
UNIT 10 CURRICULUM

Structure

- 10.1 Introduction
- 10.2 Objectives
- 10.3 Curriculum : The Concept
- 10.4 Bases of Curriculum Construction
 - 10.4.1 Philosophical Bases
 - 10.4.2 Sociological Bases
 - 10.4.3 Psychological Bases
- 10.5 Approaches to Curriculum Construction
 - 10.5.1 Subject-centred Curriculum
 - 10.5.2 Child-centred Curriculum
 - 10.5.3 Life-centred Curriculum
- 10.6 Characteristics of a Good Curriculum
 - 10.6.1 Relevance
 - 10.6.2 Flexibility
 - 10.6.3 Sequencing and Grade Placement
- 10.7 Activity-based Curriculum
- 10.8 Competency-based Curriculum
- 10.9 Planning and Transaction of Curriculum
 - 10.9.1 Centralised Vs. Decentralised Curriculum
 - 10.9.2 Curriculum Transaction
- 10.10 Let Us Sum Up
- 10.11 Unit-end Exercises

10.1 INTRODUCTION

As practicing teachers you must have used terms like ‘syllabus’ and ‘curriculum’. At the beginning of each session you get a copy of the syllabus for the class for subject you are assigned to teach. What does this syllabus contain? The syllabus contains a list of the topics to be taught, the objectives of teaching the subject, the weighing given to each topic in terms of marks and instructional hours. Sometimes the scheme of examinations is also contained in this syllabus. In addition to this copy of the syllabus you also get the prescribed text-books, work-books and teachers’ guides from your school. Do these also form a part of the syllabus? Besides teaching the prescribed syllabus, you also provide a variety of learning experiences to students through such activities as morning assembly, science exhibition, team games, sports, cultural functions and other co-curricular activities. Under what heading would you include these activities? All these activities and instructional material are covered under a broad concept called curriculum. How is this curriculum prepared? Who prepares this curriculum? What are the guiding principles in the construction of a curriculum? How should this curriculum be transacted? These are some of the questions that we shall try to answer through this Unit.

10.2 OBJECTIVES

After going through this unit, you will be able to:

- describe the concept of ‘curriculum’;
- explain the philosophical, sociological and psychological principles of curriculum construction;
- participate in the construction of child-centered curriculum;
- distinguish between subject -centered and child -centered curriculum;
- design activities for activity-based curriculum;
- explain the concept of competency-based curriculum and MLIs;
- enumerate characteristics of good curriculum;
- transact curriculum in an effective manner;
- describe factors/principles in curriculum planning.

10.3 CURRICULUM : THE CONCEPT

Traditionally the curriculum was considered as the totality of skills and topics to be taught in the schools. Till 1950 there was no formal document in the name of ‘curriculum’. The only formal document was ‘syllabus’ which contained a list of topics, their sequences and sometimes, time allotted to each topic. This syllabus was quite stable over a number of years. Whenever a revision was required, adhoc committees were constituted and modifications were made. The term ‘curriculum’ came into general use when the new curriculum movement of 1950s gained momentum. A number of definitions were evolved during 1960s and 1970s explaining the concept, scope and characteristics of curriculum. In the following section the concept and some accepted definitions of curriculum have been explained.

Taba (1962) defined curriculum as “a plan for learning”. Good (1973) defined 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 certification”.

Based on these broad definitions of curriculum, curriculum experts in 1960s and 1970s started developing curriculum packages containing text-books, work-sheets, teacher’s guides, demonstration charts, study enrichment material, equipment and material for experimentation and audio-visual aids, such as film clips and video cassettes. These packages contained mainly the physical objects based on a curriculum. In 1980s it was pointed out that this definition of curriculum ignores the learner. MacDonald (1987) and Portelli (1987) pointed out that curriculum should comprise learning experiences and not be a mere ‘plan for learning’. Definitions of curriculum formulated during the 1980s therefore contained:

- i) curriculum plan and outline;
- ii) instructional material to be used by learners and teachers such as text-books, work-books, teacher’s guides, teaching aids, enrichment material, remedial learning material etc.;
- iii) teaching-learning activities to be carried out to realise the curriculum plans;
- iv) previous learning experiences and background of learners;
- v) levels of achievement or mastery level of curricular objectives to be achieved by the learner; and
- vi) scheme of evaluation, along with suggested procedures and tools.

During the 1980s, it was realised that there can be a variety of instructional materials for implementing or transacting the same curriculum. That is, a series of text books and other instructional material can be developed on the basis of same curriculum. Therefore, educational authorities started encouraging the production and use of a variety of competing instructional materials provided each of these followed the given curriculum. In 1990s the definition of curriculum was again modified to accommodate the individual difference and unique character of each individual learner. Some psychologists defined curriculum as those experiences which an individual experiences in the school. On the basis of this definition, two individuals studying in the same class may encounter different curricula.

From the above discussion it may be concluded that curriculum is a means to achieve a set of educational objectives. Curriculum development is a continuous process and it refers to the plan or programme for all experience which the learner encounters under the direction of the school that lead to learning.

Activities

1. List and categories the contents of class II language' matematics environmental studies syllabus of your school.
2. List the various co-curricular activities organised in your school.

10.4 BASES OF CURRICULUM CONSTRUCTION

The curriculum design is based on the objectives of education and it tries to answer such question as the following:

- i) What are the aims and objectives of education?
- ii) What educational experiences should be provided to attain these objectives of education?
- iii) How can these educational experience be effectively ortganised?
- iv) How can it be determined whether or not these aims are being achieved?

