UNIT 1 CONCEPT AND MEANING OF EDUCATION

Structure

1.1 INTRODUCTION

To understand an abstract concept like education, one is required to explicate its meaning or nature from the point of view of the functions such concepts perform or the contexts in which such concepts are appropriately used. But there is another sense also in which people (probably wrongly) see education as an instrument by application of which certain individual or social changes are brought about. Interpreted in the latter sense, the economist would see education as a commodity in which it is profitable for the community to invest. Sociologists would tell people that education is a socializing force and teachers are the socializing agency in the community. Similarly, a psychiatrist would say that the role of education, and hence of teachers, would be to maintain the mental health of children. But you will agree that education is different from being a

commodity, real estate, type of social work or psychiatry. Education is what it is and not the way it is differently interpreted. Education is there in all of the above and each one is linked to the process of education, yet it lies above all these.

We talk of educating children, teaching or instructing them; socializing or developing or converting them into good citizens or good human beings. In all these expressions definitely something that we call education is involved. But what exactly is that, a process or a product, is not very clear. If it is a process, how does it occur or what are its conditions? And if it is a product, what does it look like? How can one define that product? There are such and many more questions, which occur to us when we talk of understanding education. In this unit, an attempt has been made to seek answers to such questions in order to arrive at a deeper understanding of education.

1.2 OBJECTIVES

By going through this unit, you should be able to:

- derive the concept of education etymologically;
- analyse the various definitions of education form different perspectives;
- differentiate between descriptive and practical theories of education;
- explain the two approaches of theory of education–the mechanistic and the organismic approaches;
- discuss how education represents a deliberate attempt to develop a desirable state of mind;
- explain the reason why the process involved in education should be worthwhile;
- differentiate between the aims and purposes of education;
- discuss the relevance of matter and manner of education;
- elucidate the concept of an educated man;
- discuss with examples the cognitive perspective in education;
- explain the difference between educating the emotions and training of emotions;
- discuss the concept of "knowing how" and "knowing that";
- discuss education as initiation;
- describe the significance of inter-subjectivity in education; and
- define the concept of a teacher.

1.3 EDUCATION: ITS ETYMOLOGICAL DERIVATION

Etymologically, the word "Education" is derived from the Latin words "educare" and "educere". Educare refers to "to bring up' or "to nourish", whereas the word 'educere" means to "to bring forth" or "to draw out". Some others believe that the word has been derived from another Latin word "educantum" which has two components. "E" implies a movement from inward to outward and "duco" refers to developing or progressing. An analysis of these words reveal that education aims at providing a learner or a child a nourishing environment to bring out and develop the latent potentiality hidden inside him.

In India, the concept of education is traced back to the "Gurukula Parampara" which developed in ancient times. Basically, a Guru-Shishya or Teacher-Pupil tradition emphasized the education of the latter in ancient times. Two prominent words in Sanskrit namely, "Shiksha" and "Vidya" also stand out as equivalents of the term "Education". The former has been derived from the root word "Shas" meaning "to

discipline" or "to control". The latter word is derived from the root word "Vid" which means "to know". Therefore, ancient Indian education stressed emphasis on two major aspects in the education of an individual. These are discipline and knowledge. A learner must be disciplined and develop a curiosity to acquire new knowledge to lead a fruitful life.

1.4 EDUCATION: SEARCH FOR A DEFINITION

Education of a human being is, perhaps, the most cherished goal of any human civilization that ever existed or is yet to come in this world. Therefore, philosophers, educationists and great thinkers have tried their best to define education. But in most of these definitions, one would find the mark of their conceptions of the reality, values and belief systems. Although such definitions might reflect the contemporary societal systems, no single definition has been found so far that satisfies everyone. The search for a universal definition of education still continues. However, the definitions of education given by the great philosophers and educationists can broadly be categorized into three major trends. They are discussed in the following paragraphs.

Education as a Spiritual Pursuit

The stress on education as a spiritual pursuit is basically an Indian concept. Right from the Vedic period, Indian spiritual thinkers have been propagating education as a means of achieving spiritual goals. According to the Upanishads, "Education is that whose end product is salvation" and Adi Shankaracharya said "Education is the realization of the self". The Rigveda says, "Education is something which makes a man self-reliant and selfless". Viveknand says, "Education is the manifestation of divine perfection already existing in man". All these definitions underline the presupposition that human beings are the creation of God. It is education whose role is to bring out the divinity already existing in man and help him to realize himself as well as lead him to achieve salvation.

Education: Development of Innate Human Potentialities

According to some educators, the human being is the embodiment of rich inherent potentialities and it is the task of education to help him develop, enhance and realize these potentialities. These innate potentialities are to be tapped right from the birth of a child and nurtured through his growth and development of adulthood. Rousseau said, "Education is the child's development from within". Plato propagated that, "Education develops in the body and soul of the pupil all the beauty and all the perfection he is capable of", whereas Froebel said, "Education is unfoldment of what is already enfolded in the gene. It is the process through which the child makes the internal external". According to Mahatma Gandhi, "By education, I mean an all-round drawing out of the best in the child and man – body, mind and spirit". T.P. Nunn says, "Education is the complete development of the individuality of the child so that he can make an original contribution to human life according to the best of his capacity". A close analysis of these definitions reveal the following:

- Human personality has different facets – physical, mental, social and spiritual.
- It is the task of education to ensure harmonious and balanced development of these innate power of an individual by providing a nurturant and conducive environment for their growth and development.

Education: Social Orientation of the Human Being

According to some thinkers, education is a means to achieve larger societal goals as it is a sub-system of the macro societal system. Hence, education of an individual should emphasise his orientation to achieve the social goals. In this context, social

dimension of education takes a priority place in comparison to individual dimension of education. For example, Kautilya says, "Education means training for the country and love for the nation". Similarly John Dewey has said that "All education proceeds by the participation of the individual in the social consciousness of the race". Edgar Faure, the Chairman of International Commission on Education, "Learning to Be: The World of Education Today and Tomorrow" (UNESCO, 1972), has said, "What is even clearer, however, at the level of social phenomena, is that until the present, education, as we have known it through all the forms of society which have lasted for any length of time has been the select instrument by means of which existing values and balances of power have been maintained and kept in effect, with all the implications of both a positive and negative character which this process has had for the destiny of nations and the cause of history.

1.5 EDUCATION FROM THE PERSPECTIVE OF THEORIES OF EDUCATION

Although different thinkers have given their own definitions of education, the concept of education can be analysed from the viewpoint of various theoretical stands on education. According to the positivistic thinker, T.W. Moore (1982) the philosophy of education is concerned with what is said about education by those who practise it (teachers) and by those who theorize about it (the educational theorists). Moore regards education as a group of activities going on at various logical levels, logical in the sense that each higher level arises out of, and is dependent on, the one below it. The lowest level is the level of educational practice at which activities like teaching, instructing, motivating pupils, etc. are carried on. Those involved at the lowest levels (i.e. teachers) talk about teaching, learning, knowledge, experience, etc. Arising out of these basic ground floor activities, is another higher order activity – educational theorizing, which results in some kind of educational theory or more accurately "educational theories". The educational theorist may be making a general point about education. He may say, for example, that education is the most effective way, or the only way, of socializing the young, of converting them from human animals into human beings, or of enabling them to realize their intellectual and moral potentialities. Whether education does realize what it purports to realize, is a matter of fact and the way to find out is to look at education in practice, and see what happens. Theories of this kind are called "**descriptive theories**" purporting to give a correct account of what education as a matter of fact, does. Such theories stand or fall according to the way the world happens to be.

The other kind of educational theory is one which, instead of describing the role or function of education, rather makes specific recommendations about what those engaged in educational practice ought to be doing. Moore calls such theories "practical" theories. They give reasoned prescriptions for action. Theories of this latter kind exhibit a wide variety in scope, content, and complexity. These theories can perhaps better be called theories of teaching or "pedagogical" theories. Such theories which postulate that "teachers should make sure that any new material introduced to pupils should be linked to what they already know"; or that "a child should not be told a fact before he has had a chance to find it out for himself", are examples of "**prescriptive theories**". Other theories of this kind are wider in scope and more complex, such as the theory that education ought to promote the development of innate potentialities, or prepare the pupil to be a good citizen, a good worker, a good human being and above all a good learner. Such theories may be called general theories of education in that they give comprehensive prescriptions recommending the production of a particular type of person and a specific type of society. Plato, for instance, in his "The Republic" recommends a certain type of man as worthy to be ruler of a particular type of society. Similarly Rousseau gives a general theory of education in "Emile", Froebel in the

Education of Man', and Dewey in "Democracy and Education". In each case the theory involves a set of prescriptions addressed to those engaged in the practice of education. In most such cases, theory is meant to serve an external end. The theorists assume some end, which ought to be adopted and worked for. These recommendations presuppose a major value component, a notion of an educated man; hence such theories cannot be verified or validated in the way that scientific 'descriptive' theories may be. Whilst a scientific theory may be established or rejected simply by checking it against the facts of the empirical world, the validation of a prescriptive theory demands a more complex approach, involving both empirical evidence and justification in terms of substantial value judgement. A practical theory involves commitment to some end, thought to be worth accomplishing. Everything a teacher does in the classroom has a theory behind it. All practice is theory loaded and an educational theory is logically prior to educational practice.

The educational theorists making reasoned recommendations for practice inevitably make use of concepts like education, teaching, knowledge, curriculum, authority, equal opportunity, punishment, etc. Further, the theories of education may be limited in scope, like the theories of teaching or pedagogical theories or more complex like the general theories of education, purporting to define what education ought to do; recommending the production of a particular type of person–an educated man. Whereas the limited theory is concerned with a particular educational issue such as how this subject is to be taught, or how children of a particular age and ability should be dealt with, a general theory of education will contain within itself a large number of limited theories. Rousseau in 'Emile', for example, describes limited theories about sense training, physical training, negative education, training in self-reliance. Under the umbrella of the general theory of education, he emphasizes production of a natural man or education according to nature. Any practical theory, limited or general will involve a set of assumptions or pre suppositions which together form the basis of an argument.

1.5.1 Two Approaches to General Theory of Education

A general theory of education begins, logically, with an assumption about the notion of an educated man. To realize this end, it recommends certain pedagogical procedures to be put into practice. But between the aim and the procedures there must be certain assumptions about the raw material, the person to be educated. It has to be assumed that human nature is to some extent malleable, that what happens to the pupil by way of experience has some lasting effect on his subsequent behaviour.

In the history of educational thought, two major assumptions have been made about human nature which radically differ in their emphasis, and which when adopted give radically different directions to educational practice. These assumptions reflect the mechanistic and organic account of the phenomenon of education.

Thomas Hobbes compared man to a wonderfully contrived machine, composed of springs, wheels and levers. Of course, man is more than a machine, but it may be useful or convenient sometimes to view man in this way, to give a simplified model of what in reality is very complex. Hobbes adopted this kind of model because he wanted to depict human society itself as a contrivance made up of individuals who themselves could be regarded in this way.

Froebel by contrast takes the model of man as a living, growing, developing creature, a natural whole. Here the various elements which constitute it are not simply integrated into a system of checks and balances, cogs and levers, as in the case of machines. The human being is a whole, not simply a compendium of parts. The whole, as Moore rightly points out, is logically prior to the parts in the sense that the parts exist as parts of the whole. Thus a man, according to Froebel, is more than an assemblage of bones, muscles and nerves. And as Hegel and his followers would have it, a society is more than the totality of individuals who compose it. In the case of a machine, it is nothing

more than the organised sum of its parts, where as an organism is a whole which transcends its parts and is capable of growth and development.

There is, however, a sense in which man is like a machine, a system of inputs and outputs. But to regard man simply as a machine is to ignore what is essentially human in him. Nonetheless, it may sometimes be the case that man is best understood in mechanistic terms. But the alternative account offered by the organismic model forms a more plausible basis for an adequate view of man. In fact, both models have their uses and limitations and neither of these analogies should be pressed too far. Neither of these alone gives an adequate picture. Both may be useful as models, simplified versions of reality.

Translated into educational context, these two approaches would take different forms. Education conceived on mechanistic assumptions would be revealed by performance or man's external behaviour. A pupil would be seen as a device whose workings could be deliberately regulated from outside. He would not grow or develop according to some internal dynamic, rather his behaviour would be modified or shaped to approach some desirable end. Teaching would be a matter of organising desirable inputs–knowledge, skills, and attitudes. The educated man would be the one whose behavioural outputs meet the criteria of worthwhileness adopted by his society.

A general theory of education based on the organic view of man would tend to emphasize the internal principles of growth and development. The education, therefore, would be not a modification or shaping from outside, but an attempt to encourage individual development from within.

Historically, the mechanistic approach has been adopted by the French philosophers Helvetius, James Mill, and more recently by J.F. Skinner. Helvetius suggested that manipulation of a pupil's environment would enable the teacher to make virtually anything he wished out of the pupil. The organismic view is exemplified by Rousseau, Froebel and Dewey. However, it is suggested that none of these two approaches should be taken too literally. They are not wholly divorced from empirical evidence, but each tends to give a one-sided view of the whole. The better way of utilizing the analogies is to recongize that each offers a different perspective in education and that neither of them should be presumed to give a complete or comprehensive view.

Check Your Progress

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

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

1. Distinguish between descriptive theories and prescriptive theories.

.....

.....

.....

.....

2. Give three examples of pedagogical theories of education of limited nature.

.....

.....

.....

3. "The aim of education is the production of a natural man". Does this statement point to a general or a limited theory of education? Justify.

.....

.....

.....

4. What assumptions underly the mechanical and the organismic model of man?

.....

.....

.....

.....

1.6 GENERAL FEATURES OF EDUCATION

Reflecting on the issues/questions raised above in the introduction of this unit can help us gain some understanding about education qua education. The basic question to address before we can seek to explicate the concept of education is whether there are or can be some essential features of education like the ones reflected in the economist's, sociologist's or the psychiatrist's, points of view referred to in the beginning of this unit. Peters (1982) holds it objectionable to suppose that certain characteristics could be regarded as essential, irrespective of context and of the questions under discussion.

In this regard, a number of general and limited theories of education have come up which seek to conceive education in one or the other perspective. Then there are a number of philosophers of education who have tried to analyse these theories with a view to arriving at a clear conception of education. A philosophic scrutinity of the different viewpoints may reveal characteristics of education which are intrinsic to education. We may start this scrutiny from the point of view of what economists, sociologist or psychiatrists say about education. There is no doubt that teachers qua teachers are engaged in activities which relate to one or more of the roles that can be assigned to teachers by economists, sociologists, etc. but such roles seriously misrepresent what is distinctive of them as teachers. In the context of planning of resources it may be unobjectionable to think of education as something in which community can invest. Similarly, in the context of social cohesion, education may well be described as a socializing process, but from the point of view of the teacher's task in the classroom these descriptions are too general and dangerous, for they encourage a conformist or instrumental way of looking at education. In the real sense of the term, education cannot and should not be considered as instrumental to some external end. To look at education as an instrument of development of human resources, for example, may amount to treating education as subservient to an external end. Considering educated men and women simply as resources is antagonistic to the concept of education per se.

There can be other reasons why such economic or sociological descriptions of education can be misleading, if taken out of context. They are made from the point of view of a spectator pointing to the functions or effects of education in a social or economic system. They are not descriptions of it from the point of view of someone engaged in the enterprise. What is essential to education must involve an aspect under which things are done and one which is both intentional and reasonably specific.

1.6.1 Education Represents a Deliberate Process to Develop a Desirable State of Mind

One of the most obvious features of education is that it relates to some sort of process in which a desirable state of mind develops. It would be a contradiction in terms to say that a person has been educated and yet the change was in no way desirable, as it would be to say that 'X' had been reformed and yet had made no change for the better. Education is not the same as reform, but it is similar in that it implies a change for the better. Furthermore, education is usually thought of as an intentional activity both from the point of view of those engaged in the enterprise and those being educated.

We put ourselves or others in the relevant situations, knowing what we are doing. We know that Rousseau claimed that education comes to us from nature, from men and from things. But the central uses of the term are located in situations where we deliberately put ourselves or others in the way that is thought to be conducive to development of a desirable state of mind.

But the question that immediately comes to us at this juncture is the understanding of what constitutes the 'desirable state of mind'. It is not so easy to state what is desirable, for the question of desirability can be asked from different angles or in different perspectives. If we put this question to those being educated, they are likely to say that they want to become capable of getting an appropriate job or a position of prestige in the community. But if we view this question from the point of view of the teacher, a second type of model crops up – that of useful arts where neutral materials are fashioned into something that is valuable. Just as clay is moulded into pots, so are minds moulded into some desirable end products.

1.6.2 The Processes Involved should Essentially Be Worthwhile

Whether education is to be considered from the point of view of those being educated or from that of the teacher. This is a fundamental confusion which has been pointed out by R. S, Peters. In both these ways of thinking about education we are rarely considering that some end-product of education should be valuable, and are not caring for or focussing on the activities and processes involved in it. Obviously enough activities or processes which form a part of the content of education can be viewed as being either instrumentally or intrinsically valuable. It is possible for instance, to think of science or of carpentry as being both valuable in themselves and valuable as a means to increasing production or of provision of houses. Thus it is reasonable to ask what the aim of instructing or training someone in such activities might be. But it is as absurd to ask what the aim of education is as it is to ask what the aim of morality is. For to call something educational is to intimate that the processes and activities themselves contribute to or involve something that is valuable or worthwhile. As Gilbert Ryle (The Concept of Mind), would have it, education is both a "task" word as well as an "achievement" word.

1.6.3 Education Suggests Criteria to which Processes must Conform

According to Peters, 'Education is not a concept that confirms or sets any particular types of processes, such as training or an activity such as lecturing. It rather suggests criteria to which all processes and activities involved, such as training, instruction, etc. must conform'.

What is of value should not be external to the activity, but intrinsic to it. One such criterion is that what is passed on and the way it is passed on must be of value. Thus, we may be educating someone while we are training him. But it, however, need not always be true, for we may be training him in the art of pickpocketing or in the art of torture. But the demand that something of value should be transmitted, cannot be thought of as meaning that education itself should lead on to or produce something of value. What is of value should not be something extrinsic to education, just as making a man better is not extrinsic to 'reform'; it is rather a criterion which anything must justify which is to be called reform. In the same way, a necessary feature of education is often extracted as an extrinsic end. People thus often think that education should produce something that is of value and extrinsic to it, whereas the truth is that being worthwhile is part of what is meant by 'education'. Both the instrumental and moulding model of education (mechanistic and organismic respectively) provide a caricature of this necessary feature of desirability by conceiving of what is worthwhile as an end brought about by the process or as a pattern imposed on the child's mind.

