolerance is respect, acceptance and appreciation of the rich diversity of our world's cultures, our forms of expression and ways of being human. It is fostered by knowledge, openness, communication, and freedom of thought, conscience and belief. Tolerance is harmony in difference. It is not only a moral duty, it is also a political and legal requirement. Tolerance, the virtue that makes peace possible, contributes to the replacement of the culture of war by a culture of peace. Tolerance is not concession, condescension or indulgence. Tolerance is, above all, an active attitude prompted by recognition of the universal human rights and fundamental freedoms of others.

## **SOLIDARITY**

Solidarity is unity (as of a group or class) which produces or is based on unities of interests, objectives, standards, and sympathies.<sup>[1][2]</sup> It refers to the ties in a society that bind people together as one. The term is generally employed in sociology and the other social sciences as well as in philosophy or in Catholic social teaching. In simple societies it may be mainly based on kinship and shared values. In more complex societies there are various theories as to what contributes to a sense of social solidarity. Solidarity is also one of six principles of the Charter of Fundamental Rights of the European Union<sup>[4]</sup> and December 20 of each year is International Human Solidarity Day recognized as an international observance.

### **Social Mindfulness for a Solidarity society**

Peace is neither a manufactured object nor something susceptible to be subjugated by the power of the subject. Conversely, peace presupposes otherness, the presence of the other with his/her/its alterity and vulnerability. Indeed, relationships entail a certain degree of vulnerability. The other can bring grace to life as well as death and wounds. Likewise, peace simultaneously makes human beings more vulnerable and stronger; peace humanizes through this ambiguity. In any case, even within such an ambiguity, peace must be able to make

coexistence possible, which is also a form of reciprocal hospitality; therefore peace refers per se to hospitality.

The specific relationship between peace and hospitality may allude to at least three situations for peace: (1) Peace needs a dwelling place to occur (Panikkar, 1993A). This refers to the conviction mentioned above about the human incapability to produce peace, even though human action in creating the conditions for peace to happen is necessary. (2) Peace is a myth (Panikkar, 2002). Being a myth, peace becomes the dwelling place for humans, the foundation where human beings build on both their world and knowledge. Finally (3) peace relies on the tissue of bonds created especially through justice- and solidarity-oriented relationships. In this last situation, peace stresses its spiritual feature in an active sense. It creates and/or makes space for others in this world—whatever activity entailing to put oneself at stake, and perhaps ‘losing’ something, for making real the relationship with the other while making also possible both a just world and worthy life. Making space for peace makes sense because it also makes space for others, even for the unheard world that humanity is aching for. In short, peace is every step (Thich Nhat Hanh, 1992).

For the purpose of enhancing hospitality as an inseparable condition for creating a dwelling place for peace, mindfulness may be a significant help. On one hand, mindfulness can enable people to abandon power illusions (one’s own and those created by political powers) and to relate to each other to make space for peace to occur. On the other hand, social mindfulness—the explicit social feature seems necessary since there are strong tendencies to restraining mindfulness to the private individual sphere—can activate both social and political awareness to foster shared mutual responsibility as well as effective compassion facing the suffering beings in the world. Social mindfulness as used here is a deep critical awareness of structures of injustice as well as of the frail nature of good, because while looking for doing good one can foster evil.

Mindfulness does not provide power but empowers, and given that mindfulness per se is insufficient, it asks for commitment, commitment not to ‘making peace’ but to making a dwelling place for peace. Mindfulness empowers one to commit to make space for others. Since neither risk nor suffering are denied, the whole of humanity can be embraced for the powerless power of hospitality. Certainly social mindfulness is neither *the* solution nor the *infallible* way to peace but it can provide a valuable help in both understanding and acting within the world without denying suffering nor giving up to despair.

Peace may be only a questionable illusion and it cannot be “obtained” neither through victory and domination nor through the mere acceptance of powerlessness. In other terms,

peace breaks our way of thinking and practices, and in doing so, remind us that paradoxically, fulfilment entails both being “incomplete” (Bataille, 2007) and fighting for a just world with others. “It is only for the sake of those without hope that hope is given to us” (W. Benjamin).

### **Education for non-violence**

Education is a cornerstone in the peace building process. As today's youth become increasingly desensitized to violence, the roles of schools and the curriculum they represent assume great importance. Schools have the power to shape the attitudes and skills of young people toward peaceful human relations. Through teaching young children values of respect, tolerance, and empathy, and by equipping them with the necessary skills to resolve conflict in a non-violent manner, they are provided with the tools they need, now and in the future, to foster peaceful relations at home, at school and around the world.

Education builds the foundations for good citizenship, respect for self and others, democratic values and tolerance of opinions. Educational research indicates that when young people are trained in civics, mediation, ethnic tolerance and conflict resolution, the likelihood that they will resort to violence later in life is diminished. History tells us that education is no guarantee against hatred and war, but it enlarges people's horizons and breaks down stereotypes and prejudices.

Wars and conflicts threaten peace and security to all. Their urgent nature calls for the need to reduce violence through education. Times have changed, and this requires a more proactive outlook. Education covers economic, political, social, cultural, moral and ethical issues, and is vital in transforming people's attitudes towards dealing with conflicts.

The impact of violence affects all countries. It is a global concern, requiring a global approach to a solution. The usual method countries use to deal with conflict and wars is through oppressive military measures. But control is not enough; it merely delays future violence. A preventive approach is becoming increasingly recognized – through provision of basic education promoting a culture of peace and non-violence. Governments must shift their central priorities from accumulating political and military power towards building a stronger educational infrastructure for peace. Security and stability are all dependent upon a sound education.

Given that the violence and war is a product of culture, through a modification of basic cultural mindsets mankind can work towards creating a culture of peace. We must strive to build a culture which consists of values, attitudes and behaviors that reject violence, one that attempts to prevent conflict by addressing its root causes with a new view to solving problems: through dialogue and negotiation between individuals, groups and nations. Every

individual is capable of making a contribution towards a more peaceful future. The recent developments in today's world, including the tragic events of September 11, 2001 and the current international concern on Iraq's necessity to comply with the demands of the international community, have forced many people to believe that peace is an impossible dream. There is the lack of feeling directly involved in what is going on in the world, through people's lack of interest or simply because of ignorance of how they can become involved.

People need to be made aware that they, too, can work towards the creation of a more peaceful world. People need to be reminded that an individual who acts with pure intentions can make a profound difference, can influence events that are important to the continued existence of mankind. The threat to peace stems from a multitude of causes including poverty, environmental deterioration and social injustice. There are a variety of factors including economic, political, social, cultural and environmental grounds from which these causes are founded. Absence of certainty and security in terms of these factors makes it difficult to promote peace. When discussing the need for a shift of mindset, we need to more closely examine the underlying causes that force people to resort to violence, both in order to understand its societal impact and to come up with the proper solutions to reduce its spread

### **UNESCO culture of peace programmes**

Today, peace requires ever more active investments, enlightened leadership, powerful educational values and a progressive media world. Everyone and each of these constitutes a requirement relevant to the mission of UNESCO. The Organization's longstanding commitments to the development of education and sciences, the enrichment of cultural creativity, heritage and cultural futures, including a vibrant and peace-oriented global media structure, can in fact be seen as UNESCO's contribution to world peace as active, flourishing and sustainable.

It is in this spirit that the UNESCO Programme of Action for a Culture of Peace and Non-Violence rethinks strategies and operational modalities. It aims to draw benefits from cultural diversity, respectful of human rights, while providing individuals and societies with the skills and tools for living together in harmony. These strategies and modalities are tailored to the requirements of an era of social transformations marked by fluidity, complexity, uncertainty, calling for new articulations between cultural diversity and universal values. In a world of intricate interdependencies, where a conflict anywhere can spread conflict everywhere, it becomes urgent to understand that peace can disappear suddenly, even in countries where it has a long-standing tradition. Lasting peace rests on a complex and



fragile web of daily practices embedded in local settings and the most ephemeral encounters that individuals and communities creatively maintain out of the conviction that they constitute the sustainable conditions for living together in dignity and shared prosperity.

As a consequence, peace should be more and more recognized as the cornerstone of all people's daily lives both in terms of prevention and reconciliation, particularly in contexts characterized by social and economic unrest, ethnic or religious hostility, post-conflict situations, contested electoral processes, and other forms of violence-prone environments. Addressing those situations through activities at the global, regional, national and local levels, a culture of peace has the potential to result in everyday peace, a peace crafted by all members of societies.

In other terms, everyday peace is not minor, piecemeal or ephemeral. It is peace practiced, peace contributing to the fabric of daily life, peace understood by individuals living in the real world. It is not foreign to policy or strategy; it is a reference point, a resource and a compass for large-scale efforts to build lasting peace. States and multilateral organizations must guarantee that security, justice, shared prosperity and stability prevail. Yet, large-scale efforts cannot translate into sustainable peace if people in their daily and local settings do not put into practice the principles connected to a culture of peace. These include, *inter alia*, democratic governance of cultural diversity respectful of human rights and intercultural dialogue, civic engagement and pluralism conducive to conviviality and solidarity, dignity and justice enabling harmony and mutual understanding to blossom.

To help disseminate the positive daily values, attitudes and behaviours irrigating the culture of peace, UNESCO draws on all its assets and functions. While it can rightly be considered that all UNESCO's Programmes are conducive to the culture of peace, there is a real need to offer to UNESCO's stakeholders a consistent and holistic conceptual and operational framework on this core mandate, combining reflection and action. The Organization spares no effort in bringing continents, nations, communities and individuals closer together, taking into account the special needs and aspirations of women, young people, developing and least developed countries, primarily in Africa, as well as those of other groups of people and countries lacking access to the benefits of education, scientific knowledge, cultural life and tools for communication and information. Moreover, it seeks to widen spaces for dialogue by providing relevant knowledge, skills and tools with a view to fostering meaningful exchanges where people from different cultures can learn, understand and trust each other in a safe world for all.

To this end, genuine international cooperation and partnerships are being promoted in order to enhance human potential and capabilities for living together, in freedom and equality: formal and non-formal education preparing global citizens for their local and global responsibilities; the sciences as a common language to address the challenges linked to natural processes and social transformation; culture as a resource for nurturing dialogue and rapprochement, but at the same time for fuelling tension and conflict, if instrumentalized; communication and information as the very vector for the borderless interconnection of humankind.

In this regard, UNESCO is determined to strengthen its networks, notably the Field Offices, UNITWIN/UNESCO Chairs, and UNESCO Associated Schools, and its partnerships with key stakeholders including governments and their National Commissions (notably through the Participation Programme), Intergovernmental Organizations, chiefly in the UN system, as well as civil society and private actors. To best draw on the diversity and interrelatedness of its sectoral approaches, UNESCO implements the Programme of Action through an Intersectoral Platform for a Culture of Peace and Non-Violence. This mechanism has been specifically established to pool expertise and resources from the whole Organization, thus creating an effective instrument to operate holistically across all the fields of competence of UNESCO.

## **INTERNATIONAL PEACE AND SECURITY**

By maintaining international peace and security, the UN makes all its work more effective, because by keeping the peace, the Organization can focus on solving global issues, instead of resolving conflicts. Unfortunately, recent peace and security challenges in areas where the Organization has a limited presence have tested its ability to maintain the peace. In areas where the UN has a presence, it has increasingly come under attack.

The UN works to maintain international peace and security in a world where security threats have become more complex. Although the Organization has had many successes, there are also, unfortunately, several recent tragic cases where the United Nations has not been so successful. Hundreds of thousands have died around the world as conflicts have recently mounted. The line has become increasingly blurred between criminals and hostile groups and peace spoilers, including extremists with transnational strategies and sophisticated tactics. The breakdown of the State security apparatus in intra-State and inter-communal conflicts now poses tremendous security challenges and tests the Organization's capacity to carry out its mandates and programmes. And the UN, as a relatively soft target, has been the victim of attacks resulting in the tragic loss of life. With the mounting complexity and

growing costs of addressing crisis situations, the imperative of conflict prevention is higher than ever. In its conflict prevention and mediation work, the United Nations continues to face challenges regarding how best to engage with sometimes amorphous movements or fractured armed groups and how to ensure inclusivity. The Organization has strengthened its relationships with regional and subregional organizations, which play a significant role in fostering conflict prevention and mediation partnerships, in addition to rapid responses to regional crises. Member States have continued to see the value of United Nations support to electoral processes, with requests for assistance — which include technical assistance, the engagement of good offices and support to regional organizations — remaining high. Electoral assistance has been provided in challenging security environments, many under Security Council mandates.

### **INTERNATIONAL PEACE**

Peace occurs between heterogeneous social groups and is characterized by a lack of conflict and freedom from fear of violence. Commonly understood as the absence of hostility, peace often involves compromise, and therefore is initiated with thoughtful listening and communication to enhance and create mutual understanding. Peace can be defined in a positive direction and in a negative sense. Positively, peace is a state of tranquility and stillness; however, in a negative sense, peace is the absence of war or violence.

### **INTERNATIONAL SECURITY**

International security, also called global security, refers to the amalgamation of measures taken by states and international organizations, such as the United Nations, European Union, Association of Southeast Asian Nations, and others, to ensure mutual survival and safety. These measures include military action and diplomatic agreements such as treaties and conventions. International and national security are invariably linked. International security is national security or state security in the global arena. The meaning of "security" is often treated as a common sense term that can be understood by "unacknowledged consensus". The content of international security has expanded over the years. Today it covers a variety of interconnected issues in the world that have an impact on survival. It ranges from the traditional or conventional modes of military power, the causes and consequences of war between states, economic strength, to ethnic, religious and ideological conflicts, trade and economic conflicts, energy supplies, science and technology, food, as well as threats to human security and the stability of states from environmental degradation, infectious diseases, climate change and the activities of non-state actors. While

the wide perspective of international security regards everything as a security matter, the traditional approach focuses mainly or exclusively on military concerns.

## **CONCLUSION**

Peace is qualitative energy which emanates constantly from the one in perishable source. The purest form of peace is inner silence filled with the power of truth. It is reflected in the eyes and pose of religious images. Peace is simply being it consists of pure thoughts, pure feelings and pure wishes. It automatically puts things and people into balanced order. When the energy of thought, word and action is balanced stable and non-violent the individual is at peace with self, in relationship and with the world. It is the foundation on which a healthy and functional society stands.

In conclusion, Peace Education aims to confront and resist violence. Peace Education focuses on education about peace, education for peace, and education through peace, while addressing the knowledge and skills needed to nurture cultures of peace. The content of programs includes diverse worldviews, nonviolent methods of social transformation, political economy of peace building, case studies of peacemakers, human rights and responsibilities, sustainability education, disarmament education, and global justice. The pedagogy of Peace Education is student-centered and directed towards solving “real and pressing issues” in contemporary politics and international affairs. Finally, the overall goal of Peace Education is to transform conflict through dialogue and nonviolence towards the creation of sustainable and peaceful communities.

## **Questions**

1. What is the meaning of peace?
2. What is the thought of a philosopher on non-violence?
3. What is inner peace?
4. How do you foster culture of Peace in the classroom?
5. What is the meaning of tolerance?
6. What is the meaning of solitary?
7. What does UNESCO do and what are its objectives?
8. What are the aims and activities of UNESCO?
9. What in International peace and security?
10. What is UN’s role in maintaining International peace and security?

## UNIT V

### APPROACHES AND STRATEGIES

#### OBJECTIVES:

- To acquire knowledge on the approaches of Value development.
- To understand the strategies of value development.
- To explain value inculcation and clarification strategies.
- To identify the curricular and co-curricular values and activities
- To explain the whole school approach.
- To identify and apply the practices for value development and clarification.

#### INTRODUCTION

A teaching truism states that there is not one best strategy or approach to teach anything to anyone. This implies that the teacher must be ready to bring about a learning experience for the students through a carefully selected learning/teaching strategy, from a reservoir of strategies the teacher has been equipped with. It is therefore necessary to offer the science teacher an adequate pool of these strategies relevant to the development of the subject of and values in focus.

For values formation in science and technology, varying strategies may be used in the school, in the classroom, and outside the school. Values learned in school must be related, enriched and extended to the home and to the community. As such, the students' valuing experiences inside the classroom are continuously and consistently followed up outside the school through the provision of projects/activities that the students may do individually or in groups.

#### APPROACHES TO VALUE DEVELOPMENTS

There are two theories about values inculcation. Formalists advocate that value should be taught through school curriculum but Behaviourists suggest that value should be inculcated through exemplary behaviour. Both of them are correct in their own way. The ideal compromise is to fight on both fronts by accepting that value are taught and caught. Hence, approaches should be used because first knowledge be given then application and action be planned. Knowledge without assimilation and application is inert. Application

without the perspective knowledge is blind. Therefore, following five steps have been identified for inculcation of values through school programmes:

- Knowing: The child must be made aware of the values through programmes.
- Believing: Child must develop faith in these values.
- Making judgement: The child must be provided with conflicting situations to judge the implications of related values.
- Action: The child may be encouraged to practice these values in actual life situation.
- Spontaneous Action: The various programmes of the schools must take the child to the stage where the practice to values may become spontaneous and immediate.

Hence, the value should be inculcated on cognitive affective and conative domain through various strategies.

### **STRATEGIES FOR VALUE DEVELOPMENT THROUGH VARIOUS SUBJECTS**

The different subjects at school stage - Social Sciences, Science, Languages, Mathematics etc. seek to provide knowledge, attitudes and values intrinsic to the particular discipline. In the very act or process of acquiring knowledge, however, which is not the same as memorization and reproduction of information, certain attitudes, values, habits of thinking that are concomitant to the pursuit of that particular knowledge get transmitted. For example, Science teaching aims at the development of understanding of the concepts, facts, principles, theories and laws that describe the physical and natural world. It is intended to strengthen the commitment to inquiry, curiosity, objectivity -scientific outlook open mindedness, search for truth etc. Mathematics is associated with logical thinking, order, decision making, neatness, accuracy, perseverance. The Social Sciences at school stage intend to broaden children's vision of society as good citizens. History portrays the values of patriotism, compassion, bravery, co-operation, loyalty, justice, perseverance as evidenced from the lives of great people. Geography communicates interdependence of countries, unity in diversity, environmental conservation etc. Language, besides encouraging communication and listening skills, is intended to inculcate imagination, creativity, sensitivity, appreciation and emotional development. It is for this reason that objectives of teaching different school subjects also include development of attitudes, appreciations, values, skills, which are appropriate to that subject. Every subject, considered from the stand point of value education is thus considered to be a repository of values.

Good teaching of a subject implies teaching the subject in such a way that the students gain insight into the nature of the subject, its logical structure, its methods and also imbibe the attitudes and values associated with that particular subject. Presenting the lesson from a

humanistic and positive perspective is important. The lesson which would inspire, awaken positive feelings and experiences, help in understanding self, encourage openness and spirit of inquiry in raising questions, exploring, discovering and constructing their understanding of values and providing opportunity to put their knowledge of values into practice are meaningful. Strategies like questions, stories, anecdotes, games, experiments discussions, dialogues, value clarification, examples, analogies, metaphors, role play, simulation are helpful in promoting values during teaching-learning. Some values may be more adequately inculcated while teaching a particular subject at a particular stage or grade, others may be more appropriately integrated with the other subjects at a particular grade. Thus subject - appropriate and /grade –appropriate strategies vis-a-vis values need to be delineated.

The universe seems to have been bifurcated into two worlds. a) world of fact and b) world of values. Science deals with material world and highlight the fact underlying in this phenomena. It has least concern for the world of values. In the classroom of science the teacher can reduce the gap between these two world by focusing on both the aspects. Suppose while he is teaching 'rainbow' in the classroom he explains the facts related to rainbow but at the same time he should also emphasize on the aesthetic qualities of rainbow. The various discoveries of science he/she is teaching must give the example of their use and disuse. The implication of science for better life and for the welfare of human being should be brought into light. The history of great scientists and their qualities which helped them towards greatness should also be taught in the classroom. Similarly, the biological interpretation of facts of life be made not only in terms of struggle for existence, but also in reference to the emergence of values. Inter dependence of man, animal and plants should be emphasized in the classroom. But the teacher should not try to search values in each and every aspect of subject matter; otherwise this will spoil the romance of teaching and there will be possibility of losing interest by the pupils.

There is no denying the fact that humanity subjects have great scope for inculcation of values. Of course in these subjects there are great opportunities for the imaginative considerations of human condition. History is one of the important subjects of humanities. A history teacher has much more opportunity to inculcate values through his teaching. Indian culture is the rich source of human values. Value embedded life story of great men and women should be highlighted in the classroom. Values like unity, integrity, patriotism, peace, tolerance, non-violence, secularism etc. can be imparted through history of freedom struggle and life history of philosophers, saints and patriots of the world and India. Unity in diversity, curiosity, sensitivity, awareness towards environment, interdependence etc. can be developed

through Geography. Economic teacher should emphasize dignity of labour, equitable distribution for resources, trusteeship, respect for public property in the classroom. Through survey, field trip and exhibition, teacher may develop sympathetic attitude toward social evils and exploitation. Civic sense, democratic values, international understanding, sense of belongingness, protecting public property and respect for rules and regulations can be developed through civics teaching.

Parmesh (1998) found a significant difference between the high and low-creative individuals in their value orientations. The high creative are higher on the theoretical and aesthetic values as compared to the low creative individuals. Creativity can be promoted through the teaching of language. The role of teacher is to provide the opportunity for expressing creative powers. It develops reflective thinking and creative ability among students.

Drawing and painting has also vital role to play in fostering aesthetic values to our students. It also helps to stimulate the creative attitude of the students with the use of various forms, patterns and colours. To prepare a new colour by mixing two or more colours give a joy of creativeness to the youngsters. Hence, the opportunity to develop creative ability must be provided in school curriculum. According to Read, (1948) "The only habit that is ennobling, penetrating to the frame and physique as well as the soul of man, is the creative activity in all its rituals, exercises, festivals and practical services.

Music is also a very important source of inculcating values. Besides aesthetic values various moral and social values like national integration, kindness, devotion, respect for other faiths and religions can be inculcated. Therefore, Gandhiji had also included it in his Basic Education Scheme. So, music should be taught as a subject in school. In most of the city schools music is being taught as a hobby subject. Singing of 'bhajan' devotional and patriotic songs, folk songs and folk dances selected from various regions should be practiced.

## **VALUE INCULCATION ANALYSIS AND CLARIFICATION STRATEGIES**

Values Inculcation - is known to be the oldest and most commonly used strategy. It is a direct teaching method through the use of lectures, reinforcement techniques, stories, poems, songs, games and simulation techniques. Multi-media (film-showing, tapes and slides) are identified to be very effective in inculcating/transmitting values concepts in Science and Technology.

There are many science concepts and values that can be directly taught from the lives of scientists. This can be presented to project the scientists as normal human beings who



succeeded because of their qualities and values which they have developed through their hard work, persistence, devotion and genuine commitment.

Direct teaching through moralizing, however, is recognized to have limitations especially for adolescents who by nature are indifferent or react negatively to techniques of prodding, nagging and pure lecturing. Values inculcation strategies may be used more effectively, if these are preceded or accompanied by meaningful experiential and clarifying activities.

Values Analysis - a problem-solving type of strategy where the students identify a problem or purpose of the learning activity, gather evidence for positive and negative positions about the situations, and then make inferences and conclusions that will represent their convictions about the value-learning situations. Individual or group analysis of news materials, local issues/situations, speeches, science reports, collages, etc., are corresponding learning events.

The concept of value clarification was coined by L.E. Rathus, M.F. Harmin and S.B. Simon in 1966. Value clarification strategy is an attempt at explaining the process of acquisition of values of children. According to the authors of this concept, this strategy has important implications for teachers for facilitating and structuring the learning situations relating to values.

Value clarification is used for problematic situation, with conflicting alternatives or equally competing values. This strategy allows one to choose one out of the two, reflect on what is chosen and what is valued by the person. It aims at helping students look closely at their ideas, behaviour, attitudes thereby clarifying themselves what they really value. Imposing one's own ideas or moralizing what the teacher thinks is right or wrong is deliberately avoided.

Values Clarification Strategies which aim to let the learners clarify their positions, thoughts and feelings about certain situations by going through the valuing processes of choosing, prizing and acting. Learning activities for the valuing experiences may be in the form of group dynamics, co-operative learning, discussions, guided imagery, role playing, and many more. Group dynamics and co-operative learning has been found to be very effective in encouraging students to learn openness, sharing, collaboration, self expression, conflict management, team building, group evaluation, leadership/followership, collective decision making, brainstorming skills, communication skills, group reporting, and group

synthesizing, among others. These values are enhanced on top of the content of the lesson being developed.

Guided imagery or fantasy trip are techniques that allow the students to visualize or imagine scenarios, with all the sounds, smells, colours of things related to the learning activity. This visualization technique is fast gaining ground because of its potency to stimulate creative thinking. It is considered one of the strategies aimed at developing the power of the right brain. In Science and Technology where more often than not, the left brain is stimulated, this strategy may be necessary for an initial development of a sense of aesthetics and the values of curiosity, harmony, peace, and transcendence.

The Kothari Commission has rightly observed, “The expanding knowledge and the growing power which it places at the disposal of modern society must, therefore be combined with the strengthening and deepening of the sense of social responsibility and a keener appreciation of moral and spiritual values”. Inculcation of desirable values in the pupils is felt essential for meeting out the crisis of character. In the situation that is rapidly developing, it is equally important for us to give a proper value orientation to our educational system.

### **CURRICULAR AND CO-CURRICULAR, EXTRA CURRICULAR ACTIVITIES**

Through the curricular and co-curricular activities, the qualities of leadership, self-discipline, cooperation, team-work etc can be easily developed. New dimensions can be given to the personalities of the students. Planning of these activities is very significant, without which these activities may not bear the fruits. The prudent planning and execution of these programmes can inculcate wholesome and social constructive social attitudes among youth, promote emotional security, develop competence in interpersonal and intergroup relationships so important to growing-up, and at the same time provide immediately healthful and beneficial development of the child and society.

#### **Curricular Values**

The task of the teacher is to contribute towards this process of fostering genuine values. Teachers often face the temptation to limit themselves to imparting information rather than preparing their pupils for life. The pressures of academic requirements often stifle the efforts of well meaning educators who struggle hard to fire their students with enthusiasm for higher ideals. Hence teachers in this challenging process of transmitting values are most warmly welcomed. Every subject can be means of building good character and values. Some examples are given below:

a. **Language:** In language through conversation and discussion the teacher educator can enable students to embody higher and noble ideas.

- b. **Social Sciences:** Through social science in general we can develop values like secularism, socialism, hard work and democracy etc.
- c. **Geography:** Through geography we can develop values of conservation, preservation, adventure etc.
- d. **Economics:** Through economics a teacher can lay emphasis on the value of thrift and saving, which lead to the prosperity of a person.
- e. **Civics:** Through civics we can develop values of cooperation, sense of mutual welfare, obedience of law, concern for environment etc.
- f. **Science:** Everything in nature has a lesson to teach. For example, we can say while blowing up a balloon, if person blows too much air into it, it will burst. Similarly if we are too greedy and acquire more material wealth sooner or later, we will have problems.
- g. **Mathematics:** In mathematics there is a wide scope of imparting values like neatness, accuracy, proper planning etc.

Thus we can say that education and values go hand in hand and values are inherent in every module of learning; even co-curricular activities can serve as a sound base for the inculcation of values among students.

### **Co-curricular Values**

As the students spend a lot of their time at school, it demands that we should set fresh goals for attainment in the personal, emotional, social, moral and spiritual fields of human development. Dr.Radha Krishnan said, “We must realize the talents of the children and help them to become what they are to the full potential. It is the machine that constructs; it is the living spirit that creates. Song, dance and literature are creative activities”. The co-curricular activities naturally helps in the smooth running of the school and makes the children strong, steady, healthy and creative. Active participation in co-curricular activities arouses curiosity, creates interest and inculcates values. Values that can be generated in the co –curricular activities are:

- a. **Physical Values:** physical activities help the normal growth and muscular development of the body along with some values like games mass drill, NCC, NSS, NGC, swimming, boating, yogic exercises, gardening etc.
- b. **Psychological values:** The co- curricular activities provide to the child psychological compensation. They play a significant role in the training of emotions. The pent-up emotions

find effective outlet through activities. When the mind is free of the emotional load, the alternate, precision, determination, self-control, courage etc, come into focus.

c. **Civic Values:** Experiences like self government, student council, organizations of various activity clubs like sanitation club, red ribbon club etc, membership of various committees etc, provide for responsible behavior persistence in efforts and fulfillment of the tasks.

d. **Social Values:** Co-curricular activities are carried out in a social environment, developing team sprits, fellow feeling, social unity, cooperation, tolerance, brotherhood, goodwill etc. activities like scouting, first aid, Red Cross, Sharmadan develop social inclination and compassion for the needy.

e. **Moral Values:** Through sports pupils developed integrity, uprightness, impartiality, honesty, and also fair play.

f. **Academic Values:** Co-curricular activities like debates, discussion etc supplement class works and widen the bookish knowledge. Literary activities like symposia, recitations and publication of magazines etc enrich the knowledge of various aspects and language skills.

g. **Vocational Values:** Introduction of leisure time activities or hobbies like photography, clay modeling, album making, coin and stamp collection, tailoring, gardening, weaving, knitting and some such handicrafts facilitates the children to have them as the feature vocation and develop creativity too.

h. **Culture Values:** Dramatics, Folk dance, music, pageants, celebration of social and religious functions etc. provide glimpses of our culture which can preserve, transmit and develop our cultural heritage. Aesthetic & Recreational values: Sports, culture programmes dances, dramas etc give relaxation from normal routine drawing, painting, fancy dress, fine arts, preparation of models, and flow shows etc develop aesthetic sensitivity.

i. **Disciplinary Values:** students get a number of opportunities to frame and follow certain rules and regulations concerning activities thus they develop self discipline and a sense of responsibility.

j. **Value of Oneness:** it is developed through celebration of birthdays of great men and women belonging to different countries and religions. Celebration of international days like UNO day, world education day, etc can considerably promote oneness of humanity and cultivate the ideas and feelings of international understanding in the students.

## **CO-CURRICULAR STRATEGIES FOR VALUE DEVELOPMENT THROUGH ACTIVITIES:**

Co-curricular programme is an integral part of curricular programme. Co-curricular activities can prove to be an effective tool for inculcation of values and nurturing creative talents if they are planned meticulously and executed properly. For this purpose various clubs and associations may also be formed e.g. Atheistic Club, Literary Association, Science Club, Cultural Club, Magazine Committee Bulletin and Board etc. A teacher should be made incharge of each committee. Students should also be placed as a member in each committee in order to ensure their active participation in planning and implementation of various programmes. The teacher incharge should not impose their own ideas and values upon the students they only counsel and guide the students properly. Following activities may be organized for value development.

(i) Morning assembly should include prayer, thought of the day, 'prerak prasang' by teachers and students, patriotic songs of different languages.

(ii) Yoga is very helpful in cultivating moral and spiritual values. It has multidimensional potentials for the growth of personality. The yoga co-ordinates body mind and spirit. It is basically the science of mind and therefore, through it student should learn 'how to concentrate' and 'how to learn fruitfully'. 'Yam' and 'Niyam' have good potential for character building.

(iii) Social service should be promoted in the school. Service is itself a great value. Vivekanand said, "to serve human being is to serve God." It makes people more productive and humane. Programmes like: cleaning colonies, hospitals, tanks distribution for food materials, medicine, clothing, curing the victims of natural calamities should be organized. Through these programmes institution may be made responsive to the society. It will also strengthen the mutual relationship between school and society.

(iv) Participation in cultural activities with folk dance, music and lore of different regions depicting 'Unity in Diversity' should be made compulsory.

(v) Visits and excursion to the relevant places, experience in inter regional living, national integration camps must be organized once in a year for every students.

(vi) A large number of person and groups work selflessly for deprived and down trodden. Interaction with them could really created perceptible impacts.

(vii) Visits to institutions, establishments, centres of creative arts, zoos, museums and to homes for the aged and handicapped not only enhance knowledge, understanding but also generate appreciation and empathy;

- (viii) Games, sports meet at school, district, state and national level may be organized by rotation in different schools. The effort should be made that each student participate in games activity.
- (ix) Scout/Guide movement may be popularized and maximum number of student be encouraged to participate in scout/guide activities.
- (x) NCC/NSS should be made compulsory.
- (xi) Mock parliament student self-government must organize in order to train them in democratic system.
- (xii) Students may be encouraged to learn more and more international and regional languages by providing facilities and incentive for the same.
- (xiii) Exhibition on environment pollution, population, terrorism, and other historical, social, political and economic issues may be organised.
- (xiv) Active participation of community and use of their resources should be promoted in order to make them feel that institution belong to them. Such an impression alone could lead to several value related participatory activities.
- (xv) Institution must provide interaction opportunities to students with the persons of high character sacrifice, creative abilities, literary tastes, scholarly attitude whose mere presence could motivate them.

Lastly, the above strategies can be implemented effectively only through right kind of teachers. Thus the role of teacher is too much important in this regard. According to the UNESCO (1972) report the teacher's duty is less and less to inculcate and more and more to encourage thinking, his formal functions apart, he will have to become more and more an adviser, a partner to talk to someone who helps seek out conflicting arguments rather than handing our readymade truths. He will have to devote more time and energy to productive and creative activities; interaction, discussion, stimulation, understanding encouragement.

### **WHOLE SCHOOL APPROACH**

In the whole school approach, value education is woven into the totality of educational programme in schools where value education does not form a mere appendage of all other subjects but would stand out as over-arching concern of basic importance. The books that students read, the school activities that are favoured or not favoured, the methods of teaching that are used by teachers, the role supervisors, teachers and pupils are expected to play in the maintenance of the rules and regulations of school, the manner in which particular events are celebrated and are chosen to exemplify their significance, the methods of evaluation, promotion, the way teachers are treated, the amount of freedom/initiative they

enjoy, the kind of people serving on the school board and the way administrative staff functions is monitored etc., reflect and symbolize values.

The school atmosphere is surcharged with positive values to imbibe and internalize. Every teacher is a teacher of values. Teachers are properly oriented to create such environment for children where those values become vibrant. Their role is to put the child on the right path not by imposing but by watching, suggesting, helping. Each unit of study in the textbook for different subjects is related to value concerns through exercises, examples and question/ discussion etc. as far as possible. Values permeate the formal curriculum as well as hidden curriculum and the pedagogical approach.

This approach requires conscious attempt and proper planning. Teacher-student interaction requires a great deal of openness. It requires certain pedagogical skills as teachers are required to integrate the relevant values in their lessons in different subjects or in other activities outside the classroom. The subject matter is not only important but the total school management, administrative staff is geared towards value education. In such an approach, some ways of knowing the impact of value education in terms of appreciation/awareness, solving value dilemmas, exhibiting value based behaviour etc. is considered important.

The underlying assumption in the whole school approach is integration. It is the integration of all the aspects of development of students. It is the integration of individual's concern with the society with his/her physical and ecological environment and the diversity within the culture. It is the integration and harmony within self and others around. It is the integration of formal curriculum, hidden curriculum, pedagogical strategy and evaluation system in the school. Integrated approach is considered to be effective because school, environment, creates variety of contexts through totality of educational experiences for students to explore, think, reflect and internalize positive dispositions and values.