Philosophers, sociologists and psychologists have tried to answer these questions from different perspectives. Some philosophers believe that the aim of education is to discover eternal truth and inner goodness of an individual. Sociologists consider that the aim of education is to serve the needs of society. Psychologists, on the other hand, consider education from the point of view of the children — their needs and interests. They believe that the purpose of education is to develop abilities and talents of children. A good curriculum takes into account different perspectives of education viz. philosophical, sociological and psychological. This section discusses some of the basis principles which have influenced education all over the world.

10.4.1 Philosophical Bases

A good curriculum generally has a sound philosophical base. Different educational philosophies developed in different parts of the world have influenced education and curriculum in our schools. Education in our country has been greatly influenced by the thoughts of Tagore and Mahatma Gandhi. Indian philosophers like Vivekanand, Tagore and Sri Aurobindo considered education as a means of individual development and perfection. Mahatma Gandhi, the father of our nation, maintained that education should provide for all-round development of a child and it should also help him/her to earn a meaningful livelihood. Mahatma Gandhi's concept of 'Basic Education' has influenced and shaped our primary education to a great extent. The objectives of education laid down in the basic education include intellectual development, manual and social skills, value and cultural education. The curriculum should contain such content which can help in the all-round development of the child and character building. The learning experiences

provided through the curriculum should be related to the child's environment and also to the world of work. Basic education emphasized the use of mother tongue as medium of instruction. Dr. Zakir Hussain supported Ganhiji's concept of basic education and stressed on evolving a National System of Education. Dr. Radhakrishnan emphasized that the aim of education is the individual development — intellectual as well as spiritual. He believed that social development is possibly only when basic units in a society that is, individuals are provided opportunities to grow and realise their potentials. Indian philosophers have emphasized individual development and perfection.

Educational philosophies of Plato (Idealism), Aristotle (Realism), and John Dewey (Pragmatism) have also influenced educational curricula the world over. Plato advocated the philosophy of idealism according to which truth and values are eternal and the aim of education is to discover the truth. According to this philosophy, education should provide such opportunities to children which help them in discovering spiritual goodness and in strengthening their inner qualities. The curriculum should therefore contain content that promotes moral values and virtues. Aristotle developed another philosophy of education called 'Realism'. According to this philosophy truth can be discovered by studying the reality or the world of matter. The aim of education should be to provide children the real knowledge about the world. The role of teacher is important here, because the teacher provides relevant Knowledge and experiences of the world to the children. John Dewey propagated the philosophy of pragmatism. He believed that education should be related to the experiences and environment of children. The curriculum should provide opportunities to children to experience, to explore and to learn from their environment. All these philosophies have influenced our school curricula a great deal.

10.4.2 Sociological Bases

Sociologists believe that the purpose of schooling is to serve the needs of society. The curriculum should therefore be based on perceived needs of the society. However, sociologists have interpreted social needs in a number of ways, such as the status quo perspective, the reformist perspective and the futuristic perspective. The status quo perspective seeks to perpetuate the existing social order. The curriculum according to this view should contain such knowledge and skills which children will need as adults to fit into the existing social order. The curriculum content should be based on the most important aspect of social reality.

The reformist perspective views education as a means of reforming the society. The curriculum should therefore prepare children for reconstructing the society in to a more perfect one. Therefore Brameld presented a reconstructionist curriculum design based on major problems confronting the society such as war, crime, poverty and social conflict. He believed that students need to become skilful planners of society and make society more just and democratic. Schools are not merely to follow the existing ways of society; they are to help society achieve greater equity and justice. More recently, Henry Giroux has written forcefully in support of social reconstructionism. Indian social reformers like Madan Mohan Malviya and Raja Ram Mohan Roy also advocated social reconstructionism.

The futuristic perspective experts students to face the challenge of accelerating technological progress and to accept and accelerate scientific revolution. The futurists believe that curriculum should prepare students to deal effectively with extraordinary challenges and consequences that experts believe are likely to occur. The role of school is to develop skills and useful knowledge so that students can participate in decision-making process and decide upon and support the future direction of society.

Students should therefore, be provided such learning experiences which enable them to achieve productive transition from contemporary realities to the likely future of society. The futurists are thus more bound to the processes of anticipating and acting upon their perceived images of probable future, Pandit Jawahar Lal Nehru had a futurist vision of education. He emphasized that science and technology should be given proper place in the curriculum. He also laid stress on the development of scientific attitude and scientific

temper among students. He believed that society has to face the challenges of future in order to progress and children to today will given leadership and direction to future society.

10.4.3 Psychological Bases

Psychological believe that true curriculum is what learners internalise from their within the school experience. In other words what children, experience in school and the interpretations they make of their experiences by themselves comprise the real curriculum. Essentially this means that the psychological curriculum can be a product of any set of experience organised by the school. The next question is what kind of experience will most adequately and effectively help the child's inner or psychological curriculum in the best possible way for him. Weinstein and Fantim's curricular moder (1970) suggests that the first step in curriculum development should be 'diagnositc step'. It is important to analyses the societal forces acting on the learner and also to identify learners' awareness skills in terms of their feelings. The curriculum content should be based on the concerns of the learners and instructional methodolgy should match with the learning styles of students. The psychological curriculum as represented by Weinstein and Fantim is known as 'confluent curriculum'. This curriculum stresses the integration of thinking, feeling and acting. The integration of the cognitive, affective and psychological domains along with the attention given to socialisation makes the psychological curriculum more meaningful and the teacher plays the leading role in its implementation. The teacher is incharge of students' experience. Almost all school curricula have a strong psychological base.