What is important about education are its aims and not its purposes. The above thesis that for an activity to be called educational, 'what is worthwhile', should not be external to the end of the activity, can be better understood by an explication of the term 'aim'. To further explain it, we can take examples like shooting and throwing. Aiming is concentration of attention on some object which must be hit or realized. In other words, concentration is something within the field of activity. It can be clearly distinguished from purpose or motive. It is for this reason that the term aim is frequently used in the context of education. To ask questions about the 'aim' of education, therefore, is a way of getting clear about and focus of attention on what is worth achieving. It is not to ask for the production of ends external to education. A person, on the other hand, may say that he wants to train people so that they may get good jobs. In such a situation, he is talking not about the aims but purposes of education, because getting well-paid jobs is not something intrinsic but extrinsic to the activity itself.

1.6.4 Scrutiny of the Mechanistic and the Growth (Organismic) Models of Education and Emergence of Progressive Ideology

Historically speaking, when the utilitarian and moulding models (mechanistic) of education were challenged, they were replaced by models which likened education to a natural process of development in which the individual grows like a plant towards something that is desirable. Gradually a positive child-centred ideology emerged which was welcomed and embraced by those who were against the traditional methods still present in schools. According to this progressive child-centred ideology, education consists in the development of the potentialities from within rather than moulding from without; and curriculum should arise from the needs and interests of the child, rather than from the demands of the teacher, that self-expression is more important than the discipline of the subject matter; that children should not be coerced or punished; that children should be allowed to learn from experience rather than be told things. Froebel, Tagore, J. Krishnamurti, Aurobindo stressed the importance of studying the child at its various stages and adopting what was provided to the child's interests and stage of development. Dewey, with whose name concepts such as growth and experience are closely associated, contributed a lot to progressive education. According to Froebel, however, education consisted in aiding the unfoldment of natural propensities. As a consequence of the progressive ideology of education, the teacher came to be regarded as one who had studied the laws of development and who had to provide appropriate conditions by arranging the environment so that the child can realize himself to the full or grow without being hindered. Growing or realizing oneself implies doing those things which are thought to be worth while rather than others. The standards by reference to which they are judged to be worthwhile are grasped by men and handed on from generation to generation. The moulding model of the educator at least brings out this inescapable fact that the teacher has to choose what is worth encouraging in children.

1.6.5 Manner vs. Matter of Education

Values are intrinsic to education and not its extrinsic ends. Yet, inspite of the lack of determinants about standards, about growth and self-realization, such models (growth models) of educational situation are morally important in another way. They suggest another dimension in which value judgments can enter into education, which relate to manner rather than matter of education. They stress the importance of procedural principles. That is, they stress the importance of letting children choose for themselves, learn by experience, and direct their own lives: All these principles stress the self-direction of the individual which was ignored by the traditional teachers. They represent value judgements not so much about the matter of what is taught, nor about some illusory "end" for which things are taught, but about manner in which children are to be treated. This is appreciated not simply from a general moral stand point, but because

it is clearly indicative of the way in which values need to be conceived of as being intrinsic to education rather than as extrinsic ends. The instrumental or moulding models of education erect the necessary moral feature of 'education' into an extrinsic end, whereas the growth model converts a necessary feature of educational processes into a procedural principle. The adherents of this model, therefore, stress the connection between education and 'educere' rather than 'educare' thereby moulding the concept towards 'leading out' rather than "stamping in". So according to the adherents of the growth model, nothing is to be conceived as education in which procedural principles to do with 'leading out' are ignored. Accordingly, anything that is imposed from without, however, good it may appear, is not educational in the true sense. What is more important is, therefore, the manner of education and not its matter.

Check Your Progress

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

b) Compare your answer with those a the end of the unit.

5. What do you mean by desirable state of mind?

.....

.....

.....

.....

6. Can there be worthwhile criteria to be taken into account while educating the child? Discuss.

.....

.....

.....

.....

7. What is progressive ideology in education and how did it evolve?

.....

.....

.....

.....

1.7 WHO IS AN EDUCATED PERSON?

As stated earlier, education does not specify particular processes, It, however, does imply criteria which the processes involved must satisfy in addition to the demand that something valuable must be developed. In other words, first of all, the individual who is educated shall care about valuable things involved and he shall achieve relevant standards. We would not call a person educated who knows about science but cares nothing for truth, or who regards it merely as a means to get certain benefits that it can give to make life comfortable. Furthermore, an educated man is initiated into the content of the activity or forms of knowledge in a meaningful way, so that he knows what he is doing. Any form of conditioning or hypnotic suggestion cannot be termed as educational, because activities done as a result of such processes of conditioning or indoctrination, are not done on one's own. The doer may not even know what one is doing and why he is doing that. Some form of drill might also be ruled out on these grounds, if the individual is made to repeat mindlessly some stereotyped sets. For *something* to count as education a minimum of comprehension must be involved.

Thus, to be educated one must do things as a voluntary agent and as an autonomous being.

Those who believe in authoritarian methods of education assume that though children may not care about such activities in the early stages, once they get started on them, they will eventually come to care. They will thus emerge as educated persons. Growth theorists, on the other hand, hold that being educated implies interested in and caring for what is worthwhile. For this to happen (develop), worthwhile things must be presented in a way which attracts the child. On psychological grounds, they hold that coercion and commands are ineffective methods for getting children to care about what is worthwhile. The children should be treated according to some moral principles, that is, they should be allowed to learn by experience and choose for themselves.

In brief, we can say that being educated implies:

a) caring about what is worthwhile and

b) providing conditions and things to attain what is worthwhile.

1.7.1 Plato's View of Education – A Synthesis of Moulding Model and Growth Model

While examining the moulding or instrumental model and the growth model of education we must consider what Plato thought of education much earlier than the advocates of these two models. Plato's view of education, at least in these respects, seems to be much more appropriate than any of the two models separately. He was convinced that there are truths to be grasped and standards to be achieved which are public objects of desire, but coercing people into seeing them, in trying to imprint them on wax like minds was both psychologically and morally unsound. Plato quite rightly emphasized what the growth theorists evaded, viz. the necessity for and objectivity of standards written into the content of education. And at the same time, he also laid emphasis on the procedural principles as stressed by the growth theorists.

The emphasis on "seeing" and "grasping" for oneself which is to be found both in Plato and in the growth theorists suggests a third conceptual point about education in addition to those already made about the value of what is passed on and the manner in which it is to be assimilated. This concerns the cognitive aspect of the content of education.

1.7.2 Education: The Cognitive Perspective

We may say that a person is highly trained, but not educated. What does lie behind this condemnation? It is not that he has mastered a skill which we disapprove of. We can say this about a very skilled and efficient doctor or even a philosopher. We might very much approve their expertise. He may even be passionately committed to the profession and may display his skill with intelligence and determination. If he refuses to treat a patient who is in a critical condition unless the requisite fee is already paid, and which may be exorbitant, or he may like to treat only the patients who matter for him Therefore, he is not educated though highly trained, in our sense of the terms.

If the doctor shows such an attitude he has a very limited conception of what he is doing. The slogan of the educationists such as 'Education of the whole man' bears witness not only to a protest against too much specialized training, but also to the conceptual connection between education and seeing what is being done in a perspective that is not too limited. We talk about a person as being trained as a philosopher, a scientist or a cook, when we wish to draw attention to his acquired competence in a specific discipline of thought or art which has its own intrinsic standards. To be truly educated, one need to have a vision of the profession he is engaged in. This is called the 'cognitive perspective', which need to be fully developed for person to be called educated.

1.7.3 Educating the Emotions vs. Training of Emotions

There are certain matters which cannot be said to be trained but educated only. For example, we may talk more naturally of educating the emotions rather than of training them. When we talk of training of emotion, the implications are different than when we talk of educating the emotions. Training is acquired by drill, a pattern of habits which will not be disrupted in emergencies; they will not be paralysed by fear or overcome by grief in a public place. Training suggests the acquisition of appropriate habits of response in a limited situation. It lacks a wider cognitive implication of 'education'. We may naturally talk of training of character when we wish to ensure reliability of response in accordance with a code. But when we speak of moral education, we immediately envisage addressing ourselves to the matter of what people believe, and to questions of justification and questions of fact connected with such beliefs. To make the point more clear, sex-education is given by doctors, school teachers and others who are capable of incorporating working information and value judgements about sexual matters into a complicated system of beliefs about the working of the body, personal relationships, and social institutions. Sex training has entirely a different connotation and cannot be given to pupils in the classroom.

1.7.4 Knowing How (Procedural Knowledge) and Knowing That (Propositional Knowledge)

The connection between education and cognitive content explains why it is that some activities seem rather more than others to be so obviously of educational importance There are some skills, however, which do not have wide-ranging cognitive content. There is very little to know about riding bicycles, swimming or playing hockey. It is a matter of "knowing how" rather than of "knowing that", of knowledge rather than of understanding. On the other hand, in history, science, or literature there is much to know about. If that content is properly assimilated or understood, it throws much light on, widens or deepens one's view of countless other things. Games, on the other hand, require skills rather than understanding. They can be conceived of having educational importance only so far as they provide opportunities for acquiring knowledge, qualities of mind and character, and skills that have application in a wider area of life.

Seeing the connection between education and cognitive content one might say that education is nothing but instruction or teaching. But the main point here is surely not that education refers to any special sort of process which might be equated with instruction, training or drill, Rather, it encompasses three basic criteria which processes must satisfy. These are:

(i) worthwhileness,

(ii) relevant knowledge and skills which involve understanding and

(iii) voluntariness.

There is a school of thought which is hostile to mere instruction. The adherents of this school conceive of education as change in behaviour, no doubt, in a desirable direction. This school is known as pragmatism or behaviorism which had its origin in America. But the fact is that an educated man is distinguished not so much by what he does as by what he 'sees' or grasps. If he does something very well, in which he has been trained, he is not necessarily an educated man unless he sees this in perspective as related to other things. It is difficult to conceive of a training in which even a small amount of instruction has no place but one that would nevertheless result in an educated man. For being educated involves "knowing that" as well as "knowing how". In education, allegiance should be given only to standards connected with truth, which are intrinsic to the mind's functioning and hence desirable or worthwhile.

Second, education should not be confined to specialist training. One should be trained in more than one form of knowledge, that is, in wider perspective. For example, a

scientist, or a doctor, to be truly educated, must be cognizant of other ways of looking at the world so that he can grasp the historical perspective, social significance and moral implications. So in education there is importance of both training and instruction.

Check Your Progress

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

b) Compare your answer with the one at the end of the unit.

8. Whom would you call an educated man?

.....

.....

.....

.....

9. Clarify the difference between training for emotion and educating the emotion.

.....

.....

.....

.....

10. Differentiate with examples "knowing how" from "knowing that".

.....

.....

.....

.....

1.8 EDUCATION AS INITIATION

Then there is still another account of education, which is more positive and consistent with the three criteria of education already explained. This is the model (if at all it can be called so) given by R.S. Peters. It more closely clings to the contours of the concept of education, which have been traced hitherto. The main thesis claimed in these contours is that education "marks no particular type of transaction between the teachers and the learners; it states criteria to which such transactions have to conform".

According to R.S. Peters, education involves processes that introduce people to what is valuable in an intelligible and voluntary manner and that create in the learner a desire to achieve it. To describe these processes, the use of terms like training and instruction, and even teaching will be too specific. Education can occur without these specific transactions and can take place in ways, which fail to satisfy all the criteria implied by education. Peters uses a very general term "*initiation*" which may cover different types of transactions like instruction, training etc. According to Peters *education is an initiation into what is worthwhile.*

Peters further explicates his thesis. According to him, the mind of the child at birth is only an undifferentiated awareness. It is only gradually that this awareness is developed into wants, beliefs and feelings. He comes to name objects, locate his experiences in spatio-temporal context, and searches causal and 'means to end' categories. Such an embryonic mind is the product of initiation into public traditions enshrined in a public language. With the mastery of basic skills the individual (doer) is opened to a vaster and variegated inheritance. And when the individual is more distinctly initiated into different forms of knowledge like science, history, mathematics, morals,

prudential and technical forms of thought, further differentiation results. And it is education that marks out the processes by means of which an individual is initiated into them.

However, there are many thinkers like Dewey who have attacked the notion that education comprises transmission of a body of knowledge. They lay stress on development of the ability to think critically, to experiment, and to solve problems. But the question is, can one develop such ability in a vacuum or can/should we teach poetry to teach critical thinking? Can we solve historical problems without knowing history? No doubt, the development of such cognitive skills is essential to what we call being educated but development of such skills cannot take place without some appropriate cognitive content or a body of knowledge. Similarly, when bodies of knowledge were handed on without making efforts to hand on the cognitive procedures by means of which they had been accumulated, criticized or revised it, would lead to incomplete education of a man. .

It is, therefore, important that people should be initiated gradually into the procedures that define a discipline as well as its content. They should learn to think historically, not just know history. But the procedures of a discipline can be mastered only by an exploration of its established content. Without knowing the procedures, knowledge of the content will not serve any useful purpose. Whitehead also once remarked that a well informed man is the most useless bore on God's earth. But Peters adds that equally boring are those for whom being critical is a substitute for being well informed.

1.8.1 Inter-subjectivity – The Impersonal Standards

There is a further point that needs to be made. Critical procedures by means of which well-established content is assessed, revised, and adopted to new discoveries have public criteria that stand as impersonal standards to which both teacher and the learner must give their allegiance. Any method or content of education must satisfy the criterion of this essential inter-subjectivity of education. D.H. Lawrence refers to this criterion as 'the holy ground'. To liken education to therapy is to conceive of it as imposing a pattern on another person and hence it is doing injustice to the shared impersonality of both content and method. Similar is the case with the growth theorists who hold that we should fix the environment so that one can grow. The teacher is not a detached operator who is bringing about some kind of change in another person who is external to him. His task is to try to get others on the inside of a public form of life that he shares and considers to be worthwhile. In science, it is truth that matters, not what any individual believes to be true. In morality, it is justice and care. So, according to Peters, initiation is the apt description of this essential feature of education, which consists in experienced persons turning the eyes of others outwards to what is essentially independent of persons. It is also an apt description of another aspect of education stressed by growth theorists, viz. the requirement that those who are being educated want to do or master the worthwhile things, which are handed on to them. The pupils should neither be coaxed or persuaded to do such things, (as stressed by the progressive teacher) nor should there be any kind of coercion as done by the traditional teacher. The modern educational theorists are of the opinion that any kind of command or direction given to the child is against the very spirit of education. But this concept of education may not be very true especially in the case of less intelligent children.

This brings us to the final and perhaps the most fundamental point about education. According to Peters, education implies standards, not necessarily aims. It consists in initiating others into activities, modes of conduct and thought which have standards written into them by reference to which it is possible to think, act, and feel with varying degrees of skill, relevance and taste.

1.9 EDUCATION AS DISTINGUISHED FROM LEARNING, TEACHING, TRAINING, INSTRUCTION, SCHOOLING, AND INDOCTRINATION

Often, education is equated with certain terms like learning, teaching, training, instruction, schooling and indoctrination. Although the processes involved in all these activities form a part of the process of education, they are inadequate to explain the concept of education in its true sense. Although some explanation has already been given about these terms, let us examine all these terms in comparison to education.

Education and Learning

Education has a close relationship with learning. But, can we say that whenever some learning takes place, a person seems to have received education? The answer to the question is 'yes' and 'no' as well. In order to substantiate the answer, let us understand learning as viewed by psychologists. Learning is a process which results in a more or less permanent modification of behavior as a result of practice or experience. But any change in the behavior of the human being resulting from physical or physiological maturation cannot be considered as learning. Learning can be positive as well as negative. Only positive or desirable learning contributes to the process of education while negative or undesirable learning is not considered a part of education. Education as compared to learning seeks to mould the entire personality of an individual. In other words, the focus of education is on the whole man. Education makes use of the process pf learning to mould the holistic personality of an individual.

Education and Teaching

Teaching is the act of transmitting learning experiences to the learner through generation of a conducive learning environment. The main purpose of teaching is to provide the learner desirable learning experiences and thereby help him achieve the goals of education. Teaching is always a two-way process between the teacher and the learner but when another element, namely, 'the social setting or 'socio-cultural influences' is added to this process, it becomes an educative process. Hence, education is also called a tri-polar process in which three elements namely: Teacher (Educator), Learner (Educand) and the Society are involved.

Education and Instruction

Teaching-learning can take place in both a natural and contrived or controlled environment. In a natural environment, learning occurs when an individual interacts with the components of the environment in an informal and unorganized manner. But when the teaching-learning tasks are purposefully designed for the individual to achieve pre-defined learning goals in a controlled environment, it takes the form of instruction. Therefore, instruction involves the provision of a controlled environment with which the individual will interact, leading towards the achievement pre-determined learning objectives. But education is broad in comparison to instruction. It can take place anywhere and any time, in both controlled and uncontrolled environments, for the achievement of the development of the whole man.

Education and Training

Training is a systematic process of developing desired skills in particular aspects of life or vocations through instruction and practice. The main objective is to develop specific skills in the individual so as to make him an expert in the concerned field. Training activities can be organized for any kind of vocation and profession, such teaching, nursing, driving, cooking, and many other technical jobs. But, education is concerned with the development of the whole individual.

Education and Schooling

Education is essentially a lifelong process which starts from the birth of a person and continues up to his death. The entire life experience is, thus, educative. There is no fixed period in one's life which we can attribute to the period for education. On the contrary, schooling is an act of consciously imparting knowledge, values and skills according to the needs of the society and the individual in a formal situation. School provides deliberate and systematic knowledge in specialized areas which may not be gained though the life process while Education relates to a broad range of life experiences, schooling has a limited range of life experiences.

1.10 WHO IS A TEACHER?

Now the teacher having been initiated, he is on the inside of these activities and modes of thought and conduct. Being so initiated, he perhaps understands vividly that some created objects are beautiful and others not; he can recognize the elegance of a paragraph, cogency of an argument, the clarity of an exposition, the wit of a remark, and justice and wisdom of a decision. He has a love for truth, a passion for justice, and a hatred for what is tasteless. Like Socrates, he senses that to really understand what is good, ipso facto, is to be committed to its pursuit. To be educated is not to have arrived at a destination; it is to travel with a different view. What is required is not feverish preparation for something that lies ahead, but to work with precision, passion, and taste at worthwhile things that lie at hand. These worthwhile things cannot be forced on reluctant minds; they are acquired by contact.