### **PEDAGOGY OF VALUES**

Pedagogy refers to the art and science of teaching, the way teachers accompany learners in the process of their growth and development. It is not just about teaching the subject content but the entire gamut of relationships, processes and strategies which are designed to enhance learning. The pedagogy of values has to be different from the conventional pedagogy based on the Banking Model of Education which places greater emphasis on contents instead of the learner. The banking model of education focuses on the teacher as the principle source of a student's knowledge. Students are empty vessels into which knowledge must be poured. At the end of the year, an examination is set out to see how much of knowledge, the student has retained. This kind of model provides major

attention to the teacher who stands at the front, and teacher. Interaction between the teacher and the student is minimal. The pedagogy for values, on the other hand, is grounded on the philosophy that children construct their own theories of how the world works, though their minds are less developed than those of educated adults.

Teaching for values is not like teaching any other school subject. It is about teaching the learner how to think about something, to reflect, critically evaluate, appreciate one's own values and those of others, develop better communication, better decision-making so that the concepts ultimately find their ways into behaviours and actions. It is not confined to the cognitive level but covers the affective and behavioural levels. For example, understanding of any concept like cooperation is not enough. Ultimately, the task is to ensure that cooperation becomes one's internal disposition. Attitudes, values and skills cannot be developed by forcing students to memorise words, and also not by impositions.

Experiences and opportunities must be given to internalise such attitudes and values, which can be sustained in the long run. The learner can only then take a conscious decision of practising values, consciously and responsibly. For example, there can be many ways to instill the understanding of compassion. It can instill by studying the lives of people who are famous for their comparison. It can be imbibed by experience, the environment of love and kindness at home and school. It can be nurtured by exposing students to the sufferings of others and by learning to serve the needy and disadvantaged. The pedagogical demand for such a kind of learning is thus to move away from the traditional banking model to an experiential or participatory model. This model assumes that it is not what you teach but how you teaches, that is important, and that is the essence of education for value. In the absence of this, value education could become just another duty, proclaimed to be done by schools, whereas it has to be the adoption of different ways of interacting, relating and being with students and using ways of teaching and learning to provide concrete learning experience.

## **ROLE PLAYS**

Role plays are used as a methodology for inculcating values where the emphasis is not on the acting capabilities but on the projection of ideas/values and analysis of the same. The analysis brings out why a person should or should not accept the value in question and act on all occasions upholding the same. The process of acting out helps in better understanding and reinforcing the importance of values. Role plays can be conducted according to the age groups. The whole process of teaching through role plays revolve around (a) acting out the story (b) depicting certain values (c) miming (d) reporting involving the processes of Seeing, Judging, Acting, and Internalizing.



The presentation of the role play is just one part. The real and crucial part is reflection through which of attitude change and growth in values takes place in reflecting. The art of conducting role plays and using them particularly for younger students requires orientation and practice.

## **STORIES**

Stories have always been considered to be the best way to get across an important value based message. In recent years, we have learned that mind has a preference for stories. Knowledge is contextualized, it is situated and enmeshed in webs of meaning. Educators have not, as a rule, used story telling, meaningful narratives rooted in ordinary life setting to promote understanding and insight to human behaviour to influence practice. But the new understanding of how the mind works and how brain stores propositions and episodes in a different way, has over scored the traditional ways of communicating knowledge. Persuasive and authentic tales/anecdotes rooted in real world setting communicated in ways that are comprehensible and appealing to students can be especially useful for understanding values.

The stories and anecdotes present accounts of the personal view that people take of life, people, things, and events. These could be around a personal life experience or somebody else's experience, either obtained first hand or by word of mouth or drawn from literature. These experiences serve the purpose of providing inspiration to people especially to boost their spirits in times of stress and conflict and may give new direction to the life of a person. Stories and examples of the lives of men of eminence can include the emphasis that greatness achieved is not sudden but through patience, perseverance and practice. The emphasis has to be on drawing lessons directly and or indirectly appropriate to the age of the students.

The active participation of students should be elicited which will give them occasion to reflect on various aspects of the lives of great men and the values they embodied. The study of religious stories highlighting the essentials of all religions would be rewarding as a step towards harmony among religions as basic teachings of all great religions of the world are the same. A lot of ingenuity, however, is required to present the themes relating to unity of faith. In the literature of every religion, stories and parables figure, highlighting ethical values. The narration of such stories by parents and teachers can be most effective particularly in the junior classes. At the post elementary stage, it is essential that students are given time to study the lives of great religious and spiritual leaders of all important faiths.

Every county has a treasure house of legends and folktales and stories of the exemplary life of great men and women which become a potent source to communicate

values. Story telling is a powerful technique as it leaves a perennial impression on the minds of children.

Educators should be trained to grow as a story-teller. The enthusiasm, sensitivity to the feelings and emotions the story aims to portray, the liveliness in communicating the message, voice modulation and annotation of words are all important.

### **ANECDOTES**

Anecdotes like stories, present a variety of perspectives on certain life situations, different ways one could experience and understand things that are important in one's life. Anecdotes are accounts of real life experiences which portray genuine human feelings and expressions. It could be an event, which created a lasting impression on a person's mind touched the core of heart and may have brought about a shift in the course of the life.

The anecdotes help in communicating the matter in a user friendly manner, understanding the matter by making abstract concrete and easily comprehensible; motivating and inspiring people to reflect, think deeply about the situations. These also help in identifying with those living by the values; providing contextual understanding of the varied situations; learning about different perspectives and choices and skills in dealing with conflicts, crisis situations, events and day to day situations; evoking emotions and feelings. The anecdotes depicting conflicts, dilemmas, human acts and approaches to dealing with different life situations, drawn from home, school, classroom contexts portraying values important for students can be integrated with curricular areas.

### **GROUP SINGING**

Group singing is important as values in the lyrics of the song remain in the consciousness for a long time. Group signifies the unity, towards a common purpose or goal, co-operation, discipline, self-restraint and the spirit to accommodate. Selection of song is important. These could be chosen to reflect good thoughts and feelings of sacrifice, universal love, love of nature, motherland, respect for one's heritage and other's culture. Some of the subjects could be taught through the medium of songs at primary stage.

### **GROUP ACTIVITIES**

Group activities provide opportunities for learning of many values concurrently. Development of fundamental values of love, tolerance, cooperation, peaceful co-existence, respect for others is important. By working in groups, students learn the value of each other's sincere efforts, joy of doing one's best for the good of the whole group. Role plays, games, group discussion, group projects etc. are part of group activities which could be used in

teaching of subjects as well. The manner in which such activities are meaningfully organised is important.

## **QUESTIONING**

Questioning is one of the commonly used technique in traditional classroom teaching to test knowledge and grasp of materials learnt by students. Its intended purpose is basically to raise curiosity of students and elicit involvement for active learning. Questioning is an art and skill which can also be used for assessment, development of creativity and imagination, value clarification etc. Thus the type of thinking it provokes depends on the type of questions asked.

Most of the questions which teachers ask in the class are those for which they already know the answer. Over 90% of the questions asked by the teachers call for information given in the textbooks. These questions are highly structured. Open-ended questions are rarely used.

Closed type of questions that are commonly used by provide only one correct answer to the question. Open-ended question provide opportunities to students to explore new ways of looking at or thinking about problems.

These are different types of questions such as hypothetical questions which involve problems solving abilities. Consequential questions elicit more divergent ideas. In redefinition questions, the child goes beyond the obvious and learns to look at things from new perspective. In futuristic questions, child assumes a situation or problem and tries to solve that problem. The child is required to project his thinking into the future. In analogy type of questions, the child has to compare two objects, events or persons and try to find out new relationship between two objects, ideas, events or person. Context of questioning is important criterion in formulating questions. The context refers to the setting in which question is being asked with respect to the subject area or unit of teaching and the location of questions like in the beginning, end or throughout the lesson. Selection of appropriate format of questions is also important. Format may be verbal, non-verbal, symbolic, pictorial depending on the subject area and the context. Relevance, appropriate wording, clarity in expression etc. are important to communicate the intended purpose.

In values development, processing questions are helpful in making the students understand better their feelings and thoughts about the value being developed. These are effective processing questions asked by the teacher that relate to the personal experiences, observations, attitudes or personal feelings than cognitive questions such as the what, how or

why of the concept. This is purposely done to appeal to the student's effective state to lead him to a certain commitment to characterize a certain value.

## **REFLECTIVE PROCESS**

A key implication for values education is allowing time for reflection. Too much of the work in schools is busy work, frenetic work, which may or may not be productive. Even if it is productive, it is rarely balanced with peace, calmness and time for oneself. If students are given time and space for thinking back on their experiences, they can then begin to see what is important to them, where mistakes are being made, where things can be improved and so on. How it is possible to do this in an already over packed school schedules? This is for the school to decide and prioritize. In any case the significant point to remember is that any kind of activity must be followed by reflection on particular experience. Reflection is not enough on its own. What matters is the effect it will have on self. It is often said that action without reflection is just busyness. The real benefit of reflection is to be able to see things in new light. The ability to effect change in one's attitude is perhaps the greatest strength of reflective practice.

## **CONCLUSION**

At present our young people are hungering for values, and for the social skills with which to face the unknown future. Yet many young people are steeped in purposeless destruction and vandalism, because the ways of violence are the most evident and well-endowed models which we, the adults had given them. Society needs its value-carriers, the people with courage, the people with new ideas, the great teachers the heroic children, the classless non-conformists, the intellectuals and the creators, young and old, who represent influence but not power. These people have to be protected from the power boys who hate and who despise humour, initiative and the glorious irreverence of people who are prepared to do their own thinking. The power-boys are dreadfully afraid of the people who refuse to be brainwashed or manipulated. It is to them surely that Willy Brandt reserved when he speaks of the conflict between spirit and power. The international agencies so far have proved to us that they cannot do much for the people.

## **QUESTIONS**

1. Describe the strategies for value development.
2. Enumerate the Curricular values.
3. Mention the Co-curricular Strategies for Value Development and explain.

4. Explain the Whole school approach.
5. Comment on Role plays and Anecdotes.
6. Describe the reflective process.
7. Define Value clarification and explain its strategies.

## REFERENCES

- Aggarwal, J,C. (2013). *Education for Values, Environment and Human Rights*. Delhi: Shipra Publications.
- Babu Muthuja, Usharani, R. & Arun, R,K. (2009). *Peace and Value Education*. New Delhi: Centum Press.
- Dayakara Reddy & Digumarti Bhaskara Rao (2006). *Value Oriented Education*. New Delhi: Discovery Publishing House.
- Dhananjay Joshi (2007). *Value Education in The Global Perspective*. New Delhi: Lotus Press.
- Galtung, Johan (1975) *Essays in Peace Research, Volume 1*. Copenhagen: Eljers. pp. 334-339
- Jadish Chand (2009). *Value Education*. Delhi: Anshah Publishing House.
- Kiruba Charles & Arul Selvi,V. (2012). *Value Education*. New Delhi: Neelkamal Publications Pvt Ltd.
- Pandiamani. B.K., (2014). *A Textbook on Values, Spirituality and Consciousness Development*. Rajasthan: Rajayoga Education & Research Foundation (Education Wing)
- Page, James S. (2008) *Peace Education: Exploring Ethical and Philosophical Foundations*. Chapter 1. Charlotte: Information Age Publishing. [ISBN 978-1-59311-889-1](https://doi.org/10.1080/1539300080258891)
- Sharma, R. A. (2008). *Human value of education*. Meerut: R.Lall Books Depot.
- Sharma,S,P.(2013). *Moral and Value Education*. New Delhi: Kanishka Publishers, Distributors.
- Shukla, R,P. (2004). *Value Education and Human Rights*. New Delhi: Sarup & Sons.
- Smitha, V,P. (2012). *Educational Management*. New Delhi: A.P.H. Publishing Corporation.
- Venkataiah, (2009). *Value education*. New Delhi: APH Publishing Corporation.

- Vessels, G., & Huitt, W. (2005). *Moral and character development*. Presented at the National Youth at Risk Conference, Savannah, GA, October 21, 2015. Retrieved from <http://www.edpsycinteractive.org/brilstar/chapters/chardev.doc>
- Yogesh Kumar Singh (2007). *Value Education*. New Delhi: APH Publishing Corporation.
- [http://shodhganga.inflibnet.ac.in/bitstream/10603/5067/11/11\\_chapter%201.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/5067/11/11_chapter%201.pdf)
- <http://www.edpsycinteractive.org/topics/morchr/morchr.html>
- <http://iosrjournals.org/iosr-jhss/papers/ICAET-2014/volume-1/4.pdf>
- [https://www.researchgate.net/publication/259322707\\_Role\\_of\\_Parents\\_Guardians\\_and\\_Teachers\\_in\\_Value\\_Education](https://www.researchgate.net/publication/259322707_Role_of_Parents_Guardians_and_Teachers_in_Value_Education)
- [http://shodhganga.inflibnet.ac.in/bitstream/10603/33620/7/07\\_chapter1.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/33620/7/07_chapter1.pdf)
- <http://ctb.ku.edu/en/table-of-contents/overview/model-for-community-change-and-improvement/core-principles-and-values/main>
- <http://unesdoc.unesco.org/images/0015/001580/158071eb.pdf>

**TAMIL NADU TEACHERS EDUCATION UNIVERSITY**  
**Chennai-600 097**

**Course Material for B.Ed (Second Year)**

**COURSE 11: YOGA, HEALTH AND PHYSICAL EDUCATION**  
**(Optional Course)**

*Prepared by*

**UNIT – I : YOGA AND ASANAS**

**UNIT - II : HEALTH EDUCATION**

**UNIT - III : COMMUNICABLE DISEASES AND LIFE STYLE DISORDER**

*Dr.M.Govindan, Professor and Head*

*Dr.V.Vasudevan,*

*Dr.T.Sivasakthi Rajammal*

*Dr.P.N.Lakshmi Shanmugam*

*Mr.S.Balamurugan*

*Assistant Professors*

**Unit IV : PHYSICAL EDUCATION AND PHYSICAL EXERCISE**

**Unit - V : ORGANISING COMPETITIONS**

*Dr.M.Sheela Lilly Angeline*

*Directress of Physical Education*

*N.K.T National College of Education for Women,  
Chennai - 600 005.*

---

**Department of Educational Psychology**  
**Tamil Nadu Teachers Education University**  
**Chennai-600 097**

## **COURSE 11: YOGA, HEALTH AND PHYSICAL EDUCATION (Optional Course)**

### **UNIT – I: YOGA AND ASANAS**

#### **Objectives:**

After completion of this unit, the learner will be able to,

1. understand the definitions and the concepts of yoga.
2. describe the historical development of yoga in India.
3. know the major schools of yoga.
4. demonstrate the different stages of the Surya Namaskar.
5. name the different types of Asanas.
6. analyse the preventive and curative effects of yoga.

#### **Meaning and Concept of Yoga**

The term ‘Yoga’ is derived from the Sanskrit verb ‘YUJ’ meaning ‘to join’ or ‘to yoke’ or ‘to unite’ or ‘to integrate’ which means total integration of the physical, mental, intellectual and spiritual aspects of human personality.

“Yoga is the unification of the individual psyche (Jivatma) with the transcendental (Paramatman)” - Yoga Yajnavalkya.

Jesus Christ says “the physical body (the Stula Sharir) is the living temple of the God”.

“Blessed are the pure in heart, for they shall see God”- says Christ.

Patanjali defines yoga as complete suppression of all mental modes or process (Cittaorttiniwodha).

Vyasa defines yoga as absorptive concentration (samadhi). It is a universal attribute of the mind. All persons can attain yoga by repeated practice (abhyasa) and detachment (vairagya).

Swami Sathyananda Saraswati (1999) in his book, “Asana Pranayama Mudhra Bandha”, comments that yoga is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of today and the culture of tomorrow.

Hassanagas (1996) concluded that

- Practicing yoga helps in improving the general health of the volunteers.



- The psycho- condition is reinforced and the mental capabilities are increased. The concentration and memory are developed. Self-confidence, self-discipline and working capabilities are increased.
- The capability for removing the psycho-physical fatigue is increased.
- The number of injuries is decreased as a result of increase of the self-consciousness, self-control of the body and brain.
- The number of absences due to illness is decreased.
- The efficiency and the productivity increases leading to profits.

Nedungode V. Haridas (1996) in his article, “*Physiological and Philosophical aspects of Yoga*” states that “Yoga science is a well-proven treasure and it is up to us to tap the yoga power to relax and rejuvenate our mind, increase our physical strength, expand our spiritual awareness, improve our concentration, help our body to use oxygen and nutrients more effectively and to prevent illness and retard old-age”.

Hemalatha Murthy (1996) in her article, “*Management of Respiratory Diseases by Yoga*” states that yoga gives us solace, confidence, redeems all our miseries, obsession and conflicts. It is suitable to all and all times. It helps the persons to change their attitudes and bring a tremendous change in way of life, which is simple and which is very necessary, unless, there is no true solution to all the problems and illness. Right knowledge of yoga burns out the likes and dislikes, ego and ignorance and there is an establishment of pure bliss, which is natural state of a being.

Manchanda (2001) conducted a Research study of Reversal of Coronary Heart Disease through Prekasha Meditation with Reference to Coronary Atherosclerosis Reversal Potential of Yoga Life Style Intervention among 42 male patients. The results of the study, reveals that, in the yoga group, 3 (5%) Lesions showed progression, 46 (75%) Lesions showed no change while 12 (20%) lesions showed regression. In the control group 22 (37%) lesions showed progression, 36 (61%) showed no change while 1 (2%) showed regression. Yoga lifestyle intervention is beneficial in improving the symptoms and exercise capacity, lowering weight and serum lipid levels. It also retards the progression of coronary atherosclerosis in patients with sure coronary artery diseases and reduces revascularization procedures.

### **Origin and History of Development of Yoga**

Yoga means the classical Yoga system as set forth by Patañjali in the Yoga Sūtras. Patañjali taught an eightfold (aṣṭāṅga) system of Yoga emphasizing an integral spiritual development including ethical disciplines (*Yama* and *Niyama*), postures (*Āsana*), controlling and harmonizing the breath (*Prāṅāyāma*),

control of the senses (*Pratyāhāra*), concentration (*Dhāraṇā*), meditation (*Dhyāna*) and absorption (*Samādhi*). This constitutes a complete and integral system of spiritual training.

However, classical Yoga was part of the Vedic tradition. Patañjali was only a compiler of the teachings at a later period. Yogic teachings covering all aspects of Patañjali Yoga are common in literature prior to Patañjali like in the Purāṇas, the Mahābhārata and the Upaniṣads. The instigator of the Yoga system is said to be Hiraṇyagarbha, who represent the creative and evolutionary force of the universe.

Yoga can be traced back to the Ṛgveda itself, the oldest vedik text which speaks about yoking our mind and insight to the light of Truth or Reality. Great teachers of early Yoga include the names of many famous Vedic sages like Vasiṣṭha, Yajñavalkya, and Jaigīśavya. The greatest of the Yogis is always said to be Yogeśvara Krishna himself, the propounder of Bhagavadgītā, which is called as Yoga Śāstra – an authoritative work on Yoga.

### **Origin of Yoga and the Indus Valley Civilization**

The stone seals excavated from the sites of the Indus Valley Civilization (3000 B.C.) depicting figures in yogic postures indicate that Yoga was being practised even during 3000 B.C.

The first indication of body-culture in Yoga is to be traced through the word Āsana (posture) and Prāṇāyāma (the regulation, conservation and control of bio-energy). But since, we are concerned primarily with postures, let us go to its origin. This involves not only how posture training came to be regarded as a physical requisite for Yoga but also how its later development aided the most comprehensive evolution of namely physical training, hygiene, social medicine, and therapeutics.

In the evolution of Āsana and its synthesis, besides the original prayer and meditative poses, certain other postures have also been included which have been found to be definitely useful in the development of the physical and meditative aspects of the individual's personality. A series of dynamic variations has been added to the static Āsanās to enlarge the scope of application and meet the varied requirements.

Yoga has been part of man's activities directed towards higher spiritual achievements in India. The history of Yoga is divided into five categories:

- ❖ Vedic period
- ❖ Pre-classical period
- ❖ Classical period
- ❖ Yoga in Medieval Times
- ❖ Yoga in Modern Times

## Psychological aspects leading to origin of Yoga

There are some psychological reasons which contributed to the origin of Yoga. These reasons could be attributed to:

1. Desire for *Sukha-pravritti* (attainment of happiness) and *Dukha-nivritti* (termination of sorrow and misery) and
2. Curiosity to know about self and the realities of life.

There was a realization that suffering, misery, frustration and the consequent pain were permanent in life, while the enjoyment, if any, was a temporary feature. This realization led the philosophers to gain knowledge about the nature, type and cause of suffering and pain, and also to find out ways that could end them and help in attaining permanent happiness and bliss in life. Consequently, Yoga originated and evolved as a way/means to overcome the pain the suffering and attain permanent bliss in life. Thus, the existence of pain, suffering, misery etc. in life was major psychological reason which helped in the origin of Yoga. Yoga says that suffering is inevitable as long as you are in the state of *Avidya* (ignorance). There are three kinds of suffering (*Tapatrayas*) which are categorized in the Saṅkhya Karikā.

1. Physical suffering or **Ādi-Bhautika Tapa** which is manifested in physical body and can be caused by troubles/obstacles coming from the external world, such as from wild animals, people, infections etc.
2. Divine or **Ādi-Daivika Tapa** is the suffering caused by coming from extra-sensory world/divine power, natural calamities like earthquake, flood, planet position (grahamandal prabhava) etc.
3. Internal or **Ādhyātmika Tapa** is the trouble/obstacle arising out of one's own body and mind, such as loneliness, depression, stress-related disorders etc.

## Vedic period

The ancient texts of Vedas are the oldest scriptures in the world. The Sanskrit word Veda means “knowledge” and *ik* means “praise”. Thus the *igveda* is a collection of hymns that are in praise of a higher power. Other three Vedas are Yajur Veda (knowledge of Yajña), Sāma Veda (Knowledge of chants), and Atharva Veda (knowledge of Atharva). In Vedic period the means to higher attainment were through Knowledge or revelation from the Universe through meditation. It comprises three Yogas – Mantra Yoga, where the power of mantra, through which the mantra becomes active as a tool of transformation in the mind, Prāṅa Yoga – through Prāṅyāma which energizes the vital force. Dhyāna Yoga – The word *dhī*, which means Buddhi or intellect is the root for the term ‘dhyāna’ or meditation.

Dhī is the higher and interior portion of the mind (manas), which enables us to perceive the eternal truth. This cultivation of dhī or buddhi, the main faculty of discrimination, is the main characteristic of Yoga, Vedanta and Buddhism.

To keep the mind solely on one object is contemplation. "Contemplation is that state in which the tendencies of the concentrated mind begin to flow around one single notion like an uninterrupted stream of oil, and the mental faculties (manas) remain without any outward object." The five characteristics of Dhyāna are: single thought, effortlessness, slowness, wakefulness, effortless expansion. Any state of mind having these five characteristics can be said to be in Dhyāna.

In the Maitrāyanī Upaniṣad; Yoga is spoken about as: ṣaṅga-Yoga – The uniting discipline of the six limbs (ṣad-aṅga), as expounded in the Maitrāyanī-Upaniṣad: (1) breath control (*prāṇāyāma*), (2) withdrawal of senses (*pratyāhāra*), (3) meditation (*dhyāna*), (4) concentration (*dharaṇā*), (5) recalling and examination (*tarka*), and (6) transcendental state (*samādhi*). Yoga is the state in which all our Indriyas are beheld steadily i.e., a state of mastery over senses and mind, as portrayed in Kaṭhapaniṣad.

### **Pre-classical period**

One of the most outstanding Yoga scriptures is the Bhagavad-Gītā. According to the Bhagavadgītā, there are three important paths which lead to establishing relationship with the Supreme. These have been designated as the Yoga of perfect actions (*Karma Yoga*), the Yoga of perfect devotion (*Bhakti Yoga*) the Yoga of perfect knowledge (*Jñāna Yoga*).

The Bhagavadgītā consists of 18 chapters. Each chapter is called a Yoga. Each chapter is a highly specialized Yoga revealing the path of attaining realization of the Ultimate Truth. Bhagavadgītā gives specific knowledge regarding the purpose of human existence, the immortality of the soul and our eternal relationship with the Supreme. This knowledge applies to each and every one of us without exception.

### **Classical period**

During the classical period which is around 2nd century BCE Patañjali, wrote Yoga Sūtra which comprised 196 aphorisms which describes the eight limbs (*Aṣṭāṅga*) to reach the goal of human life which is freedom from miseries of death and birth. This is known as the Yoga of will power or Rāja Yoga or Aṣṭāṅga Yoga.

Buddha was also contemporary to this period who taught us eight-fold path *ārya-āśā-ga-mārga* emphasising on meditation.

*Vipāsanā* is one of India's most ancient meditation techniques. Long lost to humanity, it was revived by Gautama, the Buddha more than 2500 years ago. The word *Vipāsanā* means seeing things as they really are. It is the process of self-purification by selfobservation. One begins by monitoring the natural breath to concentrate the mind. With a sharpened attentiveness one proceeds to observe the changing nature of body and mind and experiences the universal truths of mortal and miserable life.

*Ahiṁsā, Pratyāhāra* and contemplation are important wings of Yoga in Jainism.

### **Yoga in medieval times**

Buddha (around 6th century A.D.) had popularized meditation on the entire subcontinent. However, there was a point of disagreement that one cannot start the spiritual practices with meditation immediately. One has to prepare oneself for meditation. During 6th century AD when the influence of Buddhism had declined, some great yogis like Matseyendranātha and Gorakṁanātha set out to purify the system. There were many treatises on *Haṁha Yoga* written during this time.

The main texts written during this period are *Haṁha Yoga Pradīpikā* by Svātmarāma, *Gheraṁṁa Saṁhitā* a conversational treatise, *Haṁharatnāvalī* by Śrinivāsa yogi which also discusses Āyurveda along with Yoga, Śiva Saṁhita, *Siddha siddhānta Paddhati* by Nityanātha etc.

Guru Gorakṁanātha is believed to be the founder of the Nātha Sampradāya and it is stated that the nine Nathas and 84 Siddhas are all human forms created as Yogic manifestations to spread the message of Yoga and meditation in the world. They were Yogis, who reveal samādhi to mankind. Guru Gorakṁanātha is thought to have authored several books including: *Gorakṁa Saṁhitā, Gorakṁa Gītā* and *Yoga Cintāmaṁi*.

### **Yoga in modern times**

Integral Yoga or Pūrṁa Yoga by Śri Aurobindo emphasised surrendering to the Divine and an opening to the Divine Force so that it may work to transform one's being.

Sri Ramakrishna Paramahaṁsa, records for the path of Bhakti Yoga and Divine love. To Ramakrishna all religions are revelations of God in His diverse aspects to satisfy the manifold demands of the human mind. One of the greatest contributions of Śri Ramakrishna to the modern world is his message of harmony of all religions.

Swami Vivekananda summarised the Vedānta's teachings as follows:

1. Each soul is potentially divine.
2. The goal is to manifest this Divinity within by controlling nature, both external and internal.
3. Do this either by work (*Karma Yoga*) or worship (*Bhakti Yoga*), or psychic control (*Rāja Yoga*) or philosophy (*Jñāna Yoga*)—by one, or more, or all of these—and be free. This is the whole of religion.
4. The doctrines, or dogmas, or rituals, or books, or temples, or forms, are but secondary details.

**Source:** NCTE, (2015). Yoga Education: Bachelor of Education Programme. New Delhi: NCTE.

## **AIMS AND OBJECTIVES OF YOGA**

Yoga has existed from Vedic period and its importance of is described in several scriptures. Yoga is an essential means to achieve happiness. In Kathapanishat, it is advised to “treat the self as the person seated in the body as the chariot. Then, treat the intellect as the driver (charioteer), the mind as the reins and the senses as the horses. The one who has control of mind directed by intellect there by controlling the senses leads the person to the spiritual goal. Otherwise a person’s life will be as of a chariot driven by uncontrolled horses”.

In the Bhagavadgita, Lord Krishna emphasizes that the goal of everyone should be to achieve yoga, or state of equanimity. He beautifully describes the blissful state of yoga.

Maharishi Patanjali has made great contributions in removing in three domains namely through ayurveda in body for good health, through commentary on Panini’s grammar for good speech and through yoga for achieving pure mind.

Sriranga Sadguru, the founder of Ashtanga yoga Vijnana Mandiram, Mysure, viewed, the chief aim of yoga is to experience the inner of spiritual world having realized the truths through knowledge of process of manifestation of self, senses and body and based on one’s own full spiritual development by turning the outward looking self (mind) inwards through the path of sushumna.

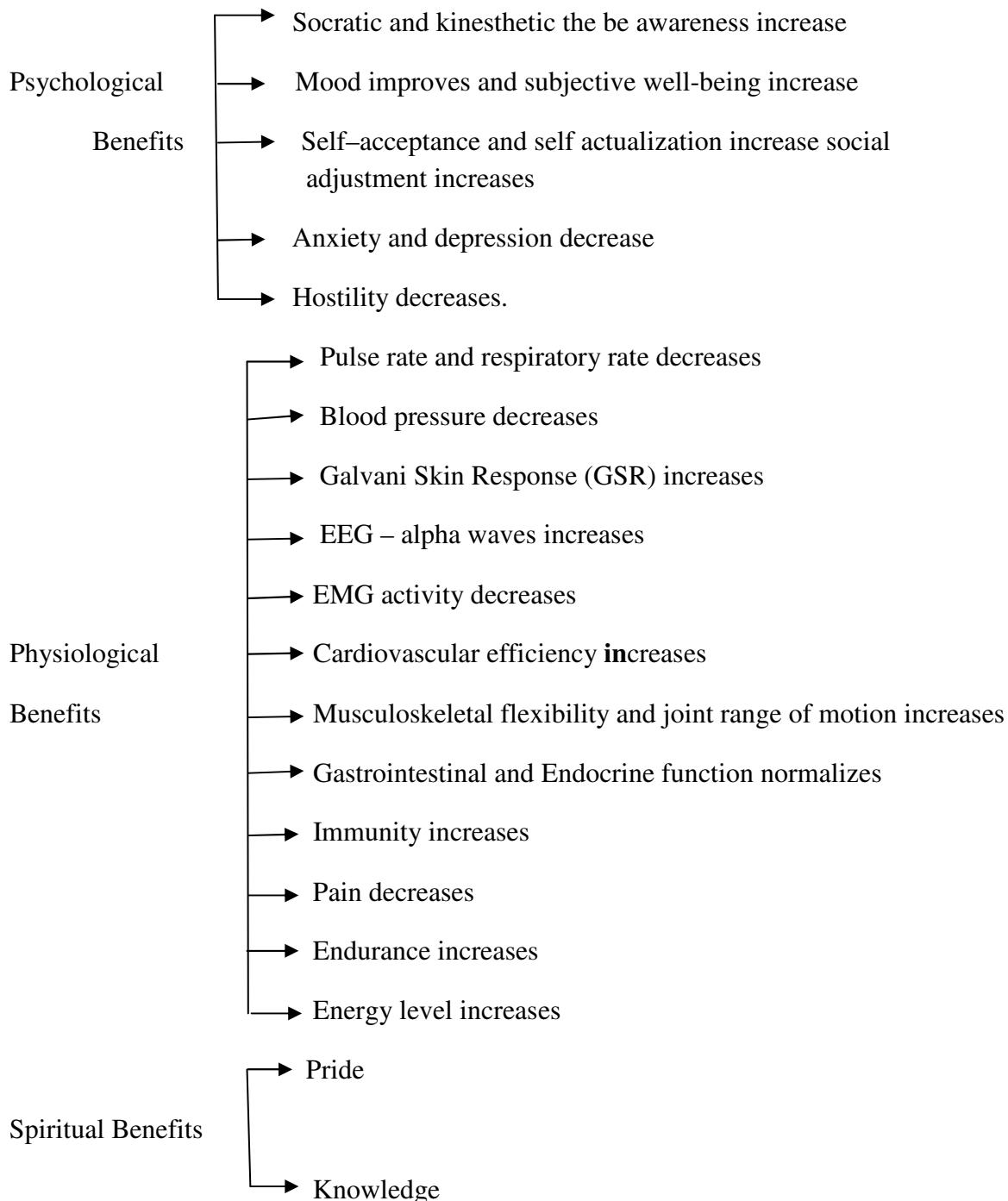
The aim of yoga is to achieve parity and clarity of manas (mind), buddhi (intellect) and chitta (consciousness)

Yoga deal with providing answers for the basic questions of life. The important tools of a human being namely mind, breath, speech, and body are used in the process of yoga to achieve the highest goal of human life namely God realization, resulting in pure Bliss.

The ultimate aim of yoga is to make it possible for everyone to be able to fuse together the gross material (annamaya), physical (pranayama), mental (manomaya), intellectual (vijñanamaya) and spiritual (anandamaya) levels within every being.

## BENEFITS OF YOGA

Prof. Basavaraddi, Director, Moariji Desai National Institute of yoga, New Delhi summarizes the benefits of yoga in the following aspects.



Morarji Desan National Institute of Yoga (2006-2007) conducted a study on the “effect of yoga practices on management of Techno – stress in computer uses: A quantitative approach using psycho-neuro – physio motor functions”. The results of the study were as follows.

- Significant positive difference found in computer hassles between the participants of experimental group and control group.
- Significant positive difference found in the general stress level between
- Significant positive difference found is the occupational strain related parameters like psychological strain, vocational strain and physical strain between the participants of experimental group and control group.
- Significant positive difference found in the parameters related occupational role like role overload, role insufficiency, and role ambiguity between the participants of experimental group and control group.
- Significant positive difference found in Neck, Solder, Back and wrist pain between the participants of experimental group and control group.
- Significant improvement found in self-care among the participants of experimental group

Moranji Desai National Institute of Yoga summarises the findings of the study conducted on pranayama and meditation.

### **Research findings on Pranayama**

- The oxygen intake is reduced to less than one fourth in pranayamic breathing compared to normal breathing.
- The diffusion gradient of various gases is not much affected during the phase of kumbhaka.
- The free acid radical content in the blood reduces because of reduced oxidation process.
- Better neuro-endocrinal coordination is established.
- Studies on Nostril Dominance have confirmed the effect of regulated breathing on specific areas of the brain.
- Reduction in secretions of stress hormones and decrease in Basal Metabolic Rate.

### **Research findings on Meditation**

- Meditation and mindfulness calms Amygdala, an area of the brain associated with the fear response that is a factor in anxiety and stress disorders.
- Meditation helps in balancing neurotransmitters.
- A study on brain scan of Buddhists practicing meditation regularly indicated an heightened activity in left pre-frontal lobe of the brain-an area associated with positive emotions, self control and calm temperament.