Check Your Progress

Notes: a) Write your answers in the space given below.

b) Compare your answers will those given at the end of the unit.

1. What do you understand by 'curriculum'? Describe in about 30 words.

.....

2. Fill in the blanks with appropriate words in the following statement:

a) Psychologists believe that the true curriculum is what learners
 from their.....

b) curriculum is one that prepares learners
 to shape the future society.

c) Gandhiji's concept of basic education includes
anddevelopment of the child.

d) curriculum is based on the belief that education
 is search for eternal truth.

10.5 APPROACHES TO CURRICULUM CONSTRUCTION

Based on the principles of philosophy, sociology and psychology, various approaches to curriculum construction have been developed. In practice the following three approaches are commonly used :

- i) Subject-centered approach
- ii) Child-centered approach
- iii) Life-centered approach

10.5.1 Subject-centered Curriculum

In the subject-centred curriculum, the subjects knowledge occupies the central position. The purpose of subject-centred curriculum is to transmit to the younger generation that knowledge which is most 'important' to all humankind. The advocates of subject-centered curriculum believe that the needs of individual an society are best served if the curriculum is based on knowledge that is generalisable to groups or classes of situations. The subject-centered curriculum, thus, consists of an array of knowledge structures from different disciplines such as science, arts and mathematics.

These subjects are treated as distinct entities, each requiring almost equal time for classroom instruction. Knowledge is communicated to students mainly through classroom instruction.

It has been pointed out by many educationists that knowledge has grown exponentially during the past fifty years and the number of subjects has also increased. But our school curricula have been static and same subjects are offered in school year without any substantial change. School curriculum have not kept pace with the growth of knowledge. The debate still continues as to which knowledge is most important or worth teaching in schools. The restructuring and multiplication of knowledge poses significant change for the curriculum designers. The essential question for curriculum designers is that how many disciplines can be reasonably added to the existing school curriculum? Another question posed by educationists about subject-centered curriculum is that if knowledge is changing rapidly, then why students should be made to memorise content that is likely to change significantly by the time they reach their adult years. To answers to the first question i.e. How many more subject can be added to existing school curriculum? The curriculum designers have suggested an integrated knowledge perspective and to answer the second question, the process was suggested as content perspective.

Integrated Knowledge Perspective

Integrated Knowledge curriculum presents knowledge in a more holistic manner. An integrated approach to knowledge was seen as a way of avoiding an unreasonable multiplication of the subjects that students have to study. Throughout the twentieth century there have been debates on (i) whether curriculum should approach knowledge as an integrated whole and (ii) if integration is desirable, by what principles it should be achieved. Francis Parker believed that knowledge as naturally encountered by the child in daily life should serve as the basis for integration. Two different designs of integrated knowledge curriculum are the correlation curriculum and the broad-fields curriculum. The correlated-curriculum would leave the traditional subjects intact but would articulate their contents to emphasize a set of commonalities. The purpose of this approach is to decrease the fragmentation of learning that arises from compartmental subjects. Subjects are not modified in any way, they are simply arranged so that linkages become obvious. The broad-fields curriculum encompasses several related but specialised subjects. For example, a course in general science can draw content from physics, chemistry, botany, zoology and geology.

The Process as Content Perspective

This perspective of curriculum is a dynamic representation of how scholars actually engage in their inquiry activities. The students do not focus on learning facts, but on learning basic concepts and principles that will be used in the process of discovering/producing knowledge. The process as content perspective was especially popular during 1960s and early 1970s, when Bruner introduced the concept of process learning in his book entitled. "The Process of Education". According to Bruner, intellectual activity is same whether a third grade students is solving a problem or a scientist is discovering a solution to a problem. A critic uses the same processes in reading a poem as nay one else. The difference is of degree and not of kind. The idea of discovery learning involving the processes of inquiry had wide-spread appeal. Parker and Rubin maintained that school curriculum should provide students with basic processes through which one

acquires knowledge. The discovery approach appears to be useful for integration of various scientific disciplines especially in the earlier grades, by introducing children first to “the most fundamental understanding that can be achieved of the underlying principles that give structure to that subject”. Bruner conceptualized children as little adults who could emulate adult scientists.

10.5.2 Child-centred Curriculum

Child-centered curriculum considers children as individuals who learn differently from adults. In such a curriculum the characteristics of the child dominate the curriculum. The child-centered curriculum perspective was accepted and propagated by John Dewey, Rousseau, and Parker, although they all have different perspectives of childhood. Under the Rousseaurian perspective of childhood, each child has innate goodness and the aim of education is to develop the child’s innate goodness and to protect him/ her vices and errors of adults. During early years, children should be allowed free play in natural settings. Between the ages of five and twelve, sensory and concrete experiences should dominate their learning. Abstract subjects such as geography and history should be abolished from the primary stage curriculum. Only after the twelfth year children should be introduced to abstract learning. An existentialist perspective of childhood is fundamentally different from the Rousseaurian perspective. In Rousseaurian perspective, the aim of education is to protect the child from the degeneration of adulthood. Under the existentialist perspective, children must find their own way toward a meaningful life and must also define the parameters of quality life in the highly individualistic terms of “self”. The purpose of education is to foster the knowledge of self, the ability and sensitivity to express one’s innermost consciousness and personal skills of valuing and choice-making. The arts, drama and music as vehicles of self-expression and development, along with sensitivity training should be included in the child-centered curriculum. Both subjective and objective knowledge are important if the individual is ultimately to take responsibility of self. Under the existential concept, the teacher follows a set of very broad goals that on the whole encourage children to develop in their own way, while under the Rousseaurian conception, the teacher has to provide opportunities for learning but the child is to learn without the benefit of the teacher’s direct intervention.