At the culminating stage of education, both teachers and the taught participate in the shared experience of exploring a common world. Usually it is the group experience. The great teachers are those who can conduct such a shared exploration in accordance with certain general rules and principles. That is why humour is such a valuable aid to teachers: for if people can laugh together, they can step out of the shadows of self-reference cast by age, sex, and position.

Apart from impersonality of standards by reference to which we judge the quality of shared experiences both of the content as well as the method, we quite often talk of the dimension of personal relationship in teaching. Let us examine the legitimacy of this dimension, that is, of the good personal relationship between the teachers and the taught. If we reflect on our own experiences of teaching in the classroom situation, we find that the enjoyment of a good personal relationship with the students becomes a part of good teaching. What is in fact required of a teacher, in addition to the feeling of fraternity, is a *respect for person*, not intimate relationships with the pupils. We have to treat them as pupils, never as brothers, sons or daughters etc. We as teachers, should remember that we are dealing with others who are distinctive centres of consciousness. Each one is bound up with and takes pride in his own achievement and mirrors the world from a distinctive point of view. The teacher has to bear in mind all these kinds of individual differences that psychology has revealed to us. The appositeness of the educational slogan 'We teach children, not subjects' becomes clear in view of such a child-centered approach to education. In regard to such differences, it is not the age that is so important as the development of motivation and of cognitive structure, and of the degree of initiation into public and differentiated modes of thought. "Respect for persons, enlivened by fraternity provides the warmth in which the teacher can perform his cardinal function of initiating others into what is worthwhile. The modes of thought will be worthwhile if they are publicly intelligible, not merely personally gratifying.

1.11 LET US SUM UP

In the present unit titled "Concept and Meaning of Education" we began our discussion by providing etymological derivation of the term "Education". We also cited a few definitions on education to present to you how different thinkers have perceived education differently. We then explicated the concept of education by bringing out certain contexts in which education is appropriately used and those in which it is not. As a sequel to it, the descriptive theories of education were distinguished from the practical theories. The latter theories included the pedagogical and the general theories of education. When we make a general point about education saying, for example, that education is the most effective way of socializing the young or converting them from human animal to human being, we are only making reference to the descriptive theories of education. Theories of this kind purport to give a correct account of what education as a matter of fact does. They describe the role or functions of education. But when we tend to make a specific recommendation or prescriptions about what those engaged in the enterprise ought to be doing, we are making reference to the practical theories of education. The practical theories are further divided into 'pedagogical' and 'general' theories of education. The pedagogical theories are more limited in scope and deal with what teacher in the class ought to be doing in order to achieve the end, which is thought worth achieving. The general theory starts with assumptions about the end to be achieved–the notion of an educated man.

In the history of educational thought, two major assumptions have been made about the nature of human nature both of which radically differ in their emphasis and, hence, lead to radically different educational practices. According to the first assumption man is compared with a wonderfully contrived machine (Hobbes). By contrast Froebel likened the model of man as a living, growing, developing creature, a natural whole that is not just a compendium of parts. This whole is logically prior to its parts – the parts exist only as parts of the whole. Based on these two distinctly separate assumptions about man, two models of education emerged - the mechanistic and the organic models. According to the mechanistic model adopted by Helvetius, James Mill and J.F. Skinner, pupil would be seen as a device whose workings could be regulated from without. This model is also known as the instrumental or moulding model. According to the organic model, education is not seen as a modification or shaping from without but encouraging children develop from within. Rousseau, Froebel, Dewey, Tagore, Aurobindo and J. Krishnamurti exemplify this latter model.

But to understand education qua education we need to deal with it from the vantage point of those engaged in the enterprise i.e. the practice of education. It is not to see education from the spectator's point of view but rather from the point of view of the teacher's task in the classroom. Taken in that sense, education is not to be taken as instrumental to some external ends in the sense that economists, or sociologists or therapists would consider it. It has been stressed that education represents a deliberate attempt to help children develop a desirable state of mind. In this sense, it is not only the end product that should be worthwhile but even the processes involved should be so. Viewed in this sense, education is distinguished from training, instruction, indoctrination, or even teaching. Most of these processes are involved in 'educating' but any one of these may not necessarily be educational. We may for example, train a person for pick pocketing, and second, we can train both a human child as well as a dog or a cat or even pigeon, but we can educate only a human child. Regarding the nature of processes involved in education, it is to maintain that there can be no set processes, which are, of necessity, valuable, and hence may be adopted for educating the pupils. There are however, certain criteria to which processes involved in education should conform. It is on this ground that we can hold aims to be more important in education than its purposes or motives. 'Aiming', as we know, is concentration on

something within the field of activity whereas 'purpose' represents an external end, which may be served, by being educated e.g. human resource development,

Values in education are intrinsic ends, not extrinsic and hence both manner and matter of education should be worthwhile. The procedural principles used in education, as to how to deal with child, letting children choose for themselves, learn by their own experiences etc are very important. Nothing should be imposed from without, however good it may seem to be.

Having described such contours of education as a process or as a product we discussed the connotation and denotations of an educated person. It is argued that a person who is educated shall care about what is worthwhile as a process or as a product. He/she shall achieve relevant standards. He knows what is doing. And whatever he is doing is not because of being conditioned, indoctrinated but on his own and he also owns the responsibility of the consequences of his actions. He has developed a cognitive perspective, which represents more wider and humane contexts of his field of activities. In a way an educated person is initiated into worthwhile ness and has developed interpersonal standards of behaviour which can be subject to public scrutiny.

The kind of education delineated above can be received only through a teacher who himself is so initiated. Being initiated into worthwhile ness the teacher has a clarity of exposition and can recognise the cogency of an argument, justice and wisdom of a decision. He has a love for truth, passion for justice; what he understands as good and is committed to that pursuit. To be educated is not to reach a destination; it is to travel with a different view. He has precision, passion and taste for worthwhile things whether products or processes. He participates in shared experiences, has respect for his pupils as persons and has developed good interpersonal relationships and realizes the appropriateness of the slogan: "we teach children, not subjects" as also of another slogan: we cannot teach anybody anything, we only facilitate children so that they can learn better.

1.12 UNIT-END ACTIVITIES

1. Find out the definitions of Education other than those given in this unit and analyse them in the framework of discussion presented in this unit.
2. Interview people from different walks of life on the concept of education and judge whether their perceptions about education match the presentation in this unit.

1.13 POINTS FOR DISCUSSION

1. How do the economists, sociologist or the therapist view the function of education?
2. What is the function of educational philosophy?
3. Differentiate between a pedagogical and a general theory of education by citing examples.
4. Discuss the nature of human nature according to both behaviourists (instrumentalists) and growth theorists.
5. How is Plato's view of education is a synthesis of moulding model and growth model?
6. What is cognitive perspective in education? Clarify with the help of concrete examples.
7. Distinguish between "knowing that" and "knowing how".
8. Explain the phrase 'initiation into worthwhileness'.

9. "Education implies standards, not necessarily aims": Explain.
10. Who can be said to be educated? Distinguish it from the concept of a teacher.

1.14 SUGGESTED READINGS

Dagar, B.S. and Dhull (1994): *Indian Respectives in Moral Education,* New Delhi: Uppal Publishing House.

Dewey, J. (1916): *Democracy and Education,* New York: Macmillan.

Durkheim, E. (1956): *Education and Sociology,* Chicago: Free Press.

Froebel, F. (1900): *The Education of Man,* Fairfield, New Jersey: Kelley.

Hirst, P.H., (1974): *Knowledge and the Curriculum,* London : London : Routledge and Kegan Paul.

Hirst P.H. and Peters, R.S., (1970): *The Logic of Education,* London : Routledge and Kegan Paul.

Moore, T.W. (1974): *Educational Theory: An Introduction,* London : Routledge and Kegan Paul.

Moore, T.W. (1982): *Philosophy of Education: An Introduction,* Routledge and Kegan Paul.

Peters, R.S. (1973): *Authority, Responsibility and Education,* London: George Allen and Unwin Ltd.

Peters R.S. (1981): *Essays on Educators,* London: Allen and Unwin.

Peters, R.S. (1968): *Ethics and Education,* London: Allen and Unwin.

Peters, R.S. (Ed.) (1980): *The Philosophy of Education — An Introduction,* Oxford: Oxford University Press.

Plato, *The Republic,* London : Penguin, 1970.

Rousseau, J.J., *Emile,* London : Dent, 1974.

Ryle, Gilbert (1949): *The Concept of Mind,* London: Hutchinson & Co.

1.15 ANSWERS TO CHECK YOUR PROGRESS

1. Descriptive theories give a correct account of what education does. Prescriptive theories make recommendations with regard to educational practice.
2. Sense training, physical training, training in self-reliance.
3. General theory of education. Because production of natural man is the outcome of physical training, sense training, negative education, etc. which are limited theories.
4. The assumption behind mechanistic model of man is that man is a wonderfully contrived machine, composed of springs, wheels and levers. The assumption behind organismic model of man is that man is a living, growing, developing creature, a natural whole.
5. Desirable state of mind refers to moulding human minds into some desirable end products which vary from context to context.
6. Yes, worthwhile criteria can be taken into account because all processes and activities such as training, instruction must conform. One such criteria is that what a teacher passes on to his students must be of value.
7. Progressive ideology consists in the development of the potentialities from within rather than moulding from without. Curriculum should be generated from the

8. An educational man is initiated into the context of the activity or forms of knowledge in a meaningful way, so that he knows what he is doing. He cares about what is worthwhile and provides conditions and things to attain what is worthwhile.
9. Drilling student's emotions and making them as habits do training of emotions. Educating emotions is a natural process and broader than training of emotions. Emotions can be educated in a wider educational space.
10. Knowing How refers to procedural knowledge a child obtains without cognitive content, such as riding a bicycle. Knowing That pertains to propositional knowledge which a child receives from cognitive content like History, Science or Literature.
11. Education as initiation means that a child is introduced to what is worthwhile. A child at birth is having undifferentiated awareness. But gradually he is initiated to a whole lot of experiences through the process of education.

UNIT 2 EDUCATION AS A FIELD OF KNOWLEDGE

Structure

2.1 INTRODUCTION

Human knowledge–its nature, sources, types–has been a favourite area of interest to philosophers since ancient times. The result has been the emergence of the important branch of philosophy, i.e. epistemology. Epistemologists, historically, have concerned themselves with such questions as What is knowledge? How do we acquire knowledge? Is knowledge one or many? What is the structure of knowledge and what are its logical categories and so on. Philosophical findings on these epistemological issues will surely have theoretical and practical ramifications on the different aspects of education, in particular to the body of knowledge that "education" represents. Especially important for understanding the nature of education is a probe into the structure of knowledge and its logical categories. In this connection, we face such questions as: What does education as an area of intellectual study deal with? Is education a science or art? What is an educational theory? How does it differ from a scientific theory? And so on. Surely, these cannot be answered without reference to philosophical work on the composition and structure of knowledge and its different forms. This unit attempts to discuss the concept and structure of knowledge and disciplines, forms of knowledge, status of education as a discipline, its characteristic attributes and so on.

2.2 OBJECTIVES

After going through this unit, the learner should be able to:

- explain the structure of knowledge and discipline and their implications for curriculum design;

- discuss different forms of knowledge and their basic structure;
- differentiate between basic and applied disciplines;
- analyse the status of education as a discipline;
- analyse the role of other disciplines in education;
- discuss the criteria of the educative process; and
- explain the cognitive and social requirements of education.

2.3 CONCEPT AND MEANING OF KNOWLEDGE AND DISCIPLINE

2.3.1 Nature of Knowledge and Discipline

Knowledge is the sum total of man's interactions with his environment and his interpretations of the same. It is not a unified whole but constitutes different approaches to the understanding of life. Different approaches to classification of knowledge suggest different aspects of the process of knowledge acquisition and hence their significance to the curriculum planner. These classifications and categorizations have been characterized differently by different philosophers as 'disciplines', 'forms of knowledge', 'realms of meaning' and so on.

A discipline is an organized body of knowledge with a logical structure. It is a network of concepts and generalizations which explain the relationships among a body of facts. Man learns by seeing relationships among different events and processes, by generalizing about them. He sees relationships among different facts and events with the aid of concepts and conceptualizes by classifying. We link concepts belonging to a class together and form conceptual network of systems. It is these conceptual schemes that constitute disciplines. A discipline is an organized body of knowledge, characterized by a domain, a method and a tradition.

A discipline is characterized by its structure. First, it has a domain, a field of phenomenon (subject matter), with which it deals. This may refer to different aspects of reality – scientific, logical (science and mathematics) exclusively or with different degrees of overlapping. Secondly, every discipline has its own method and mode of inquiry and also accepted set of rules by which to validate it. The rules of one discipline cannot be applied to other. Thirdly, a discipline has a history. The effect of history or tradition of a discipline is to define to some degree the domain and rules and philosophy of that discipline. The detailed explanation of a structure of a discipline is as follows.

Knowledge is produced by a variety of disciplines. As mentioned already, each discipline operates upon a domain. Not only has every discipline a domain, but every theory within a discipline also has a domain, the objects upon which the intellectual operations of the researchers are carried out. For example, the biological theories are concerned with the organization and movement of matter in living systems. The domain of high energy physics involves the behaviour of nuclear particles. The domain of learning theory encompasses the behaviour of people confronted with stimuli and verbal problems. It is necessary to note that the domain of an academic discipline is quite distinct from the knowledge produced by that discipline. 'Knowledge' may be regarded as the set of assertions or verifiable truth-claims which researchers in the discipline have cumulatively built up about the domain. The practitioners of the discipline operate upon the domain by means of a **substantive structure** and a **syntactical structure.**

The substantive structure of a discipline is the interrelated collection of powerful ideas that guide research in a discipline.

The syntactical structure of a discipline is concerned with issues such as the way in which new substantive concepts are formed and the ways in which different kinds of knowledge statements generated by the discipline may be validated. In short, it is concerned with the modes of thinking and reasoning used in the discipline.

Knowledge is also the product of a social structure. Although it is the individual scientist or a social theorist who acts as the creator of new ideas in the discipline, it is the function of groups of scientists/ social scientists to critically assess these ideas and decide whether or not to incorporate them into a discipline.

In short, disciplines involve groups of creative people who interact with one another. Disciplines are not simply the products of rational machines. The production of knowledge within a discipline has psychological, sociological as well as logical aspects.

2.3.2 Categories of Knowledge

'Knowledge' (or its generic word 'know') is used in a variety of ways and this suggests that knowledge may be of different types. Leaving aside the mystical interpretations of knowledge, the standard analysis of 'knowledge' suggests that one can distinguish three types of knowledge. Propositional knowledge ('knowledge that' or knowledge of what is expressed in true statements), procedural knowledge (knowledge 'how' or knowledge of how to do things) and direct knowledge (knowledge of persons, one's own mental states). Basic to the three types is propositional knowledge, and it is to this type of knowledge that the structure of knowledge question is addressed.

What exactly are the structural features of this domain of knowledge? Is it one complex body of inter-related concepts, a unity, or is it a diversity of logically distinct 'forms'? If it is the latter, how many such forms are there and what is the basis on which they are distinguished?

That propositional knowledge is not all of one logical type no one would seriously dispute, but the actual number of such logically different knowledge 'forms' is still a contentious issue. Let us consider, for illustration purposes, the propositions of mathematics and physical science. A proposition can be looked at in two ways, from the point of view of whether it contains any factual content and from the standpoint of the criteria employed for deciding its truth or falsity. In the first class, we have propositions like "sodium chloride dissolves in water" which give us factual information (synthetic propositions) and also those like "bachelors are unmarried people" that simply analyze the meaning of the words used (analytic propositions). From the standpoint of criteria, we have propositions whose truth can be decided only with reference to observation and verification of facts (a *posteriori* propositions) and those whose truth or falsity can be decided by pure reason without recourse to verification with experience (a *priori* propositions). It can be clearly demonstrated that mathematical knowledge is of the analytic or a priori type and scientific knowledge is of the synthetic or a posteriori type.

Encouraged by this clear-cut logical distinction between propositions of science and mathematics, and its consequences for teaching and curriculum, several philosophers of education have addressed themselves to the question of identification of the different forms of knowledge and designing a curriculum on that basis. One of the most influential theories in this regard has been put forward by the Cambridge Professor of Education, Paul H. Hirst.

Hirst's thesis is that the domain of human knowledge can be differentiated into a number of logically distinct 'forms' none of which is ultimately reducible in character to any of the others, either singly or in combination. According to him, there are seven such forms: formal logic and mathematics, physical sciences, the human sciences including history, moral understanding, religious knowledge, philosophy and aesthetics. The features that distinguish these different forms are:

1) They involve certain central concepts that are peculiar to the form. There are different types of concepts that characterize different forms of knowledge.

2) They have distinctive logical structures. The concepts occur within different networks, where relationships determine what meaningful propositions can be made.

3) They have distinctive criteria for truth in terms of which their propositions are tested.

4) They have developed particular techniques and skills for production of true propositions.

Check Your Progress

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

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

1. What is a discipline?

.....

.....

.....

.....

2. Differentiate between substantive structure and syntactical structure.

.....

.....

.....

.....

3. How can knowledge be categorized?

.....

.....

.....

.....

2.4 TYPOLOGY OF FORMS OF KNOWLEDGE OR DISCIPLINES

2.4.1 Basic Discipline

Discipline is a form of learning that is structured in terms of a single type of truth criterion and a determinate methodology that is derivative from it. Each discipline has its own network of concepts which are distinctive and unique in nature. Such disciplines can be categorized as Basic Disciplines, which have their own logical structure of knowledge. For example, mathematics is a form of basic discipline where the concepts are abstract in nature, and the test of truth criterion that can be used is deducibility within an axiom system.

The discipline of science consists of its own concepts, facts, principles, generalizations, laws and theories which refer to the sensible world and are empirical in nature. Here observation is employed as the truth criterion for verification of knowledge. Science is an organized body of knowledge that has been systematically built in order to understand nature and nature's laws. This total body has been divided into numerous scientific disciplines of more specialized characteristics like Physics, Chemistry and Biology.

The human sciences include our awareness and understanding of our own and other minds, and include concepts that are essential to interpersonal relationships. Some of the human sciences are Sociology, History, Anthropology, Psychology and so on.

Similarly, philosophy as a basic discipline which was also considered earlier as the 'Mother of all Sciences' includes concepts which are irreducible in nature and have serious claims to independent status.

Hirst's schema of forms of knowledge along with the nature of concepts, tests of truth and examples of propositions are given in the following table.