### **Major Schools or Types or Streams of Yoga**

The human personality can be divided broadly into four fundamental categories: emotional, active, intuitive and volitional. Patanjali has clearly understood this fact and that each person has a different temperament and inclinations according to predominance of one or more categories. Further, he classified the yoga in following aspects

1. Bhakti yoga or yoga of emotions – path of self surrender
2. Jnana Yoga or yoga of knowledge – path of self analysis



3. Raja yoga or yoga of physical control – path of self control
4. karma yoga or yoga of action – path of self sacrifice

### **1. Bhakthi Yoga**

Bhakti yoga is the process of inner purification. The message of bhakti yoga is that love is the most basic human emotion. In its purest form, love is cosmocentric and divinely inspired.

By aims to help a person evolve emotional maturity, love for society and to spread the message of love universal brotherhood and oneness. It helps in transformation of conditional and desirous form of love into true unconditional love. Karma (desire), combined with tyaga (sacrifice) forms prema (love). Prema along with saranagati (surrender) results in bhakti.

### **2. Jnana Yoga**

**Jnana** is the path of knowledge. The darkness of ignorance can only be dispelled by the light of knowledge. Knowledge, according to Jnana yoga, has two aspects: fire and light. The fire of knowledge barras all the impurities of our mind, and simultaneously, knowledge enlightens our inner consciousness. The psychology of Jnana yoga tells that we cannot generate spirituality by artificial means. The method of Jnana yoga is to persuade the seeker that his or her sole identity is the self. By hearing, reading, thinking and meditating about the self, the mind gradually realizes that the self is the only reality in this universe and that all else is unreal.

The ultimate aim of Jnana yoga is to understand the reality of atma (soul) and the ability to differentiate it from body. A person truly established in the path of Jnana yoga becomes free from all worldly desires and has contentment. There are three phases in Jnana yoga.

- a. Sravana – first exposure to knowledge at any form
- b. Manana – revisiting the knowledge for further understanding
- c. Nididhyasana – experimentation.

### **3. Raja Yoga**

Raja yoga is also called ‘royal road’. The chief practice of raja yoga is meditation. Raja yoga seeks to attain the Divine by igniting the flame of knowledge of the self within. There are two types of practices under Raja Yoga.

- a. Bahiranga yoga offers rules and regulations at the behavioural level (yama and niyama) as well as physical practices to gain better control over the body and the mind (asanas and pranayama)
- b. Antaranga yoga comprises of concentration (dhrana), meditation (dhyana), and consciousness (samadhi)

Raja yoga asks the seeker to confront the deep rooted tendencies and restlessness of the mind by cultivating a single thought reminiscent of the Divine.

## **4.Karma yoga**

The best introduction to karma yoga is given by the 19<sup>th</sup> century philosopher, Vivekananda. The word 'karma' is derived from the Sanskrit word 'kri' meaning 'to do' all action is karma. Karma yoga is the Yoga of action. It is the selfless devotion of all inner as well as outer activities as a scarifies to the Lord of all works, offered to the eternal as masters of all the soul's energies and austessifies.

### **Kinds of Karma**

**There are three kinds of karma**

#### **a. Sanchita or the Accumulated works**

Sanctita is all the accumulated karmas of the past. Part of it is seen in the character of man in his tendencies and attitudes, capacities, inclinations and desires.

#### **b. Pravabdha or the fructifying works**

Pravabdha is that portion of the part of karma which is responsible for the present body. It is ripe for reaping. It cannot be avoided or changed. It is only exhausted by being experienced. You pay your past debts.

#### **c. Kriyamana or current works**

Kriyamana is that karma which is now being made for the future. It is also called Agami or Vartamana.

### **Principles of Karma Yoga**

#### **a. Right motive**

Swami Vivekananda advises as to "give your hands to work, and keep your mind fixed at the lotus feet of the Lord".

#### **b. Right Move**

Swami Vivekananda says main generally plans to get the fruits of his works before he starts any kind of work. The mind is so framed that it cannot think of any kind of an if kind of work without remuneration or reward. A selfish man cannot do any service. He will weigh the work and the money is a balance. Selfless service is unknown to him.

#### **c. Do your Duty Best**

#### **d. Serve God or the self in All**

#### **e. Follow the discipline of the job**

### **General Guidelines for Practicing Yoga**

- Keep a separate room for practicing Yoga.
- Yoga can be practiced after age of seven

- Wear modest clothes to make breathe freely. No baggy clothing, instructor needs to see alignment.
- No heavy jewellery.
- No Perfume or cologne.
- Yoga is practiced is bare feet. Remove the shoes before entering the Yoga room turn off mobile.
- Be systematic in practice, begin with simpler postures and progress to the more complex.
- Yoga is to be practiced on an empty stomach.
- Be systematic in practice, begin with simpler postures and progress to the more complex.
- Breath through nose at the time of practicing. Keep the mouth closed and eyes open.
- Avoid consuming any food 3 hours prior to yoga practice.
- Drink plenty of water to help in the elimination of toxins from the body that have been released as a result of the practice session.
- One could practice yoga even before bath but, after practice one should wait for some time and take a bath.
- One should not practice yoga directly on ground, one should spread a carpet a blanket or a clean cloth, sit on it and start yoga practice by facing east or north in the morning, west or south in the evening.
- Women should refrain from regular yoga practice during their menses as and pregnancy.
- Avoid Yoga exercise at least 4-5 months after surgery.
- Yoga advocates only vegetarian food.

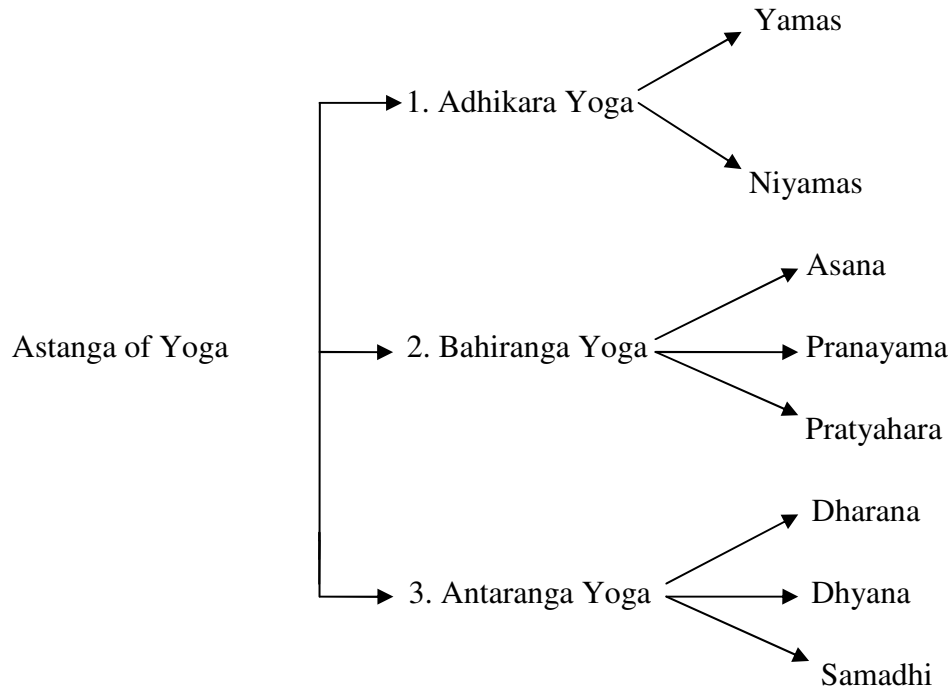
## **EIGHT LIMBS OF YOGA**

Yoga has its roots about 5000 years BC as described in Vedic Philosophy and Tantras. Patanjali, great sage composed this path in his Book 'Patanjali Yoga Sutra'. The Yoga Sutras serves as the basic text for an in-depth study of this great science. Patanjali called it Astanga Yoga i.e science having eight limbs viz,

1. Yama (moral code)
2. Niyama (Personal Disciplines)
3. Asana (Postures)
4. Pranayama (Breathing)
5. Pratyahara (Withdrawal of senses)

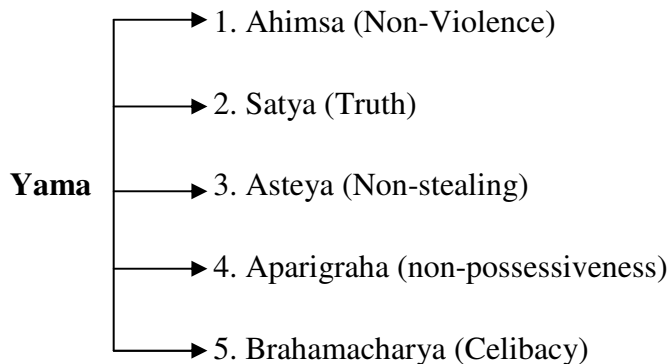
6. Dharana (Concentration on object)
7. Dhyan (Meditation)
8. Samadhi (Salvation)

For the sake of convenience in treatment and understanding, these eight limbs of Yoga are divided into the following three heads.



## 1. Yama

Yama means way of life or discipline. The first step of Yoga is Yama. It says about, perfecting the mind and body following certain values rigorously. The following are the constituents of Yoga.

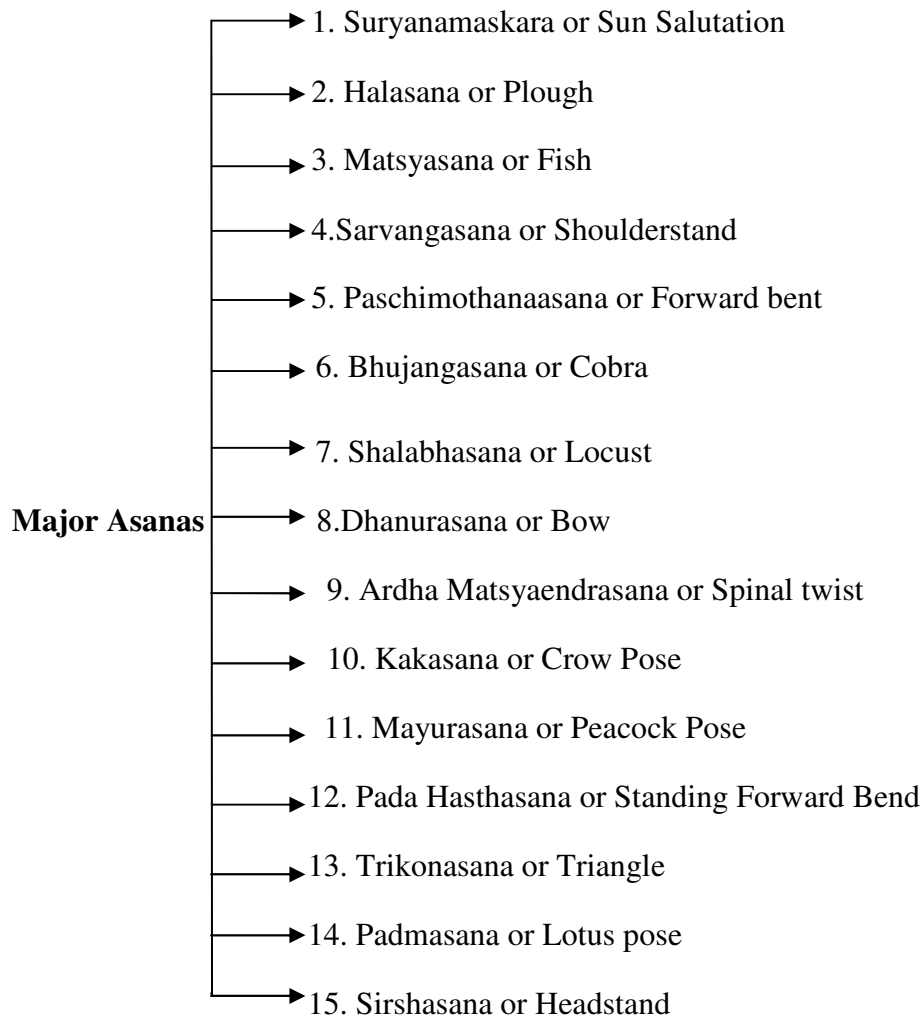


## 2. Niyama



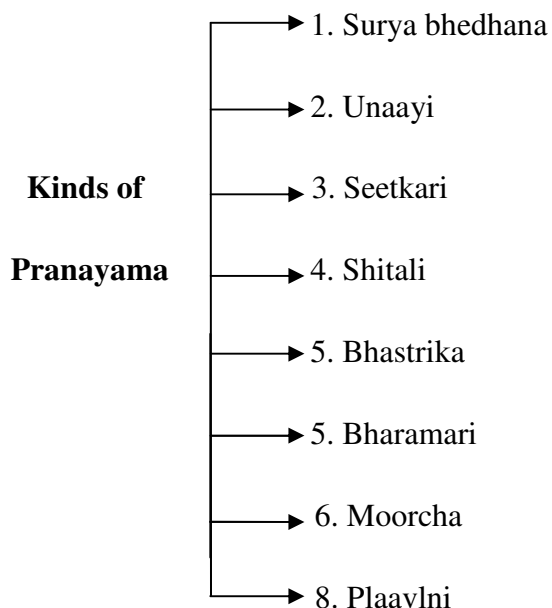
## 3. Asanas

Asanas one of the aspects of yoga is important to perfect the Postures and maintain flexibility of body as well as regulate breathing. Although there are thousands of asanas in the literature, the following are the major asanas practiced now a day.

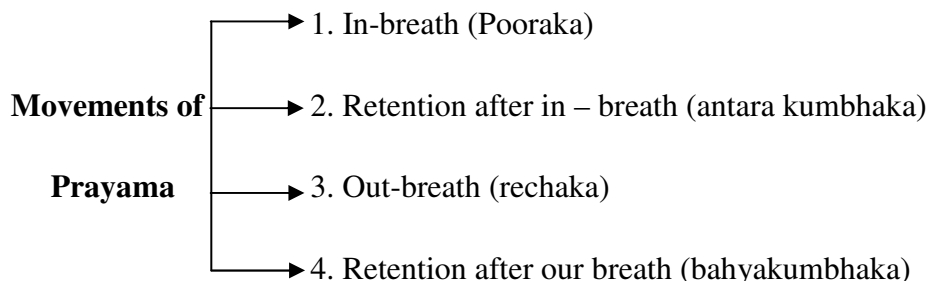


## 4. Pranayama

The term Pranayama is derived from the Sanskrit term 'Prana' which means vital principle. Prana is life. Prana is very often misunderstood as breath. Prana stands for the manifested life energy which expresses itself in the various physiological functions such as Perception (Prana), excretion (Apana), digestion (Vyana), Circulation (Samana), and thoughts (udana). Prof. Aruna Goel classified the Pranayama into eight kinds and calls them kumbhakas. Kumbhaka means retention of breath.



**Pranayama** has four movements.



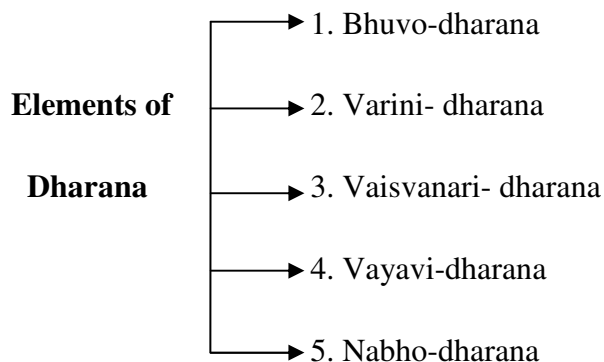
## 5. Pratyhara

The term 'pratyahara' consists of two words 'prati' and 'ahara' meaning denying the senses of their food viz. controlling senses from rushing towards their objects and thereby control the mind.

## 6. Dhavana

Dhavana indicates broad based field of attention (inside the body and mind) which is usually understood as concentration. Mind is a super computer. Mind is full of tremendous potentialities. If used properly it can bring peace and bliss in life which it's improper use can create upheavals in life. There is a need to understand the true potentialities of mind. The basic idea of Dharana is concentration of mind on one object and its field. It deals with the development of the ability of the indrawn mind to focus and concentrate on a sacred object.

The Lonavla Yoga Institute describe there are five elements of Dharana,



## 7. Dhyana

Dhyana referred as meditation, is continuous contemplation or concentration on the sacred object. Meditation is to be achieved like a lamp (steady mind) in the absence of flickering wind (wavering wordly thoughts). Swami Lokeswarananda (1995) defines meditation is thinking, thinking deeply, with deep concentration. The Gita says that it is hard to control the mind, just as hard as controlling the wind.

Nagaratna and Nagendra (2001) concluded the benefits of meditation based on their experiments. The benefits of meditation are:

- i) Mind dwells on a single thought of choice.
- ii) Deep relaxation of all parts of the body.
- iii) Reduced metabolic rate by slowing of breath.
- iv) Freshness, lightness and a feeling of expansion at mental level.
- v) Calmness, peace and serene bliss and
- vi) Continuous awareness.

## 8. Samadhi

Samadhi is the quite state of blissful awareness. It refers to an experience of transcendental state of balance and deep spiritual absorption. This is an individual internalised experience. Further, it is state of super bliss, joy and merging individual consciousness in to universal consciousness. Union between Jivatman and Paramatman. Realization of God is the ultimate achievement of human birth.

Samadhi is a Sanskrit term for the state of consciousness induced by complete meditation. Etymologically the term comes from ‘Sam’ means together or integrated, ‘a’ towards, and ‘Dha’ to get or to hold. Thus the result might be seen to be to acquire integration or wholeness, or truth (Samapatti).

Samadhi can also categorised as,

1. Laya Samadhi – latent, potential level of Samadhi.
2. Savikalpa Samadhi – initial temporary state of full-valued Samadhi.
3. Nirvikalpa Samadhi – highest transcendent state of consciousness.
4. Sahaja Samadhi – only the truly enlightened can be and remain spontaneously free.
5. Mahasamadhi – is a term often used for this intentional departure from the physical body at death.

## ASANAS

Asana is one of the most ancient yogic practices. It is also called as the other practices of yoga, namely Kranayama, Kriyas, Meditation, Bandhas and Mudras. The term Asana is derived from the Sanskrit root “Aas” means ‘to sit’ or ‘Asi’ means ‘to be’. Maharishi Patanjali defined asana is a posture held firm or stable with comfort. From the above definition the two key characteristics of asana are stability and comfort. Here ‘stability’ signifies immobilization or stability of the body and ‘comforts’ refers a harmonious peaceful and serene mental state.

Asanas are innumerable in number. The Hatha Yoga texts say that there are about 84, 00,000 asanas. Asanas are not just physical exercises. They are bio-physio-psychological postures. The cells of the body have their own design of functioning, intelligence and memory. Sri Brahmanada explains the effects of asanas in the following words. The “body is a lazy (tammasic) mind vibrant (raajastic) and soul, serene and luminous (saattvic). Through perfection in asanas, the three parts of man-body, mind and soul-become one as if they are the very expressions of the indweller (Jeevaatma)”.

Yogasananas are specialized postures of the body often imitating many of the animal postures. Large numbers of Asanas exist. Arun Goel (2007) in his book on “Yoga Education: Philosophy and Practice” listed the yogasananas in the following aspects.



### ***Sitting Posture***

- Padmasana
- Swastick Asana
- Vajrasana
- Paschimottunasana
- Ardachakrasana
- Garbhasana
- Uttanmandukasana
- Bhadvasana
- Kapalabhati
- Nadi Shuddi Pranayama
- Bhramri Pranayama
- Sheetali
- Meditation

### ***Lying Posture***

- Powanamutasana
- Sarvangasana
- Halasana
- Matsyasana
- Mayurasana
- Shalabhasana
- Dhanuvasana
- Suptavajrasana
- Kurmasana
- Makavasana
- Shavasana

### ***Standing Posture***

- Tadasana
- Urdhvahastottanasana
- Padhastasana
- Katichakrasana

## **Surya Namaskar**

### **Meaning**

Surya namaskar is one of the most important yoga practices. It is the set of 12 yoga poses which can be performed while chanting 12 different mantras. Mantras add a profound spiritual element to the practice.

Surya Namaskar or Sun Salutation is a Yoga warm up routine based on a sequence of gracefully linked asanas. (Carol Mitchell, 2003).

The nomenclature refers to the symbolism of sun as the soul and the source of all life, Krishan (Kumar Suman, 2016). It is relatively a modern practice that developed in the 20<sup>th</sup> century (Dona Schuster, 1990).

Surya Namaskar is sometimes translated as “eternal salutations to the sun”. In Sanskrit, Surya means ‘Sun’ and namaskar means ‘Salutations’. The practice of Surya Namaskar awakens the body intelligence to create energy directly from the sun. In the Vedic tradition, the sun is symbolic of consciousness and, therefore, has been worshiped daily in the Indian culture.

### **Yogapedia Explains**

Surya namaskar is designed to access the ethereal energy that exists all around us. Every morning at dawn, the air is filled with Prana sakthi, or life energy. When performing facing east during the first rays of the morning sun, breathing correctly and chanting mantras, one experiences a phenomenal affect on the mind, body and spirit.

## Surya Namaskar Yoga Steps

In Surya Namaskar, you salute the sun with these 12 steps in the early morning. The surya namaskar steps are given below

### 1) Pranamasana – (Prayer pose)



### surya namaskar yoga pose Pranamasana

Pranamasana is the first step of Surya Namaskar Yoga Steps.

Feel composed and stand on your mat. Keep your feet together and balance your weight equally on your feet.

By standing on the edge of your mat, relax your shoulders and expand your chest.

Then breathe the air in and lift your hands from the sides simultaneously.

Put your palms together in front of your chest in prayer position while you exhale the air.

### 2) Hastauttanasana – (Raised Arms pose)



### surya namaskar yoga pose Hastauttanasana

- Pranamasana is the second step of Surya Namaskar Yoga Steps.
- Do the breathing in and raise your arms up.
- Keep the arms close to your ears all the way and stretch backward.
- You should stretch the body from your toes to the tip of the fingers.
- The mere bending of the body backward doesn't give the good results.

### 3) Hasta Padasana – (Hand to Foot pose)

Pranamasana is the third step of Surya Namaskar Yoga Steps.



**surya namaskar yoga pose Hasta-padasana**

- Now bend down and by keeping your back straight, try to touch the floor with your palms. Don't bend your knees and try to touch the knees with your head. It would be difficult initially and will become easy with time.
- Exhale and bend down. Exhale completely and touch the floor with your palms. Keep the palms in one position and don't move them here and there.

### 4) Ashwa Sanchalanasana – (Equestrian pose)



**surya namaskar yoga pose ashwa Sanchalanasan**

- Pranamasana is the fourth step of Surya Namaskar Yoga Steps.
- Push your right leg back as far as possible while breathing in.
- Let the right knee touch the floor and look up.
- Keep your left leg between your hands.
- For the best results, keep your foot exactly between the hands.

### 5) Dandasana – (Stick pose)

Pranamasana is the fifth step of Surya Namaskar Yoga Steps.



**surya namaskar yoga pose Dandasana**

- In the same pose, breathe in and bring your left leg back.
- Keep your whole body in a straight line.
- Keeping your arms straight and perpendicular to the floor will enhance the result.

### 6) Ashtanga Namaskara – (Salute with Eight Parts or Points)



**surya namaskar yoga pose ashtanga namaskara**

- Pranamasana is the sixth step of Surya Namaskar Yoga Steps.
- Bring your knees down to the floor gently and breathe out. Raise your hip slightly and keep your chest and chin touching the floor.
- Keep your side of the hands close to your body and touch the ground with your palms.
- In this salutation, the eight parts of your body which include two hands, two feet, two knees, chest, and chin should touch the ground.

## 7) Bhujangasana – (Cobra pose)

Pranamasana is the seventh step of Surya Namaskar Yoga Steps.



**surya namaskar yoga pose bhujangasana**

- Raise your chest like a cobra. Keep your elbows down, keep the shoulders away from the ears and look up.
- While breathing in, gently push forward your chest and similarly while you breathing out push your navel down.
- Stretch yourself fully but don't force your body.

## 8) Adho Mukha Svanasana – (Downward-Facing Dog pose)



**surya namaskar yoga pose adho mukha swavasana**

- Pranamasana is the eighth step of Surya Namaskar Yoga Steps.
- By keeping your chest downwards, lift your hip and tailbone up.
- Keep the heels, touching the ground.
- Stretching to the maximum gives the best result.

### 9) Ashwa Sanchalanasana – (Equestrian pose)



**surya namaskar yoga pose asana ashwa sanchalanasana**

- Pranamasana is the ninth step of Surya Namaskar Yoga Steps.
- As you have already done it, bring the right foot between your hands this time.
- Keep the left knee down to touch the floor. Push the hip down and look up.
- Keeping the right hand at the exact center between the hands and pushing your hip down gently to give the maximum stretch is the good way to do this salutation.

### 10) Hasta Padasana – (Hand to Foot pose)



**surya namaskar yoga pose asana hasta padasana**

- Pranamasana is the tenth step of Surya Namaskar Yoga Steps.
- Bring your left foot forward, while breathing out. Keep your palms down to touch the floor.
- Slight bending of knees in this position could be allowed if you feel not easy with the position.
- Straightening your knees slowly to the maximum and touching the knees with your nose give the maximum stretch.

## 11) Hastauttanasana – (Raised Arms pose)



### Surya namaskar yoga pose asana hasthuttansana

- Pranamasana is the eleventh step of Surya Namaskar Yoga Step.
- Breathe in and stretch your spine up.
- Raise your hands to go up while bending back little.
- Push your hip slightly upward.
- Keeping your hands to touch the ears, gives the good upward stretch.

## 12. Tadasana – (Mountain Pose)



### surya namaskar yoga pose asana tadasana

- Pranamasana is the twelfth step of Surya Namaskar Yoga Steps.
- Breathe out and bring back your body to the straight position.
- Then bring your arms down. It's time to relax and feel the resonance with nature.

- Keep calm for a while and observe your body.
- If you follow the procedures and do the surya namaskar steps regularly it will open the world of good for you.

**Source:** <http://healthlove.in/health/yoga/surya-namaskar-yoga-steps-images-pose-mantra-benefits/>

### **Benefits of Surya Namaskar**

The morning Practice is designed to work on all body parts, every organ, every system and every chakra. It is also believed to be the most efficient way to connect with our core inner strength.

- Due to beautiful combination of the variability and repetitive nature of Surya Namaskar, it allows individuals to perform self motivated practice without getting bored or mindless and it allows for easy Self-maneuvering since it is repetitive in nature.
- Adding mantras during the practice removes monotony, provides harmony within and produces soothing vibrations that removes fatigue.
- Salutations to the sun, the visible divinity in nature, allow one to practice in faith. Visualizing the sun in one's heart center brings a sense of peace and wholeness.

The body is equipped with the innate intelligence to produce energy from the sun directly. The mind, through the solar plexus; the body, through physical movement; and the spirit, through the chants, all get a boost from the practice of Surya Namaskar. Therefore, it is a complete workout for mind, body and soul.

### **Preventive and Curative Effects of Yoga and Asanas**

In a study conducted at Massachusetts General Hospital, researchers found that those who took part in mind-body relaxation program, participants used 43% fewer medical services than did the previous year.

The National Health Service (NHS) in England employing more than 1.5 million staff and treating over 1 million every 36 Hours, the staff of the NHS faces a huge challenge. As a result, every year health care professionals suffer from a variety of mental health and musculoskeletal problems, costing the NHS £ 2.4 million every year in absenteeism. Then, Simon Stevens, head of the NHS, designed a well-being initiative that included yoga as part of a major drive to improve the well-being of NHS staff.

Numerous studies have demonstrated yoga's efficacy in addressing some of the common issues faced by healthcare staff – including depression, lower back-pain and metabolic disorders – but it can also improve efficiency at work and encourage greater compassion towards patients.

Kaushik Halder and Rameswar Pal (2014) found that the Ashtanga yogic practice improves the aerobic capacity, anaerobic capacity, joint flexibility, and muscle strength. Evidence shows that the regular execution of these practices provides the practitioner with more physical flexibility, muscle strengthening, increased vitality, delineated psychological stress, and reduced cardiovascular risks.



Yogic techniques are known to improve one's overall performance and work capacity. During yoga session, the postural maneuvers are executed without repetition and are connected to each other by passages that establish links between the exercises in a sequence. Yoga is not only a discipline to be practiced by saints or spiritual aspirants but also has relevance to the spirit of military activities.

Arndt Bussing et al (2012) summarizes that yoga may well be effective as a supportive adjunct to mitigate some medical conditions, but not yet a proven stand alone, curative treatment. Larger-scale and more rigorous research with higher methodological quality and adequate control interventions is highly encouraged because yoga may have potential to be implemented as a beneficial supportive / adjunct treatment that is relatively cost – effective, may be practiced at least in part as self-care behavioural treatment, provides life-long behavioural skill, enhances self-efficacy and self confidence and is often associated with additional positive side effects.

### **Cardiovascular Endurance**

Innes et. al. reported on 37 studies investigating the effects of yoga on blood pressure and hypertension. Most reported a reduction of systolic and diastolic pressure.

Ospina et.al found a small significant improvements of systolic and diastolic blood pressure in favour of yoga when compared to no treatment. When compared to health education, yoga interventions resulted only in small and insignificant improvements of systolic blood pressure and diastolic blood pressure.

### **Pulmonary function**

Raub examined the yoga's effects on lung function in healthy volunteers and patients with chronic bronchitis and asthma. In healthy volunteers practicing yoga, there are reported improvements of various parameters of lung function with breathing control techniques, specific postures, and relaxation techniques.

### **Asthma**

Studies conducted at yoga institutions in India, have reported success in improving asthma. One study of 225 patients with asthma found that yoga resulted in improvement or cure in 74% of asthma patients. A study of 46 adolescents with asthma found that yoga practice resulted in a significant increase in pulmonary function and exercise capacity and led to fewer symptoms and medications. Patients were given daily training in yoga for 90 minutes in the morning and 60 minutes in the evening for 40 days.

### **High Blood Pressure**

The relaxation and exercise components of yoga have a major role to play in the treatment and prevention of high blood pressure (hypertension). A combination of biofeedback and yogic breathing and relaxation techniques has been found to lower blood pressure and reduce the need for high BP medication in people suffering from high BP. In 20 patients with high BP who practiced biofeedback and yoga techniques, 5 were able to stop their BP medicate completely, 5 were able to reduce significantly the amount of medication they were taking, the remaining had lower BP than at the beginning of the 3 month study.

## **Diabetes**

A study of 149 persons with non-insulin dependent diabetes found that 104 had lowered blood sugar and needed less oral anti-diabetes medication after regularly practicing yoga.

## **Mood Change and Vitality**

A British study of 71 healthy volunteers aged 21 to 76 found that a 30 minute program of yogic stretching and breathing exercises was simple to learn and resulted in a “markedly invigorating” effect on perceptions of both mental and physical energy and improved mood.

## **Insomnia**

The quality of sleep will improve because of yoga’s beneficial effect on the nervous system, and in particular the brain.

## **Yoga and Beauty**

Swami Sivananda viewed that “by practicing the asanas regularly, men and women will acquire a figure which will enhance their beauty and that supplances which gives them charm and elegance in every movement and be endured with a peculiar glow in his face and eyes and a peculiar charm in his/her smile.

## **Yoga and Mental Health**

Those practicing yoga experiences a number of facts that results in a profound effect on their mental health.

- a) Reduction of tension
- b) Restoration of pliability
- c) Personal values
  - avoidance of fear
  - acceptance of faith
- d) Social values

## **Health Conditions and Benefits of Yoga**

In 1983-84, the Yoga Biomedical Trust conducted a survey among 3000 individuals with health ailments for which yoga was described as an alternative therapy. The results of the study are shown in the below table.

<b>Sl. No.</b>	<b>Ailment</b>	<b>Number of cases Reporting</b>	<b>Percentage Claiming Benefit</b>
1	Back Pain	1,142	98
2	Arthritis or Rheumatism	589	90
3	Anxiety	834	94
4	Migraine	464	80
5	Insomnia	542	82
6	Nerve or muscle disease	112	96
7	Menstrual problems	317	68
8	Premenstrual tension	848	77
9	Menopause disorders	247	83
10	Hypertension	150	84
11	Heart disease	50	94
12	Asthma	226	88
13	Duodmal ulcers	40	90
14	Hemorrhoids	391	88
15	Obesity	240	74
16	Diabetes	10	80
17	Cancer	29	90
18	Tobacco addiction	219	74
19	Alcoholism	26	100

## UNIT – II: HEALTH EDUCATION

### OBJECTIVES

After completion of this unit, the learner will be able to,

1. Understand the concept, definitions and approaches of health education
2. Identify the goals and objectives of health education
3. Develop methods to transact health education
4. Realize the role of teachers in health education
5. Understand the principles of first aid.

### INTRODUCTION

Today India needs not only intellectuals but also strong and healthy men and women for her progress and prosperity. There is a popular saying in 'Sanskrit, Agrogyam Parmo Lavah', i.e. health is the greatest blessing of all. Our health determines the standard of health of our family, community and nation to which we belong. Our personnel hygiene significantly contributes to promotion and maintenance of national health.

### HEALTH EDUCATION

#### Meaning

Health education as any activity which promotes health-related learning, i.e. some relatively permanent change in an individual's competence or disposition. Effective health education may thus produce changes in understanding or ways of thinking, it may bring about some shift in belief or attitude; it may influence or clarify values; it may facilitate the acquisition of skills' it may even effect changes in behavior or lifestyle.

#### Definitions

Dr. Thomas Wood defined health education is the sum of experiences with favourable habits, others, and knowledge relating the individual, community and social health". Rather Grout define 'the transaction of what is known about health in to desirable individual and community behaviour pattern by means of educational process.'

## **Approaches to Health Education**

There are three approaches to health education.

- 1) The preventive model
- 2) Radical- political model
- 3) Self-empowerment model

### **1. The preventive model**

The goal of the preventive model of health education is to persuade the individual to take responsible decisions, i.e. to adopt behaviours which will prevent disease at primary, secondary and tertiary levels. This is the traditional and orthodox approach which also incorporates the sub-goal of proper utilization of health service.

### **1. Radical-political model**

The goal of the radical-political model is to get to the roots of the problem of ill health or to change the metaphor, refocus upstream. It is concerned to achieve social and environmental change by triggering political action.

### **2. Self-Empowerment model**

The third model of health education to be considered is a self-empowerment model. It derives from an educational model whose philosophy reflects the society for public health education of America's (SOPHE) goal of fostering informed choice. This model seeks to facilitate choice not merely by providing understanding, value clarification and practice in decision making, but by attempting to empower the individual. It incorporates a fundamental tenet that in a democratic society social change can occur only by empowering individuals or groups of individuals to modify their environment.

The self-empowerment model of health education could be solid to promote health positively and directly as well as facilitating health choices of any and every kind. The process is outlined in the following figure

## **School Health Education**

Schools have been widely promoted as a major context for the delivery of health education. This is an acknowledgement of the importance of health as integral to the complete development of the individual; of the tight to health knowledge for the own sake; and the perceived significance of the early learning of health-related knowledge, attitudes and behaviors for the present and future health of individuals and

their families and communities. Schools, moreover, in many countries can reach a large proportion of the population over an extended period of time.