Francis Parker, Pestalozzi and Froebel considered the child-in-society perspective of childhood. They believed in the child’s active involvement in real world experience as the means of learning. Parker crusaded against “unnatural teaching methods” and “isolated subject matter learning”. He believed that learning must follow natural way in which the child experience the life and constructs the knowledge of the world around. For example, geography should be learnt through field trips or by sketching different kinds of landscape, rather than by reading and memorizing a textbook. Instead of emphasizing the study of grammar, writing and conversation about children’s everyday activities should be stressed as the primary vehicle of language instruction. Artificial divisions among the subjects should be ignored for the sake of holistic learning and experience. John Dewey was of the view that children learn by interacting with elders and they learn to act in acceptable and even praiseworthy ways because they naturally seek approval. As societies grow more complex, children need more formal education to master the complexities of living. Education brings meaning to the experiences of children. According to Dewey, “Education is reconstruction or reorganisation of experiences which adds meaning to the experiences of children and increases their ability to direct the course of subsequent experience”.

According to Dewey, the curriculum should contain what is of intrinsic worth to students. Students will be motivated to learn only that which they can relate to their own experience. Such content has value because it helps them to understand their environment. Self-motivation is Dewey’s key to effective education.

10.5.3 Life-centered Curriculum

The International Commission on Education (1999) emphasized on the concept of life-long learning. Education throughout life is based on four major principles or pillars:

- i) Learning to know;
- ii) Learning to do;
- iii) Learning to be; and
- iv) Learning to live together

Learning to Know

We should lay stress on combining a sufficiently broad general education with the opportunity of working at depth on a number of selected subject. Such a broad general education will develop essential skills and become a means of learning to learn any lay the foundations for learning throughout life.

Learning to Do

Students should be provided opportunity to work on various work experience schemes or social work while they are still receiving education. Education should help in developing such abilities and competencies which would enable students to deal with a variety of situations. Importance should be given to team work and to methods of combining study with work.

Learning to Be

The aim of education is to develop the potential and talents hidden in every person. These include memory, reasoning power, imagination, physical ability, aesthetic sense, aptitude to communicate with each other and the natural charisma of group leadership. The emphasis here is on self-knoweldge and development of personality.

Learning to Live Together

The Commission put greater emphasis on ‘Learning to live together’, and has described it as “the foundation of education”. By developing an understanding of others and also of their own history, tradition and spiritual values; by analysing challenges of the future and by recognising our growing interdependence, a new spirit for a peaceful world order can be created. Education would create and underlie this new spirit which will develop the values of pluralism, mutual understanding and peace. This will help us to live together and to work together and resolve conflicts peacefully. The other three pillars according to the Commission are equally important.

The curriculum prepares children for life long learning and to meet the challenges of future when as grown-ups they will be required to exercise greater independence and judgement combined with a stronger sense of personal responsibility for the attainment of common goals.

Activities

1. Rewrite the curriculum for Class V Environmental Science in terms of subject-centered curriculum.
2. Rewrite the language curriculum of Class II of your school using child-centered approach.
3. Select and list any four activities of your school which prepare students for life-long learning.

Check Your Progress

- Notes:** a) Write your answers in the space given below.
- b) Compare your answers will those given at the end of the unit.

3. Describe subject-centered approach to curriculum construction in about 50 words.
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-
-
-
4. What are the major characteristics of “life-centered curriculum”?
-
-
-
-
5. Fill in the following blanks with appropriate words.
- a) According to John Dewey, education should be related to
.....and of the child.
- b) Process as content approach advocates
method of teaching.
- c) In approach, General Science curriculum
can contain content of physics, chemistry, biology and geology.
- d) Learning to live together emphasize the value of
and

10.6 CHARACTERISTICS OF A GOOD CURRICULUM

A good curriculum should be comprehensive, relevant, flexible, sequenced (graded) and child-centered. It should provide a wide range of learning activities and situations to suit the needs of the individuals and the society. Some of these characteristics have been described below.

10.6.1 Relevance

A curriculum is said to be relevant when it fulfills the needs of the child, the society and the nation. A curriculum may appear to be relevant at one period of time but may not be so relevant at some future period of time. Relevance also implies that the curriculum is useful and appropriate in the particular social context and time period. The criteria for relevance are based on the accepted philosophy of education the goals of education, socio-cultural ethos of the society, background of the learners, resources and materials available and needs of the individuals. A relevant curriculum must answer questions such as :

- i) Does it help in achieving the goals of education?
- ii) Can it be adapted and used by different schools under diverse learning situations?
- iii) Is it in agreement with the educational policies of the country?
- iv) Does it fit into the socio-cultural milieu of the learners.?
- v) Does it address itself to students with different background?
- vi) Have the field realities been taken into consideration?
- vii) Does it make use of available resources and materials?
- viii) How it taken it to account the development status of the disciplines i.e. growth of knowledge in each discipline?