Forms of Knowledge	Nature of Concepts	Tests of Truth	Examples of Propositions
Formal logic, maths	Concepts that pick out relations of a general abstract kind.	Deducibility within an axiom system.	"The base angles of an isosceles triangle are equal".
Physical Sciences	Concepts that ultimately refer to the sensible world.	Test of observation	"At constant temperature, the volume of a gas varies inversely with its pressure".
Our awareness and under-standing of our own and others' minds (History and Human Sciences)	Concepts essential to interpersonal relationships and knowledge like 'believing', 'deciding', etc.	Judgement of our own states of mind.	"Failure of the league of nations led to the Second World War".
Moral awareness and judgements	Ought, duty, good...	Serious claims to independent status, irreducibility	"It is one's duty to abide by Dharma".

Forms of Knowledge	Nature of Concepts	Tests of Truth	Examples of Propositions
Aesthetic experience	Forms of symbolic expression not confined to the linguistic.	Serious claims to independent status, irreducibility.	"The universe aches for expression in its endless rhythm of lines, colours, music and movements".
Religious experience	Distinct concepts, irreducibility.	Serious claims to independent status, irreducibility.	"Jnana, Bhakti and Karma are different steps to secure the Grace of God".
Philosophical Understanding	Unique second order concepts	Serious claims to independent status, irreducibility.	"Substance and its attributes are externally related".

Source: Hirst (1974).

Such a characterization of knowledge opens up a number of questions and arguments. The sociologists of knowledge fundamentally disagree with any attempt to explain knowledge purely in terms of epistemological considerations without emphasizing the social determinants. Hirst's categorization has been criticized for his excessive stress on the cognitive aspects of discipline and his characterization of art, morals, religion as propositional knowledge. Hirst's number of forms of knowledge and their discernibility have also been criticized. Certain forms of knowledge like philosophy, ethics and religion were considered to be too abstract to be learnt. But Paul Hirst was not ready to accept this criticism. For him, however abstract a field of knowledge may be, it is the question of teaching strategy involved that matters in teaching a subject. He argued that the liberal education of a rational person involves initiation into all those forms of

knowledge, which would give curriculum the necessary breadth and also act as an antidote for narrow specialization. He stressed that understanding of the logical grammar of a subject is essential (besides the psychological principles underlying the learning process).

While one may disagree with a particular categorization of knowledge, the important epistemological finding that propositional knowledge can be classified into distinct domains characterized by their logical structure can in no way be overlooked in the practice of education. Acquisition of knowledge and understanding in any school subject is not a matter of collecting facts and information. It is more importantly, a matter of understanding its logical structure.

The forms of knowledge given in the table can be classified as follows:

a) Distinct Disciplines or Forms of Knowledge: Mathematics, Physical Sciences, Human Sciences, History, Religion, Literature, Fine Arts and Philosophy.

b) Fields of Knowledge: Theoretical, Practical (these may or may not include elements of moral knowledge).

It is the distinct disciplines that basically constitute the range of unique ways we have of understanding experience to which moral knowledge may also be added. Although the domain of human knowledge is regarded as a number of logically distinct forms based upon the nature of concepts and experiences involved, it is said by Hirst that for many purposes, we deliberately and self-consciously organize knowledge with a large variety of fields which often form the units employed in teaching.

2.4.2 Applied Disciplines or Fields

The applied areas are those wherein the knowledge of basic disciplines are used. For example, scientific and industrial knowledge is used in technological applications. The areas of bio-engineering, bio-technology, applied physics, environmental biology, medical sciences are some of the examples of applied areas. Meteorology, oceanography and space science may be grouped with the earth sciences, like geology, ecology, mineralogy and environmental science which by the application of methods and principles used in mathematics, physics, chemistry and biology describe the earth and its environment.

Although the domain of human knowledge can be regarded as composed of a number of logically distinct forms of knowledge, we do, in fact, for many purposes, deliberately and self-consciously organize knowledge into a large variety of fields which often form the units employed in teaching science.

Apart from this, as knowledge advances, new specializations are born with their roots in basic disciplines and merge with other relevant areas.

2.4.3 Multidisciplinary and Interdisciplinary Areas

A more recent approach is to utilize one discipline or several disciplines as a centre for organizing curriculum. For example, the structure of the Economics discipline might form the skeleton. Concepts from the other social sciences would be utilized to flesh out the skeleton and to enrich both the study of social sciences and also the study of economics. This is an interdisciplinary approach in which one discipline serves as the principal organizer, with related disciplines serving as vital adjuncts, yet supplemented to the principal organizer.

A multidisciplinary approach occurs when structure or concepts are selected from various disciplines to create a new field of study. The new field results from intermingling the abstracted concepts and is independent of the separate disciplines from which it was formed. For example, the area of environmental education requires the use of biology, geography, geology, physics, chemistry and education. Similarly, the area of population education requires the use of biology, economics, psychology,

sociology, geography and so on. There are many other areas, which are multi-disciplinary in nature like Home Economics, Home Science, Social Biology, etc.

Check Your Progress

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

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

4. Distinguish between basic discipline and applied discipline

.....

.....

.....

.....

5. What is a multidisciplinary approach?

.....

.....

.....

.....

2.5 STATUS OF EDUCATION AS A DISCIPLINE

Various experts consider education as multi-disciplinary in nature for reasons, which are discussed here.

There are educational problems varying considerably in scope and complexity, but there is no set of specifically educational techniques and procedures with which to tackle these problems. It is necessary to have recourse to one or more of the underlying disciplines such as psychology, sociology, history and philosophy. For example, it is argued if one is investigating into the intelligence of a child, how can psychology be avoided? Similarly, when one is enquiring into the role and function of head teachers, how can sociology be avoided? If the concern is to lay down a curriculum for general secondary education, how can philosophy be avoided?

Philosophy as a discipline with its tools helps in analyzing educational concepts, theories and providing justification. It examines critically and seeks to clarify the concepts that are used in Education. Apart from this, Education makes use of different philosophical approaches like naturalism, pragmatism, idealism and so on to draw relevant implications to pinpointed problems like discipline and punishment in the classroom, freedom of learners, teaching and learning. Similarly, while planning curriculum and instruction, and to understand learners' intelligence, emotional dimensions, behaviour, etc. the discipline of Psychology becomes useful. The Sociological aspects are considered while viewing school as the sub system of the society, socialization of the child, impact of society on school curriculum and the learner. Thus we have the areas like Philosophy of Education, Psychology of Education, Sociology of Education, History of Education and Economics of Education.

However, there is totally a different viewpoint that considers Education as a discipline, which is as follows.

The practice of education is surely a discipline. Some ways of educating are preferable to others; there must be rules distinguishing the better from the worse practices and enjoining us to choose the better. Educational skill, is, furthermore, not instinctive but rather the product of training and experience, leading to a mastery of these rules. Such training and experience, as well as the finished art of the master teacher, serve, finally, to discipline the educator as all art disciplines the artist, through the continual

challenge to exercise discretion and judgement, patience and foresight, to sacrifice himself in the quest for excellence, to perfect his understanding and love of his material (Scheffler, 1973).

This account of the practice of education is certainly plausible. Yet it does not have the slightest tendency to establish the fact that the practice rests upon some autonomous branch of knowledge distinctive to it.

That educational skill is a result of training and experience may provide another reason for holding the practice of education to be a discipline. It gives no support, however, to the supposition that there must be a distinctive branch of science underlying the practice. Medical skill is a product of training and experience, though it draws upon a host of intellectual disciplines. That medicine is a practical discipline does not imply the existence of a unique science of medicine.

Let us then resolve to speak here of theoretical disciplines exclusively–of branches of knowledge or bodies of science. Each such discipline, it may be said, strives to offer a complete, systematic account of some realm of things in the world. It seeks a comprehensive body of true principles describing and explaining the realm it takes as its proper object. The realm of physical things is the object of the discipline of Physics, whose province thus embraces all significant truths concerning physical objects.

Consider now the realm of things involved in educational processes: schools, subjects, ideas, social practices and traditions, students, teachers, methods and curricula. Surely this important realm must form the proper object of some single theoretical discipline comprehending all significant general truths about the processes of education. Unless we are to abandon the assumption that the world is ordered, we must suppose that there is, for each realm, and in particular, for the educational realm, some special and exclusive discipline, comprising within its scope all those principles capable of describing and explaining the peculiar order which it exemplifies. (Scheffler, 1973). The variety of disciplines, on this view, thus arises out of the variety of types of phenomena. To each such type corresponds a single discipline, and every discipline corresponds to some single type. The existence of educational phenomena thus guarantees at least in principle, a unique discipline of education, though admittedly, any range of objects manifesting educational phenomena will certainly be manifesting other sorts of phenomena as well and so be analyzable by several disciplines at once (Scheffler, 1973).

From the above viewpoint, one can arrive at that Education is an applied discipline, since it is a product of training and experience leading to educational skills. Education has its own field of concepts, processes, ideas, traditions, methods, curricula and the agents involved which form the proper objects of a discipline. The existence of educational phenomena of its own concepts, theories and practices guarantees education as a unique discipline.

Check Your Progress

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

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

6. Is education a discipline? Justify.

.....

.....

.....

.....

.....

.....

2.6 DUAL PERSPECTIVES OF EDUCATION

2.6.1 Conceptual – Logical Perspectives

Education as a concept has been compared to 'reform' and 'Curing' by eminent educationist R.S. Peters in his analysis of education. 'Curing' covers a family of processes, such as surgery, administration of drugs, and so on, whose principle of unity is the contribution to good health. Similarly reforming people covers a family of processes which contribute to making them morally better. On the same lines 'educating' people suggests a family of processes whose principle of unity is the development of desirable qualities in them. This view of analysis leads to an implication that teachers who enter the profession would be striving to initiate others into a form of life, which they regard as desirable, in which 'knowledge' and 'understanding' play an important part.

With this background, R.S. Peters proposed three criteria of education which are as follows:

Criteria of Educational Process

1. Education implies the transmission of what is worthwhile to those who are committed to it.
2. Education must improve knowledge and understanding and some kind of cognitive perspectives which are not inert.
3. Education rules out some procedures of transmission on the ground that they lack willingness and voluntaries on the part of the learner.

We do not call a person 'educated' who has simply mastered a skill. For a man to be educated, he must also have some body of knowledge and some kind of conceptual scheme to raise this above the level of a collection of disjointed facts. This implies some understanding of principles for the organization of facts. One must also have an understanding of the 'reason why' of things. Education implies that a man's outlook is transformed by what he knows. The knowledge must not be inert in the sense that it must involve the kind of commitment that comes from being on the inside of a form of thought and awareness. A man cannot really understand what it is to think scientifically unless he not only knows that evidence must be found for assumptions, but also knows what counts as evidence and cares that it should be found. All forms of thought and awareness have their own internal standards of appraisal. It is important to have a commitment to understand and care for those things. 'Education is of the whole man' is not simply a protest against too much of specialized training. It is the conceptual connection between 'education' and seeing what is being done in a perspective that is not too limited. R.S. Peters, describes education as a process of 'initiation'. Initiation is meant here as initiating the child into a kind of life, a culture that is considered worthwhile. Education involves essentially processes which intentionally transmit what is valuable in an intelligible and voluntary manner and which create in the learner a desire to achieve it. Initiation is always into some body of knowledge and mode of conduct takes time and determination to master.

No man is born with a mind for the development of mind marks a series of individual and racial achievements. A child is born with an awareness not as yet differentiated into beliefs, wants and feelings. All such specific modes of consciousness are internally related to types of objects in a public world. Gradually the child learns to name objects, to locate his experience in a spatio-temporal framework and to see causal and 'means to end' categories; to make sense of events and actions and so on. Further differentiation develops as the child becomes initiated more deeply into distinctive forms of knowledge such as science, history, etc. Each of these differentiated modes

of thought and awareness is characterized both by a content or 'body of knowledge' and by public procedures, by means of which this content has been accumulated, criticized and revised. The process of initiation into such modes of thought and awareness is the process of education.

2.6.2 As Social Perspective

Every society believes in education as a potent instrument of social change, and for this reason, great importance is attached to schools. A significant feature of modern child study is that the object of study is the individual in relation with others. The individual grows in the community with others and has obligations to the community as the community has to the individual.

As said, one purpose of education among its many aims is to create social links between individuals on the basis of shared references. The means used are as varied as the cultures and circumstances, but in every case the central aim of education is the fulfillment of individual as a social being. Education serves as a vehicle for culture and values, creates an environment where socialization can take place. Education faces considerable challenges and helps in restoring some of those similarities essential to life in society. Faced with the breakdown of social ties, education has to take on the difficult task of turning diversity into a constructive contributory factor of mutual understanding between individuals and groups.

In any society, some states of mind, modes of conduct structured by forms of thought and awareness and culture are regarded as intrinsically valuable. Education is a term which we use for a family of procedures by means of which individuals are initiated into such forms of thought and awareness and into activities and modes of conduct informed by them. A great part of education takes place in more explicit contexts in institutions devoted to it, where learning situations are intentionally contrived with broad areas transmitting culture, values and imparting worthwhile knowledge. The social aims of education are to give all pupils an insight into their social inheritance, ideals, conditions, customs and institutions of society.

It is to help the individual by arousing knowledge of, an interest in, and a sympathy toward all branches of society. They give practice in social communication and social service. They develop social efficiency and adapt the individual to his society. The educational sociologists define education as "the pre-eminent process of developing in the individual the power of adaptation and adjustment to his social environment. One of the purposes of education is the formation of the common habits for social integration and social efficiency through social harmony. Education should help the individual to acquire the universally accepted habits and attitudes of his social group. Through education, a child should be enabled to keep himself away from crime and poverty, drugs and disease, selfishness and unemployment, and all such recognized evils. Social aims of education seek to perpetuate all traditional social beliefs and practices by pupil coercion. Educational institutions are used to change society by changing the individual who make up the society.

In ancient times, Spartan education was mostly based on social aims. The Spartan state was pre-eminent. So, education sought group welfare and everything and everybody was subject to this ideal. This was in accord with the general Hellenic archetype of individual excellence for tribal advantage.

An individual comes to a full realization of his own social dimensions through an apprenticeship of active participation in the functioning of social structures, and where necessary, through a personal commitment in the struggle to reform them.

Education serves to achieve these social outcomes through its multipurpose activities.

Check Your Process

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

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

7. What are the criteria of the educational process?

.....

.....

.....

.....

8. Differentiate between logical and social perspectives of education.

.....

.....

.....

2.7 LET US SUM UP

Knowledge is an interaction of man with his environment, which results in conceptual network leading to different conceptual schèmes. Knowledge is a sum of concepts, facts, principles and generalizations, which is unique to every discipline. Discipline is an organized body of knowledge with its own unique mode of enquiry and a history of evolution of ideas. There are basic disciplines, which have characteristic attributes of their own unique knowledge, method of accumulating knowledge, criterion of verification and evolution of ideas. The applied disciplines stem from these basic disciplines, which aim at application of ideas and principles that have resulted in various fields. The interdisciplinary and multidisciplinary areas are those that have integrated various disciplines relevant to the area. Education is considered as an interdisciplinary area as it borrows certain principles, rules and philosophies from the disciplines like philosophy, psychology, sociology, economics and so on to address various issues and problems related to the learner, learning environment, curriculum, instruction, discipline, etc. Education is considered as the family of ideas that is directed towards the 'wholeness of man' with special emphasis on its knowledge and social pursuits.

2.8 UNIT-END ACTIVITIES

1. Make a list of disciplines being taught in the college or the university from where you have received your education. Classify them according to the following broad areas.
   i) Basic discipline
   ii) Applied discipline
   iii) Multidiscipline
2. Examine the curriculum of Education as suggested by the University Grants Commission from the viewpoint of Education as a discipline and give your critical comment.

2.9 POINTS FOR DISCUSSION

1. Can Education stand independently as a discipline without depending upon other disciplines? Discuss.
2. Do we have 'disciplines' or 'subjects' in the school curriculum?

3. What is the meaning of conceptual structure that forms a basis for a discipline?
4. Of the seven forms of knowledge proposed by Paul Hirst, which are the most important to you as an educator?

2.10 SUGGESTED READINGS

Scheffler, I. (1973): *Reason and Teaching*, International Library of the Philosophy of Education, London: Routledge and Kegan Paul Ltd.

Woods, R.G. (1986): *Education and its Disciplines*, London: University of London Press Ltd.

Jeffreys, M.C.V. (1976): *Education: Its Nature and Purpose*, London: George Allen and Unwin Ltd.

Hirst, P. (1974): *Knowledge and Curriculum*, International Library of the Philosophy of Education, London: Routledge and Kegal Paul Ltd.

Peters, R.S. (1977): *Education and Education of Teachers*, International Library of the Philosophy of Education, London: Routledge and Kegan Paul Ltd.

2.11 ANSWERS TO CHECK YOUR PROGRESS

1. A discipline is an organized body of knowledge with a logical structure. It is a network of concepts and generalizations which explain the relationships among a body of facts.
2. The substantive structure of a discipline is the interrelated collection of powerful ideas that guide research in a discipline. The syntactical structure of a discipline is concerned with issues such as the way in which new substantive concepts are formed and the ways in which different kinds of knowledge statements generated by the discipline.
3. Knowledge can be categorized into propositional knowledge, procedural knowledge and direct knowledge.
4. The disciplines which have their own logical structure of knowledge are called Basic Disciplines. For example, Philosophy, Mathematics are basic disciplines. The applied disciplines are those wherein the knowledge of basic disciplines are used. Bio-technology, Meterology, Environmental Science are example of applied disciplines.
5. Multidisciplinary approach occurs when structure or concepts are selected from various disciplines to create a new field of study. Environmental Education, Population Education, Management Education, etc.
6. Education is an applied discipline because it is a product of training and experience leading to educational skills. Education has its own field of concepts, processes, ideas, traditions, methods, curricula and the agents involved which form the proper objects of a discipline.
7. The following are the criteria of educational process:
   i) The transmission of what is worthwhile to those who are committed to it.
   ii) Improvement of knowledge and understanding and some kind of cognitive perspectives.
   iii) Ruling out some procedures of transmission on the ground that they lack willingness and voluntariness on the part of the learner.
8. Logical perspective of education refers to 'reason why' of things. Mastering a skill or gathering knowledge does not make a person education. He must have some understanding of principles the organization of facts. Social perspective of education emphasizes that education is a potent instrument of social change.