The school supports the health education of its pupils into two main ways; by offering appropriate programmes of teaching within the formal curriculum and by ensuring that the school environment as a whole supports the classroom work. The role of schools in achieving both education and health has been described by Kolbe (1987) is as follows:

Health and education are interdependent goals and schools provide one of the most universal and efficient means of achieving them both; in virtually every nation schools comprise existing systems, facilities and trained personnel to protect and improve the health of communities.

### **Goals of school Health Education**

Kolbe (1987) proposed the following are the goals of school health education,

- 1) To increase understandings about the philosophy of science of individual and societal health
- 2) To increase the competencies of individuals of make decisions about personal behaviours that will influence their health.
- 3) To increase skills and inclinations to engage in behaviours that is conducive to health.
- 4) To increase the skills of individuals to maintain and improve the health of their families, and the health of the communities in which they reside.

### **Objectives of School Health Schemes**

The objectives of the programme of a school health service are as follows:

- 1) The promotion of positive health
- 2) The prevention of diseases
- 3) early diagnosis, treatment and follow-up of defects
- 4) Awakening health anxiousness in children
- 5) the promotion of healthful environment.

## Current Scenario of Medical and Health Facilities in the Government of Tamil Nadu

1. Government Medical Colleges	-	22
2. Hospitals attached with medical colleges	-	48
3. Tamil Nadu Government Multi Super specialty Hospital	-	1
4. Dental college and Hospital	-	1
5. District Head quarters Hospitals	-	29
6. Taluk and non –Taluk Hospitals	-	274
7. PHC'S	-	1,747
8. Health Sub Centers (HSCs)	-	8,706
9. Urban Primary Health Centers	-	476
10. New Community Health Centers	-	15
11. ESI Hospitals	-	10
12. ESI Dispensaries	-	216
13. Indian System of Medicine Hospital and Dispensaries	-	1,491

Tamil Nadu Dr.MGR Medical University was established in the year 1987 functioning from July, 1998  
Ministry of Health – Best Practices.

1. Cardiovascular Organ Transplantation
2. Public Health Care.
3. Tamil Nadu Medical Services Corporation
4. Congenital Fetal Abnormality Detection
5. Maternal Service Anaemia Management
6. Birth companion programme
7. Maternity Bangle Ceremony
8. Well Functional and co-located Services
9. Maternity Van Services
10. State Healthy Data Resource Centre
11. Immediate issuance of birth certificate after delivery
12. Modified School Health Programme.
13. Award for District Collectors
14. Palliative Care Treatment
15. Maternal Health Review

## **Budget 2017-18**

The Government is increasing the budget to the Health Sector every year substantially. Rs.10, 157. 86 crores was allotted in the budget for the year 2017-2018. Apart from the above Provision Rs 387.38 crore was allocated towards civil work and Rs.362.79 was allocated be ESI Scheme hospitals.

## **IMR Infant Mortality Rate**

IMR ie death of children before the age of one year per 1000 live births, is a sensitive indicator of health and to nutritional status of the population.

The IMR in Tamil Nadu for the year 2015 is 19 per1000 live births as per the Sample Registration System Survey (2015).

MMR-Maternal Mortality Ratio (MMR) 2015-2016 is 62 per 1,00,000 live births.

## **Important Services and Programmes**

1. Dr. Muthulakshmi Reddy Maternity Benefit Scheme
2. Hospital on wheels programme.
3. Promotion of Menstrual Hygiene

Under this scheme 18 packs of sanitary napkins in a year, at the rate of three packs or two months for each adolescent girl (10-19 years) in rural areas both school going and non –school going girls are provided. In every school in rural areas, the designated teachers are responsible for distributing the sanitary napkins to school students. The objective of the programme is towards increasing awareness among adolescent girls on menstrual hygiene, build self-esteem and empower girls for greater socialization, to increase access to end usage of high quality sanitary napkins.

## **4. Deworming**

Under this initiative, children in the group of 1-19 years are given deworming medicine (Tabulat and syrup- Albendazole) through a platform of school and Anganwadi Centers. It is estimated that 68% a children between in the age group of 1 to 14 years are at risk of infection with oil Transmitted Helminths (STH). hook worm, pin worm etc. due to poor sanitation and hygienic conditions.

- National Deworming Day 10<sup>th</sup> February
- Mop-up Day 15<sup>th</sup> February



- Amma Baby care kit 16 items – announced on 12.08.2015 and implemented on 08.09.2015.
- Amma Arokiya Thittom
- 104 Health Helpline – lunched on 30.12.2013
- Rashtriya Bal Swasthya karyakram (RBSK)
- Rashtriya Kishor Swasthya Karyakram (RKSK)

Reproductive Maternal Nuratal, child health and Adolescent Health (RMNCHA)

Janani Sishu Suraksha Karyakram (JSSK)

Pre-conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection)Act.1994

Tamil Nadu State AIDS Control Society (TNSACS)

Tamil Nadu constituted the state AIDS ON 22.04.1995 prevent, control the speed of HIVand provide care, support and treatment is HIV infected/ affected persons. The TANSACS implements HIV/AIDS control programme in the state under the guidelines of National AIDS control organization (NACO). The society works with the aim of achieving the goal. “Getting to zero-No new infection, No HIV/AIDS related deaths, No HIV/AIDS related stigma and discrimination”.

Tamil Nadu has been successful in bringing down the HIV/AIDS prevalence rate from 1.13% in 2001-02 to 0.27% in 2014-15.

The components of TANSACS

1. Prevention of new infections
2. Information, Educational communication
3. Care, support and treatment
4. Strategic Information Management Systems.

### **Integrated counseling and testing centers (ICTCS)**

In Tamil Nadu there are 781 Stand alone (ICTCS) branded as “Nambkkai Maiyam providing counseling and testing services in Government Hospitals. In addition of this , 16 mobile ICTCS are

deployed to reach the unreached and provide services at their door steps. There are 1102 Facility Integrated Counseling and Testing Centers (FICTC3)functioning in the Additional Primary Health Centers. Under PPP 211 private hospitals render ICTC services. Country 2375 HIV counseling and testing ser facilities are functioning in TamilNadu

## Red Ribbon Club (RRC)

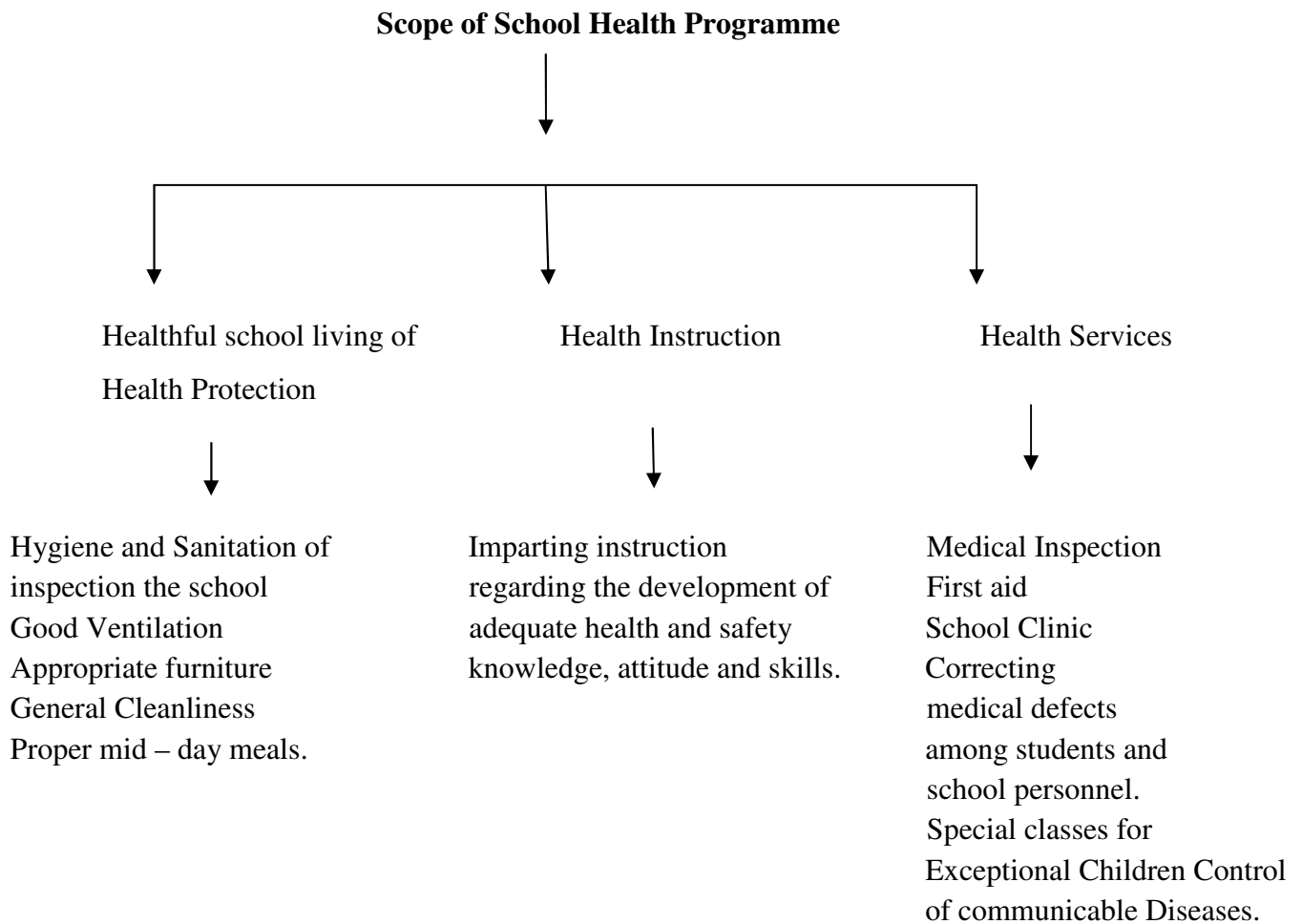
As a pioneer in the Nation, TANSACS established Red Ribbon Clubs (RRC) in the year, 2005 to create awareness and to raise the risk perception and behavioral changes among the young. There are 2021 RRC functioning in Arts and Science, Engineering, Medical, B.Ed colleges and training Institutions in Tamil Nadu.

## Life Skill Education Programme in Schools (LSEP)

This programme aims to provide information Life Skills and knowledge on prevention of HIV/AIDS among the 9<sup>th</sup> and 11<sup>th</sup> students in Tamil Nadu. It is imbalanced in 9580 schools through SCTERT

## Scope of School Health Education

Scope of health education includes all such instruction that enlightens a student about activities and functions contributing to preservation, promotion and restoration of health. A thorough knowledge of health rules underlines the needs of the study of anatomy and also the symptoms of common diseases of children. A practical knowledge of causes and diagnosis is equally essential. School health education also includes knowledge about the environment, equipments and routine of the school as well.



## **Health Education Transaction**

Health education in school should not be considered as the sole responsibility of a single teacher. Development of healthy lifestyles through healthful living in schools is to be shared by all teachers. Health education concepts have been integrated in subjects like, language, social studies, science etc. It should be taught consciously by the teachers teaching these subjects, keeping in mind the objectives for each level of school education.

### **Primary Level**

The emphases at this stage will be development of health practices through conscious planning and supervision. The teacher will present an example of health behaviour he/ she wishes to develop among students.

### **Upper Primary Level**

In this stage the following measures to be taken:

- acceptance of personal responsibility for health promotion
- application of health knowledge and understanding to solve health problem
- awareness that prevention is preferable to treatment and
- respect for the health of others.

### **Secondary and Higher Secondary Level**

At this time the consensus effort on the part of teachers to develop practices in to habits may have resulted into a healthy lifestyle. Assignments of exploratory nature may be given in the form of individual or group projects opportunities may be provided to document observations and conclusion, present the results, answer questions and provide clarifications

### **Recommendations on Health Education**

Children are our future and our most precious resources. The quality of tomorrow's world and perhaps even its survival will be determined by the well-being, safety and the physical and intellectual development of children today. Children are the mirror of a nation.

Dr. P.C. Chunder (1979) former minister of education and social welfare GOI in his forward to the National Plan of Action for international Year of the Child has rightly said that

Nations children are its supremely important asset and the nation's future lies in their proper development.... An investment child is indeed an investment in the Nations future. A health and educated child of today is the active and intelligent citizen of tomorrow'.

Emphasizing the importance of the school programme, the National Health Policy has recommended that "organized school health services integrally linked with the general preventive and curative services would require to be established within time limited programme".

The National Policy on Education (1986) has emphasized the need for the overall development of the young child. It states "Recognizing the holistic nature of child development, viz., nutrition, health and social, mental, physical, moral and emotional development. Early Childhood Care and Education (ECCE) will receive high priority and be suitably integrated with the integrated child development services programme, wherever possible". Government of India (1961) Report of the schools education committee made the following recommendations for health education in schools".

### **Recommendations (Health Education)**

- 1) Health education should be included as part of general education in the primary, middle and secondary schools. The basic education system, as expounded by Mahatma Gandhi contains the essential ingredients of a school health education programme.
- 2) Steps should be taken to keep the school environment in a sanitary condition. The school administration should provide the right environment to promote health, prevent disease and furnish opportunities to children to practice good health habits.
- 3) School authorities should employ teachers who are in sound health and should take steps to see that conditions under which they are working are conducive to healthy living.
- 4) The health personnel should assist the teacher in carrying out his health education responsibilities. They should also help parents to provide facilities for the children to practice at home the health habits learnt at schools.
- 5) The state administration should play a vital role in the effective implementation of the school health education programme and in setting up standard in the state in accordance with the national policies.
- 6) The state administration should take immediate steps to publish text books on health education and to have health lessons included in other appropriate text books. Books and teaching aids should be kept up-to-date with scientific health information and adopted to the development level of pupils for whom they are intended.
- 7) The Central Health Education Bureau (CHEB) and the National Institute of Audio Visual Education, in cooperation with appropriate advisers in various fields of education should develop type instructional material and teaching aids for use in school health education programme. These materials should serve as guides for the states to develop their own aids and material.

- 8) In primary grades, the emphasis should be placed on practicing healthful living. The teaching should be practical and related to pupil's past experience, his home conditions and his present needs.
- 9) The learning experiences in middle classes should be 'life centred' rather than 'book-centred'. In schools where there are special subject teachers, the health content of the curriculum may be correlated with the specific subjects taught. Where the class teacher is responsible for all teaching in the class, he should be responsible for health teaching as well.
- 10) The health curriculum for secondary schools should be carefully planned so as to avoid unnecessary duplications and serious omissions, with appropriate health topics being incorporated within the respective special subjects. Wherever facilities exist, health should be included in the list of optional subjects offered. .
- 11) The draft syllabi on health education for the children of the age groups 6-11, 11-14 and 14-17 be prepared by the committee on health and nutrition education, constituted by the ministry of education should be adopted for health teaching in schools with slight modifications to suit local needs.
- 12) The schools health education (SHE) section in the central health education Bureau and the students' health education unit in SHEBs should be developed to provide leadership in different aspects of school health education.

Regional office for south East Asia, WHO, New Delhi has brought out a document based in the health Jamboree for secondary schools students of South-East Asian Region. Report of an inter-country meeting Feydhoo Finolhu Island, Maladives, 13-15 September, 2001, which deals with health promoting schools. It states,

Schools are strategies settings for providing students with educational qualifications and to improve their opportunities for employment fostering good health is equally important to help student lead socially and economically productive lives in the future. The objectives of the Jamboree are:

- 1) To explore the holistic concept of health
- 2) To share observations, experiences on prevalent health problems which they might have experiences as adolescents, as well as other public health problems in the communities
- 3) To discuss existing school health programmes in their respective countries and explore ways of involving themselves in the same

4) To develop strategies for better health at various levels and

5) To understand the importance of diet and exercise in ensuring and promoting health and incorporating the same in their daily lives.

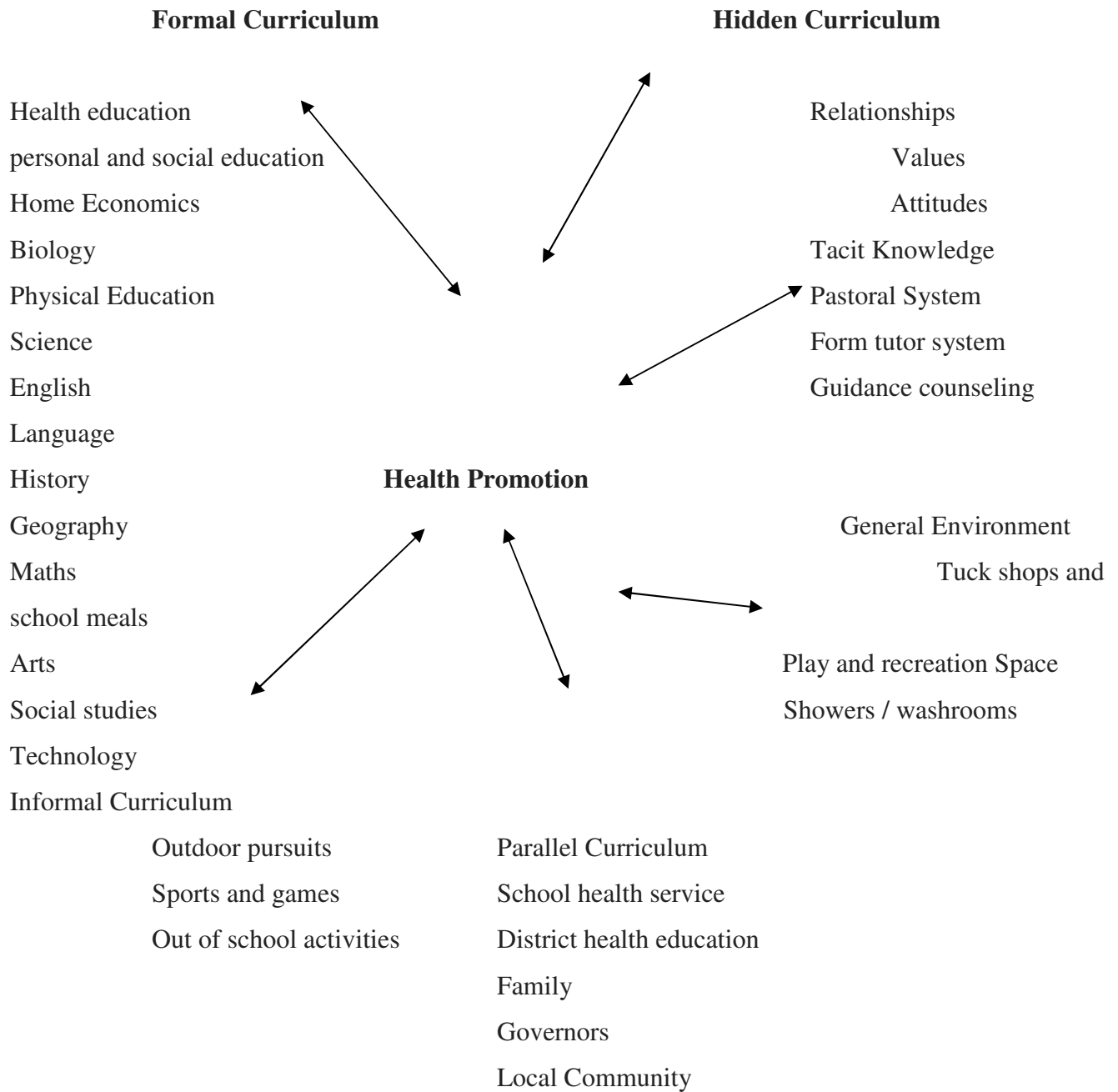
### **Jamboree Recommendation**

- There should not be too great a lapse of time between the planning and the implementation phases as some loss of continuity can occur.
- The teachers/ officials should be oriented to their roles and responsibilities, so that they can be better involved.
- Guidelines for presentation of school health programmes should be outlined at the time of sending the invitations, so that this session stays more focused and gives the necessary information.
- The Jamboree could be extended to a period of five days, as the programme was very tight and many resource persons felt rushed and could not do justice to analyzing the processes involved.
- Linkages between the topics need to be established
- More time could be given to sports, physical exercises and other leisure activities
- Though the food was very good, the needs of vegetarians could be better addressed
- There is a need for training of resource persons.

### **Evaluation of School Health Education**

In evaluating school health education we can focus on any, or all, of five distinct although overlapping and interesting levels.

- 1) Individual Pupil: Evaluation addresses learning outcomes of pupils achieved as the result of formal and informal health education activities the total school curriculum.



2) Individual school: health education of pupils occurs within the context of the school environment. A second level of evaluation appraises the individual school as a health promotion environment.

3) Community: Schools exist within communities. The immediate and longer-time effects of school health education on these communities can be assessed

4) The school systems: while effective health education may be demonstrated in small scale studies with

groups of pupils, or in individual schools as a whole, it is important to enquire about the extent to which the schools system as a whole in any country provides a satisfactory health education for all pupils.

5) National and local policy a variety of policies related to education and to health can have a bearing on the development of appropriate, and successful, health education in schools.

### **Methods of Education**

There are number of ways in which health knowledge can be given and sound health attitudes and behaviour can be inculcated. The following are some of the methods to give health education to the students.

- 1) School health club
  - 2) Demonstrations and practical work
  - 3) Songs, stories, games and puzzles
  - 4) Dramas, puppet shows and role play
  - 5) Health parades, competitions, scrap books and diaries
  - 6) Exhibitions and display boards
  - 7) Talks, debates and discussions
  - 8) Visual aids in Teaching
  - 9) Involvement of parents
  - 10) Child-to-child health activities.

### **Teachers Role on Promoting Health Education**

Teachers are not supposed merely to make their students literate but ensure on all round development of personality. Health is a very important component of his personality; therefore, teachers must be trained in the art and science of health education.

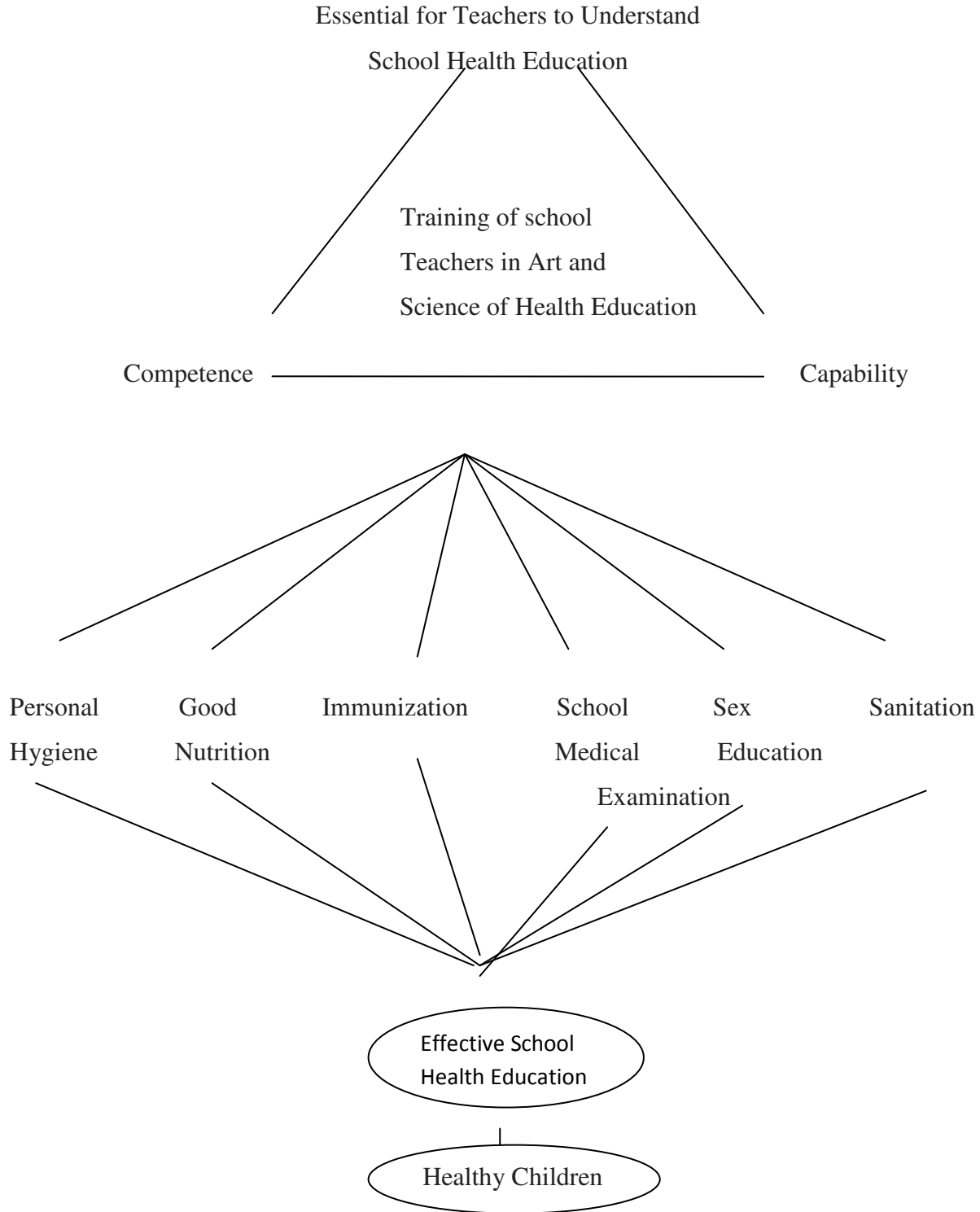
### **Responsibilities of Schools Teachers in the School Health Programme**

- 1) Provision of health instruction of school children and promotion of healthful practices among them
  - (a) Serve as a health counselor for the school children.
  - (b) Identify the activities and situations that may jeopardize the health or safety of the school children and take the necessary steps to correct or improve the situation.
  - (c) Observe the health practices of school children as regards personal hygiene, habits and



posture, and encourage them to develop good health practices.

(d) Encourage the students to help in maintaining a clean and safe school environment



(e) Supervise food sanitation practices when food is prepared, procured, stored or served in the school and encourage children to develop healthful food habits.

(f) Plan for health educational activities in the school based on the specific health needs, interests and practices of the students.

- (g) Involve the students in organizing health campaigns and health projects in the school and in the community
  - (h) Plan with parents to develop a common health practice code to be followed both at school and in the home.
- 2) Detection of deviations from normal health, provision of first-aid in accidents. and referral of children to the medical officer, PHC/ Hospital
- (a) Observe students for detects and deviations from normal health and refer them for examination and treatment to the PHC.
  - (b) Observe students for signs and symptoms of communicable diseases, arrange for their leave from school and inform the health worker/ health assistant /MO PHC of the nearest sub-centre/PHC.
  - (c) Give simple treatment for minor ailments.
  - (d) Provide first-aid in the case of accidents and arrange for transfer of those in need of special care to the PHC/hospital.
- 3) Assistance in Health Check-up and Immunization of School Children
- (a) Prepare the list of new entrants for health check-up and for immunization.
  - (b) Prepare the students for medical examination and immunization and inform the parents about the programme.
  - (c) Take the height, weight, and chest measurement of the children
  - (d) Encourage the parents to ensure that any defects detected in their children are corrected and that their children are given regular and complete treatment for any disease detected in them
  - (e) Coordinate with parents for referral and follow-up of cases in whom defects or deviations from health are detected.
  - (f) Arrange parent-teacher meetings at regular intervals to discuss educational and health problems of children and measures to be taken to solve these problems.
  - (g) Assist in the rehabilitation of students who have recovered from illness or defects.
- 4) Maintenance of Health Records of School Children
- (a) Complete the relevant portions of the individuals student's health record
  - (b) Make entries about the treatment for minor ailments provided to them in the school
  - (c) When a student is referred to the PHC/hospital fill in the referral on the students health record card, which should be returned to you after treatment.

## **FIRST AID**

### **What is first aid?**

First aid is the initial assistance or care of a **suddenly sick or injured person**. It is the care administered by a person as soon as possible after an accident or illness. It is the prompt care and attention prior to the arrival of the ambulance that sometimes means the difference between life and death, or between a full or partial recovery.

The **main aims** of first aid are:

These aims are known as the three P's of first aid.

- To **preserve** life
- To **protect** the casualty from further harm
- To **promote** recovery

### **Principal Procedures of First Aid**

#### **Immediate action**

As in most endeavours, the principle to be adopted in first aid is immediate action. Bystanders or relatives not knowing what to do, or being too timid to try, may have unwittingly contributed to unnecessary deaths and chronic injuries. If a person is sick or injured, then they need help, and they need it immediately.

Quick action is necessary to preserve life and limb. A casualty who is not breathing effectively, or is bleeding heavily, requires immediate assistance. If quick effective first aid is provided, then the casualty has a much better chance of a good recovery.

It is important that quick action does not lead to panic, and the first aider should form a plan of action. Careful and deliberate action undertaken without too much delay is most beneficial to the casualty. Try to remain calm and think your actions through. A calm and controlled first aider will give everyone confidence that the event is being handled efficiently and effectively.

Each emergency is different so it is impossible to provide you with a precise list of things you need to do for every emergency. However, if you follow the 'principles of first aid' as outlined in this post you should deliver appropriate care, even if you are not sure of what the underlying problem is.

## **Calling for medical assistance**

In India, to get help in emergency dial 100, 101, and 109 for police, fire service and medical emergency respectively. 999/911 can be dial free from any phone, fixed or mobile. You can also use 112 anywhere in the European Community to contact emergency services.

In the workplace there may be an internal number to call in an emergency which should be clearly displayed on or around the telephone.

In many countries, motorways have emergency phones that can be found every so often on the hard shoulder or in emergency refuge areas. These are linked to motorway control centres, allowing them to pinpoint your position and get help to you quickly.

If you are attending to a casualty, get a bystander to telephone for help. If you are on your own you may have to leave the casualty momentarily to make a call. The specific circumstance surrounding the incident will dictate whether you call for help, or whether you send a bystander.

You should instruct the bystander to give some basic information to the operator, and get them to repeat it back to ensure that the correct information is understood. You should also request the bystander return once they have called for help, as this will confirm that the call has been made, and will give you additional assistance should you need to update the emergency services if the condition of the casualty worsens.

### **There are 3 important things to remember when calling for help:**

1. State which emergency service you want, eg. Ambulance, Coastguard, Rescue, Fire, or Police.
2. Stay on the line until connected with the emergency service operator as they will need to talk to you before sending assistance.
3. Give as much information as you can about the emergency, including:
  - exact address or location
  - any landmarks
  - distance from town or landmark
  - caller's name
  - phone number from where the call is being made
  - what happened – eg. car accident
  - number and condition of the casualties.

## **Medical alert devices**

Some individuals suffer from certain medical conditions that may cause them to present with serious signs and symptoms at any time. As a form of assistance and notification, these people may wear a form of medical identification, usually a special bracelet, necklace, or carry a wallet card. These warning devices are referred to as medical alert devices and are commonly known as ‘Medic-alert’ and ‘SOS Talisman’.

They are imprinted with the person’s identity, the relevant medical condition, and other details which may include allergies, drugs required, or specialized medical contact. Medical conditions that may be notified vary from specific heart diseases, to diabetes, epilepsy, asthma, and serious allergies.

## **Reassurance and mental health**

The psychological value of reassurance is as important as the treatment that you give. Comfort and reassure the casualty, as in some cases all the casualty needs is emotional support and reassurance. A calm approach by the first aider and keeping the casualty informed of what is happening will also assist in the reassurance process.

Remember that many people who have assisted you in delivering care to an injured or ill casualty may need reassurance themselves. Relatives of the casualty may be concerned that they let the casualty down or that they made a mistake in not getting help earlier; workmates may feel that they contributed little to helping the casualty; onlookers may feel guilty that they provided only a little practical assistance. Take some time out at the end of the incident to tell people how important their contribution was. Let them know that effectively caring for a casualty is a team effort and that every little job counts. This is especially true if the outcome of the emergency was unsuccessful.

## **Response to an emergency**

An emergency of any size can cause unusual stress in people who have been directly and indirectly affected by it. Every person will react differently and a range of responses to an emergency is normal, and to be expected. Emotional responses to disasters can appear immediately or sometimes months later. Understanding what you’re feeling and taking positive steps can help you cope with this disaster. Some common responses to emergencies and disasters are:

- Crying for “no apparent reason”
- Difficulty making decisions and sleeping
- Disbelief, shock, irritability and anger

- Disorientation, apathy and emotional numbing
- Excessive drinking or drug use
- Fear and anxiety about the future
- Feeling powerless, sad and depressed
- Flashbacks
- Headaches and stomach problems

If you have strong feelings that won't go away or if you are troubled for longer than four to six weeks, you may want to seek professional help.

### **Debriefing**

After an incident it is important to put some time aside for yourself. Very often first aiders become concerned that they did not do a good enough job, and that they were not effective in their role. When you think about how you handled the incident, the first thing you should keep in mind is that by stepping forward and doing first aid you have done more for the casualty than anyone else could ever do. As the great humanitarian Albert Schweitzer said, "The purpose of life is to serve and show compassion and the will to help others."

In dealing with this, go and get a cup of tea and talk to a family member, friend or colleague. When you go over how you handled the incident, be realistic about your expectations.

Time must also be allocated to the cleanup of the scene and equipment, and to restock your first aid kit. You should:

- take a breath
- take a break
- talk about the incident with peers
- try to relax as much as possible
- clean up the scene
- clean any equipment used
- restock your first aid kit
- replace all items used
- look for any soiled unopened items that will need to be replaced
- complete any documentation.

## Benefits of First Aid

There will be a time in your life when you wish you had a first aid kit close by. A famous last word from a company, who markets these items all over the United States, but it's true. We hear stories all the time about people who get injured and didn't have a first aid kit. We believe so strongly about this issue we've listed 10 great reasons why you need a first aid kit. Here is why it's time to get your first aid kit now.

- 1. Response when there is no responder** - There is never a good place to get hurt but when help is out of reach, a first aid kit is your next best friend. You can't always count on others to help so be prepared.
- 2. We only have so much blood** - Scary but true. If your injury involves blood-loss, you only have precious seconds to get the necessary supplies to stop the bleeding. Keeping a first aid kit close by can provide the extra time you need to seek help.
- 3. Kids will be kids** - You can count on kids getting hurt. Lack of experience or just plain recklessness all add up to someone getting hurt. Cuts, scrapes and burns are common injuries to expect so prepare a first aid kit with the appropriate supplies.
- 4. Liability** - nobody wants to think about being sued. Businesses are required by law to keep first aid supplies readily available when there is no first response within 10 minutes. Be sure your first aid kit is stocked with the required ANSI first aid items.
- 5. Protect your employees or people you care about** - When an injury occurs, a stocked first aid kit can save someone's life. Think about others who are risking injury while on the job and do the right thing. Let everyone know you have a stocked first aid kit ready to use and tell them where it is in case an accident occurs.
- 6. Cost savings** - It is cheaper to clean a cut and put on a bandage than it is to travel to a clinic and seek first aid. First aid kits are designed to manage all types of injuries including basic cuts, scrapes and burns. Save yourself money and keep a stocked first aid kit close by.
- 7. Accidents are unexpected** - Being prepared can reduce panic and provide the necessary aid. Always check your inventory monthly to make sure your first aid kit is ready to use when the unexpected takes place.
- 8. Time is of the essence** - A first aid kit is just that; "First Aid". Having one ready provides temporary aid until you can get help. No kit means no immediate help. Precious time to respond can mean further injury, life or death.
- 9. Small injuries can become big injuries** - The longer you wait for treatment, the more severe your injury can become. Immediate treatment can reduce risk.