A relevant curriculum should meet the needs and aspirations of the individuals. Knowledge is continuously growing, the socio-economic status of society is also changing and the demand on educational system are changing and increasing. To be relevant, the curriculum should be dynamic. The curriculum should also be reviewed every 3-5 years to judge its relevance. Curriculum should also be broad and diversified in order to be relevant to a large number of individuals and to different sections of the society. Research evidence based on empirical data should also be considered while reviewing the curriculum for its relevance.

10.6.2 Flexibility

In India, we have diverse learning conditions in different regions and schools. The curriculum, therefore, should be flexible enough to be adopted in diverse learning situations and contexts by different schools. Flexibility is in fact one of the conditions for curriculum to be relevant. The curriculum should be flexible enough so that it can be tailored to meet the requirements of all categories of children such as rural children, children with lower class background; bilingual children, children of migratory workers and also exceptional children. The school curriculum is usually based on the concepts, meanings, value patterns and cultural backgrounds familiar to the middle and the upper class children. The children from lower classes, therefore, are handicapped in terms of their experiential and conceptual background. It has also been pointed out that curriculum is generally based on urban concepts and experiences. A flexible curriculum one is that is broad, diversified and which provides learning experience to suit all categories of children. Schools can select or develop their own activities and learning situations based on a broad curriculum framework. India is a multilingual country. Children come to schools from homes where different languages are used. The curriculum should be flexible to allow such choices of language and should provide for smooth transition from the home language to the school language.

Children living in remote and geographically isolated areas have limited experience compared to children in big cities. The curriculum should not only cater to the needs of city children, it should provide relevant learning experience to children of isolated areas according to their needs, experience and environment. Children of migratory workers move from one place to another and frequently change their schools. Only a flexible curriculum can meet the educational needs of these children. To be flexible the curriculum should contain a variety of subject/disciplines to cater to interests and aptitude of students. A curriculum should also have wide range of difficulty level for students of different ability groups. It should also contain programmes for exceptional children as well.

10.6.3 Sequencing and Grade Placement

One of the characteristics of a good curriculum is that it should be graded in terms of 'sequence'. There are two different approaches of sequencing and grading of curriculum. The first approach accepts the child as (s) he is and adjust learning experiences to her/his level of development while holding instructional goals constant. The second approach assumes that curriculum experiences are located at a given grade level and learning can be provided to help the child to adjust to these experiences. The factors involved in sequencing are maturation, previous learning, mental age, usefulness and difficulty level.

- **Maturation**

The curriculum should be graded with regards to the maturity level of the learners. psychologists believe that children exhibit many behaviours at the same stage of development, and in about the same order, even though they came from and have experience very different environment. For example, children of quite different cultural background begin to walk, to talk and to discriminate among person at about the same age.

- **Experimental Background**

Experimental background of the learners is another important factor in determining the

sequence of content, learning readiness and previous achievement of learners which should be taken into consideration for sequencing of curriculum. For example, the readiness factors in learning reading are ability to recognise words and words form, a range of vocabulary and familiarity with simply sentences. The second factor viz; previous learning included those pre-requisites which are essential for new learning. For example to learn division, one should have mastered the operations of subtraction and multiplication. Sequencing is sometimes associated with the logical relationship of the subject matter. Subject matter is logically structured as one idea includes or is included in another. Sequencing may also be seen as an orderly systematic development of a subject.

- **Mental Age**

The selection of content and sequencing of content in different grades is generally made according to the mental age or average performance of that age group. For example, investigations have shown that reading requires the minimum mental age of 6-7 years. Elementary reading skills and comprehension are generally placed in classes II and III.

- **Usefulness**

As a factor in sequencing or grade placement usefulness refers to the immediate functional value of materials and activities for children of particular ages. For example, children need to know how to cross roads and protect themselves from automobile traffic. Therefore, materials and activities designed to teach these things should be introduced early in the school's programme.

- **Difficulty Level**

The difficulty level of subject matter is one of the most widely used criteria in the grade placement of content. In present day curriculum construction, the criterion of difficulty is applied to almost all subjects varying from spelling to fundamental concepts of science. In actual practice, the difficulty of subject matter or activities is relative to the maturation, achievement and interest of the learners. Also, the subject matter has its own inherent qualities of difficulty. It is generally agreed that subject matters are of different degrees of complexity. For example, some words are longer, more complex, or otherwise harder to spell than others. Similarly, division involves both subtraction and multiplication, and therefore considered more difficult than either of these alone. The concepts that involves more subordinate parts is considered difficult. An abstract idea is generally more difficult to understand than the concrete idea. The difficult content should be placed at a higher level/grade. Sequencing of content should be easy to difficult and simple to complex.

10.7 ACTIVITY-BASED CURRICULUM

As early as in 1896, Dewey used the expression "Activity Programme" and set up a laboratory school based on various activities. Dewey was of the view that activities should be based on occupations rather selected in terms of conventional studies. Meriam in 1904 developed elementary school curriculum at University of Missouri which was based on pupil activities and there was a complete absence of conventional subjects in this curriculum. Four categories of activities were used in this curriculum and these were observation, play, stories and handicrafts. The entire curriculum was based on five principles

- i) It should fulfill the immediate needs of pupils.
- ii) It should be expressed in terms of concrete everyday activities of pupils rather than in term of more generalisations.
- iii) The curriculum should provide for individual difference to meet the needs and ability level related requirements of individuals.
- iv) The curriculum should provide an acquaintance with both work and leisure.
- v) The curriculum should be organised.