UNIT 3 SCOPE OF EDUCATION

Structure

3.1 INTRODUCTION

In the earlier units, you have got an understanding of the concept 'Education'. In this unit, we will focus on the scope of education. By scope of education, we mean the range of educational operation in terms of various learning environments, the major focus of the study of knowledge or the mode of imparting education. The scope of educational operation is very broad. It cannot be equated with schooling alone; it starts from the cradle and ends with the grave and, therefore, is a lifelong process. In order to conceptualise educational operation according to different social spaces educationists have broadly classified education into three major forms of education. These are informal, formal and non-formal. Based on the major focus of the study of knowledge, educational operation is also perceived as liberal, professional, vocational and technical education. Moreover, educational operation is perceived as face-to-face and distance, based on the mode of transaction of educational experiences. Our discussion in this unit will, however, centre on these major classifications of educational operation.

3.2 OBJECTIVES

After going through this unit you should be able to:

- define the meaning of scope of education;
- classify education from the viewpoint of different learning environments;

- categorise education from the viewpoint of the major focus of the study of knowledge; and
- categorise education according to the mode of providing education.

3.3 SCOPE OF EDUCATION FROM THE VIEW-POINT OF DIFFERENT LEARNING ENVIRONMENTS

While trying to understand what constitutes the meaning or concept of education, you must have noticed that the concept of education has been perceived differently by different scholars. Similarly, education has been characterized differently by different viewpoints. One such characterization about the concept of education is that education is a social action or a social process. It operates in various social spaces. One may ascribe to this operation as the human socialisation. In this sense, education is a socialisation process.

As you know, human learning mostly takes place in a learning environment, although some kinds of human learning taking place during infancy are linked to biological impulses. Hence, education of a child, in a broader sense, starts from the family or home, which is the first social environment/space for him/her. From a natural learning environment like the family, a child moves to a contrived social environment or space like the school. Here he spends a substantial time of his formative period. Once he/she is out of contrived social environment and enters the world of work, he/she as an adult who still continues to educate himself through many semi-contrived learning environments. Based on these three different kinds of learning environments, educationists have broadly classified education into three forums of education: informal, formal and non-formal. Let us discuss these three forms of education in greater detail.

3.3.1 Informal Education

Informal education, as the phrase itself indicates, takes place in any kind of informal learning environment. There is no formality attached to such education. This form of education is the most primitive form of education and the most broad-based in its nature and scope. As we have already stated, the first social environment for informal education is the family or home of a child. He learns a lot of life skills, attitudes, social manners and knowledge of his immediate world through his interaction with family members like mother, father, brothers, sisters and others. In this way, the family becomes a launching pad for child's future education. In earlier times, the family also used to provide the children skills that are necessary to earn a livelihood. Even now, in rural areas and tribal societies, the children are indoctrinated into the family profession. But with the advent of industrialisation and the emergence of alternative modes of living, this role of family has substantially decreased as most family professions fail to provide the children a decent livelihood.

Beyond the framework of family, a child acquires a lot of knowledge or skills from a host of informal agencies of education. The child's peer groups, neighbourhood, the village community, market places and so on. All these informal agencies help in socialisation of the child.

A child also gets a number of learning experiences through his/her interaction with different kinds of environmental situations he/she encounters everyday. A child who has cut his finger with a blade knows that he/she should use the blade carefully. Such experiences are not consciously provided by any informal agencies, but acquired by the child through his interaction in the environment. This is also a kind of informal education, although more appropriately called 'incidental learning or education'. But, many learning experiences gathered from interaction with the environment may be

undesirable; hence they cannot be recognised as educational. For example, a child's taking to smoking under peer pressure may not be considered as an educational experience. Apart from family, neighbourhood and peer-groups, a child learns from a variety of informal agencies, which provide learning experiences in informal environments. Agencies like television, radio, films, newspapers, magazines, books of readings, etc. do help in the process of socialisation of the child. But learning experiences are not purposefully designed. However, when a child interacts with such agencies, he/she acquires a lot of learning experiences, which are educative.

Based on our discussions so far we may characterise informal education as follows:

- Informal education is the outcome of the interaction between a child/a learner with his/her social environment.
- Informal education is not organised and structured.
- Only desirable learning in an informal education can be called 'informal education'.
- Informal education is purposeful but many times incidental.
- Informal education can take place in a variety of physical and social settings; there is no regular or prescribed form.
- Informal education is experiential in nature. This means the learner learns a lot through interacting with the learning environment.
- Informal education is a lifelong process which starts at the time of birth and continues till the death of a human being.

The above characteristics of informal education can be summarised in the following paragraph:

> "Informal education: The truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment from family and neighbours, from work and play, from the market place, the library and the mass media".
>
> (Coombs, Processor and Ahmed, 1973)

In conclusion, we can say that informal education operates in a broad and wide social space. One cannot define its operation in a narrow and limited organised social environment. Although its operation is not aimed at achieving any explicit objectives of education, there are objectives of education implicit in the entire process of informal education. It is the most primitive and happening form of education.

Since time immemorial, informal education has been the natural form of imparting education or socialisation of human beings. As knowledge pertaining to different types of social operation grew and became complex in nature, informal ways of socialising and educating human beings seemed to be inadequate. Hence, society thought of prevailing learning experiences in an organised way in a controlled environment rather than in an uncontrolled environment as happens in an informal education context. Such realisation by the society led to the idea of setting up a structured and organised learning environment in the form of formal education. Let us discuss the nature of formal education in detail.

3.3.2 Formal Education

The inadequacy of informal education in catering to the transmission of the ever-growing body of knowledge to the future members of the society gave rise to formal education. Hence, the primary objective of formal education is to transmit the knowledge, skills, attitudes, beliefs, etc. preserved and propagated by a society. In order that transmission of societal knowledge takes place, education must be formalised and co-ordinated by an agency like the State, keeping in focus the broad societal aims. Hence, it is the responsibility of the State to carry out this function through its designated

agencies like school, college, or university. Against this backdrop, let us examine the definition of formal education.

> "Formal education: The hierarchically structured, chronologically graded education system, running from primary school through the university and including, in addition to general academic studies, a variety of specialised programmes and institutions for full-time technical and professional training".
>
> (Coombs, Processor and Ahmed, 1973)

From the above definition, it is apparent that learning experiences provided through formal education are vertically and horizontally structured. Vertically, formal education starts from primary school to secondary education and university education and horizontally, to run through general academic studies, technical, vocational and professional studies. Let us discuss various aspects of formal education.

Aspects of Formal Education

i) **Goals:** Goals of formal education are explicit. They are generally deduced from the broad societal or national goals, and are formulated in such a way that they are achieved in the long-term perspective. However, in order to achieve the goals, short-term objectives are formulated and pursued in the educational operation.

ii) **Timing:** Unlike informal education, formal education follows a rigid and fixed time schedule, learning time is defined and structured according to the prescribed guidelines set by the school or the State.

iii) **Content/Curricular experiences:** Content and duration of a programme/ a course is decided by the State or the educational institution. Content/curriculum is created based on the broad social/national needs as well as individual needs. Even the transaction of curricular experiences is geared towards the achievement of long-term social goals.

iv) **Entry Requirements:** Educational institutions or the State determines entry requirements to formal education. Hence, to acquire a certain kind of learning experience, one has to fulfil the entry requirements. For example, one cannot take admission in a college unless he/she completes school education.

v) **Delivery system:** Delivery of learning experiences is rigidly structured, teacher-centred and resource intensive. Transaction of learning experiences mostly takes place within the institution isolated from the environment. All this does not mean undermining of the learner. But, the degree of control in the delivery system rests more with the teacher and the institution than with the learner.

vi) **Operational Control:** The operation of formal education is controlled by a hierarchical administrative-academic structure wherein a number of functionaries like the headmaster/principal, vice-principal, and teacher operate in a hierarchical order.

vii) **Achievement of learning objectives:** Unlike informal education, specific procedures or mechanisms are followed to assess the achievement of learning objectives in formal education. These mechanisms are student assessment through conduct of tests and examination.

By now, you should be clear about what formal education is and what its various aspects are. Although formal education has become an inevitable part of what constitutes the 'education' of a human being, it also suffers from inadequacies to meet the growing demand for education. Therefore, non-formal education emerged out of the inadequacies of formal education to meet the ever-increasing demand for education. Let us discuss non-formal education.

3.3.3 Non-formal Education

The genesis of non-formal education is traced back to the 1960's and 1970's. During this period, there was concern about unsuitable curricula; a realisation that educational growth and economic growth were not necessarily in step, and that jobs did not emerge directly as a result of educational inputs. Many countries were finding it difficult (politically or economically) to pay for the expansion of formal education. (Smith, 2004) The above development reflected that formal education systems could not cope up with the socio-economic changes around them. Secondly, UNESCO in its landmark report of the International Education Commission, 1972 'Learning to be', propagated the idea of lifelong education and the learning society. Third, the idea of 'deschooling' which was launched by the great American educationist Ivan Ilich also pointed to the redundancy of the formal education system like the school to meet the learning requirements of human beings.

All these developments contributed to the emergence of non-formal education system through out the world. Although these were western developments, many socialist countries like Russia, Cuba, Tanzania, Somalia and Nicaragua were using successful mass campaigns for literacy, which may be labelled as non-formal education.

Having seen the genesis of non-formal education, we shall try to understand its meaning and characteristic features. Non-formal education has a lot of resemblances with formal education, but differs from it in certain aspects. Let us study the following definition:

> "Non-formal education: any organised educational activity outside the established formal system – whether operating separately or as an important feature of some broader activity that is intended to serve identifiable learning clienteles and learning objectives".
>
> (Coombs, Processor and Ahmed, 1973)

From the above definition, it is clear that non-formal education, like formal education, is an organised activity, which takes place outside the formal educational structure. It also intends to achieve pre-determined educational objectives. But, unlike formal education, non-formal education always caters to the learning need of a specific target group. In a country, one can find a number of initiatives and programmes, which are non-formal by nature. In India, adult education programmes, basic education programmes, literacy programmes, health awareness programme, programmes meant for school drop outs, agricultural extension programmes and the like constitute non-formal education programmes. Let's discuss certain characteristic features of non-formal education.

i) **Goals and Objectives**: Non-formal education programmes are always conceptualised to achieve short-term and special educational goals and objectives. For example, in any kind of literacy programme, the objective is only to achieve literacy among the illiterates and the programme is geared towards the achievement of that objective only.

ii) **Timing**: Non-formal education programmes are generally run for a short period on a part-time and recurrent basis. For example, agricultural extension programmes are short-term programmes but are provided again and again to the farmers.

iii) **Curricular Experiences**: Curricular experiences are generally formulated keeping in mind the specific needs of the target group. These are more individualised rather than broad-based and general in nature. For example, programmes meant for village level health workers contain specific information pertaining to health care in the context of village environment.

iv) **Teaching-Learning Process**: The teaching-learning process is generally learner-oriented and flexible in nature. Transaction of learning experiences is centred around community resources.

v) **Administrative Mechanism**: It is self-governing and democratic in nature. Activities in non-formal education programmes are mostly organised keeping in mind the convenience of the organisers as well as the learners.

vi) **Assessment of Learning Objectives**: Like formal education, measures are also taken to carry out both formative and summative assessment by mid-term review and final review.

Non-formal Education in India

In the west, NFE refers to all kinds of out-of-school activities, namely, adult and continuing education, agricultural extension activities, skill-based vocational programmes and such other professional programmes. On the other hand, the Indian view of NFE refers to a programme of part-time education designed to meet the educational needs of children who, for various reasons, cannot enrol in the regular, formal and full time schooling and dropped out of its without completing the prescribed years of education. (Dasgupta, 2004). In India, it started during the latter part of the 1970s with the objective of providing education to all children in the age group of 6-14 for achieving the goal of a Universalisation of Elementary Education (UEE). The nomenclature of NFE emerged in 1977-78 with the launch of the centrally sponsored scheme of NFE by the Ministry of Human Resources Development and Social Welfare in nine educationally backward states of India. Prior to that, there were certain developments in the regard. The Education Commission (1964-66) explored the potentialities of part-time education for widening the access to primary education. In 1947, the Central Advisory Board of Education (CABE) emphasized, "The goal of universal education cannot be realized through exclusive reliance on the formal system of education with its single point entry, sequential character, and full–time professional teachers". All these observation led the Working Group Meeting of the Planning Commission to emphasize in 1977 the identification of viable alternative part-time educational designs, widening access to education for all children in the age group of 6-14 years who failed to avail of full time schooling facilities. The National Policy Education (1986) also stressed the importance of non-formed education. It stated, " a large and systematic programme of Non-formal education will be launched for school drop-outs, for children from habitations without schools, working children, children and girls who cannot attend whole day school". The Programme of Action (1986) further stated that efforts would be made to evolve different models of NFE programmes and agencies implementing the program will be encouraged to evolve and adopt the most suitable model depending upon the requirements of the target groups. (GOI, 1986). In 1987, the NFE scheme was received and expanded to 10 educationally backward states (including Arunachal Pradesh) and to educationally backward pockets of all others states and union territories. When the Alternative Schooling Programme was launched under the World Bank Sponsored District Primary Education Programme (DPEP), the NFE scheme was overhauled. In 2001, the NFE scheme was replaced by the Education Guarantee Scheme and Alternative and Innovative Scheme (EGS and AIE Scheme). More about these Schemes will be covered in the Course "Operational Dimensions of Education".

A major portion of the NFE scheme is run by the State Governments, which set up NFE centres. One component of this scheme provides grants to Voluntary Agencies (VAs) directly from the Central Government for running of NFE centres and a third is for projects of experimental innovative nature by VAs.

Apart from the NFE scheme, open learning systems both at school and tertiary levels are also in operation for providing non-formal education. Indira Gandhi National Open University (IGNOU), State Open Universities (SOUs) and Correspondence Course Institutes (CCIs) offer a large umber of programmes to prospective students at tertiary level whereas National Institute of Open Schooling (NIOS) and State Open Schools provide school education programmes on non-formal basis.

Check Your Progress

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

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

1. Define the scope of education.

.....

.....

.....

.....

2. What is informal education? Give examples of informal education.

.....

.....

.....

.....

3. What is the major difference between formal education and non-formal education?

.....

.....

.....

.....

3.4 SCOPE OF EDUCATION FROM THE VIEW-POINT OF MAJOR FOCUS OF THE STUDY OF KNOWLEDGE

So far, we have discussed how education operates in three major social spaces, namely, informal, formal, non-formal. This is one way of understanding the scope of education. The second way of looking at the scope of education is from the viewpoint of major focus of the study of knowledge. These are liberal education, professional education, technical education and vocational education.

3.4.1 Liberal Education

The study of knowledge in its various forms existed right from the period of Aristotle and Plato. The ancient civilisations of Greece and Rome had learning centres. There were universities, which in Latin means corporation, for awarding degrees to students. Abbeys (monasteries or convents) were self-sustaining institutions meant for women's education during the medieval period. By the end of the Middle Ages, Europe had 80 universities (Newman, 1998). During this period, liberal arts education was the predominant form of education in the university system. Liberal arts education was intended to develop the faculties of the human mind. Gradually, this education came to be known as liberal education, whose main objective was to develop the powers of intelligence and imagination without which no intellectual pursuit is possible. Liberal education has been interpreted in three different ways:

i) From the etymological point of view, liber means 'freedom'

ii) From pan sophism point of view, liberal education means education in all knowledge, the sciences, the arts, etc.

iii) From non-authoritarian point of view, liberal education means education which respects the autonomy and freedom of the learner, devoid of freedom violating methods like indoctrination.

There were two components of liberal arts education. One was trivium, which comprised grammar, rhetoric, and logic. It taught the arts of reading and writing, of listening and speaking, and of sound thinking. The other part, the quadrivium, consisted of arithmetic, geometry, astronomy and music. It taught the art of observing, calculation and measurement and how to apprehend the quantitative aspect of things. Now-a-days many disciplines in sciences and social sciences are also included under liberal education as they develop the power of mind.

From the above discussion, it could be deduced that liberal education is essentially an intellectual pursuit, which aims at cultivation of human mind. Although liberal education is always associated with liberal arts and education, there are many areas of learning like sports, training in virtues etc. where the mind plays a great role in conceptualising and theorising new ideas. Hence, some elements of liberal education are also present in other areas of learning other than liberal arts education.

We can conclude that liberal education in the words of Lemann (2004) is defined as:

> "Liberal education is best defined with its most literal meaning. It is the education that liberates, that frees the mind from the constraints of a particular moment and set of circumstances, that permits one to see possibilities that are not immediately apparent, to understand things in a larger context, to think about situations conceptually and analytically, to draw upon and muster knowledge when faced with specific situations."

3.4.2 Professional Education

As opposed to liberal education, which aims at cultivation of human mind and development of mental faculties, and creation of discipline-based knowledge, professional education deals with a body of specialised knowledge and application of this knowledge to serve various requirements of the society. Hence, professional education involves the application of theoretical knowledge to various practical social situations. As we know, human beings require a number of services for their sustenance in the society. Services like education, health, legal, etc. are badly required by members of the society to lead a successful life. Professional education, thus, is social service oriented rather than a leisure time intellectual pursuit. Let us now see what constitutes a profession. One can find a number of definitions to define a profession. We present one of these definitions below:

> "A profession ... is a field of endeavour whose practitioners have a collective idea of the good in their work that does not overlap exactly with the self-interest of either themselves or their employers. Professionals have goals and ideals and purposes having to do with the history, the techniques and the social role of their field, which rise above the daily demands of work. They are in discourse with each other about matters broader than just the completion of the work assignment at hand. Professionals have to deal with complexity in their work. Professionals do work that has a public purpose."
>
> (Lemann, 2004)

From the above definition and many more definitions, we can find out the following important features of a profession:

1) A profession renders a crucial social service.
2) A profession comprises a specialised body of knowledge, skills and attitude.
3) A profession requires continuous updating in the knowledge base and inservice practical training of the members.

4) A profession demands that its practitioners form professional groups or association to enhance and safeguard the interests of group members.

5) A profession expects its members to be guided by a code of ethics and professional values.

6) A profession ensures that its members grow in their professional careers.

7) A profession enable a professional to make his own judgement in relation to appropriate practices.