**10. Peace of mind** - Being prepared, doing the right thing and even being able to help others when injury occurs is reason enough to want a first aid kit close by.

Whether you are thinking about a small first aid kit for your car or something more substantial for work, take a look at over 160 different first aid kits we stock get the best first aid kit for your needs. You'll feel better knowing you will help somebody in need.

### **SUMMARY**

Health is the greatest blessing of all. Health education is an activity which promotes health related learning. The preventive model, radical-political model and self-empowerment model are the three major approaches to health education. Increase understanding, skills of individuals to maintain and improve the health of their families and communities are the major goals of health education. Health education in school should not be considered as the sole responsibility of a single teacher. It should be shared by all teachers. Government of India (1961) Report of the School Education, and the National Policy on Education (1986) has emphasized the need for the overall development of the young child. School health club, songs, drama, health parades and exhibitions are the ways in which health knowledge can be given to the children. Teachers are having responsibility to mould the child's personality. Personal hygiene is concerned with hygiene of individual. Community hygiene deals with the hygiene of an organized group of individuals. There is an interrelationship between personal hygiene and national health.



## UNIT: III COMMUNICABLE DISEASES AND LIFE STYLE DISORDER

### Objectives:

After completion of this unit, the learner will be able to,

1. understand the meaning and causes of communicable diseases.
2. know the symptoms of communicable diseases.
3. aware the treatment for communicable and non-communicable diseases.
4. identify the preventing methods of communicable diseases.
5. understand the causes, symptoms and treatment of life style disorders.

### INTRODUCTION

We know that several types of diseases exist in the world. They can be as dangerous as cancer, diabetes, tuberculosis, pneumonia and mental retardation, whereas, on the other hand, they can be as simple as mild fever and stomach ache. Communicable diseases can be spread through bodily fluids, contaminated surfaces, air or food. Some spread during particular seasons, and others may be prevalent year-round in certain locations. Communicable diseases have a variety of symptoms and can be caused by bacteria, viruses or parasites.

### MEANING

A communicable disease is one that is spread from one person to another through a variety of ways that include: contact with blood and bodily fluids; breathing in an airborne virus; or by being bitten by an insect. Reporting of cases of communicable disease is important in the planning and evaluation of disease prevention and control programs, in the assurance of appropriate medical therapy, and in the detection of common-source outbreaks. California law mandates healthcare providers and laboratories to report over 80 diseases or conditions to their local health department. Some examples of the reportable communicable diseases include Hepatitis A, B & C, influenza, measles, and salmonella and other food borne illnesses.

### HOW DO THESE COMMUNICABLE DISEASES SPREAD?

How these diseases spread depends on the specific disease or infectious agent. Some ways in which communicable diseases spread are by:

1. physical contact with an infected person, such as through touch (staphylococcus), sexual intercourse (gonorrhea, HIV), fecal/oral transmission (hepatitis A), or droplets (influenza, TB)
2. contact with a contaminated surface or object (Norwalk virus), food (salmonella, E. coli), blood (HIV, hepatitis B), or water (cholera)

3. bites from insects or animals capable of transmitting the disease (mosquito: malaria and yellow fever; flea: plague); and
4. travel through the air, such as tuberculosis or measles.

## **TYPES OF COMMUNICABLE DISEASES**

1. Malaria
2. Typhoid
3. Tuberculosis
4. Cholera
5. Diarrhoea and Aids

### **Malaria**

Malaria is a mosquito-borne infectious disease affecting humans and other animals caused by parasitic protozoan's (a group of single-celled microorganisms) belonging to the Plasmodium type. Malaria comes from “mal” and “aria,” which means “bad air.” Before the parasite that caused malaria was discovered, people thought the disease was caused by foul air, and associated it with marshes and low-lying swamps. They were not 100% wrong those areas are perfect breeding grounds for the mosquitoes which transmit malaria, and so infection often occurs in and around these areas.

### **Symptoms of malaria**

Generally the symptoms of malaria remain same for all. But there are cases in which the patient does not show any symptoms of malaria for several months. Knowing the early **symptoms of malaria** fever helps in early diagnosis to save life as well to control spread. Malaria is a dangerous life threatening fever. It is transmitted through female Anopheles mosquitoes. The disease causing microbe is Plasmodium. The fever develops in an individual within 10 to 14 days after being bitten by infected mosquito.

### **Common symptoms of malaria include:**

- High fever
- Moderate to severe shaking chills
- Fatigue
- Body aches
- Profuse sweating
- Headache
- Muscle pain
- Nausea

- Vomiting
- Abdominal pain
- Diarrhoea
- Blood in stools
- Anemia
- Convulsions and
- Coma

## Symptoms of malaria in children

Early symptoms of malaria start with drowsiness, irritability, poor appetite and trouble sleeping in children. Gradually the other symptoms of malaria appear in children like;

- ❖ Chills
- ❖ Recurring fever above 40.6 °c or 105°F
- ❖ Rapid breathing
- ❖ Profuse sweating

## Types of malaria

There are four types of malaria. They are caused by four types of Plasmodium parasites like;

- ❖ Plasmodium falciparum
- ❖ Plasmodium vivax
- ❖ Plasmodium ovale and
- ❖ Plasmodium malaria.

## Most common type of malaria

Malaria fever caused by Plasmodium falciparum is the most common one. It causes severe form of malaria. In addition to the general **symptoms of malaria** patient may experience severe complications like;

- Severe anemia due to destruction of blood cells
- Yellowish skin discoloration
- Kidney failure
- Fluid in the lungs

- Swelling of blood vessels in the brain
- Convulsions
- Coma
- Death

## PREVENTIVE MEDICINE FOR MALARIA

Anti-malarial drugs are available and they are found very effective. One should stick on the instruction while having the medicine, regarding its dosage and prescribed duration. People returning from the malaria prone areas should continue the medicine for 1 to 4 weeks to ensure the complete elimination of pathogens.

### Prevention of malaria

*First and foremost step is to prevent mosquito bite*

**Clothing:** Use protective clothing like pants and long sleeved shirts.

**Mosquito repellents:** Use mosquito repellents helps in protecting from bites.

**Mosquito nets:** Use of mosquito nets should be encouraged as a best preventive measure for malaria.

**Insecticides:** Spray flying insecticides indoors as well as around the house to prevent mosquitoes.

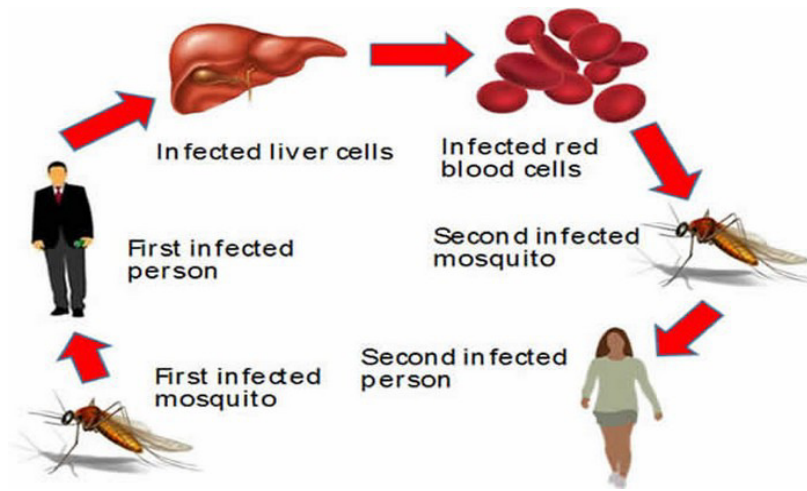
**Stay inside the room:** Try to stay inside the room when it is dark, preferably in a screened or air-conditioned room.

**Prevent breeding of mosquitoes:** Take measures to prevent breeding of mosquitoes like spraying insecticides to stagnant water.

**Regular fumigation:** It is a very effective measure to control mosquitoes.

**Antimalarial drugs:** Travelers should take anti-malarial drugs before going to malaria prone areas

As the travelers are susceptible to **symptoms of malaria**, they should take necessary steps to prevent the spread of the disease once they are back at home.



## Typhoid

Typhoid is a bacterial infection that can lead to a high fever, diarrhea, and vomiting. It can be fatal. It is caused by the bacteria *Salmonella typhi*. The infection is often passed on through contaminated food and drinking water, and it is more prevalent in places where hand washing is less frequent. It can also be passed on by carriers who do not know they carry the bacteria. If typhoid is caught early, it can be successfully treated with antibiotics; if it is not treated, typhoid can be spread over.

## Meaning

Typhoid is an infection caused by *Salmonella typhimurium* bacteria that is spread from human to human. Typhoid is an infection caused by the bacterium *Salmonella typhimurium*. The bacterium lives in the intestines and bloodstream of humans. It spreads between individuals by direct contact with the feces of an infected person. No animals carry this disease, so transmission is always human to human. If untreated, around 1 in 5 cases of typhoid can be fatal. With treatment, fewer than 4 in 100 cases are fatal. *S. typhi* enters through the mouth and spends 1 to 3 weeks in the intestine. After this, it makes its way through the intestinal wall and into the bloodstream. From the bloodstream, it spreads into other tissues and organs. The immune system of the host can do little to fight back because *S. typhi* can live within the host's cells, safe from the immune system. Typhoid is diagnosed by detecting the presence of *S. typhi* via blood, stool, urine, or bone marrow sample.

## Fast facts on typhoid

- Typhoid is a common bacterial infection in countries with low incomes.
- Untreated, it is fatal in around 25 percent of cases.
- Symptoms include a high fever and gastrointestinal problems.
- Some people carry the bacteria without developing symptoms

- Most cases reported in the United States are contracted overseas
- The only treatment for typhoid is antibiotics

## Symptoms

Symptoms normally begin between 6 and 30 days after exposure to the bacteria. The two major symptoms of typhoid are fever and rash. Typhoid fever is particularly high, gradually increasing over several days up to 104 degrees Fahrenheit, or 39 to 40 degrees Celsius. The rash, which does not affect every patient, consists of rose-colored spots, particularly on the neck and abdomen.

### Other symptoms can include:

- weakness
- abdominal pain
- constipation
- headaches

Rarely, symptoms might include confusion, diarrhea, and vomiting, but this is not normally severe. In serious, untreated cases, the bowel can become perforated. This can lead to peritonitis, an infection of the tissue that lines the inside of the abdomen, which has been reported as fatal in between 5 and 62 percent of cases. Another infection, paratyphoid, is caused by *Salmonella enteric*. It has similar symptoms to typhoid, but it is less likely to be fatal. The only effective treatment for typhoid is antibiotics. The most commonly used are ciprofloxacin (for non-pregnant adults) and ceftriaxone. Other than antibiotics, it is important to rehydrate by drinking adequate water. In more severe cases, where the bowel has become perforated, surgery may be required.

## Causes

Typhoid is caused by the bacteria *S. typhi* and spread through food, drinks, and drinking water that are contaminated with infected fecal matter. Washing fruit and vegetables can spread it, if contaminated water is used. Some people are symptomatic carriers of typhoid, meaning that they harbor the bacteria but suffer no ill effects. Others continue to harbor the bacteria after their symptoms have gone. Sometimes, the disease can appear again. People who test positive as carriers may not be allowed to work with children or older people until medical tests show that they are clear.

### Signs and symptoms

Rose spots on abdomen of a person with typhoid fever classically; the course of untreated typhoid fever is divided into four distinct stages, each lasting about a week. Over the course of these stages, the patient becomes exhausted and emaciated.

- In the first week, the body temperature rises slowly, and fever fluctuations are seen with relative bradycardia (Faget sign), malaise, headache, and cough. A bloody nose (epistaxis) is seen in a quarter of cases, and abdominal pain is also possible. A decrease in the number of circulating white blood cells (leukopenia) occurs with eosinopenia and relative lymphocytosis; blood cultures are positive for Salmonella Typhi or S. paratyphi. The Widal test is usually negative in the first week.
- In the second week, the person is often too tired to get up, with high fever in plateau around 40 °C (104 °F) and bradycardia (sphygmothermic dissociation or Faget sign), classically with a dicrotic pulse wave. Delirium is frequent, often calm, but sometimes agitated. This delirium gives to typhoid the nickname of "nervous fever". Rose spots appear on the lower chest and abdomen in around a third of patients. Rhonchi are heard in lung bases.
- The abdomen is distended and painful in the right lower quadrant, where borborygmi can be heard. Diarrhea can occur in this stage: six to eight stools in a day, green, comparable to pea soup, with a characteristic smell. However, constipation is also frequent. The spleen and liver are enlarged and tender, and liver transaminases are elevated. The Widal test is strongly positive, with antiO and antiH antibodies. Blood cultures are sometimes still positive at this stage.

**In the third week of typhoid fever, a number of complications can occur:**

- Intestinal haemorrhage due to bleeding in congested Peyer's patches; this can be very serious, but is usually not fatal.
- Intestinal perforation in the distal ileum: this is a very serious complication and is frequently fatal. It may occur without alarming symptoms until septicaemia or diffuse peritonitis sets in.
- Encephalitis
- Respiratory diseases such as pneumonia and acute bronchitis
- Neuropsychiatric symptoms (described as "muttering delirium" or "coma vigil"), with picking at bedclothes or imaginary objects.
- Metastatic abscesses, cholecystitis, endocarditis, and osteitis
- The fever is still very high and oscillates very little over 24 hours. Dehydration ensues, and the patient is delirious (typhoid state). One-third of affected individuals develop a macular rash on the trunk.
- Platelet count goes down slowly and risk of bleeding rises.
- By the end of third week, the fever starts subsiding

## PREVENTION

Countries with less access to clean water and washing facilities typically have a higher number of typhoid cases.

### Vaccination

*If traveling to an area where typhoid is prevalent, vaccination is recommended.*

Before traveling to a high-risk area, getting vaccinated against typhoid fever is recommended.

#### **This can be achieved by oral medication or a one-off injection:**

- ❖ Oral: a live, attenuated vaccine. Consists of 4 tablets, one to be taken every second day, the last of which is taken 1 week before travel.
- ❖ Shot, an inactivated vaccine, administered 2 weeks before travel.
- ❖ Vaccines are not 100 percent effective and caution should still be exercised when eating and drinking.
- ❖ Vaccination should not be started if the individual is currently ill or if they are under 6 years of age. Anyone with HIV should not take the live, oral dose.

The vaccine may have adverse effects. One in 100 people will experience a fever. After the oral vaccine, there may be gastrointestinal problems, nausea, and headache. However, severe side effects are rare with either vaccine. There are two types of typhoid vaccine available, but a more powerful vaccine is still needed. The live, oral version of the vaccine is the stronger of the two. After 3 years, it still protects individuals from infection 73 percent of the time. However, this vaccine has more side effects. The current vaccines are not always effective, and because typhoid is so prevalent in poorer countries, more research needs to be done to find better ways of preventing its spread.

Typhoid is spread by contact and ingestion of infected human feces. This can happen through an infected water source or when handling food. The following are some general rules to follow when traveling to help minimize the chance of typhoid infection:

- ❖ Drink bottled water, preferably carbonated.
- ❖ If bottled water cannot be sourced, ensure water is heated on a rolling boil for at least one minute before consuming."



- ❖ Be wary of eating anything that has been handled by someone else.
- ❖ Avoid eating at street food stands, and only eat food that is still hot.
- ❖ Do not have ice in drinks.
- ❖ Avoid raw fruit and vegetables, peel fruit yourself, and do not eat the peel.

## **TUBERCULOSIS**

**Tuberous sclerosis** complex (TSC) is a rare multisystem genetic disease that causes benign tumors to grow in the brain and on other vital organs such as the kidneys, heart, liver, eyes, lungs, and skin. TB usually affects the lungs, although it can spread to other organs around the body. Doctors make a distinction between two kinds of tuberculosis infection: latent and active.

**Latent TB** - the bacteria remain in the body in an inactive state. They cause no symptoms and are not contagious, but they can become active.

**Active TB** - the bacteria do cause symptoms and can be transmitted to others.

About one-third of the world's population is believed to have latent TB. There is a 10 percent chance of latent TB becoming active, but this risk is much higher in people who have compromised immune systems, i.e., people living with HIV or malnutrition, or people who smoke. TB affects all age groups and all parts of the world. However, the disease mostly affects young adults and people living in developing countries. In 2012, 80 percent of reported TB cases occurred in just 22 countries.

### **Symptoms of tuberculosis**

While latent TB is symptomless, the symptoms of active TB include the following:

- Coughing, sometimes with mucus or blood
- Chills
- Fatigue
- Fever
- Loss of weight
- Loss of appetite and
- Night sweats
- Skin abnormalities
- Seizures
- Cognitive disabilities
- Behavioral problems

- Kidney problems
- Heart issues
- Lung problems
- Eye abnormalities

Tuberculosis usually affects the lungs, but can also affect other parts of the body. When TB occurs outside of the lungs, the symptoms vary accordingly. Without treatment, TB can spread to other parts of the body through the bloodstream:

- TB infecting the bones can lead to spinal pain and joint destruction
- TB infecting the brain can cause meningitis
- TB infecting the liver and kidneys can impair their waste filtration functions and lead to blood in the urine
- TB infecting the heart can impair the heart's ability to pump blood, resulting in a condition called cardiac tamponade that can be fatal

### **Diagnosis of tuberculosis**

TB is most commonly diagnosed via a skin test involving an injection in the forearm. To check for TB, a doctor will use a stethoscope to listen to the lungs and check for swelling in the lymph nodes. They will also ask about symptoms and medical history as well as assessing the individual's risk of exposure to TB. The most common diagnostic test for TB is a skin test where a small injection of PPD tuberculin, an extract of the TB bacterium, is made just below the inside forearm. The injection site should be checked after 2-3 days, and, if a hard, red bump has swollen up to a specific size, then it is likely that TB is present. Unfortunately, the skin test is not 100 percent accurate and has been known to give incorrect positive and negative readings. However, there are other tests that are available to diagnose TB. Blood tests, chest X-rays and sputum tests can all be used to test for the presence of TB bacteria and may be used alongside a skin test. MDR-TB is more difficult to diagnose than regular TB. It is also difficult to diagnose regular TB in children.

### **Treatments for Tuberculosis**

The majority of TB cases can be cured when the right medication is available and administered correctly. The precise type and length of antibiotic treatment depend on a person's age, overall health, potential resistance to drugs, whether the TB is latent or active, and the location of infection. People with latent TB may need just one kind of TB antibiotics, whereas people with active TB (particularly MDR-TB) will often require a prescription of multiple drugs. Antibiotics are usually required to be taken for a relatively long time. The standard length of time for a course of TB antibiotics is about 6 months. TB medication can be toxic to the liver, and although side effects

are uncommon, when they do occur, they can be quite serious. Potential side effects should be reported to a doctor and include:

- Dark urine
- Fever
- Jaundice
- Loss of appetite and
- Nausea and vomiting

It is important for any course of treatment to be completed fully, even if the TB symptoms have gone away. Any bacteria that have survived the treatment could become resistant to the medication that has been prescribed and could lead to developing MDR-TB in the future. Directly observed therapy (DOT) may be recommended. This involves a healthcare worker administering the TB medication to ensure that the course of treatment is completed.

### **Causes**

The *Mycobacterium tuberculosis* bacterium causes TB. It is spread through the air when a person with TB (whose lungs are affected) coughs, sneezes, spits, laughs, or talks. TB is contagious, but it is not easy to catch. The chances of catching TB from someone you live or work with are much higher than from a stranger. Most people with active TB who have received appropriate treatment for at least 2 weeks are no longer contagious. Since antibiotics began to be used to fight TB, some strains have become resistant to drugs. Multidrug-resistant TB (MDR-TB) arises when an antibiotic fails to kill all of the bacteria, with the surviving bacteria developing resistance to that antibiotic and often others at the same time. MDR-TB is treatable and curable only with the use of very specific anti-TB drugs, which are often limited or not readily available. In 2012, around 450,000 people developed MDR-TB.

### **Prevention of Tuberculosis**

If you have active TB, a face mask can help lower the risk of the disease spreading to other people. A few general measures can be taken to prevent the spread of active TB. Avoiding other people, by not going to school or work, or sleeping in the same room as someone, will help to minimize the risk of germs from reaching anyone else. Wearing a mask, covering the mouth, and ventilating rooms can also limit the spread of bacteria.

### **CHOLERA**

Cholera is an acute epidemic infectious disease. It is characterized by watery diarrhea, extreme loss of fluid and electrolytes, and severe dehydration. It can be fatal.

## Symptoms

Only around 1 in 20 cholera infections are severe, and a high percentage of infected people show no symptoms. If symptoms appear, they will do so between 12 hours and 5 days after exposure. They range from mild or asymptomatic to severe.

They typically include:

- large volumes of explosive watery diarrhea, sometimes called "rice water stools" because it can look like water that has been used to wash rice
- vomiting
- leg cramps
- A person with cholera can quickly lose fluids, up to 20 liters a day, so severe dehydration and shock can occur.
- Signs of dehydration include:
  - loose skin
  - sunken eyes
  - dry mouth
  - decreased secretion, for example, less sweating
  - fast heart beat
  - low blood pressure
  - dizziness or lightheadedness
  - rapid weight loss
- Shock can lead to collapse of the circulatory system. It is a life-threatening condition and a medical emergency.

## Causes

Cholera is more common where there is overcrowding and poor sanitation. Cholera bacteria enter the body through the mouth, often in food or water that has been contaminated with human waste, due to poor sanitation and hygiene. They can also enter by eating seafood that is raw or not completely cooked, in particular shellfish native to estuary environments, such as oysters or crabs. Poorly cleaned vegetables irrigated by contaminated water sources are another common source of infection. In situations where sanitation is severely challenged, such as in refugee camps or communities with highly limited water resources, a single affected victim can contaminate all the water for an entire population.

## Treatment

It is normally dehydration that leads to death from cholera, so the most important treatment is to give oral hydration solution (ORS), also known as oral rehydration therapy (ORT). The treatment consists of large volumes of water mixed with a blend of sugar and salts. Prepackaged mixtures are commercially available, but widespread distribution in developing countries is limited by cost, so homemade ORS recipes are often used, with common

household ingredients. Severe cases of cholera require intravenous fluid replacement. An adult weighing 70 kilograms will need at least 7 liters of intravenous fluids. Antibiotics can shorten the duration of the illness, but the WHO does not recommend the mass use of antibiotics for cholera, because of the growing risk of bacterial resistance. Anti-diarrheal medicines are not used because they prevent the bacteria from being flushed out of the body. With proper care and treatment, the fatality rate should be around 1 percent.

### **Cholera vaccine**

There are currently three cholera vaccines recommended by the World Health Organization (WHO). These are Dukoral, Shanchol, and Euvichol. All three require two doses to give full protection. Dukoral needs to be taken with clean water, and it provides roughly 65 percent protections for 2 years. Shanchol and Euvichol do not need to be taken with water, and they provide 65 percent protection for 5 years. All the vaccines offer higher protection nearer to the time they are given.

## **DIARRHEA**

Diarrhea refers to watery stools, but it may be accompanied by other symptoms. Diarrhea occurs when a person suffers from repeated bowel movements which are loose and watery. It's a very common condition and is not considered to be serious. Many people get diarrhea once or twice each year. It normally lasts 2 to 3 days, and you can treat it with over-the-counter medicines

### **Symptoms are Associated with Diarrhea**

The symptoms that are associated with diarrhea depend on the cause and type of diarrhea.

- If there is a large secretory component to the diarrhea the bowel movements are frequent and watery. Pain is not common, and there are no signs of inflammation.
- Similarly, an osmotic diarrhea is watery, but its main characteristic is that once ingestion of food stops (which would include the offending dietary food or substance that is not digested or absorbed) the diarrhea stops.
- Motility related diarrhea is more likely to be associated with cramping abdominal pain.
- Inflammatory diarrhea often is associated with crampy abdominal pain as well as signs of inflammation, for example, fever, and abdominal tenderness. It also may be associated with intestinal bleeding, either with visible blood in the stool or invisible blood that only is detected by testing the stool for blood.
- Although one might expect the diarrhea of collagenous colitis to be painless, in fact, it is frequently associated with abdominal pain, suggesting that there is more to collagenous colitis than a failure to absorb fluid and electrolytes.
- Blood or pus in the stools

- Persistent vomiting
- Dehydration.
- If these accompany diarrhea, or if the diarrhea is chronic, it may indicate a more serious illness.

### **Causes of Diarrhea**

Usually, diarrhea is caused by a virus that infects your gut. Diarrhea is also known as intestinal flu or stomach flu.

Some common causes of diarrhea include:

- contaminated food
- alcohol abuse
- diseases of the intestines (such as Crohn's disease or ulcerative colitis)
- eating foods that upset the digestive system
- infection by bacteria (the cause of most types of food poisoning) or other organisms
- laxative abuse
- medications
- allergies to certain foods
- Diabetes Mellitus Type 2
- overactive thyroid (hyperthyroidism)
- radiation therapy
- some cancers
- undergoing any surgery related to the digestive system
- trouble absorbing certain nutrients also called “malabsorption”
- diarrhea may also follow constipation, especially for people who have irritable bowel syndrome (IBS)

### **Prevention**

In developing countries, prevention of diarrhea may be more challenging due to dirty water and poor sanitation.

The following can help prevent diarrhea:

- clean and safe drinking water
- good sanitation systems, for example, waste water and sewage
- good hygiene practices, including hand washing with soap after defecation, after cleaning a child who has defecated, after disposing of a child's stool, before preparing food, and before eating
- breastfeeding for the first 6 months of life
- education on the spread of infection

There is evidence that interventions from public health bodies to promote hand washing can cut diarrhea rates by about one-third. Diarrhea is an increase in the frequency of bowel movements or a decrease in the form of stool

Although changes in frequency of bowel movements and looseness of stools can vary independently of each other, changes often occur in both. Diarrhea needs to be distinguished from four other conditions. Although these conditions may accompany diarrhea, they often have different causes and different treatments than diarrhea.

These other conditions are:

1. Incontinence of stool, which is the inability to control (delay) bowel movements until an appropriate time, for example, until one can get to the toilet
2. Rectal urgency, which is a sudden urge to have a bowel movement that is so strong that if a toilet is not immediately available there will be incontinence
3. Incomplete evacuation, which is a sensation that another bowel movement is necessary soon after a bowel movement, yet there is difficulty passing further stool the second time
4. Bowel movements immediately after eating a meal.

## **NON-COMMUNICABLE DISEASES**

### **Pulse Polio Immunization (PPI)**

For the eradication of poliomyelitis, Pulse Polio Immunization campaign was introduced in the year 1995-96, which along with efficient routine immunization coverage has successfully eliminated the dreaded disease from the state.

### **Japanese Encephalitis Vaccination**

Japanese Encephalitis (JE) vaccination programme is being implemented to prevent Japanese Encephalitis. JE is a mosquito-borne disease. The MHFW, Government launched mission Indradhanash in December 2014 as a special drive to vaccinate unvaccinated and partially vaccinated children below 2 years and pregnant women under universal immunization programme.

Swine Zoonotic viral disease the virus is maintained in animals, birds, pigs, particularly the birds belonging to family ardeide (eg. cattle egrets, pond herms, etc.) which act as the natural hosts pigs and wild birds in reservoirs of infection and are called as amplifier hosts in the transmission cycle. The virus does not cause any disease among its natural hosts and transmission continues through mosquitoes primarily belonging to culex tritaeniorhynchus sub group mosquitoes. Vector control mosquito is able to transmit JE virus to a healthy person after biting an infected host with an incubation period ranging from 5 to 14 days. The children suffer the highest attack rate because of lack of cumulative immunity due to natural infections.

### **Introduction Measles Rubella Vaccine**

As per the National Technical Advisory Group in Immunization (NTAGI) recommendation, MR Vaccination campaign has been conducted during the month of February, 2017 targeting all children aged 9 completed months

to <5 years with a simultaneous switch from measles to MR vaccine in the National Immunization schedule once the campaign is completed.

### **National Vector Borne Disease Control Programme and Epidemic Control Activities.**

#### **Dengue**

Though Tamil Nadu has been able to keep Dengue a viral disease with fever serotypes and spread by Aedes mosquito which breeds in clean water. In Tamil Nadu, or diagnosis of the disease, GOI has identified 30 Sentinel surveillance centres including medical college Hospitals , zonal entomological teams, institute of vector control and zoonosis, Hosur and District Headquarters Hospitals.

#### **Chikungunya**

Chikungunya is also viral disease spread by Aedes mosquitoes.

#### **Zika virus**

Zika Virus Disease (ZVD) is also a mosquito-borne (Aedes) virus disease caused by Zika virus. It presents as mild fever, headaches, arthralgia, myalgia, asthenia and non-purulent conjunctivae, occurring about two to seven days after the bite of the infected mosquito.

#### **Filaria**

**The national filarial control programme** is under implementation in the Tamil Nadu from 1957 with current control activities being carried out in 43 urban areas and 25 control units and 44 night clinics are presently functioning. Government is providing financial assistance to the grade IV Filaria patients at the rate of Rs. 1000/- per month. Nearly 5654 patients have been benefited by this syndrome.

#### **Leptospirosis**

Leptospirosis is an important public health problem associated with significant morbidity and sometimes death also. It is a serious zoonotic disease which requires timely diagnosis, treatment and control measures.

#### **Swine flu-AHINI Disease**

Swine flu is one of the types of influenza fever. The first case of AHINI Swine flu was reported in man, 2009 in Mexico and spread over 214 countries throughout the world following which on 11 June, 2009 WHO declared the spread of influenza AHINI as pandemic preventive steps taken by the State Government are issued below



Awareness campaign

Medicines

The government of Tamil Nadu have stocked 16 lakh capsules of oseltamivir, 47 thousand bottles of oseltamivir syrup, 58 thousand NG5 masks and 15 lakh triple layer masks for management of swine flu in Tamil Nadu . The drugs are also made freely available to private sector whenever needed.

Vaccine Preventable

Vaccines

**In 2016-17**, 4,03,000 doses of swine flu vaccines has been purchased through TNMSC Ltd., to vaccinate the health functionaries who are involved in the swine flue treatment.

### **Personal Protective Equipment (PPE)**

13,108 PPE kits were made available in all the HUDs to protect the health workers, who are involved in the swine flu treatment in the hospitals.

Non-communicable Diseases

Prevention, control and treatment

Cardio vascular diseases (CVD) Prevention, control programme from July 2012 March 2017 NCD Screening was carried at from 4,12,54,261 individuals aged 30 years and above. Act of those people 38,59,179 were faced to be positive for hypertension. The identified hypertensive patients are being treated appropriately and nominated by follow –up for any complications due to hypertension.

### **Prevention and Treatment of Diabetes mellitus**

From July 2012 to March 2017 out of 3,33,00,977 individuals seemed for Diabetes Mellitus, 14,15,288 individuals have been identified with the diseases and brought under treatment and follow up.

### **Prevention and Treatment of Cervical Cancer**

From July, 2012 to March, 2017, NCD Screening was carried out for 1, 39,91,751 women for cervical cancer of whom 4,34,096 were detected positive in the screening test. They have been referred to tertiary care institution for conformation and further follow-up treatment as per protocol.

## Prevention and Treatment Breast Cancer

From July, 2012 to March 2017, 1,71,52,133 women's were screened for breast cancer, of whom 1,93,194 women were found positive and referred to higher institution for further evaluation and follow-up as per protocol.

## National Programmes

### 1. National Tobacco Control Programme

The National Tobacco Control Programme is implemented in Tamil Nadu since 2003. The major components of the TCP include improvement of tobacco control law, capacity building of various stakeholders on tobacco control, raising awareness in schools and colleges and declaration of tobacco-free educational institutions, organizing mass IBC awareness campaigns and establishment of tobacco cessation centers. Tamil Nadu is the first state in India to collect the maximum number of the amount from the sale of the cigarette and other tobacco products Act (COTPA), 2003. From 2<sup>nd</sup> October, 2008 to 31 March 2017, 1,53,596 persons were found and a sum of Rs 2.01 crore has been collected from the violators of COPTA, 2003. In Tamil Nadu, 12,798 schools and 1,344 colleges were declared as "tobacco-free educational institution" under certified criteria.

### 2. National Leprosy Eradication Programme

The National Leprosy Eradication Programme (NLEP) is a controlling preferred health scheme of the Ministry of Health and Family Welfare, GOI

#### Milestones in NLEP

- 1955 – NLCP launched
- 1983 – NLEP launched
- 1983 - introduction of multi drug therapy (MDT)
- 2005 – Elimination Leprosy at National Level.
- 2012 – Special Action Plan for 209 High academic districts in 16 states/UTs

In for the NLEP was launched during the year 1954-55. The main objective of this scheme is to identify the cases early and cure them completely.

Prevalence Rate of Leprosy	Year
118 per 10,000 Population	1983
1 per 10,000 Population	2005
0.41 per 10,000 Population	2017

At present 5,680 leprosy affected persons are receiving pension of Rs 1000/- per month other than those already aviating the pensions under OAP scheme.

### **National Iodine Deficiency Disorders Control Programme (NIDDCP)**

This programme implemented as part of the national health mission. The important objectives and components of NIDDCP includes survey to assess the mequtere of the Iodine Deficiency Disorders, supply of iodised salt in place of common salt, re after 5 years to assess the extent of Iodine Deficiency Disorders and the impact of iodized salt, laboratory monitoring of iodized salt and iodine excretion and Health education and publicity.

## **AIDS EDUCATION**

### **Introduction**

The major chronic problem facing by the world is AIDS (Acquired Immuno Deficiency syndrome). AIDS is a human viral disease that ravages the immune system, undermining the body's ability to defend itself from infection and disease caused by human immune deficiency virus (HIV), the virus that causes acquired immune deficiency syndrome.

### **Concept**

AIDS was first identified in 1981 among homosexual men and intravenous drug users in New York and California. Shortly after its detection in the United States, evidence of AIDS epidemics grew among heterosexual men, women and children in sub-saharan Africa. AIDS quickly developed into a worldwide epidemic, affecting virtually every nation. By 2002 as estimated 38.6 million adult and 3.2 million children worldwide was living with HIV infection or AIDS. The world health organization (WHO), a specialized agency of the United Nation (UN), estimates that from 1981 to the end of 2002 about 20 million people died as a result of AIDS. About 4.5million of those who died were children under the age of 15. In India this number is estimated to be 5.1 million with the state of Tamilnadu alone accounting for 2.3 million with HIV/AIDS affected people. HIV has two major categories. They are,

HIV-1 and HIV-2.

HIV-1, which currently has about 10 subtypes, is most common worldwide.

HIV-2 is less virulent and though currently confined to West Africa its spreading.