Both Dewey and Meriam are of the view that the skills of three Rs should be used as means of enriching the activities of children rather than as ends towards which the activities are directed. A further similarity between them is that they attempted to make school a part of life of the community and insisted on removing the heavy insulation between school and life of people in community. In 1920's, major experimental schools based on activity curriculum were established by Kilpatrick and Cooling in western countries and by Mahatma Gandhi and Zakir Hussain in India. Cooling's curriculum was similar to that of Meriam. It included play, excursion, story and hand activities. This curriculum was based on four principles:

- i) Play represents those experience where pupils are engaged in group activities such as games, folk dancing, dramatisation or social parties.
- ii) Excursion projects should involve studies of problems with environment and activities of people.
- iii) Story projects should include purpose of enjoying the story in its various forms viz; oral, song, picture or phonograph-based.
- iv) Hand project represent the purpose of expressing ideas in concrete forms such as craft work, growing plants etc.

Mahatma Gandhi and Zakir Hussain in India developed an indigenous curriculum supported by the community. According to their concept of education, the curriculum should centre around some form of manual and productive work. Handicraft activities should be related to the environment and occupation of people in the community. Gandhi's 'Basic education' was a self-supporting system of elementary education in which teaching of essential knowledge was combined with income earning activities. The focus in curriculum was on integration of physical environment, social environment and craft work. Recent development in the area of curriculum suggest activity based curriculum at school level. The world conference on 'Education for All' held at Jomtien, Thailand 1990 and International Commission on Education for 21st Century, have also suggested that school education should develop such skills among pupils which lay the foundation for life-long learning. The activities included in curriculum should meet the basic learning needs of children and should provide such essential tools of learning as knowledge, skills, value and attitude which can make them self-reliant. The curriculum should be defined in terms of concrete everyday activities of pupils.

10.8 COMPETENCY-BASED CURRICULUM

Every curriculum states the specific education objectives and that learning outcomes expected of the learners. Traditionally, the objectives were stated in terms of content topics. Now it is emphasized that objectives should be defined in terms of pupil behaviour i.e. behavioural changes expected at the end of a course. These behavioural objectives are evaluated at the end each course in terms of the relative achievement of pupils. A step ahead, the competency based curriculum is based on two assumptions:

- (i) The learning objectives be defined in terms of competencies; and
- (ii) The level of mastery of competency should be defined 'a priori'.

These competencies define learning objectives in terms of pupils' behavioural changes expected at the end of a course. In addition, a competency also defines the 'mastery level' at which a student can be called 'master' of that competency or 'competent'.

Mastery learning therefore, is the key concept to implement competency based curriculum. The achievement of competency is defined on the basis of 'a priori' definition of criterion called 'mastery level'. For example, for basic mathematics and language skills, the mastery level can be defined as 80% achievement. This means that on a test of ten items (all homogeneous, based on the same concept competency), the students who answer eight

or more questions correctly are masters and those who answer less than eight correctly are non-masters. The non-masters have not reached the competency level and need to learn again the stated competency.

Another related concept in Competency Based Learning (CBL) is the 'Minimum Level of Learning (MLL)'. When we want students to learn the defined competencies at the 'Mastery Level' and we also want that students should master at least 80% of the competencies laid down for that particular level, then perhaps we can not accommodate too many competencies in the curriculum. The other criteria for determining the coverage of competencies is the empirical reality in terms of students' experiential learning and learning conditions.

It was emphasized in the New Education Policy (1986) and the modified Programme of Action (1992) that 'Minimum Levels of Learning' be laid down for each level of learning. That is the curriculum should list and define those competencies which are minimum essential and each child should master at least these competencies if not more. These minimum levels should enable the pupils to function and live with dignity in today's society.

The 'Minimum Levels of Learning' developed by NCERT (1991), are the learning objectives stated in terms of competencies, which all students should master at the end of the course. These terminal competencies have further been delineated into simpler process competencies. It is emphasized that all children must achieve minimum level of learning. The assumption underlying MLL are:

- i) MLL reduce the load of factual learning without compromising on goal of primary education.
- ii) MLL ensure the acquisition of basic competencies and skills to such a level where they are sustainable and would not easily allow for relapse into illiteracy.
- iii) Mastery Learning is achieved by all i.e. bright average and below average learners.
- iv) Performance goals and objectives are realistic and achievable by all learners.
- v) Learning continuum is maintained where units are sequenced hierarchically so that the cluster of competencies in one unit builds up as directly as possible on the competencies in the preceding unit.

For example

| Competency | Class-I | Class-II | Class-III |
|---|--|--|---|
| 1. Understanding whole numbers and numerals | Recognises numerals and matches numbers to numerals from 1-100 | States the place value of the digits within a 2-digit numerals | Writes numbers in ascending and descending order 1-100 and writes number names. |
| | Recognises numerals and matches numbers | | |

Minimum Levels of Learning, however, do not suggest that potential student or students privileged with better learning conditions should not go beyond stated MLL. The MLL are only minimum essentials. Due to wide disparities in learning conditions in our country, it is desirable that Minimum Levels of Learning be defined at district or even at school level, maintaining the standard and quality of education. The levels of learning can be defined in both quantitative and qualitative terms depending upon the nature of objectives. The affective and psychomotor objectives may be defined in qualitative terms instead of fixing the quantitative targets. The curriculum areas can also be made flexible while determining MLLs.

Activities

1. Select and design four activities which can be included in activity-based curriculum for Class-III EVS or language.
2. State for competencies for Class-II Mathematics or Language.