Looking at the features of a profession, certain areas of study can be aptly called professional education. For example, management education, medical education, legal education, teacher education, agricultural education are some areas of study in which practice of the body of knowledge is more important and essential than engaging oneself in the study of knowledge alone. One can find all the necessary features of a profession with the academic involved in such professional education. For example, professionals belonging to teacher education do form professional associations and are governed by a code of ethics and strive to upgrade and enhance their professional capabilities. We know that there are so many professional associations in the field of teacher education. For example, All India Association for Teacher Educators is a national level professional association for teacher educators. Similarly, All India Federation for University and College Teachers' Organisation (AIFUCTO) and the Federation of Central University Teachers' Association (FEDCUTA) are national level teachers' organisations, which take up the cause of the teaching profession. Similarly, the Bar Council of India, Indian Council of Technical Education, Medical Council of India, the Nursing Council of India, etc, are responsible for professional education in their respective fields. They formulate norms for appointment of teachers, guidelines for design and development of curriculum, rules for professional development of their peers, etc.

Thus, in this section, we have studied about professional education, which is basically related to various aspects of social service. But for an individual, the first and foremost concern is to earn his/her livelihood. Though in traditional societies, and even modern society, many people are indoctrinated into their parental occupation in order to carve out a livelihood for them, the knowledge and skills about many of these occupations or vocations are being provided through institutional mechanisms. The main thrust of our next discussion is on vocational education.

3.4.3 Vocational Education

Vocational education was not a part of organised effort earlier. The need for vocational education was mainly catered to by various informal agencies of education like the family, the community, etc. But with the advent of industrialisation and its impact on society and on various aspects of human life, the range and diversity in vocational education requirements expanded and this necessity for purposeful and organised effort to provide vocational education was felt by the society. Hence, vocational education became an institutionalised activity. Let us then understand the meaning of vocational education.

Defining Vocational Education

Vocational education, in ordinary parlance, refers to education, which prepares a person for a particular vocation or occupation. In this sense, vocational education refers to education one receives from a variety of informal and formal situations. Although traditionally, an individual is provided vocational education in his family or community, its scope is limited to family vocations or vocations available in the community. With industrialisation there emerged a host of areas where specific vocational skills were needed. In order to train people in these specialised vocational areas, the society instituted organised educational programmes, which began to be called vocational

education. The following definition of vocational education clarifies the meaning of the term.

Vocational education: "means organised educational programmes that are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaureate or advanced degree." Google.com (2004)

From the above definition, vocational education means educational programmes, which are organised to prepare individuals for different kinds of paid or unpaid un. ployment. Sometimes, such programmes may not be aimed at any specific employme.t but for a career other than baccalaureate or advanced degree.

John Twining (1987) says:

> "Vocational education, world-wide, is rich and diverse. The students range in age from those who are at school full-time, those emerging into the world of work and those studying for a trade, a profession or to be entrepreneurs, to those seeking, updating or changing careers and those preparing for retirement. The aims of their studies range from basic numeracy, language, and survival skills, through competence at work, to professional qualifications at postgraduate level. The content of vocational education is the 'hidden hand' behind most aspects of everyday life. Everything we do is affected by commerce or industry, and behind commerce and industry is a massive chain of vocational competence which is normally based on vocational education."

From the above definition, it can be concluded that vocational education is meant for preparing youth for a vocation of their choice and thereby enhancing their employability, productivity and economic development. In others words, vocational education refers to education or training intended to prepare one for an occupation, sometimes specific in a trade (Devdas 2004).Emphasising the importance of vocational education, the Education Commission (1964-66) highlighted that "while the development of physical resources is a means to an end, that of human resources is an end in itself; and without it even the adequate development of physical resources is not possible."

Indian Context

In India, the concept of vocational education was first propagated in 1854 by Wood's Despatch where the suggestion was made of introducing pre-vocational education at the secondary stage. The Calcutta University Commission (Sadler Commission) of 1917 made recommendations for the establishment of Intermediate Colleges with Arts, Science, Medicine and Engineering subjects. The Sapru committee of 1934 recommended a vocational stream of education in the form of industrial and commercial channels. In 1937, Mahatma Gandhi also emphasized the importance of manuals and productive work in his Scheme of Basic Education. The Secondary Education Commission (1952-53) recommended the introduction of diversified streams in higher secondary schools such a technical subjects, commercial subjects, agriculture, fine arts, etc. The Education Commission (1964-66) also emphasized work experience and vocationalization as part of secondary education, The National Council of Educational Research and Training (NCERT) came out with a document in 1976 titled, "Higher Secondary Education and its Vocationalization" which contained a model conceptual frame for implementing the programme for vocational education. A National Working Group was set up in 1985 on vocationalization of education, which provided wide-ranging recommendations on vocational education. According to the working group, areas of knowledge such as Engineering, Medicine, Agriculture and Law were

recognised as professional fields. The programme of education and training to meet the sub-professional manpower needs of all these professions at the secondary and tertiary levels is referred to as vocational education. Socially Useful Productive Work (SUPW) and Work Experience (WE) were introduced in most schools to give vocational orientation to the students. The National Policy on Education (1986) called for the introduction for a systematic well-planned and rigorously implemented programme of vocational education in the proposed educational reorganisation. The Acharya Rammurthy Committee (1990) and Janardana Reddy Committee (1992), which reviewed the status of vocational education, also recommended WE/SUPW in schools. The UGC also constituted a Standing Committee on Vocational Educational (SCOVE) to recommend on the implementation of the vocational education scheme. Of late, vocational education courses are also offered through open universities and open schools. The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), a constituent unit of NCERT at Bhopal, is committed to work on the various aspects of vocational education. There are 150 educational courses in 6 major areas, viz. Agriculture, Business and Commerce, Engineering and Technology, Health and Paramedical Sciences, Home Science, Humanities and others, (Kulandai Swami 2004). For vocational education in India, please see Kulandai Swami (2004). Vocational education is imparted in many areas of vocations. But, broadly they can be categorised under six major categories and each category covers a few vocations, as per the Apprentices Act (1961). For our understanding, let us look at the following vocational areas and a few related vocations under each area:

1. **Agriculture**
   - Poultry Farming
   - Dairying
   - Sericulture
   - Floriculture
2. **Engineering and Technology**
   - Mechanical Services
   - Audio-visual Technician
   - Computer Technique
   - Tanneries
   - Sugar Technology
3. **Health and Paramedical**
   - Health Worker
   - X-ray Technician
   - Pharmacist
   - Auxiliary Nurse and Midwives
   - Primary Health Worker
4. **Home Science**
   - Food Preservation
   - Interior Design
   - Child Care and Nutrition
   - Knitting Technology
   - Pre-School and Crèche Management

5. **Science and Humanities**
   - Library and Information Science
   - Photography
   - Commercial Act
   - Indian Music
   - Classical Dance

3.4.4 Technical Education

Technical and Management Education is one of the more significant components of the Human Resource Development spectrum with great potential for adding value to product and services and for contributing to the national economy and improving quality of life of the people (NPE, 1986). Five years plan have emphasized the role of technical education for national development. Although there was emphasis on the study of technology in the past, the first systematic formal effort was made when the first survey school on the Indian soil started functioning with eight students at Madras in May 1794. Then the first civil engineering college at Roorkee was set up in January 1848 (Gopalan, 2004). But the major landmark came when the Government of India decided on November 1945 to set up All India Council for Technical Education (AICTE) to coordinate and supervise technical education above the high school stage.

In India, the structure of technical education is basically at four levels. At the first level, certificate level programmes under the Craftsmen Training Scheme (CTS) are offered to person in the age group of 14 to 25 years in 41 engineering and 22 non-engineering trades in Industrial Training Institutes/Centres in the country. The second level of technical education in the diploma level training is offered in polytechnics. The third level of technical education is offered at the degree level in engineering and technology. The fourth level of technical education constitutes postgraduate and doctoral degrees in engineering and technology.

Check Your Progress

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

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

4. What is the main focus of liberal education?

.....

.....

.....

.....

5. Differentiate between professional education and vocational education.

.....

.....

.....

.....

6. What are the four levels of technical education?

.....

.....

.....

.....

3.5 SCOPE OF EDUCATION FROM THE VIEW-POINT OF MODE OF PROVIDING EDUCATION

In the earlier sections, we discussed the scope of education in terms of the social space where education operates, and in terms of the nature of knowledge pursued by an individual. In this section, we discuss the scope of education in terms of mode of providing education. From the viewpoint of mode of providing education, education can broadly be categorised into face-to-face education and distance education. Let us discuss each of these forms of education in detail.

3.5.1 Face-to-Face Education

Face to face education generally refers to education in which the transaction of learning experiences takes place between the teacher and the learners on a face-to-face basis. The existence of face-to-face education dates back to the ancient time when the *Guru* (the teacher) was teaching *Shishyas* (the learners) in *Gurukulas*.

But face-to-face mode of imparting education in an informal and unstructured environment shifted to a formal and structured environment when schools were conceptualised and established by the society to impart education to its future members. Although face-to-face education takes place both in formal and informal environments, mostly face-to-face mode of education is attributed to the formal education system. Hence all the characteristics, which are associated with formal education, can be seen in the face-to-face mode of education. But the most important characteristic of the face-to-face mode of education is that interaction between the learners and the teacher takes place at the same time, and the same place. Although the teacher uses a host of communication media, the most prominent among them is the teacher's voice. The teacher mostly controls the teaching-learning environment. Although the degree of control of the learning environment most of the time rests with the teacher, the learners also control the learning environment in learner-directed or group-directed learning environment. Face to face education, in a formal education context, takes place in schools, colleges and universities.

3.5.2 Distance Education

Since the demand for education is increasing with the growth of population, face-to-face mode of education in formal form is not able to cope up with the increasing demand for education. Moreover, the concept of lifelong education mooted by the International Commission of Education, 1972 and reiterated in the report of the UNESCO, Learning: The Treasure Within, 1996, emphasis is being laid on alternative forms of education. Developments like these have given rise to distance mode of education as an alternative to face-to-face mode of education. Distance education, in ordinary parlance, means education that is imparted at a distance. Although several authors have attempted to define distance education, with the passage of time, it is adopting different approaches, which characterise the basic tenets of distance education. These approaches are:

- Correspondence study
- Home study
- Independent study
- Internal studies
- Continuing education
- Distance teaching
- Self-instruction

- Learner-centred education
- Technology based or mediated education
- Distributed learning
- Flexible learning

Although all the above are approaches to distance education, there are certain characteristics associated with distance education. Keegan (1986) synthesised the following characteristics of distance education:

- The quasi-permanent separation of teacher and learner throughout the length of the learning process (this distinguishes it from conventional face-to-face education);
- The influence of an educational organisation both in the planning and preparation of learning materials and in the provision of student support services (this distinguishes it from private study and teach-yourself programmes);
- The use of technical media – print, audio, video or computer – to unite teacher and learner and carry the content of the course;
- The provision of two-way communication so that the student may benefit from or initiate dialogue (this distinguishes it from other uses of technology is education);
- The quasi-permanent absence of the learning group through out the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility, of occasional meetings for both didactic and socialisation purposes (p.44).

Moore (1990) defines distance education as " all deliberate and planned learning that is directed or facilitated in a structured manner by an instructor...separated in space and/or time from the learners." According to Rowntree (1992), distance education is "...learning while at a distance from one's teacher–usually with the help of pre-recorded, packaged learning materials. The learners are separated from their teachers in time and space but are still guided by them." But Kulandai Swamy (1992) views distance education in a different way. To him, it is the third stage in the evolution of education – the first stage being represented by the *Gurukul* system of ancient India, and the second stage by the conventional classroom system. He believes that charactreised by flexibility, high productivity and the capability to readily respond to market demands, it is an instrument that can satisfy the requirements of equity and universal education. Let us compare between face-toface and distance education.

3.5.3 Comparison between Face-to-Face and Distance Education

Face-to-face Education System	Distance Education System
• Teacher and learner are in close contact, and there are constant face-to-face meetings.	• Teacher and learner physically separated, there are intermittent face-to-face meetings.
• Teacher decides the pacing of learning	• Self-Pacing of learning by learners
• Teacher lectures and library books are major source of information.	• Self-instructional print materials, variety of electronic media and liberty along with counselling by teachers and compulsory face-to-face interaction in workshop
• Constant peer contact	• Limited peer contact
• Stringent entry qualifications, less number of learners benefited at a particular time	• Relaxed entry qualifications, reasonable number of learners benefited at a particular time
• Learner input includes contact time and private time.	• Learner input includes study time and contact time.

3.5.4 Distance Education in India

In the post Independence period, the First Five Year Plan, 1951, envisaged courses and radio talks organized as far as possible by the various Universities and allowing students the various examination privately. In 1961, a committee under the chairmanship of D.S. Kothari was set up the Government of India to prepare the scheme for establishing correspondence courses. On the recommendation of the committee, the first-ever correspondence course in higher education in India was introduced in the University of Delhi in 1962. Since then the number of Correspondence Course Institutes has increased remarkably and now their number is more than 100 but the effort to establish an open university was made in 1974, when the Government of India constituted a committee under the chairmanship G. Parthasarathi in this regard. However, in 1982, a committee under the chairmanship of Madhuri R. Shah recommended the establishment of a national open university without delay. The National Open University, recommended by the committee, came into existence in 1985, by an Act of Parliament. It was named as Indira Gandhi National Open University. Prior to IGNOU's establishment, the first-ever open university was set up by the Government of Andhra Pradesh in Hyderabad in 1982. It was then known as AP Open University and later on changed to Dr. B.R. Ambedkar Open University. Later on, many other state governments established their own open universities. Now, there are 13 open universities and one National Open University. There are also 106 odd Correspondence Course Institutes (CCIs) in India.

Apart from the development of distance education at higher education level, it has also made good stride at school level in India. The National Institute of Open Learning (formerly known as National Open School), which is also a national institute, has been offering programmes nationwide at secondary and higher secondary levels in both academic and vocational streams. There are also a few State Open Schools, which are catering to the educational demands of students in their respective states.

Milestones in Distance Education in India

1961	:	Proposal to start correspondence courses was made to the Central Advisory Board on Education, Government of India.
1962	:	Correspondence course was started at the University of Delhi, at undergraduate level, with 1112 student in B. A.
1966	:	The Kothari Commission Report was submitted in which it was strongly recommended that correspondence courses be started in technical/professional areas and these be given multimedia and regular learner support.
1967	:	First Indian delegation visited U.S.S.R. to study its evening and correspondence courses. The delegation recommended these for teacher training.
1968	:	Second Indian delegation visited U.S.S.R. to study its evening and correspondence courses. The delegation recommended these for science courses, post-graduate courses and professional courses.
1970	:	A seminar sponsored by the Ministry of Education and Social Welfare, GOI, UGC and UNESCO recommends the establishment of an open university in India.
1982	:	The first open university in the country, the Andhra Pradesh Open University, was established at Hyderabad.
1985	:	The first national open university, the Indira Gandhi National Open University, was established at New Delhi and given the dual responsibility of offering programmes and maintaining standards in open education in the country.
1991	:	The Distance Education Council was established.
1999	:	The distance education system in India grows to include 10 open universities and 62 correspondence course institutes and covers 20% of all students in higher education.

Source: Powar, et al. (2000).

Check Your Progress

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

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

7. Write any three differences between face-to-face education and distance education.

.....

.....

.....

.....

8. What is the main purpose of spreading distance education in our country?

.....

.....

.....

.....

3.6 LET US SUM UP

In this unit, the main thrust of our discussion was to present the scope of education. We discussed the scope of education as the range of operation of education in terms of various social spaces or environments, the major focus of the study of knowledge or the mode of imparting education.. Based on these three major parameters, we presented the scope of education in three different perspectives. According to the different learning environment, education can be classified into informal, formal and non-formal education. According to the focus of study of knowledge, education can be categorised into liberal education, professional education, vocational education and technical education. Similarly, according to the mode of providing education, education can be classified into face-to-face education and distance education.

3.7 UNIT-END ACTIVITIES

1. Make a comprehensive list of informal, formal, and non-formal education providers you are familiar with.
2. Identify at least five professional organisations that you know and critically analyse their functions.
3. Find out the spread and status of distance education programme in your State.

3.8 POINTS FOR DISCUSSION

1. Why does liberal education get less priority among students of higher education? Discuss.
2. Do you think that distance education will be the mode of education in future? Discuss.

3.9 SUGGESTED READINGS AND REFERENCES

Coombs, P.H., Processer, C. and Ahmed, M. (1973): *New Paths to Learning for Rural Children and Youth*, New York: International Council for Educational Development, in Smith Mark K. (2004): http: //www.infed.org/biblio/b-nonfor.htm.

Commonwealth of Learning (1997): *Training Toolkit Use and Integration of Media in Distance Education*, Vancouver; COL.

Dasgupta, P. (2004): Non-formal Education in India, in J.S. Rajput (ed.), *Encyclopaedia of Indian Education*, New Delhi: NCERT.

Devdas, R.P. (2004): Vocational Education, in J.S. Rajput (ed.), *Encyclopaedia of Indian Education*, New Delhi: NCERT.

Gopalan, K. (2004): Technical Education, in J.S.Rajput (ed.), *Encyclopaedia of Indian Education*, New Delhi: NCERT.

Government of India (1964-66): *The Education Commission*, New Delhi: Ministry of Education.

Government of India (1986): *National Policy on Education*, New Delhi: MHRD.

Government of India (1986): *Programme of Action*, New Delhi: MHRD.

Keegan, D. (1986): *The Foundations of Distance Education* (2nd ed.), London: Croom Helm.

Kulandai Swamy, V.C. (1992): Distance Education in the Indian Context, *Indian Journal of Open Learning*, 1(1), 1-4.

Kulandai Swamy, V. C. (2004): Vocational Orientation to Education, in J.S.Rajput (ed.), *Encyclopadeaia of Indian Education*, New Delhi: NCERT.

Lemann, Nicholas (2004): *Liberal Education and Professionals*, http://www.aacu-edu.org/liberaleducationless/ie.spo4/ie-sp04feature1.cfm

Moore, M. G. (1990): Correspondence Study , in M. W. Galbraith (ed.), *Adult Training Methods*, Krieger, Malabar, Fla.

Newman, Renee, M. (1998): *A History of Formal Education*, Henderson, MI: Renee M. Newman (Internet Document). Available at http://www.shianet.org/nreneenew/ hum501.html.

Powar, K. B., Panda, Santosh, Bhalla, Veena (2000): *Performance Indicators in Distance Higher Education*, New Delhi; Aravali Books International (P) Ltd.

Rowntree, D. (1992): *Exploring Open and Distance Learning*, London: Kogan Page.

Singh, S.N. (2004): Teaching as a Profession, in J.S. Rajput (ed.), *Encyclopaedia of Indian Education*, New Delhi: NCERT.

Twining, John (1987): *World Yearbook of Education*, 1987, Vocational Education, New York: Kogan Page.