### **Symptoms Of Aids**

In the early stages, a mild flu and swollen glands are typical. But the symptoms are often unmistakable when full- blown AIDS develops. Loss of appetite, weight loss, constant fever, prolonged fatigue, diarrhea, changing bowel patterns, swollen glands, chills coupled with excessive sweating, especially at nights, lesions in the mouth, sore throat, headaches, memory lapses, swelling in the joints, pain in various parts of the body, vision

problems and a regular feeling of lethargy and ill health make up the litany of symptoms. With immune systems out of kilter, HIV-positive persons are susceptible to several types of cancer, particularly Kaposi's sarcoma (KS), an uncommon form that occurs under the skin and in the mucus membranes of the eyes, nose and mouth. Affected persons have lesions that appear as dark- coloured raised blotches. Though the lesions are painless, once KS spreads to the lungs, lymph nodes and digestive tract, the victim experiences difficulty in breathing, gastrointestinal bleeding and painful swelling around the lymph nodes, especially in the legs.

### **How Hiv Transmits**

HIV is transmitted primarily by sex (anal, vaginal or oral sex with and infected partner), by injections (sharing contaminated needles for drug use or accidental piercing with a contaminated needle), or from infected mother to child through pregnancy or breast-feeding.

Infected semen and vaginal fluids, infected blood and blood products lead to the transmission of HIV. Drug abuse with unsterilized needles is another high-risk activity. Unprotected sex with multiple partners is the primary cause of infection. During unprotected sex, the infected fluid could enter the bloodstream through a tiny cut or a sore.

Anal penetration has a higher risk of transmission, which is why a high percentage of homosexuals develop the disease. Bleeding during sex also raises the chances of infection. Therefore unprotected sex during menstrual periods and anal intercourse are best avoided. An infected mother can also transmit the virus to her baby before or during birth or through breast milk. Although traces of HIV have been detected in body fluids (saliva, urine, faces and tears) there is no evidence that HIV spreads through these fluids. Nor is it water borne, air-borne or transmitted through mosquitoes and other insects.

Some HIV-infected patients progress to AIDS quickly while others can remain healthy for 10 years or more. Between initial infection and full-blown disease, a middle phase called symptomatic HIV infection, or AIDS-related complex (ARC) occurs, prompting symptoms such as weight loss, diarrhea, and swollen lymph glands.

Scientists have recently discovered clues to why some patients develop AIDS quickly. In a study published in the journal science, national cancer institute researchers found that inherited in the journal science, national cancer institute researchers found that inherited genes may set the clock for AIDS progression. Certain gene patterns tend to stave off AIDS, while others promote it. The researchers say the study may help lead to an AIDS preventive vaccine or improved therapies against the virus.

HIV risk factors among injection drugs users (IDUs) differ markedly by gender, according to a 10-year study funded by the National Institute on Drug Abuse (NIDA). A recent study by researchers at the Johns University reported that while drug-related risk behaviors and homosexual activity are the most important

predictors of HIV seroconversion among males, factors consistent with high-risk heterosexual activities are the main predictors among females.

Early studies of injection drug users suggested that most HIV infections were due primarily to sharing needles, said NIDA Director Alan I. Leshner, Ph.D. This study adds to the body of evidence that supports the need for gender-specific interventions in the treatment of that group of drug users.

Between 1988 and 1998, a team of researchers, led by DR. Steffanie Strathdee at the Johns Hopkins University Bloomberg School of Public Health, examined both drug related and sexual risk factors for HIV transmission in the study of more than 1,800 injecting drug users in Baltimore, Maryland. Study participants were aged 18 or older, did not have an AIDS defining illness at enrollment, and reported a history of illicit, injection drug use within the previous 10 years. Through semiannual interviews, researchers collected data on drug use history, sociodemographics, and drug use sexual behavior within the last 6 months. Blood samples were also obtained at each study visit. Researchers used commercial HIV and antibody ELISA to identify those participants who had become HIV positive since their last visit.

Dr. Strathdee and her colleagues found that the greatest predictor for HIV seroconversion among both male and female IDUs was high-risk sexual behavior. Study findings revealed that male injection drug users who reported recent homosexual activity were four times more likely to become infected with HIV.

Among females, indicators of high-risk heterosexual activity outweighed needle-sharing behaviors as independent predictors of HIV seroconversion. HIV incidence was more than two times higher among women who reported recently having sex with another injection drug user.

Another common predictor of HIV seroconversion observed by researchers among both male and female IDUs was younger age. Investigators found that IDUs who were aged 30 or younger at enrollment were more than twice as likely to seroconvert than those aged 40 or older.

### **Prevention of Aids**

While AIDS is a high-risk disease it can be prevented if proper precautions are taken and greater awareness meted out to those who are ignorant of the virus and its repercussions on the human body. Here we have listed a few measures which can be adopted by everyone in order to stave off the insidious entry of HIV.

- Avoid intoxicants like, alcohol or drugs during sex, you might lose control of your senses and engage in unsafe sex. Stick to safer sex practices at all times and avoid having multiple partners. Practice monogamy. If this is a tall order, serial relationships are a lesser evil than multiple ones.
- Prevention is still the best bet. Promiscuous sexual behavior can leave a person highly susceptible to contracting the virus. Where abstinence is not possible, always use latex condoms. The female condom can also help protect both partners. Use only water-based lubricants. Oil lubricants (such as

- Vaseline) might even tear latex condoms. Use spermicidal (birth control) foams and jellies in addition to condoms. By them, spermicidal may not be effective in preventing HIV.
- High-risk sexual behavior should be avoided at all costs.
  - The presence of sexually transmitted diseases (STDs) increases the risk of contracting HIV from an infected partner. STDs could cause breaks in the skin of the vagina, penis or anus permitting the virus to enter your bloodstream. If you ever contract an STD of any kind, ensure you get prompt treatment.
  - The CDC recommends that an HIV-positive woman should not breast-feed her baby. The infant should be given AZT for the first several weeks to substantially reduce the risk of infection.

## **Myths & Facts**

Say AIDS and dime-a-dozen misconceptions abound. The chart topper is that AIDS is supposedly a disease of gay men and intravenous drug users. The facts are otherwise. No doubt in the early years many HIV-positive cases were reported amongst the western gay community. In recent years, however, prevalence rates among gays have leveled off. Instead, heterosexual transmission has been forging ahead of all other modes of transmission.

The AIDS virus is NOT contracted through touching, hugging, kissing, massage, sharing toilet seats, drinking or eating from utensils used by an infected person or any other mode of casual contact. Nor does working, socializing and living with infected people cause the disease.

Repeated sexual contact without proper precautions with an infected person, using an infected syringe, exposure to infected blood or sexual fluids are ways through which the disease can be transmitted. Donating blood also does not run the risk of disease contraction since needles used for such purposes are always sterile. Since the AIDS virus is unable to survive outside the human body beyond a short duration, dried blood is not infectious for this reason, mosquitoes are incapable of transmitting HIV as the virus cannot replicate itself in the intestine of insects.

Although medical personnel are potentially at risk from infection, this is minimal if protective gear such as gloves, masks and goggles are always used when handling potentially infected material.

The large-scale infections and deaths have spurred a spate of worldwide efforts for a cure. In the US however, AIDS cases are said to be dropping and new infections leveling off. Mortality from AIDS is also dropping.

In the developing countries, though, the cases continue to rise alarmingly. Globally, three million died in the year 2000, with 5.3 million newly infected people, 95 per cent of whom might die. Many scientists, doctors and researchers contend that AIDS is not a new disease, having been around much longer than people believe.

## ANTI-HIV DRUGS IN HIV MANAGEMENT

There are certain anti-HIV drugs which inhibit the replication of HIV. Zidovudine was the first such drug which was approach for use by the USA in 1987. Currently 16 such drugs have been licensed for use in the USA. Depending on the site of its action in the cells, they are classified into nucleoside analogues, non-nucleoside reverse transcriptase inhibitions are protease inhibitors. However, only a few of these are being marketed in India and have received approval of the Drug Controller of India such as zidovudine, didanosine, nevirapine, and so on.

<b>Nucleoside Analogues</b>	<b>Non-nucleoside reverse transcriptase Inhibitors</b>
Zidovudine (AZT)	Nevirapine (NUP)
Zalcitabine (ddc)	Delavirdine (DLU)
Didanosine (ddl)	Elfavirenz (EFU)
Stavudine (d4T)	Saquinavir (SQU)
Laminudine (3 TC)	Ritonavir (RTU)
Abacavir (ABC)	Indinavir (IDU)
	Welfinavir (NFU)
	Amprenavir (APU)
	Kaletra

## WHY AIDS EDUCATION?

Each year there are more and more new HIV infections, which shows that people either aren't learning the message about the dangers of HIV, or are unable or unwilling to act on it. Many people are dangerously ignorant about the virus, with surveys around the world showing alarmingly low levels of awareness and understanding about HIV amongst many groups. Education can help to overcome such ignorance, and thereby prevent HIV infections from occurring.

Education needs to be an ongoing process, because each generation of young people need to be informed about how they can protect themselves from HIV as they grow up. Older generations, who have already hopefully received some AIDS education, may need the message reinforced, so that they continue to take precautions against HIV infection, and are able to inform younger people of the dangers.

There are three main reasons for AIDS education:

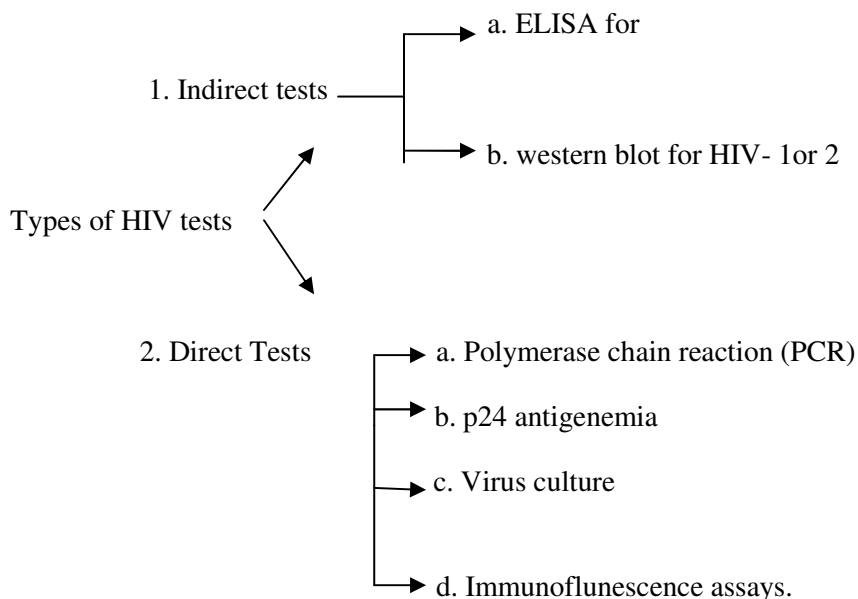
- To prevent new infections from taking place: This can be seen as consisting of two processes: firstly, giving people information about HIV and AIDS such as how they are transmitted and how people can protect themselves from infection. Secondly, people must be taught how to put this information to use

and act on it practically how to get and use condoms, how to suggest and practice safer sex, how to prevent infection in a medical environment or when injecting drugs.

- To improve quality of life for HIV positive people: too often, AIDS education is seen as being something which should be targeted only at people who are not infected with HIV in order to prevent them from becoming infected. When AIDS positive people are considered at all it is frequently seen only in terms of preventing new infections by teaching HIV+ people about the importance of not passing on the virus. An important and commonly neglected aspect of AIDS education with HIV positive people have varying education needs, but among them are the need to be able to access medical services and drug provision and the need to be able to find appropriate emotional and practical support and help.
- To reduce stigma and discrimination: in many countries there is a great deal of fear and stigmatization of people who are HIV positive. This fear is too often accompanied by ignorance, resentment and ultimately, anger. Sometimes the results of prejudice and fear can be extreme, with HIV positive people being burned to death in India, and many families being forced to level their homes across the United States when neighbours discover a family member's positive status. Discrimination against positive people can help the AIDS epidemic to spread, because if people are fearful of being tested for HIV, then they are more likely to pass the infection to someone else without knowing.

## HIV TESTS

There are two types of HIV tests





## **WHAT FORM SHOULD AIDS EDUCATION TAKE?**

AIDS education doesn't always take place in a classroom. It can be presented in many ways and put across by many forms of media, which should be selected with the target group in mind. Some people can be best reached via newspapers and magazines, whilst other people might be more used to street theatre as a form of media. AIDS education needs to embrace culturally appropriate and relevant media.

These might include radio, television, billboard advertising, street theatre, comic strips, etc. Sometimes AIDS education is about giving people information which they will remember on a long term basis, about how to protect themselves the difference between HIV and AIDS, and helping to reduce discrimination. On other occasions, an education strategy might intend to have a more immediate effect and target people when they are most likely to take part in risky behaviour in nightclubs or holiday resorts, for example. There is no set of prescribed form that AIDS education should take, but when considering an education campaign, the following points are relevant.

- What age are the people to be educated?
- Where and when will the target group be most receptive?
- Are there cultural issues to be considered? For example, attitudes to sexuality, or laws against portrayal of explicit images or languages.
- Are the people to be educated already sexually aware?
- Have the people been exposed to AIDS education before?
- Are the people literate?
- What language do they speak?
- Is the education program targeted at a specific risk- group, e.g. injecting drug users? What is the best way to reach the group being targeted?
- It is better to tell people how they should behave or inform them of the dangers and let them decide?
- Are people able to do what you're suggesting they do? There's no point in advising people to use condoms if none are available to them, or to use clean needles if needle exchanges are illegal.

## **HOW SHOULD AIDS EDUCATION BE CARRIED OUT?**

There are a number of different methods that can be used to educate the public about the dangers of HIV.

### **Peer Education**

Peer education is, quite simply, a social form of education without classrooms or notebooks, where people are educated outside a school environment but still have the opportunity to ask questions. Sometimes the peer educators will be from the group that is to be educated- a group of workmates might pick someone from amongst them to become the educator. On other occasions the educator may be someone who has a similar social background, age and gender to the target audience, sometimes a person who is HIV+, most peer education focuses

on providing information about HIV transmission, answering questions and handing out condoms to people. The sessions take place wherever is convenient sometimes in the workplace, or perhaps in a bar, or where a group of women gather to wash clothes.

### **Active learning**

In order to understand active learning, it is necessary to understand passive learning. Passive learning occurs when a learner is given a set of facts, often in a classroom environment, and is the type of learning that has been traditionally favoured by academic institutions.

### **Blanket education**

This is a general message aimed at the population as a whole. In many countries, the general population is seen as being at a fairly low risk of HIV infection, and blanket education usually aims to inform the population about which behaviours are risky and to give them support in changing these behaviours. This gives the opportunity for people who are already infected with the virus to avoid transmitting it to others, and for people who have not been infected to protect themselves.

### **Targeted education**

This type of strategy is usually used to speak to social groups who are perceived as being at a high risk of HIV infection- injecting drug users: This type of education usually tends to focus on risky activities particular to the specific target group in this case, the risky behavior is injecting drugs. Blanket education is inappropriate when wishing to communicate with specific risk groups, as it can incite discrimination in the general population towards the group, and can tend to promote somebody else's problem thinking.

### **Celebration**

Celebrating world AIDS day, organizing camps, human-chain, rally etc.

## **TEACHERS ROLE ON AIDS EDUCATION**

- ❖ Responsible sexual behavior being an important component of AIDS education a teacher has to function as a resource person for accurate information in matters relating to sex, which are sensitive in nature.
- ❖ The teacher may try to answer to the questions raised by the students.
- ❖ The teacher should ensure that his/her students understand the following crucial messages.
- ❖ Since there is no cure for HIV/AIDS prevention is the only defense at the moment.
- ❖ HIV can be transmitted through unprotected sexual intercourse, unsterilized needles and syringes, and contaminated blood.
- ❖ HIV transmission can be prevented through abstinence and mutually monogamous sexual relations in which neither partner is HIV infected. This constitutes responsible sexual behavior

- ❖ Use of condoms minimizes the risk of HIV transmission as it reduces exposure to blood, semen or vaginal fluids
- ❖ Drug injectors must not share with anyone else syringes or other drug-related instruments that pierce the skin
- ❖ In case of blood transfusion it should be assured that the blood is tested for HIV.

## **SUMMARY**

The chronic problem facing by the world is AIDS, HIV-1 and HIV-2 is two major categories of HIV. Losses of appetite, constant fever, headaches, pain in various parts of the body are the symptoms of AIDS. HIV is transmitted primarily by sex, by injection or from infected mother to child through pregnancy or breast feeding. Zidovudines, Nevirapine, Zalcitabine are the major AIDS-HIV drugs. To prevent new infections from taking place, to improve the quality of life for HIV positive people and to reduce stigma and discrimination are the major aims of AIDS education. Peer education, active learning, blanket education and targeted education are the methods that can be used to educate the public about dangers of HIV.

## **LIFE STYLE DISORDERS**

### **DIABETES**

Diabetes is a long-term condition that causes high blood sugar levels.

Type 1 Diabetes - the body does not produce insulin. Approximately 10% of all diabetes cases are type 1.

Type 2 Diabetes - the body does not produce enough insulin for proper function. Approximately 90% of all cases of diabetes worldwide are of this type.

Gestational Diabetes - this type affects females during pregnancy.

### **Symptoms**

It includes frequent urination, intense thirst and hunger, weight gain, unusual weight loss, fatigue, cuts and bruises that do not heal, male sexual dysfunction, numbness and tingling in hands and feet.

### **Treatment**

- If you have Type 1 and follow a healthy eating plan, do adequate exercise, and take insulin.
- Type 2 patients need to eat healthily, be physically active, and test their blood glucose. They may also need to take oral medication, and/or insulin to control blood glucose levels.

## **HYPERTENSION**

**Hypertension** is another name for high blood pressure. It can lead to severe complications and increases the risk of heart disease, stroke, and death.

- Blood pressure is the force exerted by the blood against the walls of the blood vessels. The pressure depends on the work being done by the heart and the resistance of the blood vessels. The World Health Organization (WHO) suggests that the growth of the processed food industry has impacted the amount of salt in diets worldwide, and that this plays a role in hypertension. Normal blood pressure is 120 over 80 mm of mercury (mmHg), but hypertension is higher than 130 over 80 mmHg.

## Treatment

*Regular health checks are the best way to monitor your blood pressure.*

While blood pressure is best regulated through the diet before it reaches the stage of hypertension, there is a range of treatment options.

Lifestyle adjustments are the standard first-line treatment for hypertension.

## **Regular physical exercise**

Doctors recommend that patients with hypertension engage in 30 minutes of moderate-intensity, dynamic, aerobic exercise. This can include walking, jogging, cycling, or swimming on 5 to 7 days of the week.

## **HEART ATTACK**

The heart is a muscle like any other in the body. Arteries supply it with oxygen-rich blood so that it can contract and push blood to the rest of the body. When there isn't enough oxygen flow to a muscle, its function begins to suffer. Block the oxygen supply completely, and the muscle starts to die.

## **Causes**

Most heart attacks happen when the inside of one or more of your coronary arteries become narrowed due to a gradual build-up of fatty deposits called atheroma.

If a piece of this fatty material breaks off, a blood clot forms to try and repair the damage to the artery wall. This blood clot can block your coronary artery, causing part of your heart muscle to be starved of blood and oxygen. This is a heart attack.

## **Symptoms**

- Pain or discomfort in your chest that suddenly occurs and doesn't go away.
- The pain may spread to your left or right arm or may spread to your neck, jaw, back or stomach. For some people the pain or tightness is severe, while other people just feel uncomfortable.

- You may also feel sick, sweaty, light-headed or short of breath.

## **Treatment**

Bypass surgery involves sewing veins or arteries in place beyond a blocked or narrowed coronary artery, allowing blood flow to the heart to bypass the narrowed section.

## **OBESITY**

**Obesity occurs when your body consumes more calories than it burns.**

In recent years, the number of overweight people has increased significantly, so much so that the World Health Organization (WHO) has called obesity an epidemic.

## **Symptoms**

People who are obese are at a much higher risk for serious medical conditions such as high blood pressure, heart attack, stroke, diabetes, gallbladder disease, and different cancers than people who have a healthy weight.

A measurement called the *body mass index* (BMI) does not directly measure body fat, but it is a useful tool to assess the health risk associated with being overweight or obese. A BMI of 18.5 to 24.9 is considered within the healthy range. The BMI is calculated using kilograms (kg) and metres (m)

## **Causes**

It is not caused by overeating by overeating and under-exercising, resulting from a lack of will power and self-control. Obesity is a complex medical problem that involves genetic, environmental, behavioural, and social factors. All these factors play a role in determining a person's weight.

For a person who is genetically prone to weight gain (e.g., has a lower metabolism) and who leads an inactive and unhealthy lifestyle, the risk of becoming obese is high

## **Treatment**

By incorporating more natural foods into your diet, drinking more water, cutting out junk food and getting into the habit of exercising several times every week, you can drastically lower your weight and decrease your chances of becoming obese

## **ULCER**

Stomach ulcers, which are also known as gastric ulcers, are painful sores in the stomach lining. Stomach ulcers are a type of peptic ulcer disease. Peptic ulcers are any ulcers that affect both the stomach and small intestines.

Stomach ulcers occur when the thick layer of mucus that protects your stomach from digestive juices is reduced. This allows the digestive acids to eat away at the tissues that line the stomach, causing an ulcer.

Other common signs and symptoms of ulcers include:

- dull pain in the stomach
- weight loss
- not wanting to eat because of pain
- nausea or vomiting
- bloating
- feeling easily full
- burping or acid reflux
- heartburn (burning sensation in the chest)
- pain that may improve when you eat, drink, or take antacids
- anemia (symptoms can include tiredness, shortness of breath, or paler skin)
- dark, tarry stools
- vomit that's bloody or looks like coffee grounds

## **STRESS REDUCTION**

Avoiding stress, or developing strategies for managing unavoidable stress, can help with blood pressure control.

Using alcohol, drugs, smoking, and unhealthy eating to cope with stress will add to hypertensive problems. These should be avoided.

Smoking can raise blood pressure. Giving up smoking reduces the risk of hypertension, heart conditions, and other health issues.

## UNIT- IV: PHYSICAL EDUCATION AND PHYSICAL EXERCISE

### Objectives:

After completion of this unit, the learner will be able to,

1. understand the meaning, definitions, aims and objectives and scope of the physical education.
2. know the importance and benefits of physical education.
3. understand the meaning, definitions and components of physical fitness.
4. undersatand the meaning, types, importance and effects of physical exercise.

### Introduction

Physical education has existed since the earliest stages of human society, in forms as simple as the transmission of basic survival skills, such as hunting. Later, the ancient Chinese, Indian, and Egyptian civilizations had traditions of physical education and activity, most commonly acted out in sporting competitions, military tactics and training, and martial arts.

The first requisite for national and for individual development is physical education. There are many-problems that confront physical education and the most important one is the lack of appreciation of the fact on the part of the public in general and the educational authorities in particular. As a matter of fact our people have been rather slow to recognize that exercise and perspirations are the bye-product of physical education.

Not understanding the real concept of physical education people still talk about it in terms of drill, physical training, physical culture, sports, gymnastics etc. Even the educationists and the educational administrators, who are in the helm of affairs, are totally unmindful of the educative potentialities of physical education.

Not taking into consideration the substantial contribution that physical education makes towards the education of the child physical, mental, moral, social and emotional; they only take in to account superficially, the one aspect of physical education that is the development of skill in games and sports, merely on winning teams etc. The concept of physical education is correctly, thoroughly and most wholesomely interpreted to the people in general and educational administrators in particular.

### Modern Concept of Physical Education

Physical education in its modern concept is broader and more meaningful. There is no doubt that it is conducive not only to build up organic health but also in being helpful in developing mental and emotional health and social qualities that are considered to be desirable by the society. It provides that

much of energy which is so very necessary for every person to withstand the wear and tear of the struggle for existence.

Physical education is not confined to some forms of drill and regular exercises, but emphasizes on the physical fitness value. Physical development and mental development are inter-related and go together. Locke emphasized, "A sound mind in a sound body" is a short but full description of a happy state of an individual.

Kilpatrick has defined it as "A way of education through motor activity and related experiences and its subject matter is primarily ways of behaving". The capable and intelligent leadership during play periods can guide and help children to develop desirable way of behaving towards their team mates, opponents, officials, spectators and in regard to the solution of problems that arise during games and intelligent decision based on reason rather than on prejudices and emotions.

According to Modular Commission, "Physical education is not merely a drill or a series of regulated exercises. It includes all forms of physical activities and games which promote the development of body and mind". Kothari Commission opined, "Physical education contributes not only to the physical fitness but also to physical efficiency, mental alertness and the development of certain qualities like perseverance, team spirit, leadership, discipline, tolerance, adherence to rules, moderation in victory and balance in defeat". Physical education is considered as that part of education which makes its presence felt predominantly through physical activity.

However, physical education is complete educative process and not mere exercise and perspiration, properly planned and conducted; it has a legitimate claim for inclusion in the general scheme of education.

### **Meaning and Definitions of Physical Education**

Physical Education is "education through the physical". It aims to develop students' physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. It also develops students' confidence and generic skills, especially those of collaboration, communication, creativity, critical thinking and aesthetic appreciation. These, together with the nurturing of positive values and attitudes in Physical Education, provide a good foundation for students' lifelong and life wide learning.

Physical education is a course taught in school that focuses on developing physical fitness and the ability to perform and enjoy day-to-day physical activities with ease. Kids also develop skills necessary to participate in a wide range of activities, such as soccer, basketball, or swimming. Regular physical education classes prepare kids to be physically and mentally active, fit, and healthy into



adulthood. An effective physical education program should include engaging lessons, trained P.E. teachers, adequate instructional periods, and student evaluation.

A balanced physical education program provides each student with an opportunity to develop into a physically-educated person; one who learns skills necessary to perform a variety of physical activities is physically fit, participates regularly in physical activity, knows the benefits from involvement in physical activity and its contributions to a healthy lifestyle. For all students to become physically educated, instruction is designed for all students with special consideration for students who need help the most, less skilled students and students with disabilities. Students who are skilled and blessed with innate ability have many opportunities to learn. All students must feel successful if they are expected to enjoy and value physical activity. Activity is the basis of the program and offers opportunities for repetition and refinement of physical skills. Activities are success oriented so students are motivated to continue.

**According to the National Association of Sports and Physical Education, physical education consists of four components: opportunity to learn, meaningful content, appropriate instruction and student and program assessment.** Physical education helps students develop a positive attitude towards physical activity and adopt healthy and active lifestyles.

A quality physical education program provides developmentally appropriate curriculum and meets the needs of each student. Lessons should be designed to provide maximum opportunities for inclusion of all students. Homework assignments should support learning and practice of skill development.

Physical education programs should place emphasis on student learning and skill development that can potentially result in a lifetime of physical activity for students. The curriculum is based on national standards that illustrate what students should know and be able to do. Programs include motor skill development to aid in the physical, mental and socio emotional development of students. Physical activities should be fun and not be withheld as punishment, because students may grow to hate the activity.

A quality program teaches students to cooperate, play fair and participate responsibly in physical activity. Students learn self-management skills, such as setting goals and self-monitoring. Assessment is vital and should be an ongoing component of the program. Furthermore, self-assessment reinforces learning and skill development.

A quality physical education program has the potential to make four unique contributions to the lives of students: (1) daily physical activity, (2) a personalized level of physical fitness, (3) development

of competency in a variety of physical and sport skills, and (4) acquiring the requisite knowledge for living an active and healthy lifestyle (Darst, Pangrazi, Sariscsany, & Brusseau, 2012).

To define physical education, we need to say that it is an educational process that aims to improve human development and performance through physical activity.

In a broader context, physical education is defined as a process of learning through physical activities designed to improve physical fitness, develop motor skills, knowledge and behavior of healthy and active living, sportsmanship, and emotional intelligence. Thus, Physical Education is not only aimed at physical development but also includes the development of the individual as a whole.

Barrow defined Physical Education as ‘an educational objective’ is achieved by means of big muscle activities involving sports, games, gymnastics, dance and exercise’

Physical education is a process through which an individual obtains optimal, physical, mental and social skills - Lumpkin (1986).

Physical education is a meaningful and worthwhile experience obtained through participation in physical activities that are physically wholesome mentally stimulating and satisfying and socially sound. - William (1966).

Physical education is an educational process that has its aim, the improvement of human performance through the medium of physical activities 4 selection to realize this outcome. Physical education includes the acquisition and refinement of motor skills, the development and maintenance of fitness for optimal health and well being the attainment of knowledge the growth of positive attitude towards physical activity. - Bucher (1989)

“Physical Education is the sum of man’s physical activities selected as a kind and conducted as to outcomes” – Jesse Feiring Williams

## **AIMS OF PHYSICAL EDUCATION**

The aim of physical education is to enable the student to:

- appreciate and understand the value of physical education and its relationship to a healthy, active lifestyle
- work to their optimal level of physical fitness
- become aware of movement as a creative medium connected to communication, expression and aesthetic appreciation
- develop the motor skills necessary to participate successfully in a variety of physical activities

- experience enjoyment and satisfaction through physical activity develop social skills that demonstrate the importance of teamwork and cooperation in group activities
- demonstrate a high level of interest and personal engagement showing initiative, enthusiasm and commitment
- show knowledge and understanding in a variety of physical activities and evaluate their own and others' performances
- demonstrate the ability to critically reflect upon physical activity in both a local and intercultural context
- demonstrate the ability and enthusiasm to pass on to others in the community the knowledge, skills and techniques that have been learned.

### **OBJECTIVES OF PHYSICAL EDUCATION**

- To create opportunities for big muscle activity in order to facilitate the growth and development of the body.
- To sustain the child's interest in and love of physical activity by teaching activities based on the needs, interests and abilities of all children.
- To develop neuro-muscular skills so that they participate in various activities such as running, jumping, rowing, and catching and so on.
- To inculcate moral values such as fair play, team spirit, sportsmanship and respect for fellow players.
- To understand the need to abide by the rules and regulations of the games and sports.
- To create an awareness of the safety and first aid measures to be taken in sports and games.
- To teach recreational activities which may be useful during the leisure time of the child
- To orient the children to different aspects of health as it relates to physical education
- To enable the children to identify the link between physical education and other subjects.

### **SCOPE OF PHYSICAL EDUCATION**

Physical Education is a very developed area and it has a very wide scope. Today, it is not limited to various kinds of physical exercises. All the factors or activities which help in developing an individual's personality are included in it now. It consists of all the areas or facets of human activities.

Now, knowledge of physical education or participation in physical activities are not concerned important only for the school going students, but also for people of all ages and both the sex. Whatever may be the

physical abilities of individuals, all the persons should participate in different kinds of physical activities. The objective of physical education programme is not only to train or create outstanding players, but another important objective it has is to maintain the health of all the people using or participating in it.

Today, programmes of physical education are prepared in such a way that needs and requirements of all the people get fulfilled. According to the age and requirements of people participating in the activities, one should prepare the programme carefully. Various kinds of programmes can be prepared, some of which are Service Programme, Intramural and Extramural programme and Fitness and Recreational Programme. The programme in which importance is provided to the instructional aspect is termed as service programme. Such programme in which provide opportunities to develop the skills and abilities to all the participants is termed as intramural programme. When in competitions, players of different region or parts take part, it is termed as extramural programmes while the programme which provides fun, thrill, action and skill to the participants is known as fitness and recreational programme.

### **NEED FOR PHYSICAL EDUCATION**

Physical education refers to the process of imparting systematic instructions in physical exercise, sports, games, and hygiene. The term is generally used for the physical education programs at schools and colleges. Education aims at the training of the body, mind, and conduct of a student.

To keep a healthy mind within a healthy body, a student needs regular physical exercise. The brain of students gets tired after schoolwork. His mind refuses to work. Therefore, for diversion and refreshment of mind, he requires some organized forms of physical and mental work.

Physical education forms an important part of modern education. Almost every school can boast of a playground, and one or two teams. In every modern school and colleges, after class work, students join various sports and games. The students generally take to all kinds of physical activities and show a great deal of interest in them.

Various kinds of games, sports, and physical exercises are taught in schools as part of physical education program. Some of them are outdoor, others indoor. The outdoor games include football, hockey, cricket, tennis, badminton, volleyball, and so on. Sports include popular pastimes like swimming, boating, athletic activities like pole jump, long jump, racing, and javelin throwing. Students are also taught physical exercises to improve and maintain good health.

"The higher your energy level, the more efficient your body. The more efficient your body, the better you feel and the more you use your talent you produce outstanding results."

- Anthony Robbins

A quality physical education program will help to

- Improve self-esteem, self-confidence, and interpersonal skills.
- Gain a sense of belonging through teamwork.
- Prepare to embrace cooperation and competition.
- Handle adversity through winning and losing.
- Develop social skills.
- Learn discipline.
- Improve problem solving skills and increase creativity.
- Develop an understanding of the role of physical activity in promoting health.
- Reduce their tendency to risk behaviors such as use of drugs, alcohol, and tobacco, missing or dropping out of school, and getting pregnant.
- Enhance social and cognitive development and academic achievement.

"The human body was designed to walk, run, or stop; it wasn't built for coasting."

- Cullen Hightower

"Movement is the medicine for creating change in a person's physical, emotional, and mental states." - Carol Welch

## IMPORTANCE OF PHYSICAL EDUCATION

Physical education considers the child as a united whole of mental, social, moral, and physical qualities and provides for the optimum development of all these through the physical activities.

1. ***Physical growth and development*** - Physical activity must be learned; hence there is a need for thinking on the part of the intellectual mechanism, with a resulting acquisition of knowledge. Physical activities are essential for the development of a child's scientific insight, intelligence and superior type of reflective thinking.
2. ***Intellectual development***- Physical activities must be learned; hence there is a need for thinking on the part of the intellectual mechanism, with a resulting acquisition of knowledge. Physical activities are essential for the development of a child's scientific insight, intelligence and superior type of reflective thinking.

3. ***Emotional development*** – Physical education provides opportunities to control emotions. The give and take of games and sports offer scope for both emotional release and the controlling of the emotions.
4. ***Social adjustment*** - Physical activities provide opportunity of interaction between participants and others in varied situations enabling them to learn social qualities like sportsmanship, co-operation, honesty, friendship, fellowship, courtesy, self discipline, and respect for authority which promote social adjustment of an individual.
5. ***Personal adjustment*** - Physical education gives a full and worth- while experience to the individual which help him to realize fullest self-expression and highest satisfaction from the results of his action, and thereby facilitates his personal adjustment in life.
6. ***Character development*** – Group effort, loyalty to the team and strong ties is much in evidence in play and physical activities. They provide a valuable contribution to the development of good moral character.
7. ***Physical fitness*** – Physical education through exercise and knowledge about one’s body and its requirements contribute immensely to physical fitness. Regular exercise improves our physical efficiently, sense of well-being and appearance.
8. ***Mental development*** - The learning of skills, game, rules, techniques and strategies, and judgment making equip an individual to interpret new situations effectively. Physical education programme also make an individual aware regarding the importance of sanitation, health and hygienic, prevention of disease, balance diet and health habits hereby improving his mental development.

#### **BENEFITS OF PHYSICAL EDUCATION**

1. **Improved Fitness:** Skipping, jumping, running, lifting and other exercises make a person more fit.
2. **Unity, Team-spirit and Togetherness:** Exercising with other students helps forge togetherness and boosts team spirit.
3. **Makes a Person More Active:** It makes a person more active and helps combating ailments associated with laziness or “potato couching.”
4. **Lots of Fun:** Physical exercises are fun and enjoyable especially when they are varied.