10.9 PLANNING AND TRANSACTION OF CURRICULUM

Curriculum planning is the first and the most important phase of curriculum development. A carefully planned curriculum takes into consideration, the goals of education, principles of learning, needs of the children, influence of environmental factors, and diverse conditions and practices of learning in schools.

An unplanned curriculum may lack a deliberate plan to achieve educational objectives and it may fail to us effectively the organized life of school and the resources available in school and community. In order to develop a balanced, comprehensive, relevant, flexible and child-centered curriculum, curriculum planners must answer questions such as:

- What should be the goal of education?
 - What should be the content of curriculum?
 - Who should be responsible for designing and developing the curriculum?
 - Should curriculum be centralised or decentralised?
 - What materials should be developed for effective implementation of the curriculum?
- In the following section we will discuss some of the significant issues in curriculum planning.

10.9.1 Centralised vs. Decentralised Curriculum

School curriculum developed during the 1950s were centralised curricula i.e. they were developed by central education authorities. The approach was ‘top down’ i.e. the curriculum was developed by higher central authorities and implemented by schools and teachers. In 1972, Connelly pointed out that schools and teachers should play an active role in development of their own curricula. During the 1970s a counter movement opposing centralised curriculum emerged. This new movement was called School-Based Curriculum Development (SBCD). Many arguments were given in favour of and against central curriculum.

The arguments given in favour of decentralised, school-based curriculum are the following:

- i) Decentralised curriculum responds to the local needs in a more effective manner compared to nationally developed curriculum. It can take into consideration the local needs, environment and previous consideration and local needs, environment and previous knowledge and experiences of students. It can also consider the unique characteristics of the ecosystem of a particular area, their cultural and social values. It can make better use of local resources and involvement of community in the educational process can be enhanced.
- ii) School-based curriculum can be implemented more effectively. The centralised curriculum is highly structured and provides detailed instructions to teachers. The success of such a programme is determined by how strictly the instructions are followed. However, the real classroom situation is very different from what experts and educational authorities visualise sitting far away form the school. Therefore, teachers many a time are either unwilling to fully carry out or fail to carry out the instructions as faithfully as was expected.
- iii) Decentralised curriculum allows for more effective monitoring of the curriculum as it is transacted. Resources can be more effectively controlled and used in decentralised curriculum.

The following arguments are given in favour of centralised curriculum:

- i) The quality of curriculum material developed is good if it is developed centrally by national experts. Curriculum materials developed by teachers by teachers do not match the quality of materials developed by professional curriculum teams. Also due to non-availability of experts at the local level, teacher do not get expert advice for developing very appropriate curriculum materials.
- ii) Centralised curriculum provides for common core of the content. A common core of knowledge is essential because without it one can not share knowledge with others. All societies are characterised by a shared basic set of concepts, ideas, allusions and characters from history and socialization of individuals implies becoming familiar with them.
- iii) Centralised curriculum provides common content for national examinations. Diversification of curriculum content in schools creates difficulties in preparing nationally valid examinations. With decentralised curriculum, national tests tend to be biased toward a particular curriculum.
- iv) Programme evaluation is more reliable and valid if conducted by national experts. Schools and local bodies do not have programme evaluation experts. Teachers education geared to a specific school-based curriculum can hardly provide broad basis for judging the quality of the programme.

It must be pointed out that in spite of these controversies, the Third World developing countries gave priority to establishing a national curriculum that was expected to strengthen national identity to contribute to modernization of the educational system and to provide at least primary education to all. Educational planners believe that national goals are best achieved through central planning. During the 1980s, those developing countries which had succeeded in producing a national curriculum became aware of the desirability of encouraging curriculum related initiatives at regional, local and school levels. Towards the end of the 1980s one could observe a certain measure of reconciliation between these two approaches — the centralised curriculum and the decentralised curriculum. Educational systems which had previously given full freedom to schools introduced a national curriculum framework to guide school in organising their programme. Highly centralised educational systems on the other hand gave freedom and flexibility to school and local bodies to adapt or modify the curriculum to suit their needs. All the parameters of school curriculum can not be determined either at central level or at school level. Therefore, emergent educational systems now give priority to producing a national curriculum framework. Local level curriculum decisions supplement the national framework in adapting it to local conditions. It is important that curriculum planning should be comprehensive, co-operative and continuous.

10.9.2 Curriculum Transaction

Effectiveness of curriculum transaction is determined mainly by two factors:

- i) The extent to which a teacher transacting the curriculum uses effective learning experience and
- ii) The degree to which the teacher effectively uses the resources available for teaching the curriculum.

The teacher should use a variety of teaching methods and should provide rich and diverse learning experiences to suit the needs of all learners. Each individual is unique and has different capacities, interests and needs. Some individuals can learn better through problem solving whereas other learn through drill or recitation. At primary level, recitation method is most commonly used in the classroom. But recitation method gives little opportunity to children to investigate and solve problems. The function of the teacher is primarily that of guiding learners to identify and solve significant problems. But the teachers as in usual practice refer their students to the solutions already given in textbooks. Besides teaching

in our schools is usually teacher centred and worse still sometimes textbooks-centred. In certain areas like language and arithmetic, drill pre-dominates all other teaching techniques. Therefore, keeping in mind the objectives of curriculum and diverse and varied interests and capacities of students, teachers should select the appropriate teaching strategies and learning experiences. Together, these should provide for optimum personal development and should promote continuity of experience.