3.9 ANSWERS TO CHECK YOUR PROGRESS

1. The scope of education means the range of educational operation in terms of various social spaces or environments, the major focus of the study of knowledge or the mode of imparting education.
2. Informal education is the form of education which takes place in informal learning environment. The examples of informal education are the family, the neighbourhood, the market places, etc.
3. Formal education refers to the form of education, which is organised in a structured learning environment. The main aim of formal education is to provide individuals learning experiences in vertically or horizontally structured learning environments. Non-formal education is an organised educational activity, taking place outside the formal system. But it intends to cater to the learning need of a specific target group.

4. The main focus of liberal education is to undertake intellectual pursuit, which aims at cultivation of mind.

5. Professional education deals with a body of specialised knowledge and application of this knowledge to serve various requirements of the society. Vocational education refers to the form of education, which provides a person learning experiences required of a particular vocation or occupation.

6. The main focus of technical education is the study of knowledge pertaining to technology.

7.

Face-to-face Education System	Distance Education System
• Teacher and learner are in close contact and there are constant face-to-face meeting.	• Teacher and learner physically separated; there are intermittent face-to-face meetings.
• Teacher decides the pace of student learning.	• Self-pacing of learning by learners.
• Constant peer contact	• Limited peer contact.

8. The main purpose of spreading distance education in our country is to widen the access to educational opportunities for the masses.

UNIT 4 CHARACTERIZING EDUCATION

Structure

4.1 INTRODUCTION

In Unit 1 we discussed in greater detail the meaning and concept of education. In this unit we take our discussion or debate to understand education further by attempting to characterize education. By now, you know that education has been perceived in a variety of ways by different thinkers, theoreticians and schools of philosophy. It is worthwhile to characterize or delineate the very nature of education from such thoughts or philosophical or theoretical stands. While doing so, a number of questions arise in our minds or we are prompted to discuss many ideological viewpoints on education. For example, education is considered initiation into the world of knowledge. The main

purpose of education is to bring up children and make them worthy individuals. Another stand may be that education is a socialization process. Still some others argue that education is a liberating force. Hence, all these attempts to understand education amount to characterizing education from different perspectives, which constitute the major focus of the present unit.

4.2 OBJECTIVES

When you have studied this unit, you should be able to:

- explain in what sense we could perceive education as initiation;
- state the importance of education as upbringing of children;
- describe some of the modalities parents generally adopt for this purpose;
- explain how education is linked with such processes as socialization, enculturation and acculturation;
- discuss what education has to do with cultivation of desirable behaviors;
- enumerate how education is reconstruction of experiences;
- elucidate how education can lead to emergence of a total person; and
- explain how education is a liberating force.

4.3 CHRACTERIZING EDUCATION

The meaning and nature of education keep changing in terms of time and space. To the people of the Vedic Period, it did not mean the same as it did to those under the British regime. Nor do we, the people of the present day India see it in the same way as our grandparents saw it a few decades ago. The people of Communist China do not view it in the same way as do the people of Capitalist USA. This implies that the concept of education is something that changes from country to country, province to province depending upon the socio-political needs and philosophical ideologies they hold, the dreams and aspirations they cherish, the needs they hope to fulfill and the problems they wish to solve. It is a process that is so complex and varied that to understand its nature, we need to have a deeper look into its various characters. What we are attempting to do in the subsequent sections is to discuss the various characters of the concept of education so as to enable us to have a deeper insight into the concept of education.

4.4 EDUCATION AS INITIATION

In case we happen to turn over the pages of our history, we would soon find that our sages of yester years used to divide the total span of life of an individual into four 'ashrams,' namely the Brahmacharya ashram, the Gruhasta ashram, the Sanyasa ashram, and the Vanaprasta ashram. It was the first of these ashrams, namely the Brahmacharya ashram during which people got educated. As youngsters, individuals used to live with the gurus at their residences until they picked up all that needed to be learned by way of education. Only when the educands completed their education, they entered the next phase of life, namely the Gruhastashram. When we look at the system that prevailed then, we can see education as nothing but initiation to life.

This concept of education as something that can be completed within a specific period of time restricted to childhood or early period of one's life is now being questioned. Nor is education something that is carried out under the expertise of a single person called a guru. The conception of education as it was understood in the past has now become obsolete. With the explosion of knowledge and subsequent changes in the life

styles of people, information and skills that we think relevant today are becoming outdated within a short span of time. If we want to be effective and functional, we need not only to accept but also practice the concept of lifelong education. Similarly, a single guru, however knowledgeable and educated he may be, cannot be expected to cater to the educational needs of an individual student. Even at the school stage, a student is exposed to several domains of knowledge handling each of which needs individuals with certain levels of specialization. This means that an individual student who aspires to develop his personality requires the guidance of several experts. He needs an expert athlete to guide him in athletics, a physician to help him maintain good health, a number of content experts in his areas of study to attain high levels of knowledge, and so forth.

In summary, the idea that education is restricted to childhood that it is carried out under the guidance of a single teacher is no more applicable in a world wherein education has become unimaginably complex.

4.4.1 Does Education Begin Before or After Birth?

Scholars differ in their opinion as to whether or not education of a child begins before the child is born. Quite a number of scholars are of the opinion that a child's education begins the moment the mother conceives him or her in her womb. Swami Dayanand, for instance, believed that education began in the mother's womb. Women who are in the prospect of getting a child, he advised, should keep their womb a fit receptacle for a worthy promising soul. The mind of the pregnant mother and the environment in which she lives have a shaping influence. Expectant mothers, therefore, he opined, should keep themselves away from the sway of evil words, unworthy sights and unchaste thoughts as these can cause a telling effect on the mind of the would be born child. These can mar the mind of the child for life, the impact of which may continue for generations thereafter.

Other scholars have expressed a similar opinion. Godefroy (1993) observes that an individual's subconscious records and stores everything that happens in his or her life. It is the subconscious that is responsible for our habits, be they good or bad. All illnesses first arise and develop in our subconscious mind. Received negative thoughts get reinforced over time through repetition. The subconscious accepts any suggestions, be they positive or negative, uncritically and executes them blindly. The subconscious, Godefroy continues to note, does not have any free will. The subconscious records almost anything, even in the womb; the subconscious of the foetus is already registering impressions or feelings that pass through the mother's mind. The subconscious acts like a computer in terms of the data that are fed into it. The subconscious simply accepts the order given to it. It knows no logic. Hence, the impact of the mother's feelings and emotions undoubtedly will have their impact on the foetus and its subconscious mind.

4.4.2 Education as Initiation to the World of Knowledge

Education is a lifelong process. It is not confined to the period of schooling a child goes through. It must equip the student with the capabilities to continue to learn as well as to unlearn, seeing both learning and unlearning as important. According to the Acharya Rammurthy Committee, GOI (1990), "first or beginning education is only the initiation of the child into the world of knowledge, of attitudes and values and of skills. The beginning education must provide foundational knowledge (a mere heap of facts and data for memorization, will not prove to be a foundation on which one can build later), a critical exploration into the perspectives and values of the community of people he lives and deals with, and the beginnings of a set of psychomotor skills".

Family is the first institution where the child is initiated into the world of knowledge through the process of socialization. Along with his social development, he also grows

physically, linguistically, intellectually and socially. Thus, the child becomes a carrier of words and concepts and a social creature. Language facilitates him to express feelings, ideas and wishes in a socially accepted manner. The child learns that it is not advisable to speak his mind at all time. It is through his language that the child learns the cultural, moral and religious values of society. Thus gradually, he acquires a social identity and within its framework, attains his personal identity. He learns to modify his attitudes and behavior to conform to the expectations of people with whom he interacts. A child brought up by parents who respond with love, understanding, clear and sensible guidance stands an excellent chance of learning how to successfully relate to other people. He also learns about things in his immediate vicinity.

Along with this learning at home, the child gets opportunity for formal learning as he enters school. In the structure of education, elementary education stands at the base above which are secondary, higher secondary and higher education. It is at the elementary level that youngsters are introduced in a systematic way to the world of knowledge. It is at this stage that they pick up the three Rs*, namely reading, writing and arithmetic. It is again here, they are introduced to the fundamentals pertaining to various domains of knowledge. Apart from these basic concepts, they also pick up many of the interpersonal or social skills, life skills as well as many of the 'learning to learn' skills. Thus, it is at the stage of both elementary and secondary education, youngsters generally are introduced into the world of formal education, wherein they get the required knowledge, understanding, skills and attitude that enable them pursue education at higher levels.

4.5 EDUCATION AS BRINGING UP OF CHILDREN

In the previous section, we have looked at education as initiation to the world of knowledge.. In this section, let us discuss education as upbringing of children. To parents, nothing in the world can be as important as their children. They are the future of the family, community, nation and the world. How children grow does not merely depend on the love and affection parents shower upon their children or how much money is spent on them. It also depends on how informed parents are and how tactfully and subtly they handle the day-to-day situations. Parents who want their kids to excel must choose the best parenting options, not the easiest. They should not in any way back off when children object or complain. They generally bail children out of tough spots and make excuses or give in when the going gets tough. Parents should bear in mind that children are a long-term investment. They should stop making short term decisions about them, if parents wish their children to excel in life.

Activity

You may have noticed how parents bring up children. In addition, you may have read about it. Based on your awareness, write down, in the space provided below, five points which you consider as good ways of bringing up children and five points which you feel are bad.

Good Points

1) .....

2) .....

3) .....

4) .....

5) .....

Bad Points

1) .....

2) .....

3) .....

4) .....

5) .....

As we shall see, many of the points, both positive and negative, which you have written down, would crop up as we discuss further. Let us now take up some of the pertinent issues with respect to bringing up children.

4.5.1 Providing Scope for Exploration and Discovery

Parents who are knowledgeable know that protecting, disciplining or pampering children beyond a certain limit is detrimental to their proper growth and development. This can lead to their lack of confidence in later life. People who are achievement motivated are generally the products of families in which parents hold different expectations of their children. They expect their children to start showing some sort of independence from the beginning. They leave their children alone in situations wherein they make their own choices, and solve their own problems without help. Such parents leave their children to themselves to explore their neighborhood environment. Children brought up under such situations would show not only a sense of competence but also grow into achievement- motivated adults who are capable of accomplishing valued goals while over-protected, over-pampered or over-disciplined children grow to be diffident, and non-competent. Children who have experienced a lot of independence and problem-solving as children, would find themselves growing into fine entrepreneurs who are proactive as well as risk-takers. Parents who are aware about all these would do everything in their capacity to provide them with the right sort of exposure and experiences.

Informed parents know that there is an inalienable link between the style of life an individual leads as an adult and the type of training he received as a child. It is the quality of upbringing that matters in the long run. During childhood the mind accepts all kinds of prejudices, opinions, beliefs and suggestions without question. A child's subconscious is so impressionable that, as Godefroy (1993) notes, ideas keep on engraving on it like a stylus digging into soft wax. If a child lives with criticism, he learns to condemn; if he lives with praise, he learns to appreciate. Similarly, if he lives with hostility, he learns to fight. If he happens to live with ridicule, he learns to be shy. If he missed encouragement, he learns to be diffident. In fact, children always look upon the responsible adults in the family as role models. Their perception of life and modalities of living are invariably modeled on what they have seen and experienced. A pampered child, for instance, would try to subordinate other people to his will. He will have his own strategies, e.g. tantrums for this. An unloved child may try to get away from society or try to have his revenge upon it. A child brought up in an atmosphere of dependence may reveal his life style in his fantasy. A daydreamer feels that he cannot rely upon himself. He is obviously a picture of dependence and helplessness. As years pass by, he might turn out to be a neurotic personality. Parents who are well aware about these facts would try to provide the children with a congenial atmosphere conducive to learning the right way of life.

4.5.2 Providing Time for Play and Relaxation

Parents generally have the tendency to write off play as something of a triviality and timewaster. It is true that children do not play in order to find out how things work, or to stimulate imagination or try out adult roles. They merely play for the sake of enjoyment

that play yields. The learning that arises out of play is to them quite incidental. It is observed that children brought up in an atmosphere where there are few objects to manipulate will learn less rapidly than those placed in a more stimulating environment. Teams of children playing together can offer abundant opportunity to develop such values as endurance, cooperation, self-discipline, leadership, fair play and sportsmanship. Similarly, playing hard games would enable them to master their temper, control their emotions and develop good manners.

All study and no play can make children dull. They may become overstressed and develop nervous habits like throat clearing. Other manifestations of stress include stomachaches, headaches or difficulty in sleeping. A child who is unusually sensitive or who answers back when he normally would not, may also be overly stressed. Parents need to teach children to work and play and not just work. Children kept over-protected at home are ill prepared to settle down to work when they are at school. Hence parents should provide children with ample opportunities to have fun. They should not keep telling children that they are not going to let them play football if they do not do well in studies. Teachers who are experienced point out that many outside activities help instill the very characteristics that are needed for success in the classroom and in life. Hence, parents should encourage their children to join scouting, social work, sports, etc. This will not only pave the way for the development of character but also in developing important skills in leadership. If children are to perform well, the key is to allow them to explore their individual strengths and interests.

4.5.3 Guiding Children through Code of Conduct and Timetable

Apart from giving opportunity for exploration and discovery and providing time for play and relaxation, informed parents may also lay down a code of conduct and a timetable for their children which like a compass that always points to the north would show them the direction and provide them with needed guidance. They would not allow their children to drift like a log of wood left afloat on the surface of water. They will see that children set their own goals that would provide them with a sense of purpose in life. Achievement of the set goals would strengthen their desire to achieve higher goals. As a result, children would attain a feeling of movement through life and a higher sense of worth. Hence parents should help children set moderately challenging goals. Expecting more than what a child is capable of, however, can be counter-productive. Parents should be able to assess the capacity of their children and should be flexible while children set their goals.

Parents who are well versed in the wholesome upbringing of children know that if they are to thrive in life, children should have some disciplined ways of life. As Khera (1998) notes, by discipline, we do not mean beating up children and bringing them to conformity with what we believe. Discipline, he says, is nothing but loving firmness. It is direction. It is harnessing and canalizing energy for greater performance. Discipline, Khera continues to note, is an art of love. Sometimes we have to be unkind to be kind. Even animals do this. Khera cites the example of a mama giraffe to drive home his idea. The mama giraffe gives birth to the baby giraffe standing and let it fall on the hard surface. Gradually the baby-sits on the ground. The first thing, thereafter, the mother does is to get behind the baby and give it a hard kick. The baby attempts to get up but it falls as it is weak. The mother continues to kick until the baby gets up and starts moving. The mother knows that there is little chance for survival in the jungle, as the wild cats would eat up the baby unless it moves away before it is dark. The mother knows that she has to be unkindly kind if she wishes her baby to be alive. Informed parents know that not dissimilar is the case with their children. Unless they are unkindly kind to their children, they have little chances for survival in this world of many temptations.

4.5.4 Helping Children Nurture Self-esteem

Parents who wish to make their children winners would do everything in their capacity to nurture the self-esteem of their children. Self-esteem refers to a state of feeling of the mind wherein the person concerned has an objective and accurate understanding as to his own self-worth. Depending upon their successes and failures in the past, the amount of influence they think, they wield and the support they stand by, the self-esteem of individuals keep varying. There is an inalienable link between self-esteem and how an individual fares in life. Generally, a child who feels good about himself succeeds. Nurturing positive self-esteem, therefore, is the central element of inspiring a child to achieve a better performance. It is a surefire motivator in developing a wholesome personality. If parents wish their children success, they should help invest in their personality. Whether or not they improve their personality, to a great extent, depends on the image they have of themselves. How they feel about and behave themselves is the basic determinant of their behavior. If they improve their self-regard, they would find that dozens of aspecting of their behavior change automatically. When children possess high degree of self-esteem, they will be probably be less defensive, less angered by criticism, less devastated in the face of put downs, less anxious, better able to make decisions and more able to appreciate and praise others.

Knowledgeable parents know that the personality of an individual is generally based on who he thinks he is. If he has a poor self-image about himself, his personality cannot take proper shape. Children need affection and attention. Complete absence of attention and concern can destroy children emotionally. Unless parents reveal to children through their eye-contact, gestures, facial expression, their enthusiastic tone of voice, their willingness to listen to them without judgment and through their praise and encouragement that they are genuinely concerned about them, children are likely to develop low self-esteem. On the other hand, if they are made to realize that they are wanted and appreciated, they will have sufficient feeling of self-worth and confidence instilled in them. Such children with positive self-esteem are less apt to use drugs, get into trouble with law or at school, have inappropriate sexual relationship or suffer from poor grades or unsatisfactory peer group relationship. If children have low self-esteem, they may easily fall victim to depression and other psychological disturbances. As Podesta (1991) rightly notes, a solid healthy sense of self-esteem is one of the most important gifts that parents can bestow upon their children. Parents, who are aware of this, will do everything within their ability to foster self-esteem in their children.

Bringing up children in the best way possible is a crucial aspect in parents' life. They need to learn a lot about this from all available sources such as literature, knowledgeable people, experienced parents, etc. and put their knowledge into action in the bringing up of their children. Only through constant vigilance, day-to-day involvement, guidance and inspiration, can children be put on the highway to progress and development. Parents also need to reflect over a wide array of areas and keep asking several questions of them. Do I assist my children to maintain sustained energy and physical capacity? Do I encourage them to build up rich and satisfying relationships with others? Do I encourage them to constantly learn, grow and gain new perspectives and acquire new skills? Do I motivate them to have a clear sense of direction and purpose? Do I read to my child and help him do his or her home work? Do I provide them with plenty of reading material at home? Do I delegate some types of responsibility to my children? If parents are watchful and concerned, and keep on doing what is needed, great will be the service they will be rendering to their children.

Check Your Progress

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

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

1. Why is a code of conduct and time table necessary for children?

.....

.....

.....

.....

2. What is self-esteem? How does it help children?

.....

.....

.....

.....

4.6 EDUCATION AS SOCIALIZATION

Education, according to a sociological viewpoint, is a process of socialization. Socialization may be seen as a process in which the culture of a society is transmitted to children. Every social group has its unique social background, religious beliefs, code of conduct, standards of right and wrong, value systems, and ways of eating, dressing and behaving. All these socially transmitted behaviors differentiate one community from those of others. It is this patterned behavior specific to each group that each member of the group forms his or her ways of thinking, feeling and acting which we call as culture. An individual's personality, his image of himself, his dealings with others and even his views about the world, to a great extent, are controlled and directed by the culture in which a person is brought up.