- 5. Increased Socialization:** PE teaches students to be more social and also outgoing. This shapes their future life and interaction.
- 6. Better Health:** Regular exercises improve the respiratory, cardiovascular, immune and other bodily systems. This keeps diseases at bay.
- 7. Boosts Self Esteem:** Regular interaction with other pupils or students improves self-esteem and awareness.
- 8. Talent Discovery:** Instructors or teachers can easily spot talent during the exercises and will guide a pupil so as to improve the talent.
- 9. Boosts General Wellness:** In addition to making a person more active and fit, PE also improves general wellness.
- 10. Reduces Injuries:** According to research, people who regularly exercise are less prone to injuries and will recover more quickly from fatigue or sickness.
- 11. Encourages Team Spirit:** Working together and following instructions is the winning recipe for a strong and solid team.
- 12. Goal Setting:** Students will be encouraged to set and aim at meeting their target. Over time, they become good goal setters and achievers.
- 13. Reduces Boredom:** Physical education takes away the boredom of staying in the classroom.
- 14. Step to Future Career:** Many careers such as gym instructors, physiotherapist, sportsmen and others are founded on physical education.
- 15. Minimize Monotony:** Unlike learning, PE is quite varied and can be interchanged at will. This ensures that all participants have something to enjoy.
- 16. Warm-up Exercises:** Most warming-up exercises are founded on physical Education. Think of skipping, squatting, and running on the spot.
- 17. Relaxes the Mind:** PE helps relax the mind especially after being in a classroom for long or handling a challenging academic task.
- 18. Boost Strength:** PE helps to improve the strength, stamina and endurance. Good exercises include skipping rope, carrying each other, playing soccer (football) and more.
- 19. Break from Academics:** This activity allows pupils /students to take a break from demanding academics.

**20. Improves Cognitive Performance:** Participants become more alert and their brain functioning and memory improves over time.

**21. Self Discipline:** Listening to instructions and following them instills self-discipline in the students.

**22. Stress Reduction:** PE is known to lower the stress levels and helps a person temporarily forget a problem.

**23. Support other Fields:** Subjects such as social studies, biology and sports are related to physical education.

**24. Improves Judgment:** Students learn how to develop their morals as they follow instructions and work with others. They also learn to accept responsibilities.

**25. Enhance Physical Competence:** Physical education helps nurture positive attitudes and talents which shape a person's future.

**Conclusion:** Though it may seem like a mundane activity, Physical Education is vital in the proper growth of a child. And unless you understand it and its positive effects, you are more-likely to ignore or apply the wrong strategies. In addition to making your child more active and physically fit, physical education also keeps diseases at bay.

## **MEANING AND DEFINITION OF PHYSICAL FITNESS**

Fitness is a broad term denoting dynamic qualities that allow satisfying the needs regarding mental, emotional stability special consciousness and adoptability spiritual and oral fear and organic health are consistent with heredity. Physical fitness means that the organic systems of the body are healthy and function efficiently vigorous tasks and leisure activities beyond Organic development, muscular strength and stamina. Physical fitness implies efficient performance in exercises -Bucher and Prentice (1985).

Most authors define 'physical fitness's as the capacity to carry out every day activities without excessive fatigue and with enough energy in reserve for emergencies. Emphatically this definition is inadequate for a modern way of life. By such a definition almost anyone can classify himself as physically fit.

- Gatchell (1977).



According to Clarke (1971) Physical fitness is the ability to carry out daily task with vigor and alertness without undue fatigue and ample energy to enjoy leisure time pursuits and to meet unforeseen emergencies.

According to Bucher (1958) Physical fitness is “the ability of an individual to live a full and balanced life. It involves physical, mental, emotional, social and spiritual factors and the capacity for their wholesome expression”. Physical fitness refers to practical performance of exercise that calls for the number of experiences, they are the feeling of happiness in the process of correct performance of movement, feeling of “confidence, self satisfaction, surprise and unhappy in the process of confusion and disappointment etc.

It is a positive quality, extending on a scale from death to “abundant life”. All living individuals have some degree of physical fitness which varies considerably in different people and in the same person at different times. It is not as broad in its meaning as ‘total fitness’. It include, adequate degree of health, posture, physique, proper functioning of vital organs, nutrition, and good health habits along with an adequate amount of endurance, strength, stamina and flexibility Clark and David (1978) .

## **COMPONENTS OF PHYSICAL FITNESS**

**“Physical fitness is not only one of the most important keys to a healthy body, it is the basis of dynamic and creative intellectual activity.” - John F. Kennedy**

Physical fitness can be classified into following categories:

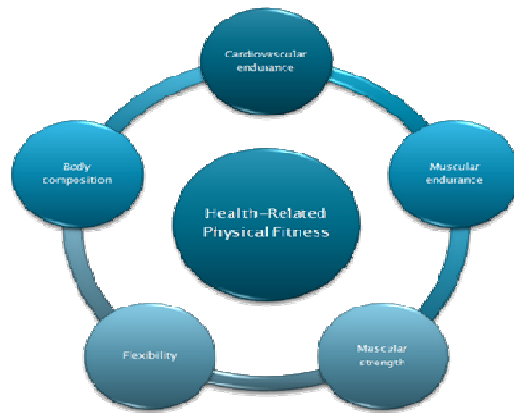
A. Health related fitness components

B. Skill related fitness components

### **A. HEALTH RELATED FITNESS COMPONENTS**

Health Related Physical fitness is best defined as activity aimed to improve your health. The goal of health related fitness is prevention of or rehabilitation from disease as well as the development of a high level of functional capacity for daily tasks.

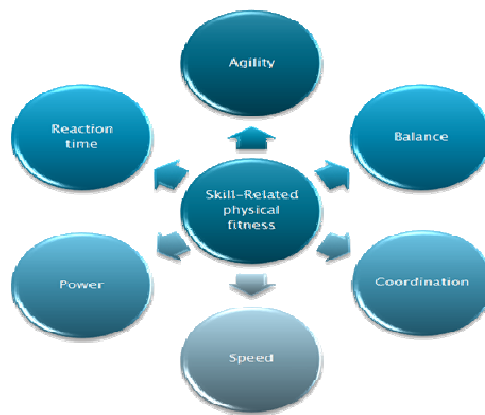
Health related physical fitness is further divided into 5 components. These are as follows:



1. Body composition
2. Cardiovascular fitness
3. Flexibility
4. Muscular endurance
5. Muscle strength

#### B. SKILL RELATED FITNESS COMPONENTS

Skill related physical fitness is further divided into 6 components. These are as follows:



1. Agility
2. Balance
3. Coordination
4. Power
5. Reaction Time

## 6. Speed

Fitness isn't defined by appearance. There are five health related components of physical fitness you need to consider:

### **1. Muscular Strength**

This is the "power" that helps you to lift and carry heavy objects. Without muscular strength, your body would be weak and unable to keep up with the demands placed upon it.

The way to increase strength is to train with heavy weights, working in the 4 - 6 or 12 - 15 rep ranges. The heavier the weight, the fewer reps you should perform.

### **2. Muscular Endurance**

Endurance is the ability of your muscles to perform contractions for extended periods of time. Rather than just lifting or carrying something for a few seconds, the muscles are used for minutes.

The way to increase strength is to train with light weights, working in the 20 - 25 rep range. Working with lighter weight will train the muscle fibers needed for muscular endurance, and the higher rep range leads to a longer period of exercise.

### **3. Cardiovascular Endurance**

Cardiovascular endurance is your body's ability to keep up with exercise like running, jogging, swimming, cycling, and anything that forces your cardiovascular system (lungs, heart, blood vessels) to work for extended periods of time. Together, the heart and lungs fuel your body with the oxygen needed by your muscles, ensuring that they have the oxygen needed for the work they are doing.

The Cooper Run (running as far as possible in 12 minutes) is a test commonly used to assess cardiovascular endurance, but many trainers use the Step Test (stepping onto a platform for 5 minutes). Both are accurate measures of a subject's cardiovascular endurance.

### **4. Flexibility**

Flexibility is one of the most important, yet often overlooked, components of physical fitness. Without flexibility, the muscles and joints would grow stiff and movement would be limited. Flexibility training ensures that your body can move through its entire range of motion without pain or stiffness.

To test your flexibility, lean forward and try to touch your toes. Those with good flexibility will usually be able to touch their toes, while those with limited flexibility will not. The sit and reach test (sitting on the floor and reaching toward your toes) is another good way to assess your flexibility. The more flexible you are, the closer you will come to touching your toes and beyond.

## 5. Body Fat Composition

Body fat composition refers to the amount of fat on your body. For example, a 100-pound person with a 25% body fat composition will have a lean body mass of 75 pounds.

### To qualify as fit:

- Men must have a body fat composition lower than 17 percent
- Women must have a body fat composition lower than 24 percent

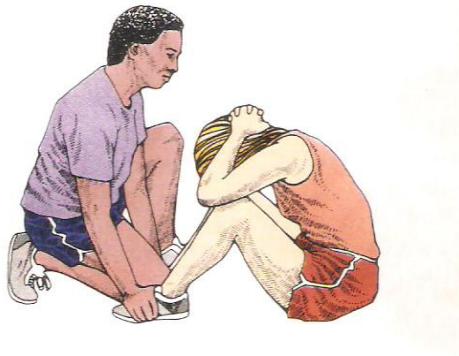
The average man tends to have about 18 to 24 percent body fat, while the average woman has 25 to 31 percent body fat.

Any program that neglects one or more of these types of fitness is not going to benefit the body in the long run. An effective fitness program will attempt to improve all five components of fitness.

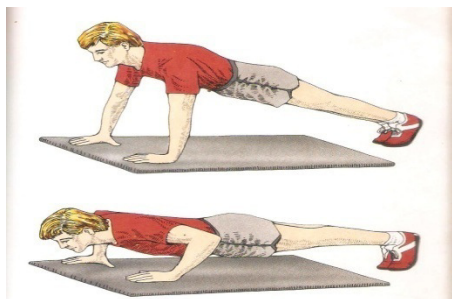
### Assessing physical fitness

The test below will assist to assess or evaluate the present physical fitness status for the purpose of understanding the strengths and weaknesses of an individual. The test selected measure the health related components of physical fitness and can be administered with ease and consistency. These recommended tests will provide with a rough estimate of physical fitness of a person.

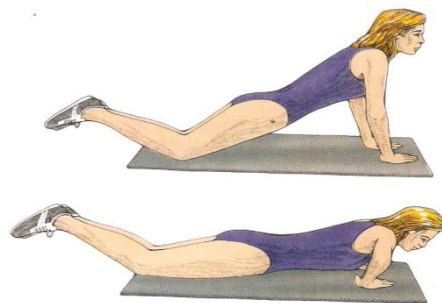
#### 1. Test for assessing Muscular Strength and Endurance



Sit ups

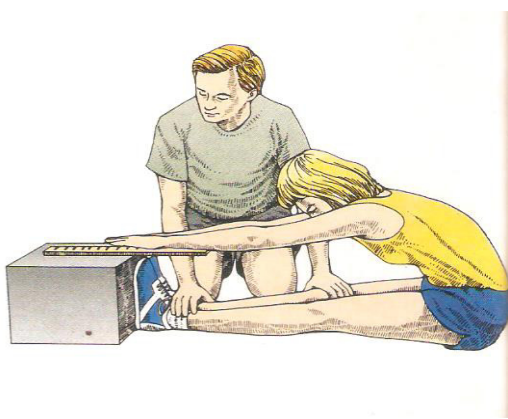


Modified Push ups

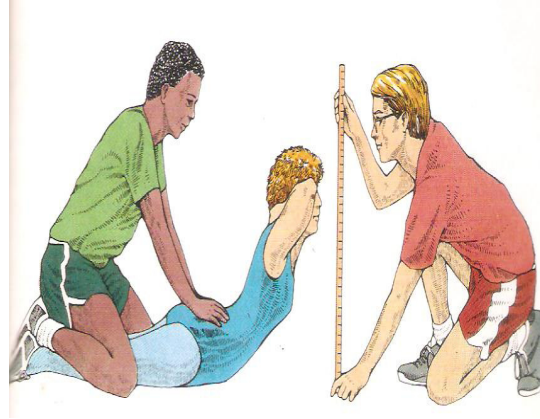


Push ups

## 2. Test for assessing Flexibility

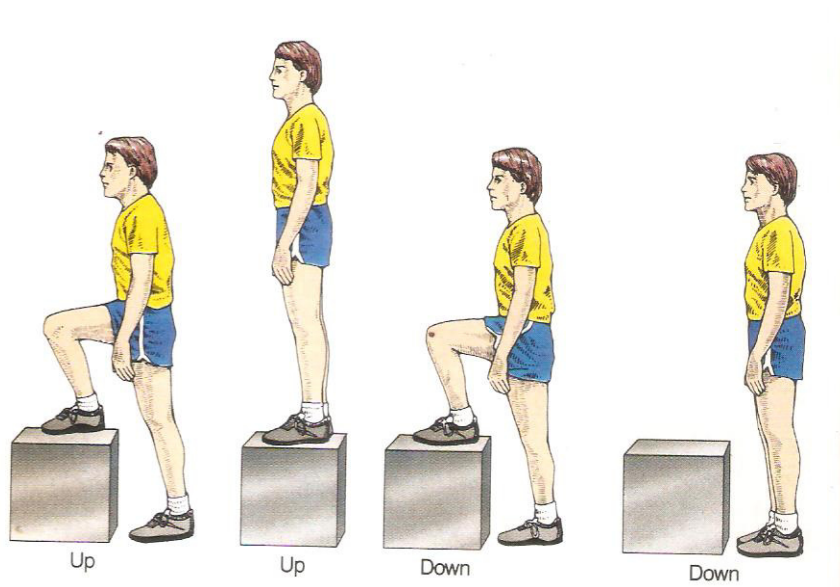


Trunk flexion



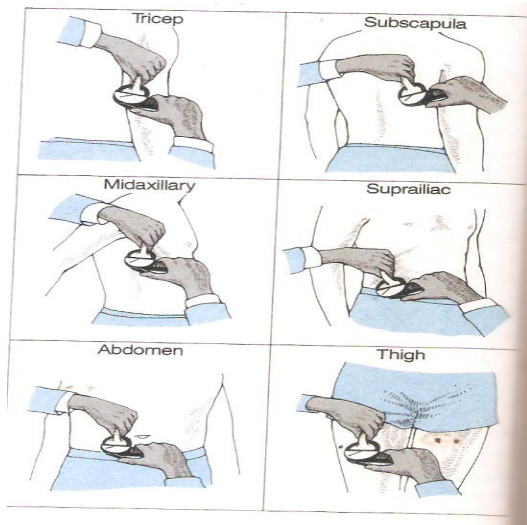
Trunk extension

## 3. Test for assessing Cardiovascular endurance



Step test

#### 4. Test for assessing Body composition



Skinfold Caliper to estimate body fat

Thus fitness testing

- Establish one's fitness status
- Use as basis for setting goals
- Use results to plan proper workouts
- Use to evaluate conditioning changes
- Provide motivation for starting and adhering to an exercise programme

#### BENEFITS OF PHYSICAL FITNESS

The benefits of physical fitness are numerous and include better health, greater strength, more flexibility, increased energy, improved appearance, and a more positive attitude and mood. Regular exercise can lead to both immediate and long-term benefits. Regular physical activity has been shown **to reduce the morbidity and mortality from many chronic diseases.**

The benefits of fitness far outweigh the inconveniences of regular exercise. To reap the maximum benefits of physical fitness, remember that your program should include all the main five components of physical fitness. These are the health related fitness components like cardiovascular endurance, flexibility, muscular endurance and muscle strength. There are in fact other components of physical fitness but they are skill related and less important.

Physical fitness is considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations.

Physical fitness is **generally achieved through**

- physical activity and exercise,
- correct nutrition,
- enough rest (good quality sleep),

Stress management and relaxation.

The benefit of the physical fitness is endless. Explore some of the benefits of fitness leading to healthy lifestyle and learn how you will get benefited from them:

### **1: Reduces risk of disease**

People who participate in regular exercise have a decreased risk of developing:

- heart disease
- diabetes
- metabolic syndrome
- colon cancer
- lung cancer
- breast cancer

### **2. Development of physical fitness components**

Development of physical fitness components such as muscle strength and endurance, cardiovascular endurance, flexibility, agility, speed, bone density etc and improvement of muscle tone.

### **3. Provide better health**

Regular physical exercise increases both the size and strength of the heart. It can pump more blood with less effort and becomes more efficient. This will lower pulse and lower the blood pressure which can increase lifespan. The circulatory system is also improved because of increased blood volume providing

more oxygen to the muscles. These effects will translate into a reduced risk for heart disease, heart attack, and stroke.

Significant cardiovascular health benefits can be attained with long-term participation in cardiovascular exercise.

#### **4. Lower your Cholesterol levels**

The benefits of physical fitness extend to their ability to help you control your cholesterol. They raise your levels of 'good' cholesterol and drop your levels of 'bad' cholesterol.

#### **5. Builds stronger Bones, Joints and Ligaments**

Physical activity results in the strengthening of our bones and muscles. It can substantially reduce the risk of arthritis and other bone diseases. Weight bearing exercise is shown to increase bone density and also prevent bone loss as we get older. This can reduce the onset and severity of osteoporosis. Resistance training does a great job. The strain that it puts on your body helps build bigger, stronger bones.

Different kinds of strength training put strain on your joints. This actually helps your body strengthen connective tissue in those joints. These tissues become stronger, more flexible and less prone to injury. Increased blood supply means better nutrition for the tissues and better removal of waste products which helps improve the health and durability.

#### **6. Maintenance of Optimal Body Weight**

Physical activity increases the muscle mass, reduces fat and thus controls weight. It is proven that physical fitness can control your body weight and prevent obesity and other weight-related problems.

By combining the right physical workouts with a proper and balanced diet, you can expect weight loss, reduced body fat and a more firm and fit body. Aerobic exercise burns calories during the duration of the exercise and strength training burns calories in the 24 hour period following the training.

#### **7. Improves your sleeping habits**

One of the benefits of physical fitness is that it provides you sound sleep and improves your sleeping habits. Studies show that people who exercise regularly and are physically fit - fall asleep more easily and sleep longer than those who do not exercise and are physically unfit. Because of cooling off after exercise, your body temperature drops leading to deeper sleep.



## **8. Boost in energy level**

Exercise improves the blood flow in the body and promotes better sleep, both of which boost energy. A regular exercise program, especially in the mornings, will give you energy and drive for the rest of the day. This effect is related to the increased metabolism associated with a fitter body.

## **9. Improved Appearance**

Physical activity build muscle mass and burns excess fat. It tones body muscles helping you to look fit and healthy. Healthy active people almost always have great skin tone and look fresh, less fatigued.

## **10. Relaxation and Stress relief**

There are so many stress factors in our day to day life. Because of lifestyle changes, change in the environment, people live under extreme stress in this competitive world. Regular physical activity, fitness workouts releases the hormones which have “feel good factor.”It helps in reducing your stress levels and gives you more strength to fight life’s challenges.

## **11. Fights Depression**

Effects of physical activity and exercise on mood are immediate. Blood flow to the brain is increased, endorphins are released and your mood lifts. These endorphins make you feel better and fight stress and depression.

## **12. Causes Delayed Aging**

Among the several benefits of physical fitness, delayed aging leading to positive thinking and improved self perception is the most sought after.

Regular physical activity reverses the natural decline in the metabolism of the body. Daily exercise is found to keep a person productive and energetic for a longer period of the day. Regular physical activity postpones the process of aging and increases the longevity of life.

## **13. Makes you feel happier**

Physical activity has important role in keeping your body fit. Exercise causes your body to release endorphins which has a “feel good factor”. Because of these endorphins you feel happier.

#### **14. Postpones fatigue**

The benefits of physical fitness include the postponement of fatigue and reduced recovery time after vigorous activity.

#### **15. Boost your Confidence**

Physical fitness provides correct posture, figure, body image, and good appearance along with increased energy levels. It gives you a sense of accomplishment, which is a boost to confidence.

#### **16. Utilization of Time**

Through Participation in physical fitness program, leisure (free) time is properly utilized and make you fit and healthy.

#### **17. Improve your overall health**

Physical fitness provides you the optimum physical health, general well being and mental stability. In other words it improves your overall health and you can live your life to the fullest.

#### **18. Healthier, longer Life**

All together, the benefits of physical fitness give you healthy and more efficient body. Thus it increases your chance of leading a healthier, longer and more fulfilling life.

These are some of the more prominent benefits of physical fitness. Everyone can and should participate in a fitness program to improve their quality of life. Living an active and healthy life will make your overall lifestyle much better.

### **MEANING PHYSICAL EXERCISE**

**Physical exercises** are a series of movements or actions which you do in order to get fit, remain healthy, or practice for a particular physical activity.

**Physical exercise** is the planned and repetitive bodily activity that is done to gain good health or to maintain physical and mental fitness.

Physical exercise refers to any physical activity or bodily movement that is undertaken in a planned manner with the aim:

- to improve or recondition the entire body or part of the body,
- to improve or maintain the health and fitness of the body,

- to strengthen the body and to make the muscles stronger,
- to lose weight or to prevent obesity,
- to maintain or improve the functional ability of various organs,
- to maintain youthfulness,
- to delay the process of ageing,
- to prevent cardiac diseases by improving the functioning of the cardiovascular system,
- to improve immunity system and prevent diseases,
- to prevent depression, insomnia, and
- to improve mental fitness.

## Types

**Physical exercises** are generally classified into aerobics, anaerobic, and flexibility.

**1. Aerobic** means requiring or using oxygen. **Aerobic exercises** are done to make the body consume more oxygen. This process helps improve the condition of the heart and the circulatory system. Example: swimming, cycling, etc.

**2. Anaerobic** means not requiring or using oxygen. **Anaerobic exercises** are highly intensive exercises that are done for short duration. Example: weight lifting. As against the aerobic exercises that depends upon the breathing air, the demand for oxygen far exceeds the supply in case of anaerobic exercises.

**3. Flexibility** means the ability to bend easily without much difficulty. **Flexibility exercises** are done to improve muscular mobility and joint flexibility. Example: stretching,

## NEED AND IMPORTANCE OF PHYSICAL EXERCISE

There is a need for physical exercise in every spheres of life. Physical Exercise is very important for proper health and fitness. Physical exercises are necessary for every citizen of the country.

The youths are choosing to eat junk foods. It spoils the health of the youth people. They look old before time. Their poor health is a social problem. People without good health cannot enjoy life. We cannot have a strong nation if the citizens have no good health.

Man is superior to animals because he has a developed mind. He controls the animals with his intellect. But we cannot have mental growth if our body is weak and sickly. The death of body means the death of the mind also. *‘A sound mind is in a sound body’ is a popular saying. So, physical exercises are very necessary for mental health. A sickly man cannot sit well. He cannot do his work properly.*

India earned her freedom after great sacrifices. We have to protect her freedom. We have to make our defenses strong. The citizens of our country must be physically fit and healthy. Only then they can defend the country’s freedom. Pandit Nehru once said, ‘every child of India shall have to be a soldier of freedom’.

The economy of our country depends upon agriculture. The agricultural production of our country is low. If our workers are physically strong and healthy, then it will help our country to increase the agricultural output. In fact, physical exercises are useful for them. These exercises will keep them fit and healthy. Then our production on farms and in factories will go up.

Student life is considered incomplete without physical activities and exercises. Physical activities are as important as studies. It is for this reason that schools and colleges dedicate special classes for physical exercises. This help the students to stay fit, both physically and mentally.

Physical exercise is very important for office goers as well. There is very few opportunities for physical activity in offices. The modern age is the age of information technology and internet. People work for several hours sitting in front of the computer. This causes stress in the eyes and body of such people. The health of the modern-day office goes is deteriorating every day. Such people should engage in some physical activity and exercise to regenerate and rejuvenate their mind and body. They can also choose to go for morning walk each day.

Physical exercises make us healthy. They make us good citizens. Life without good health is no life at all. If we spend an hour in taking physical exercises, we can work hard for the rest of the day. Thus, physical exercises are of great use to us. They should be made compulsory for students, teachers and office-goers.

## EFFECTS OF EXERCISE ON VARIOUS SYSTEMS

Exercise affects your body in countless ways as well—both directly and indirectly. There are a number of biological effects that occur, from head to toe, when you exercise. One of the key health benefits of exercise is that it helps normalize your glucose, insulin, and leptin levels by optimizing insulin/leptin receptor sensitivity. This is perhaps the most important factor for optimizing your overall health and preventing chronic disease. Exercise is a critical component of good health, especially as you age. Exercise will help you:

- Sleep better, Lose weight, gain weight, or maintain weight, depending on your needs
- Improve your resistance to fight infections
- Lower your risk of cancer, heart disease and diabetes
- Help your brain work better, making you smarter.

The key to obtaining the benefits of exercise is to find a program and stick to it.

### 1. EFFECTS OF EXERCISE ON MUSCULAR SYSTEM

- **Muscle size** – is mostly determined by persons genetics, but can be affected with life choices like: anabolic steroids, exercise, and healthy food. Exercising specific muscles regularly can increase their size by up to 60%. This increase in muscle size is mainly due to increased diameter of individual muscle fibers.
- **Muscle coordination** – It trains muscles to work more efficient and effectively by working together. E.g.: when the prime mover contracts more rapidly the antagonist (muscle) must also relax as quickly to prevent blocking the movement.

- **Blood supply** – As a result of frequent exercise over a sustained period of time both the quantity of blood vessels and the extent of the capillary beds increases.

Effects of exercise on muscular system would benefit by increasing size and number of mitochondria, improved perception of muscle tone and also overall improved:

- Coordination
- Power
- Balance
- Speed
- Agility
- Body composition
- Reaction time
- Muscular endurance
- Flexibility

## **2. EFFECTS OF EXERCISES ON CIRCULATORY SYSTEM**

Your circulatory system consists of your heart, blood vessels and blood, and is responsible for transporting life-giving oxygen throughout your body. When you exercise, your body's need for oxygen increases; the harder you work out, the more oxygen your body demands. To ensure that sufficient oxygen is available for your muscles during activity, your body makes short- and long-term changes.

### **Exercise and Your Heart**

Your heart -- referred to as the myocardium, meaning heart muscle -- is a four-chambered pump about the size of your fist, located slightly left of center in your chest. Its job is to pump blood. When you exercise, your heart rate can increase from a resting average of 72 to 200 beats per minute, depending on your fitness level and age. As you get fitter, your heart becomes stronger and your resting heart rate decreases.

### **Exercise and Your Blood Vessels**

Blood vessels carry blood throughout your body. Arteries take blood away from your heart; veins return blood to your heart, and capillaries drop off and collect blood at your muscles and lungs. As you exercise, the hormone adrenalin causes your blood vessels to expand to allow passage of a greater-than-normal volume of blood. This is called vasodilatation, which is a short-term response to exercise and is one of the reasons your surface blood vessels may become more prominent during exercise. A long-term response to exercise is the building of new capillaries so more oxygen can be delivered to, and more carbon dioxide can be removed from, your working muscles.

### **Blood Pooling**

When you exercise, blood is diverted from non-essential organs, such as those involved with your digestive and reproductive systems, and into your working muscles. This is termed blood pooling and

ensures that your working muscles get as much oxygen as they need. Once you have finished your strenuous exercise, it is important to encourage the pooled blood to move out of the muscles and back into general circulation. This is commonly achieved by performing a cool-down consisting of light cardiovascular exercise and stretching. Blood left pooling in muscles is linked to the onset of post-exercise muscle soreness.

### **Exercise and Your Blood**

Your blood contains three different types of cells: white blood cells that fight infection, platelets that aid in clotting and red blood cells that transport oxygen. These cells are suspended in a liquid called plasma which is predominately water. While you exercise, your red blood cells become saturated with oxygen in an effort to ensure that enough oxygen is available for your muscles. As a long-term benefit of exercise, your red blood cell count increases as you get fitter so you are better able to transport greater amounts of oxygen throughout your body.

### **3. EFFECTS OF EXERCISES ON DIGESTIVE SYSTEM**

A healthy digestive system is vital for the overall health of the body. If it is slow or in trouble, the rest of the body will be slow and in trouble too. This is because the digestive system is the area where the nutrients are absorbed and the majority of toxic wastes are dumped into. It is also the home for the immune system, which is responsible for keeping many serious diseases and common ailments at bay.

One of the ways to maintain a healthy digestive system is with exercise. Exercise can help in various ways, such as increase the metabolism and blood flow, as well as help to relax the body and mind, all of which can help to improve digestion.

#### **Increased Metabolism**

One of the benefits of exercise is that it increases the metabolism. As a result, the food can move through the system much quicker, which then eases the load for the digestive system. If the food does not pass through fast enough, it can potentially rot and become toxic inside the tract. This is the last thing that you want as that will cause a buildup, which then reduces the amount of nutrients that get absorbed.

#### **Internal Massage**

Another benefit of exercise is that it can help to massage the intestines. Tummy crunches, side twists and forward bends are great exercises that massage the intestines so that they can relax in order to release their contents.

## Increased Blood Flow

The blood is responsible for absorbing nutrients from the digested food and distributes it throughout the body. Any type of exercise is known to increase this blood flow, which is helpful not only for the digestive system, but for the overall health of the body as well.

## Strengthens the Muscles

This is a no-brainer, but exercise will help to tone up the muscles around the stomach and intestines. Strong muscles will help the food to move along more efficiently and overall make it easier on the system.

## Relaxes the Mind and Body

Another major benefit of exercise is that it helps to relax the mind and body. This is absolutely crucial for healthy digestion as any type of stress, whether physical or mental, will interfere with the way the food is digested and absorbed into the body.

Stress puts the body into a fight or flight motion, which stops the production of digestive juices required to break down the foods. It also shuts off the blood supply to the digestive tract. All the body's energy is then redirected to the stressed area or situation in order to help the body and mind to cope for the time being. As a result, the food can remain in the stomach for hours.

## How to Exercise

There are a wide variety of exercises that one can take part in, however, it is important that each individual engages in an exercise that is suitable for him or her. Some might be able to go running for an hour, while others might only be able to walk for five to ten minutes. The key is to listen to body and exercise accordingly.

## 4. EFFECTS OF EXERCISE ON NERVOUS SYSTEM

Physical exercise boosts blood flow to your brain, quickly delivering more oxygen and nutrients to your neurons. Regular exercise is one of the best things you can do to keep your brain healthy and sharp -- plus it encourages new brain cell growth. If you are feeling tired, cranky or having a hard time focusing, just take a brisk walk! Have you ever heard the term, “runner's high?” It really is possible to feel that good, just from exercise! Exercise immediately boosts focus and mood while helping to reducing anxiety and cravings for food or other substances. It truly is the closest thing to a “happiness pill” that you will ever find. These conditions are particularly influenced by exercise:

**Mood and Depression:** Activating the same pathways in the brain as morphine, exercise stimulates the release of our feel-good neurotransmitters: norepinephrine, dopamine, and serotonin. Research shows that people who are depressed are more likely to be overweight, and conversely, that weight problems increase the risk for depression. Getting regular exercise will help you to get depression under control and lose the extra pounds—also boosting self-esteem and confidence -- all at once!

**Anxiety:** Physical activity of just about any kind and at any intensity level can soothe anxiety. In particular, high-intensity aerobic activity has been shown to reduce the incidence of panic attacks.

**Focus and Attention:** Vigorous exercise boosts brain blood flow and oxygenation, which immediately improves focus and concentration abilities. For those with ADD/ADHD, vigorous daily exercise is a must.

**Sleep:** Regular exercise is extremely beneficial for insomnia, but don't do it within 4 hours of hitting the sack. Vigorous exercise late in the evening may be too energizing and keep you awake.

**Alzheimer's and Dementia:** Studies show that exercise is helpful for boosting blood flow and activity in the parts of the brain linked to Alzheimer's and dementia, such as the hippocampus -- the brain's memory center.

So how much exercise should you get? I recommend that everyone do the equivalent of walking "like you are late" for 30-45 minutes, four to seven days a week. No brain injuries please! Avoid contact sports like football, hockey, boxing, and soccer (headers). Coordination exercises like dancing and table tennis require new learning, which are extra-beneficial for keeping you sharp as you age!

## **THE EFFECTS OF EXERCISE ON RESPIRATION**

Respiration is an automatic bodily function and the quality of your breathing patterns is improved with exercise. When you think of breathing, you may think only of the inhaling and exhaling of air. Respiration includes the inhale, exhale and air exchange that happens in your lungs. Exercise lends to immediate and permanent changes in your respiration function.

### **Respiration**

When you inhale, you bring oxygen from the air into your lungs. The oxygen attaches to red blood cells, enters your heart and then flows in your blood stream to your organs, muscles and body tissues. Carbon dioxide is a byproduct of respiration. When your blood returns to the lungs, the carbon dioxide is released from the blood stream into the air that you exhale.

### **Exercise**

During aerobic exercises such as walking, cycling, swimming and dancing, your body requires increased amounts of oxygen. The oxygen helps convert fat stores into fuel for your workout. The result is also an increase in carbon dioxide to which your brain responds. The brain sends a signal to increase your respiration rate to keep up with oxygen demands and carbon dioxide exchange. The more intense your exercise, the faster your heart and breathing rates.

### **Breathing Patterns**

Over time, with consistent aerobic exercise, your resting respiration rate slows. This is a result of enhanced respiratory muscle endurance and strength. With every breath, your air flow volume is improved compared with the volume prior to an exercise program. In other words, you become a more efficient breather. The American Journal of Respiratory and Critical Care Medicine also found this result to be true in those who suffer from chronic airflow limitation disorders.



**Air Exchange**

Another result of high-intensity endurance training is a more efficient air exchange. Oxygen is readily accepted into the lungs and bloodstream for transportation to the working muscles. Carbon dioxide is more effectively eliminated due to the improved respiratory muscle function. When oxygen and carbon dioxide exchanges are made at a high level, the body maintains equilibrium, which helps reduce stress and anxiety and improves mental and physical health.

## UNIT – V: ORGANISING COMPETITIONS

### Objectives:

After completion of this unit, the learner will be able to,

1. understand objectives of the intramural and extramural competitions
2. able to differentiate the standard sports meet and non-standard sports meet.
3. understand the meaning, definitions and components of physical fitness.
4. understand the meaning, types, importance and effects of physical exercise.

### Introduction

“Intramural” means “within the walls”. Hence intramural competitions are the competitions held within an institution.

### INTRAMURAL COMPETITIONS

#### Objectives

- i. To develop the skills of the students in the concerned activities.
- ii. To provide incentives for participation in activities.
- iii. To provide opportunities for hundred percent participation among the homogenous groups, thereby contributing the greatest good.
- iv. To develop leadership and followership qualities.
- v. To give the best knowledge of the rules of the game and to develop desirable social qualities like co-operation, team work, respect for officials & opponents etc
- vi. To give fun, pleasure and enjoyment.

#### **The following objectives have also to be borne in mind**

- i. To give experience to the trainees in organizing and conducting the intramural competitions as a part of their training.
- ii. To provide opportunities for the trainees to gain experience in officiating.