The second important aspect in curriculum transaction is the effective use of resources available. The teacher should make maximum use of resources available in school. The teacher should also be able to mobilise the community resources. Sometimes teachers strictly follow the highly structured curriculum without any deviation or change even under these are called for. The activities given in the textbooks may or may not be appropriate in a particular context. For example, teachers sometimes do not demonstrate or provide concrete examples because objects mentioned in textbooks are not available in school. If there is no laboratory in school, teachers should design activities making use of the resources available in their school and their immediate environment. The teacher has to be creative and reflective in carrying out innovative experiments and providing meaningful learning experiences. Many activities can be done during play sessions. For example, many concepts of EVS such as force, work, weight, level etc. can be introduced through games. Community resources should also be mobilised and used wherever possible. Community's involvement in school programmes can provide rich learning experiences to students. When teachers are closer to community, they understand community and children better and can provide more relevant learning experiences to children.

Check Your Progress

Notes: a) Write your answers in the space given below.

b) Compare your answers with those given at the end of the unit.

6. Fill in the following blanks with appropriate words:

- i) A relevant curriculum meets and of the individuals, society and nation and is in nature.
- ii) A flexible curriculum is, and provides to suit all categories of children.
- iii) The centralised curriculum is developed by and is a approach.
- iv) In decentralised curriculum the participation of bodies and is more.
- v) Decentralised curriculum is whereas centralised curriculum is highly.....
- vi) Effective curriculum transaction requires effective use of.....

10.10 LET US SUM UP

Curriculum is a means to achieve the 'defined set of educational objectives'. The goals of education are defined on the basis of an accepted philosophy of education, the policies of government and constitution of the country. The curriculum should therefore have a strong philosophical, sociological and psychological basis. Indian philosophers like

Vivekananda, Sri Aurobindo, Tagore and Radha Krishnan believed that the aim of education is the development of the individual leading to his/her perfection. Mahatma Gandhi, the father of nation, considered education as a means of all-round development of the child; he further stressed that it should enable the individual to earn a meaningful livelihood. The constitution of India provides for free education to all children up to the age of 14 years irrespective of caste, sex, religion, region or socio-economic status. The aim therefore, is to provide equal opportunities of education to all. Thus education should provide for all-round development of the child — physical, mental, emotional and spiritual. Education should be related to the world of work; to experiences and environment of the learners.

Based on these various philosophies of education, different approaches to curriculum construction have been developed. These include subject-centered, child-centered and life-centered approaches. In subject-centered approach, knowledge occupies the central position. The purpose of subject-centered curriculum is to transmit to the younger generation that knowledge which is important and generalisable to all groups and situations. The curriculum consists of an array of knowledge structures from different disciplines such as science, arts and mathematics. The child-centered curriculum focusses on the needs and nature of the child. It aims at developing the potential abilities of the child. Child-centered curriculum is based on ‘what is of intrinsic worth to the students’. Students feel motivated to learn only that which they can relate to their own experience, for that alone is of value to them in helping them understand their environment. The organisation of content is based on the concerns of the learners.

During the mid 1990s, the International Commission on Education emphasized the concept of life long learning. Education throughout life is based on four pillars, viz; learning to know, learning to do, learning to live together and learning to be. Education should help in developing the values of pluralism, peace and mutual understanding.

Curriculum planners have to decide which approach is most suitable to attain the objectives of education. Curriculum planners have also to decide as to who should develop the curriculum and what content should be included in the curriculum. The curriculum can be developed ‘centrally’ by central education authorities or it may be decentralised. The decentralised curriculum is developed by local bodies at district or school level. Teachers are able to participate in a greater measure in a decentralised curriculum. An approach involving both central authorities, local bodies and teachers is now accepted more.

A good curriculum, whether developed centrally or decentralised, should be flexible, relevant and contextual. An activity-based curriculum and a competency-based curriculum can be transacted relatively more effectively. For effective transaction of the curriculum, the teachers should provide a variety of learning experiences using different teaching strategies to suit the needs and capacities of individual learners. Teachers should make effective use of the resources available in the school and community.

10.11 UNIT-END EXERCISES

1. What is the different between a ‘syllabus’ and ‘curriculum’?
2. Explain the expression “philosophical basis of curriculum”.
3. What are the various social forces that influence curriculum development?
4. What are the characteristics of a child-centered curriculum?
5. Explain the characteristics of a good curriculum?
6. What is the importance of planning in curriculum construction?
7. Give your views in favour of and against decentralised curriculum.
8. How can a teacher effectively transact the curriculum?

ANSWERS TO CHECK YOUR PROGRESS

It refers to all the experiences that a child encounters in the school set-up.

1. Curriculum is a means to achieve a set of educational objective.
2.
 - a) school experience
 - b) futuristic
 - c) manual and social skills, value and cultural education; intellectual
 - d) idealistic
3. Subject knowledge occupies a central position in the subject-centered approach for curriculum construction. It consist of knowledge from different disciplines viz. science, arts and mathematics. Each subject are treated as distinct entity.
4. Life-centered curriculum emphasizes life-long learning. It is based on four major pillars i.e. learning to know, learning to do, learning to live together and learning to be. This is expected to facilitate children in facing challenges in the future.
5.
 - a) needs, experience
 - b) discovery
 - c) broad field curriculum
 - d) living together, working together; peaceful resolving of conflicts.
6.
 - i) needs; aspirations; dynamic
 - ii) broad; diversified; learning experiences
 - iii) central education authorities; top down
 - iv) local; school teachers
 - v) flexible; structured