#### **Methods of organizing and conducting intramural competitions**

The following factors have to be taken into account in conducting the competitions.

1. Type of institutions (residential, non-residential etc).
2. Local and climatic conditions.
3. Facilities available (playground, equipment, leadership, etc).
4. Finance
5. Time at disposal
6. Activities in which students take major interest
7. Co-operation and help that can be expected from colleagues.

## **Units for competition**

The students have to be divided in to several units for the purpose of the competition. The units must be of equal ability and strength. It is better to have 2 or 3 divisions in each unit so that competitions among the highly skilled students can be separately conducted. The formation of the units depends upon the type of the institution.

### **a) Purely resident institutions**

In this type of institutions, competitions can be conducted on inter-hostel or house basis. It can also be conducted on wing or dormitory basis.

### **b) Partially residential institutions**

In this type of institution, students residing in the hostels will be divided into several teams and day scholars will be divided into few teams. The division of the day scholars into teams may be done on area basis.

### **c) Non-residential institutions**

In this type of institution, the units may be formed in anyone of the following ways.

- i. On class basis, among the particular grades (i.e.,) among the classes in the middle school stage, the high school stages etc.
- ii. On index basis, students are divided into super seniors, seniors, juniors and sub-juniors according to their indices. Competitions are conducted among each particular division separately. This is one of the best methods of forming the units because this will be useful for the selection of students, for inter-school competitions.
- iii. In colleges, the units may be either on class basis or on departmental basis.

## **Intramural committee**

The conduct of the intramurals is to be given to an intramural committee. This committee will usually consist of the following..

1. The intramural director will always be the senior physical education teacher. He will be assisted by other physical education teachers of whom one may be appointed as an assistant director of intramurals. Further they will be assisted by class room teachers when competitions are held.

2. Student leaders will be members of the intramural committee. A secretary and joint secretary are to be selected or elected from among these unit leaders. It is the responsibility of this committee to frame rules and regulations for the competitions. It is the duty of the secretary to keep a record of the meetings held, the results of the competitions and the score sheets. Protests, if any, are to be decided by this committee.

## **Activities suitable for competitions**

All major games, swimming, track and field, tumbling and pyramids, demonstration by each unit, defensive arts, rhythmic activities etc, are suitable for competitions. Although most of the above activities can be included in the program, it is better to decide the items in which competitions could be completed within the time at the disposal of the committee.

## **Time**

Intramural competitions shall be conducted all through the year. There will be a heavy program of intramurals during the first and the second terms. During the third term there shall be a light program of intramurals because of the coming examinations.

The time best suited for competitions is after school hours and on holidays. The competition may be conducted either on league basis or knock-out basis.

## **Scoring**

Points shall be awarded for each term of each unit for each activity according to the places they gain. The points gained by a team shall be credited to the unit. There shall be two score sheets, one to enter the points scored by each team in day to day competitions and the other a permanent or consolidated score sheet showing the points gained by each unit. The total points scored by each unit at the end of the competition will decide the intramural champions.

## **Awards**

Some kind of recognition must be given to the winners in each activity and to the intramural champions. Separate shield for each activity and certificates to the winner of each activity may be awarded. The intramural honour board and certificates may be given to the intramural champions. A photograph of the champion unit may be taken and fixed to the honour board.

## **Points to be borne in mind for encouraging larger participation in intramural competitions**

- i. Fix the units for competitions on the basis of the classification obtaining in school(e.g.) Seniors
- ii. Make the competition fair by arranging for balanced teams in each classified unit. Teams may be classified as A,B and C in each unit for each activity.
- iii. Eliminate the members of the school teams from intramural competitions or distribute them equally to the different intramural teams.

- iv. Limit the number of activities in which a student can participate.
- v. Arrange competitions in a variety of activities making use of all facilities of the institutions.
- vi. Award extra points for activities in which the students have less interest.
- vii. Give extra points for 100% participation.
- viii. Frame the rules in such a manner that substitutes shall be put into the game for a specified period of time (For example: In the game of Football or Hockey, substitutes shall play at least for 10 minutes. In the game of Volleyball, substitutes shall play at least for 4 points or 4 side outs in a game).
- ix. Give some award or recognition to the individuals and to the teams winning each activity and also to Intramural Champion team.

## **EXTRAMURAL COMPETITIONS**

Extramural competitions are inter-institutional competitions. They give an opportunity for the representative members of the teams of the various institutions.

There are few benefits as well as drawbacks in the inter-institutional competitions.

### **Benefits**

- i. The standard of performance of participation will improve.
- ii. Loyalty to the institution is developed.
- iii. There is ample scope for the development of leadership, followership and sportsmanship qualities.
- iv. New acquaintances and friendships become possible.
- v. Participants acquire a good knowledge of the places they visit.
- vi. Participants derive pleasure, fun and enjoyment through healthy competitions.

### **Drawbacks**

- i. Sometimes questionable methods are adopted for the sake of victory. Teams try to win by fair or foul means.
- ii. Unhealthy rivalry and jealousy are created.
- iii. Too much of time, money and energy are wasted.
- iv. There is too much of strain on the part of the students.
- v. Some of the participants get puffed up with pride.

The above drawbacks can be easily rectified through proper leadership. Discipline among players must be enforced. However, good a player may be, if he does not turn up without valid reasons for regular training and practice, he shall be excluded from the team. This will have an adverse

effect on the players and discipline can be easily maintained. A good leader should teach the participants respect for rules and regulations, officials, opponents etc.

### **Methods of organizing and conducting Extramural Competitions**

Extramural competitions may be classified and studied under three heads. They are as follows:

- i. Practice matches
- ii. Closed competitions
- iii. Open competitions

#### **i. Practice Matches**

Practice matches may be arranged with neighbouring institutions of a given locality and played. It is advisable to fix the dates and venues of the matches before hand.

#### **ii. Closed competitions**

These are the competitions limited to particular types of institutions. For example: Inter school competitions, Inter collegiate competitions etc.

Generally inter school competitions are conducted by the district school athletic association. All the schools in a district become members of the association by paying the affiliation fees. An executive committee of the association consisting of a President, Secretary, Joint Secretary, Treasurer, and few members will be formed. The district will be divided into few zones and the schools in each zone will compete among themselves. For the conduct of the competitions in each zone, zonal secretary may also be appointed by the association. After the completion of the competitions in each zone the zonal winners will meet with one another in the Inter Zonal competitions for district championship. If time and funds permit, Inter District competitions may also be conducted.

Similarly the affiliated colleges of a particular University may be brought under a few divisions. The colleges in a particular division will compete among themselves to decide the divisional winners. Then the Inter-divisional competitions may be conducted to decide the University champion.

#### **iii. Open competitions**

These are competitions open to all irrespective of the types of the institutions; for example, competitions conducted by the private agencies, the state associations etc.

### **SPORTS MEET**

## **Sports meet are generally of two kinds**

1. Standard sports meet
2. Non standard sports meet

## **STANDARD SPORTS MEET**

### **Method of organizing and conducting a standard sports meet**

The conduct of a sports meet will involve a lot of planning and preparation. The assistance and co operation of several individuals will be required for the successful conduct of the sports meet. The work involved in the organization and the conduct of the sports meet may be studied under 3 heads.

- i. Pre meet work
- ii. Meet work
- iii. Post meet work

#### **i. Pre meet work:**

The following committees have to be formed to conduct the meet efficiently.

#### **1. Organizing committee**

This shall be responsible for the successful and smooth conduct of the meet. Several sub-committees shall function under this committee.

#### **2. Committee for publicity**

This shall announce the date, the place, the events etc, of the meet through press and other sources.

#### **3. Committee for grounds and equipment**

It shall secure the grounds and make arrangements for the proper laying out of track and field. They are responsible for necessary equipment and other materials for the meet.

#### **4. Committee for the officials**

It should write to various persons competent to officiate the track and field events and get their acceptance. It may arrange for presiding officer in consultation with the organising committee.

#### **5. Committee for accommodation and seating arrangement**

This committee is responsible for the accommodation of the competitors and officials coming from outstation. It is responsible for seating arrangements at the athletic arena for

competitors, officials, spectators, guests etc. Arrangements should be made for the parking of cars, cycle etc.

## **6. Committee for reception**

This is responsible for receiving special invitees on the day of the meet and taken to the seats reserved for them.

## **7. Committee for decoration and ceremonies**

This is responsible for decorating the arena and making necessary arrangements for the opening ceremony, victory ceremony and closing ceremony of the meet. This committee may arrange for trophies and other awards.

## **8. Committee for refreshments and entertainment**

This committee's responsibility shall be supplying of refreshments and drinks to the competitors, officials, special invitees etc. They can arrange for some entertainment program at the end of the meet on each day.

## **9. Committee for entries and programme.**

It shall send entry forms early, receiving them in time, allotment of numbers for competitors, arrange the heats, fill in the record sheets with the names and numbers of competitors for the respective events and prepare the program for the meet.

### **The program may be prepared in the following order.**

- a) On the cover page the name of the institution, the name of the presiding officer, the date of the sports meet etc.
- b) The names of the members of the various committees,
- c) The names of the officials ,
- d) Number and names of the competitors according to clubs/houses/institutions.
- e) Order of events
- f) Previous records of the events
- g) Consolidated score sheet.



## **ii) Meet Work**

The officials should report for the meet early. They should be given the badge, copies of programs and concerned record sheets. The competitors shall receive their numbers, program copies and necessary instructions. The meet shall be started with an opening ceremony which consists of March past of the athletes, declaring the meet open, Olympic torch and Olympic oath taking. Then the events shall be conducted according to the program. The victory ceremony will take place as soon as the event is over. After the conduct of all the events as per the program, all the competitors shall assemble for the closing function when the presentation of the trophies, certificates etc, shall take place. With the singing of the national anthem, the meet will come to a close.

## **iii) Post Meet Work**

After the meet is over, it is necessary to settle all the accounts and to return the equipments and other materials borrowed from others. Further thanks giving letters shall be sent to those who helped in the conduct of the meet.

## **NON-STANDARD SPORTS MEET**

Non-standard sports meet is one in which standard rules are not followed but some special rules are framed according to convenience with a view to promote larger participation. This kind of sports meet requires a little time, facilities, leadership etc. There is no credit for individual performance, but importance is given to the teams or groups.

There are a few kinds of non-standard sports meets. They are (A) Mass or Team athletics, (B) Handicap sports, (C) Tele-graphic sports and (D) Tabloid Sports.

### **A. Mass or Team Athletics**

Mass or Team Athletics will be a suitable programme when a larger number of students report for Athletics. The students may be divided into a few teams for the purpose of competition. If 100 students report, they may be divided into four teams each comprising of 25 students. Competition may be conducted in some of the athletic events and the points may be awarded in the order of their performance.

The following methods may be adopted in conducting Mass or Team athletics:

## **For Track Events**

### **1. Follow-on Method**

Divide the students into a few teams of equal strength. One student from each team will have to start with a baton in his hand from the starting line of an oval track. He shall make a lap and pass the baton to the second person of his team. The second person shall make a lap and pass the baton to the third person of his team and so on. Thus the members of the respective teams run and finish the race. According to the order of their finish, points may be awarded.

### **2. Shuttle Method**

Two lines are to be drawn, 100 meters apart. Each team may be divided into two halves, each half being stationed behind each of these lines. On signal, the teams will run a shuttle relay and finish the race. The points are awarded according to the order of their finish.

### **3. Zonal Method**

Draw a starting line. From the starting line fix 3 zonal distances by drawing lines at distances of 75 meters, 85 meters and 100 meters to indicate the zones A, B and C respectively.

Fix a time for running (e.g.) 13 seconds. Award points according to the zonal distances covered by the respective individuals within the fixed time as indicated below:

1. Those who do not cover even zone A within 13 seconds : 0 point
2. Those who cover only zone A within 13 seconds : 1 point
3. Those who cover only zone B within 13 seconds : 2 point
4. Those who cover only zone C within 13 seconds : 3 point

Fix two or three zonal distances, (e.g.) 50', 60', 70' and allot points for each zone (i.e.) 1 point to those who throw between 50' and 60' distance, 2 points for a throw between 60' and 70' distance and 3 points for a throw of 70' and above. Add the points scored by the individual members of each of the teams to decide the winner.

## B. Handicap Sports

This is conducted with a view to give a chance to the weaker boys to participate with interest. For Example, if a 100 meter race is to be run, the good runners have to cover the whole distance, but the weaker boys may be made to start from a specified distance ahead of the scratch line of the race. This gives a reasonable change for the weaker boys to try their best to win and at the same time the good runners are obliged to fight hard to win the race.

## C. Telegraphic Sports

Competition in certain items may be conducted at different places and the results of performance at each place will be telegraphically communicated to a central authority which decides the winner by comparing the performance at each place. This method, no doubt saves time and money, but there is one disadvantage (viz.) the conditions at each of these places may vary which may affect the performance.

## D. Tabloid Sports

This kind of sports is conducted for finding out the all round efficiency of individuals. Usually we will find in a class, boys who are good, average and poor. It is necessary to have competitions separately among these 3 types. It is for this purpose that Tabloid sports may be conducted.

In this sport certain standards are fixed for each type of pupils. Each standard may be called by a Ribbon. Hence this sport may also be called Ribbon test. Usually 3 types of standards are fixed. Therefore it is called Triple Tabloid sports. If we conduct a triple tabloid sports fix the standards as follows:

<b>EVENTS</b>	<b>BLUE</b>	<b>RED</b>	<b>GREEN</b>
100 mts Dash	12.5 secs	13.0 secs	13.5 secs
High Jump	4'6"	4'3"	4'
Shot put(12 lbs)	30'	27'	25'

These events and standards are to be announced well ahead. Each boy must give his name for a particular standard. In fixing the standards, the teacher must use his discretion and fix a

standard neither too high nor low. A boy who competes for a particular standard or ribbon must come up to the standard fixed for all the events. If he fails to reach the standard even in one event he will be awarded the ribbon. These sports may be conducted on team basis also. In this case the result may be determined for a team in any one of the following ways.

1. The number of ribbons won by each team

The team that wins the maximum number will be declared the winner.

2. Awarding points for each type of ribbon.

Total the points scored by each team and decide the winner.

## **TOURNAMENTS**

A Tournament is a competition held among various teams in a particular activity according to a fixed schedule where a winner is decided.

Tournaments are of various types.

1. Knock-out or Elimination Tournaments.

Single knock-out or single elimination.

2. League or Round Robin Tournaments.

Single league.

3. Combination Tournaments.

4. Challenge Tournaments.

In deciding the types of the tournament to be conducted the following factors have to be taken into consideration:

(i) Season (ii) Time at disposal (iii) Grounds and Equipment (iv) Type of the activity (v) Officials and (vi) Finance

## **KNOCK-OUT OR ELIMINATION TOURNAMENTS**

### **Single Knock-out or Single Elimination.**

In this Type of Tournament the teams that are once defeated are eliminated immediately and they will not be given another chance to play. The total number of matches to be played in this tournament

will be  $n-1$  (i.e.) number of teams competing minus 1. For example, if 10 teams are competing the total number of matches will be  $10-1 = 9$ .

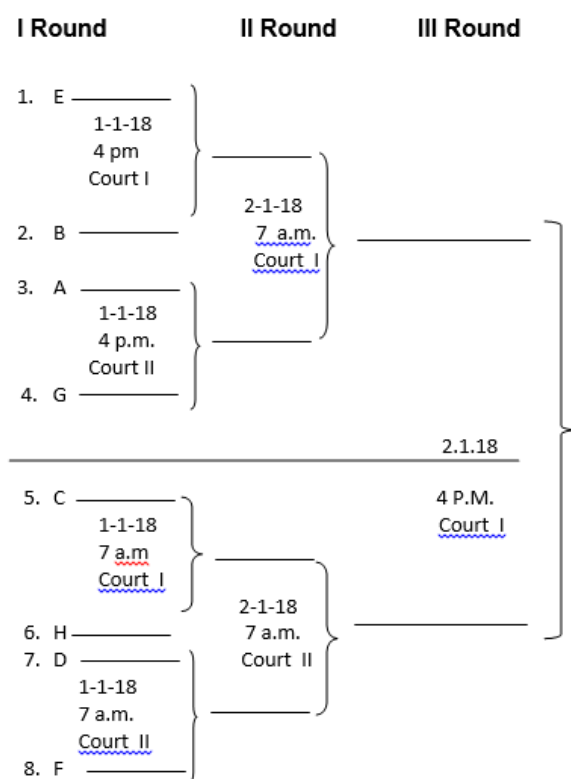
## METHOD OF DRAWING FIXTURES

Drawing fixtures for a certain number of teams competing, the number being the power of TWO (viz),  $2^2, 2^3, 2^4, 2^5, 2^6$  etc. (i.e.) 2, 4, 8, 16, 32, 64 respectively.

Suppose 8 teams A, B, C, D, E, F, G & H have entered for a tournament, the fixtures have to be drawn in the following manner:

Write on a sheet of paper the serial numbers 1 to 8. Take uniform slips of paper, write the name of one team in each slip and fold or roll each of these slips in a uniform manner. Then draw lots one by one. As each slip is taken find out the name of the concerned team and enter it serially on the sheet. Thereafter from the TOP they should be bracketed in pairs for the first round. Then the other rounds also should be bracketed from the top. In each bracket the date, time and place of the match may be indicated as shown below.

### Single knock-out fixture for 8 Teams



In the above example the teams E, B, A & G have fallen in the upper half and C, H, D & F in the lower half.

(b) Drawing fixtures for a certain number of teams competing, the number not being the power of TWO (viz) 3, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17 to 31, 33 to 63, 65 etc.

In this case while drawing fixtures, "BYES" have to be given to a specific number of teams in the first Round so that in the subsequent rounds the number of teams shall be brought to the power of

TWO. BYE is a privilege given to a team (generally by drawing lot) exempting it from playing a match in the first round.

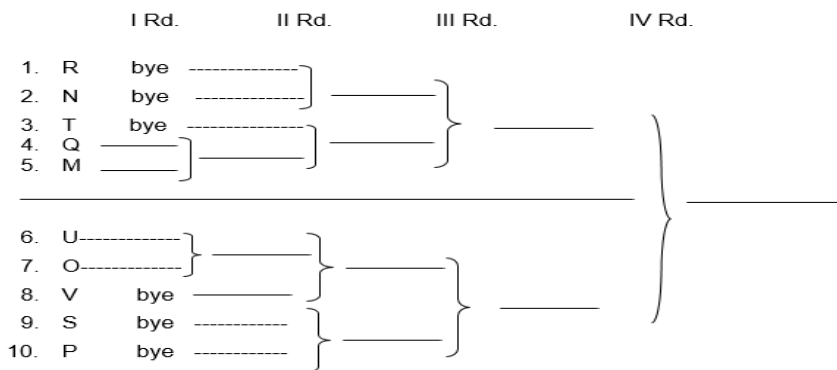
Byes are usually given in the first round because,

- a. a rest before a competition is not so advantageous as a rest after a match;
- b. the intensity of competition may not be of a high degree in the first round.

The number of “Byes” to be given shall be decided by subtracting the number of teams from its next higher number which is the power of two. For example, if 10 teams have entered for a competition the next higher number above 10, which is the power of Two is 16. Hence, the number of Byes to be given shall be  $16-10 = 6$ .

We shall now deal with the method of drawing fixtures for 10 teams M, N, O, P, Q, R, S, T, U & V that have entered for the competition. Write on a sheet of paper the serial numbers 1 to 10. We know that the number of byes to be given is  $(16-10) = 6$ . Hence at first we have to draw lots for giving byes. Use slips of paper for drawing lots. As each slip is taken find out the name of the concerned team receiving the benefit of bye and enter it alternately in the lower half and in the upper half of the fixtures. Suppose the order in which the lots are drawn for byes is P, R, S, N, V & T, they have to be entered alternately in the lower half and in the upper half of the fixture. P is entered in the serial number 10; R in 1; S in 9; N in 2; V in 8; and T in 3 (as shown in the example given below). The serial numbers 4, 5, 6 & 7 are vacant. The teams M, O, Q & U are not yet entered in the fixture. Now lots are to be drawn for these four teams. Suppose the order drawn is Q, M, U & O, they have to be entered in the vacant numbers from the top, in the order in which they are drawn. Then these teams that are not given byes are bracketed in pairs and they play in the first round while the teams that got the byes will be playing in the second round. For the second and the subsequent rounds the teams in pairs should be bracketed, starting from the Top. See the fixture given below.

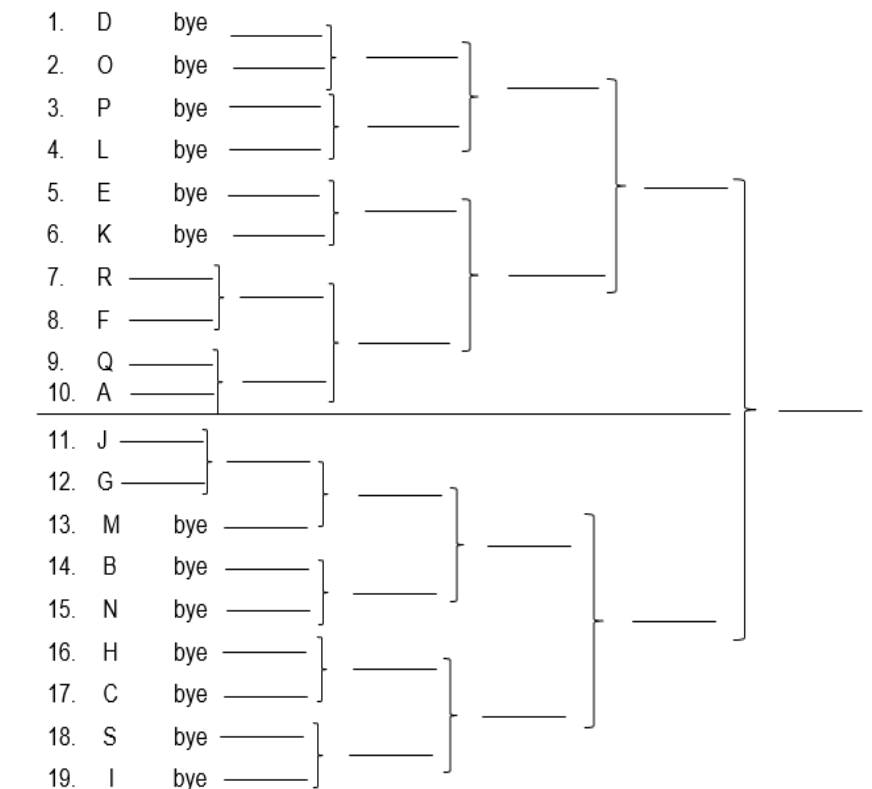
**Single knock-out fixture for 10 teams**



Example for single Knock-out fixture for 19 teams

Number of Byes  $32-19=13$

I Rd.                  II Rd. III Rd.    IV Rd.          V Rd.



Method of determining the number of teams in the Upper half and in the Lower half.

- (a) When there are even }  $n/2$  in the Upper half  
number of teams }  $n/2$  in the Lower half

( $n$  indicates the number of teams)

Example :- 10 teams       $10/2$  i.e., 5 in the Upper half  
     $10/2$  i.e., 5 in the Lower half

- (b) When there are odd }  $\frac{n \text{ plus } 1}{2}$  in the Upper half  
number of teams }  $\frac{n \text{ minus } 1}{2}$  in the Lower half

Example :- 19 teams       $\frac{19 \text{ plus } 1}{2}$  i.e., 10 in the Upper half  
     $\frac{19 \text{ minus } 1}{2}$  i.e., 9 in the Lower half

**Method of determining the number of byes to be given in the Upper half  
and in the Lower half.**

- (a) When there are even }  $\frac{nb}{2}$  in the Upper half  
number of byes }  $\frac{nb}{2}$  in the Lower half

(nb indicates the number of byes)

Example :- 6 byes       $\frac{6}{2} = 3$  in the Upper half  
                                  $\frac{6}{2} = 3$  in the Lower half

- (b) When there are odd       $\frac{nb \text{ minus } 1}{2}$  in the Upper half  
number of byes       $\frac{nb \text{ plus } 1}{2}$  in the Lower half

Example :- 13 byes       $\frac{13 \text{ minus } 1}{2} = 6$  in the Upper half  
                                  $\frac{13 \text{ plus } 1}{2} = 7$  in the Lower half

**Merits and Demerits of Single Knock-out or Elimination Tournaments**

**Merits:**

- i. The tournament can be finished in a short time.
- ii. There will be economy of expenditure.
- iii. The competition will be keen and intense because of the fear of elimination of a team from the tournament, the moment it is defeated.

**Demerits :**

- i. A team may get itself eliminated by chance or by accident and it will not have another chance to play and show its worth.
- ii. A winner of a match in a particular round may have to wait to meet the winner of another match of the same round or the previous round.
- iii. If a fixture is drawn purely by lots the fixture may become defective since there is the possibility of the strong teams being matched together in the earlier rounds and got eliminated, thereby giving room for the weaker teams to move to the semifinals and the finals.

**LEAGUE OR ROUND ROBIN TOURNAMENT**

**(a) Single League:**

In this type, every team shall play once with every other team. The total number of matches in a single league shall be  $n(n-1) \div 2$ . For example, if 8 teams are competing, the number of matches shall be  $8(8-1) \div 2 = 28$ .

**(b) Double League:**



In this type, every team shall play twice with every other team. The total number of matches in a double league shall be  $n(n-1)$ .

### Merits and Demerits of League Tournament.

#### Merits:

1. It decides the true winner.
2. Greater number of matches can be played by the teams.
3. It helps in ranking all the competing teams.
4. The teams need not wait for the completion of the other rounds as in single elimination tournament.

#### Demerits:

1. It involves lot of time and facilities.
2. Teams that get defeated often will lose interest in the game.

### Method of drawing fixture for Single League

#### 1. Cyclic Method

**Fixture for 6 Teams :- No. of matches**  $\frac{6(6-1)}{2} = 15$

	I Rd.	II Rd.	III Rd.	IV Rd.	V Rd.
↑	6-1	5-1	4-1	3-1	2-1
	5-2	4-6	3-5	2-4	6-3
	4-3	3-2	2-6	6-5	5-4
↓					

**Fixture for 7 Teams:- No. of matches**  $\frac{7(7-1)}{2} = 21$

	I Rd.	II Rd.	III Rd.	IV Rd.
	7 - bye	6 - bye	5- bye	4 - bye
↑	6-1	5-7	4-6	3-5
	5-2	4-1	3-7	2-6
	4-3	3-2	2-1	1-7
↓				

V Rd.	VI Rd.	VII Rd.
3 – bye	2 – bye	1 - bye
2 – 4	1 – 3	7 - 2
1 – 5	7 – 4	6 – 3
7 – 6	6 – 5	5 – 4

In drawing the fixture according to cyclic method, fix number 1 in the case of even number of teams and fix bye in the case of odd number of teams and rotate the other numbers clockwise as shown in the above fixtures. The total number of rounds in a single league tournament shall be as follows,

- i. for even number of teams, n-1 rounds.
- ii. for odd number of teams, n rounds.

(n represents number of teams)

## 2. Tabular Method

Fixture for 6 teams.

	A	B	C	D	E	F
A		1	2	3	4	5
B			3	4	5	2
C				5	1	4
D					2	1
E						3
F						

Fixture for 7 teams

	A	B	C	D	E	F	G	bye
A		1	2	3	4	5	6	7
B			3	4	5	6	7	2
C				5	6	7	1	4
D					7	1	2	6
E						2	3	1
F							4	3
G								5
bye								

10

In this method the fixtures are drawn in a tabular form. The number of columns to be drawn horizontally as well as vertically shall be as follows,

- i. for even number of teams,  $n+1$  columns
- ii. for odd number of teams,  $n+2$  columns

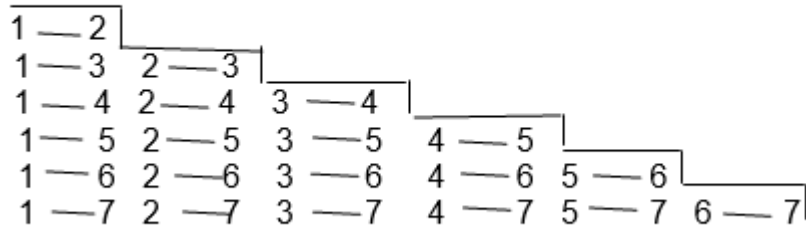
Having drawn the required number of columns (horizontally and vertically) draw a line diagonally from the left top-most corner to the opposite corner. Then enter the teams (and bye if needed) in the squares of the top-most horizontal column and also in the squares of the first vertical column as shown in the diagram. The squares that fall on one side of the diagonal line except the squares in the BYE column indicate the matches to be played in a single league. The numbers that are entered in the squares indicate the particular rounds in which the concerned teams have to play. The dates on which the matches of a particular round can be played may be entered in the concerned squares.

### Procedure for entering the numbers inside the squares Indicating the rounds

In the squares of the horizontal column immediately below the teams, enter the numbers serially from number 1 onwards. The number in the last square of that horizontal column indicates the maximum number of rounds for the league (see the examples given above). Then in each vertical column (except the last vertical column) enter the numbers serially starting from the number next to that found at the top. The serial numbers to be entered in any of the squares should not exceed the number indicating the maximum number of rounds. The entry of numbers in the squares of the last vertical column will be as follows.

Note the number entered in the top square of this column. In the next square enter number 2. Then proceed entering numbers in the other squares every time adding 2, (I.e., 4, 6, etc.) until the number becomes 1 less than the number at the top-most square. After this, enter number 1 in the next square and proceed entering the numbers in the other squares every time adding 2, (i.e., 3, 5, etc.) until the bottom-most square is filled up. It may be noted that the number of the bottom-most square will be 2 less than the number at the top-most square. (see the examples given)

## 2 Stair case method



The fixture can also be drawn as shown above, but there are certain draw-backs. (viz)

- i. It does not indicate the number of rounds to be played.
- ii. It is not so easy to fix the dates for the matches of the concerned rounds as in the case of either the Cyclic Method or the Tabular Method.

### Method of deciding the Winner in a League Tournament

The winner of the league tournament will be decided on the basis of the points scored by the respective teams. Generally points are awarded as follows:-

- For a win..... 2 points
- For a defeat..... 0 points
- For a draw..... 1 point (each)

The team that gets the maximum number of points will be declared the winner. In case of a tie it shall be broken according to the rules framed by the tournament authorities prior to the commencement of the tournament.

We suggest below a procedure for breaking a tie in a league tournament.

1. The team that has won over the other in the regular league tournament shall be
2. awarded the higher place.
  - a. If the tie still remains because of a drawn game among the tying teams, the team
  - b. that has won greater number of matches in the regular league tournament shall be awarded the higher place.
3. If the tie still remains, it shall be decided by considering the score (goals or points)
4. for and against obtained by the tying teams in the whole tournament and the team that has obtained the greater balance of score shall be awarded the higher place. (see the example given below)

Team	Game	Score for the whole tournament		Balance	Winner
		For	Against		
A	Football	12	6	6	1 <sup>st</sup> .
B	Football	16	12	4	2 <sup>nd</sup> .
X	Basketball	149	85	64	1 <sup>st</sup> .
Y	Basketball	120	80	40	2 <sup>nd</sup> .

**iv. If the tie still remains and:**

- a. If it concerns the first place, the tying teams shall play again to decide the winner. If a replay is not possible the winner may be decided by a toss, though not desirable.
- b. If it concerns any other place, the teams shall be awarded the same place.

**Questions for Discussion and Reflection**

1. Discuss the history and development of Yoga.
2. Explain the Twelve stages of Surya Namaskar.
3. Describe the scope of the school health education programme.
4. Discuss the role of teachers on AIDS education.
5. Explain the causes, symptoms and treatment of any five communicable diseases.
6. Analyse the causes, symptoms and treatment of any two life style disorders.
7. Describe the scope, need and importance of Physical Education.
8. Discuss the effects of exercise on muscular, circulatory, digestive, nervous and respiratory systems.
9. What are the factors have to be taken into account in conducting intramural and extramural competitions.
10. Explain the various types of tournaments.

**REFERENCES**

1. Aruna Goel, (2007). Yoga education: Philosophy and practice, New Delhi: Deep & Deep Publications.
2. Ashwani Kumar (2015). Yoga: A way of life. New Delhi: Khel Sahitya Kendra.
3. Aggarwal J. C. (1996), teacher and education in a developing society. New Delhi: Vikas Publishing House.
4. Dash, B.N. (2004) Trends and issues in Indian education. New Delhi: Dominant Publishers.
5. Getchell Bud (1992), Physical fitness a way of life, New York: Macmillan publishing company.
6. Goel S. L. (2008), School health education, New Delhi: Deep & Deep Publications.
7. Govindan. M , (2009) B.Ed study material, DDE, Annamalai University.

8. Hariharan .S & Tirunarayanan .C (1969) Methods in physical education, Karaikudi (T.N): South India Press.
9. Hassanagas, P.K. (1996) “Yoga in the culture of labour based on research” Arya Vidya Sala Kottakhal and University of Calicut, Holistic life and medicine, sixth world congress on holistic life and medicine held at Calicut, Kerala, 5-7 July, 1996 pp 127-128
10. Keith Tones et. al. (1990). Health education, effectiveness and efficiency. Madras (T.N): Chapman & Hall,
11. Kumar Amresh, ( 2007), Physical education, sports & health, New Delhi: Khel Sathiya Kendra.
12. Mishra R.C. (2005) HIV/AIDS education, New Delhi: A.P.H. Publishing House.
13. NCTE, (2015). Yoga Education: Bachelor of Education Programme. New Delhi: NCTE.
14. NCTE (2015). Yoga education: Diploma in elementary education, New Delhi: NCTE.
15. Prakash Bhatlavandle and Raman Gangakhedkar. (2001), On the horizon of adulthood, New York: UNICEF.
16. Saket Raman Tiwari et. al. (2007). Health education, New Delhi: APH Publishing House.
17. Yadav, A.K. (2007), HIV/AIDS Problems, causes and control. Cyber tech. publications, New delhi-110002
18. <https://brainly.in/question/1114041#readmore>
19. <https://www.importantindia.com/23120/physical-education-25-benefits-of-physical-education/>
20. <http://www.sasd.k12.pa.us/WhydoourstudentsneedPhysicalEducation.aspx>
21. <https://www.fitday.com/fitness-articles/fitness/body-building/the-5-components-of-physical-fitness.html>
22. <https://medical-dictionary.thefreedictionary.com/physical+exercise><https://www.importantindia.com/16027/physical-exercise/http://www.ivyroses.com/HumanBody/Muscles/Effects-of-exercise-on-muscles.php>
23. <https://livewell.jillianmichaels.com/happens-circulatory-system-during-exercise-4370.html>
24. <http://livingfood101.com/the-benefits-of-exercise-for-a-healthy-digestive-system/>
25. <https://www.sharecare.com/health/healthy-habits-nervous-system/physical-exercise-keep-brain-healthy>
26. <https://healthyliving.azcentral.com/effects-exercise-respiration-9234.html>

&&&&&&&&&&