Socialization, when seen from this perspective, could be considered as modification from infancy of an individual's behavior to conform to the demands of the social life. Socialization, thus, is a functional prerequisite for any society, essential to any social life as well as the cultural and social reproduction of both general and particular social forms. Socialization that takes place both in the family and elsewhere involves both integration into society and the differentiation of one individual from another. In short, socialization is a life-long process that integrates an individual into a social group by making him learn the group's culture and his role as a member of the group. Socialization, thus, is mainly concerned with the relationship between an individual and his society. Socialization in this sense is a concept that bridges the disciplines of sociology and psychology. When dealing with the question of socialization, theorists generally focus on five aspects, namely (i) cognitive development, (ii) acquisition of morals and personal identity through family relationships, (iii) the acquisition of the self-concept and social identity, (iv) integration of the moral categories and values of the group and (v) the development of social skills needed for sustained interaction in all settings. In short, education as a process of socialization is nothing but modification of an individual's behavior from infancy through adulthood to conform to the demands of the social group.

4.6.1 Enculturation as Education

Many scholars consider socialization and enculturation as synonyms. However, there are some others who make a distinction between the two concepts. They attribute the term socialization to the learning of cultural patterns in childhood while the term

enculturation is restricted to the acquisition of new cultural patterns in adulthood. They hold that as a result of socialization the child internalizes values, attitudes, skills and roles that shape his personality and integrate him into the society. This process is essential to the formation of the child's self for he develops a conception of himself as a person through the behavior and attitudes of others. However, as adults, individuals are expected to play different roles. It is through learning to play various social roles that a well-formed social self emerges. As adults, depending upon their aptitude and education, individuals maybe called upon to play specific roles like that of police, teacher, doctor, engineer, advocate, etc. Playing these roles efficiently and effectively calls for sophisticated knowledge and complex skills. Picking up the required skills and knowledge for playing such roles is often called enculturation. Despite this differentiation, more often than not, the concepts of socialization and enculturation are considered as the same. Both are seen as occurring throughout the life of every normal individual.

Thus, although much of socialization takes place through ways that are informal, some aspects of it need formal training. Certain aspects of culture, as we have already seen, such as the role of police, judge, teacher, etc. need specific training. School, colleges, various centers of training, etc are set up for the purpose of getting individuals trained for carrying out such roles. The picking up of information and skills related with such roles may be seen as enculturation. While socialization is seen as something that is generally happening in naturalistic and spontaneous ways, enculturation is seen as a specific formal attempt at training or equipping individuals with specialist knowledge and skills so as to enable them play specialist roles in society. When seen from this perspective, the former is largely informal while the latter is formal. Be it formal or informal, for the perpetuation of any society, both are required. As individual members of a society, certain aspects they will learn on their own while a few others need to be inculcated through formal exposure and training. Therefore, enculturation is basically a process of educating a human being.

4.6.2 Acculturation as Education

In a multicultural country like that of ours, apart from the main culture, there are quite a number of sub-cultures. When individuals belonging to various cultures work together, there is possibility of learning from cultures of one another. In this sense, education can be seen as a process of acculturation. As a result of this, depending upon the situation in question, it is open to several possibilities such as assimilation, separation, integration or marginalization of cultures. In the case of assimilation, an individual may adhere to the other culture and its values and may become a part of that group. While in the case of separation, an individual adheres to his own cultural values and rejects the other's norms. In integration, an individual accepts both sets of cultural norms to a greater degree. However, in the case of marginalization, an individual rejects both the cultures. This shows that in a situation where individuals belonging to different cultures interact, it is open to several possibilities.

All cultures express a need for change and at the same time an internal resistance to change. In all societies, we find some people who want to accept new things and ideas while others encourage changeless stability. This makes acculturation a conflicting issue. It involves many factors like size of the population in contact, who dominates, who submits, the adaptability and flexibility exhibited by the cultures involved and the number and kinds of compatible and understandable behaviors, ideas that the people of one culture present to the others. These factors, to a great extent, determine the extent of acculturation in any culture contact situation. We can highlight this point by citing the example of the English settlers of Australia and the Aborigines. In this culture contact, the English who thought themselves superior to the Aborigines in terms of technology and quality of life, did not generally adopt the Aborigine culture. However, they accepted minor traits such as names of plants, animals and geographic locations.

We can now take up another example. During the fifth century A.D., the Western Roman Empire fell as a result of repeated invasions by the militarily superior Germanic tribes. The Romans did not adopt the language and cultural patterns of their conquerors. It was just the opposite. The Goths and other Germanic tribes generally adopted Roman Christianity, the outward trappings of the Roman politics and Latin as the language of learning. The Romans, although militarily dominated, perceived their own culture as superior and were in no way ready to acculturate to their conqueror's culture.

4.6.3 Education as Understanding Cultural Diversities

Every individual is a product of his own culture. Depending upon the culture in which one is brought up, individuals vary. Those who believe in cultural pluralism hold that cultural differences within a society should be retained and that culturally diverse groups should live in harmony and mutual understanding. As diversity in a multicultural society is unavoidable, members of different cultures should try to know one another. The more they know, the more their prejudices would die down. In case one of the cultures in a pluralist setup thinks it is superior to others and looks down on others, racism and stereotyping would result. This, in turn, can lead to discriminatory behaviors against other groups, leading to conflict among them. Conflict will lead to fights causing breach of peace and insecurity. If we are to avoid such a situation, we need to have a comparative understanding of various subcultures as well as the dominant culture. Only a comparative understanding can lead to scientific thinking. When we analyze we will find that most of our thinking is woven around our own customs and traditions and when we think we use them as frames of reference. Scientific truths are true for all under all conditions. If we pass judgments based only on our point of view, at the total exclusion of others, it can be one sided. Only a view that is holistic and comprehensive can be scientific or objective and any decision taken on one's own views is subjective. Failure to see situations from other points of view than one's own is the genesis of all problems.

Our education system, therefore, should offer opportunities to students to critically analyze issues from the perspective of different cultures. They should develop the ability to make informed and reasoned decisions for the public good as citizens of a diverse democratic society in an interdependent world. The curriculum should provide students an opportunity to view concepts, issues and problems from diverse ethnic, cultural and gender perspectives. An important goal of education is to free all students of their cultural encapsulation and to help reform society so that citizens from all groups can freely participate.

Check Your Progress

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

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

3. What is socialization? How is it different from enculturation?

.....

.....

.....

.....

4. What is acculturation? How is education called acculturation?

.....

.....

.....

4.7 EDUCATION AS PROMOTION OF DESIRABLE BEHAVIOURS

So far we looked at education as initiation, education as upbringing of children, and education as socialization. Now, let us look at education as something that promotes desirable behaviors.

If we look at the system of education that prevailed from the beginning of the 20th century to the end of the 1960s, we can see that it was dominated by the asociationist-behavioural paradigm. Under this perspective, most psychologists conceptualized learning as the strengthening of association between sensory impressions and actions between stimulus and response. This theme occupied psychological theory in numerous forms. Thorndike, for example, expounded it in terms of connectionism and Pavlov in terms of classical conditioning. Watson explained it in terms of behaviorism and Guthrie did it in terms of Contiguity while Skinner expressed it in terms of operant conditioning. Despite the several variations in interpretations, all of them without any exception shared the common conception of learning as formation of desirable habits through association.

During those days, most of the psychologists concentrated on animal experiments to get a rigorous understanding of principles of learning. They often conducted experiments on animals under controlled environment where dogs, pigeons or rats were studied to associate Stimulus (S) (such as the lever or disk) and Response (R) (such as pressing or pecking) under various schedules of reinforcement (using food pellet as reinforcement). These experiments have yielded a fund of knowledge with respect to learning. From these experiments, they came to the conclusion that those behaviors that are rewarded tend to be repeated while those that are not rewarded tend to decrease. Following this principle, behaviorists believed that effective instruction would make emission of a target behavior highly probable. They were convinced that the best conditions for learning were those in which the learner made a response overtly, in which there were multiple opportunities for repetition of responses and their reinforcements. A single emission of a response even if it were reinforced, was by no means enough for learning to take place. Only if a response is repeated, it can fully be learned. A statement, for instance, that is uttered thirty times is better learned than one that is uttered just twenty times. In fact one learns only what one practices doing. As long as one is making correct responses, one can be reinforced. It is believed that to be effective, reinforcement should follow the response as quickly as possible. In the classroom, it might take the form of approval from the teacher or satisfaction by the pupil that he has got his response right.

4.7.1 Promotion of Desirable Behaviours

Under the Associationist-Behaviorist perspective, it was believed that whether or not an individual forms and practices desirable behavior depends on the effective use of reinforcement. Whenever children do something meritorious, their behavior needs to be positively reinforced. Children may volunteer to help their peers who are weak in studies, may be polite while conversing with others, may contribute to the development of the content while instruction is going on, or they may help teacher maintain the cleanliness of the classroom, etc. Each of these behaviors is worth promoting. Whenever students come forth with such activities, teachers should show their appreciation and admiration. Teachers should provide such students with special privileges. Only then would students continue with such activities. If they find that nothing by way of admiration and appreciation comes out of the teacher, in due course of time, their behavior will also fade out.

Parents also should follow similar strategies at home. When children volunteer to help mother in cleaning, in setting the table, in making beds, etc or when they help father in the yard, help him in watering or pruning the plants and these behaviors are immediately

followed by positive reinforcers, their behaviors are strengthened and they will occur more frequently thereafter. Parents and teachers, therefore, should strive to make proper use of positive reinforcers to mould desirable behaviors as well as promote learning. When children complete their homework on time, work hard on their assignments or projects, etc. by way of reinforcement they should be given opportunity for doing things they enjoy by granting special privileges in the classroom. Thus all our efforts need to be made in promoting desirable behaviors. When such behaviors are strengthened by positive reinforcement, they become habitual. It is our habits that make or break us. Parents and teachers should help children to develop a number of good habits.

4.7.2 Extinction of Undesirable Behaviours

Teachers and parents should not only try to promote desirable habits but also strive to eliminate debilitating undesirable behaviors. Habit of telling lies, cheating in the examination, oversleeping, over eating, procrastination, etc are habits that demote and dissuade learners from accomplishing their goals. When parents and teachers find any such habits, they should withhold the use of reinforcement. If they wish to elimination such behavior, nothing must happen as a result of the behavior. We can highlight this point with the help of an example. A child, whenever he wants to get a chocolate, would stomp up and down and cry. To pacify him, the parents would give him the chocolate. This would encourage the child and as a result the frequency of his stomping and crying would increase. In case the parents wish their child not to continue with that habit, they should extinguish it by not responding to the child in any way. When the child finds that stomping and crying do not bring what he wants, his behaviors would tend to decrease. As a rule, people seldom continue to do things that do not provide positive reinforcement either through external or internal satisfaction.

So far as children are doing well, parents generally do not interfere. They are so busy that they have hardly any time for that. Only when things go wrong, they rush with help. We should realize that when children find their appropriate behavior does not fetch either attention or approval, which they crave badly, their appropriate behavior may become slack and in course of time, it may become extinct. Only when children get the attention and care they crave, they feel wanted and accepted. When they receive this, they realize their worth and continue to take care of themselves. Knowing this, parents who are concerned with the well being of their children, should shower upon them appreciation, approval, affection, etc by way of reinforcement so that children get the incentive to continue with their striving.

As our discussion so far reveals, proper use of reinforcement is very important in promoting desirable behaviors in pupils. Many scholars and educators were so captivated by this technique that they came out with several methods for educating children in the classroom. Programmed Instruction, Personalized System of Instruction (PSI), etc are typical examples for this. Psychologists also use such techniques as systematic desensitization, to bring about desired behavioral modifications.

Check Your Progress

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

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

5. Explain with examples that education is promotion of desirable behaviours and extinction of undesirable behaviours.

.....

.....

.....

.....

4.8 EDUCATION AS RECONSTRUCTION OF EXPERIENCES

Both philosophers as well as psychologists have held the view that education is reconstruction of learning experiences. Among the philosophers, John Dewey (1916), in his monumental work, 'Education and Democracy" has discussed education as reorganizing or reconstruction of experience. According to him, "education has all the time an immediate end and so far as activity is educative, it reaches that end - on the direct transformation of the quality of experience. Infancy, youth, adult life, - all stand on the same educative level in the sense that what is really learned at any and every stage of experience constitutes the value of that experience, and in the sense that it is the chief business of life at every point to make living thus contribute to an enrichment of its own perceptible meaning". Therefore, reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience. To substantiate his theory, he has provided an example. "a child who reaches for a bright light gets burned. Henceforth, he knows that a certain act of touching in connection with a certain act of vision (and vice-versa) means heat and pain; or, a certain light means a source of heat."

After the 1960s, John Dewey's theoretical stand found a psychological explanation when there occurred a shift from a fundamental behavioral paradigm to a more cognitive one. Unlike the associationists (behavioral paradigm) whose focus was on environmental influences on learning, the cognitivists sought to understand the mind's structure and processes. The main purpose of cognitive psychology was to explain human activities as fully as possible through understanding the cognitive processes of memory, thinking, problem solving and decision-making. Rather than viewing knowledge as fully known, fixed and transmittable, the cognitivists held that knowledge is personal and meaning is constructed by the learner through experiences. Thus education is not viewed as telling or transmitting fixed truths to students but rather providing students with relevant experiences and subsequent opportunities for dialogue. The school's curriculum is no longer seen as a document of important information but instead as a set of learning events and activities through which students and teachers jointly negotiate content and meaning. This means that learners have to reconstruct old knowledge as if it were entirely new to them. Comprehension and learning, thus, have come to be seen as meaning-seeking construction of learners.

4.8.1 Learner's Prior Knowledge and Its Structure

Cognitivists believe that in meaningful learning, the learner's prior knowledge plays an important role. When learners come to a new learning situation, they may not be totally blank with respect to the new area of study. This prior knowledge is differently labeled as schemata, scripts or frames. Schemata are hypothetical mental frameworks that give organization to incoming information, guide attention, and perception and limit or enhance the learner's ability to understand information. Schemata can contain a wide variety of information from the simple to the highly complex. This information in schemata is organized in a hierarchical fashion. Our schemata or cognitive structures explain our tendencies to remember important information over unimportant information, to recall the gist of passages rather than verbatim content and select information for recall that is consistent rather than inconsistent with our perspective. This shows that learning is not a passive act but a constructive one.

4.8.2 Learning is Constructive Not Receptive

Effective learning involves transforming information, not recalling it. Learning is a constructive not a receptive process. Knowledge is constructed in the mind of the learners as they strive to organize their experience in the framework of pre-existing

mental structures. Learners construct their own knowledge by looking for meaning and order. Construction is a process in which knowledge is both built and continually tested. In this, what is known as anticipatory schema forms an essential cognitive component in the cyclic process of perception. An anticipatory schema consists of a set of cognitions derived from the individual's beliefs and experiences based on observations of the situation and concerning the most probable outcome of an action. This schema plays vital role in the selection of appropriate behaviors. The actions thus directed will modify the situations, producing a new sample of observation. These in turn will serve to modify the anticipatory schema. It is this cyclic process that is the key to understanding. What people do is constructive memory, which is affected by the individual's own pre existing schemata, values and attitudes. People rarely remember events or information accurately, but instead they tend to adapt their memories to make more sense and accord with their own cognition and cognitive styles that is known as constructive memory.

Much of what learners know is not exactly learned by them, but what they have deduced from other things they know. For instance, when one hears the phrase 'birthday party,' it arouses in the mind of the listener a certain picture of an organized event with guests coming with presents, singing of birthday songs, lighting of candles, cutting of cakes, etc. We understand the event in the light of the framework we have in our mind. Children know that River Narmada contains water not necessarily because they have seen it or heard about it but because it is a river. They have mental models of things. People think in terms of models rather than rules. Thinking involves constructing an internal model of the way things appear to the thinker. Deductive reasoning works through the use of rules, models and definitions. Learners need to work on the impressions they get as a result of reasoning, if they are to be easily reconstructed for short-term memory. Repetition alone is an insufficient form of memorization. Memory is best achieved by elaborate encoding via more processing of information. Children tend to remember things, which are made more meaningful, by the context, relating things to what they already know. Students tend to remember information that has been structured into patterns visually, verbally or symbolically.

In short, if students are to learn, they must recode information into meaningful categories. Recoding is dependent on comprehending meaning. Unless components that comprise a situation are not linked together meaning fully, recoding will be useless. When information is encoded solely on its surface features, what is recorded is shallow. However, when it is elaborated and transformed by the learner, it leads to deep processing. The deeper and more elaborated the processing, the better the recall will be. Thus, learning is a product of reconstruction that has come into being as a result of interaction among what learners already know, the information they encounter and what they do as they learn.

Activity

In this section, we have discussed acquisition of knowledge as reconstruction of experiences. State in a few sentences your perception of education as reconstruction of learning.

.....

.....

.....

.....

.....

.....

Check Your Progress

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

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

6. Discuss 'Education as reconstruction of experiences', as presented by John Dewey.

.....

.....

.....

.....

4.9 EDUCATION AS TOTAL DEVELOPMENT OF INDIVIDUAL

Education of an individual is very often equated with his total development. Psychologists have identified three major forms of abilities in human beings. These are related to his knowing, feeling and doing abilities. In their words, there are three domains of human abilities, namely, cognitive, affective and psychomotor domains. Hence, an individual is considered educated when his abilities pertaining to these three domains are developed properly. Let us examine each of these abilities in the context of individual development.

4.9.1 Development of Cognitive Abilities

How children develop intellectual ability depends to a great extent on how they go about processing information and build up a conceptual model of the world. The more stimuli a learner experiences to activate his patterns of learning, the greater will be the capacity of his brain to function intelligently. Depending upon the nature of the opportunity provided, goals of the cognitive domain, as Bloom, et al (1956) state, may go up to six levels. The first of these levels is knowledge in which learners will be able to define, describe, repeat or identify what they know. At the second level, namely understanding, they will be able to describe, explain, compare or relate ideas in their own words. During the third stage, namely application they will be able to use the knowledge gained for solving problems or demonstration. The next level is analysis during which learners will be able to break an idea into components and arrange them in their respective order. Synthesis is the next level during which learners will be able to put things together and develop, improve or create something in their own way. At the final level, namely evaluation, learners will be able to find merits and demerits and provide feedback pertaining to an area.

Our classroom activities generally revolve round the first two levels. Teachers seldom go beyond them while giving instruction. If we expect growth through education, children should be provided with opportunities to experience all the levels. By resorting to discussion or by asking the right questions, teachers can stimulate the minds of the students, extend their knowledge, focus their attention, make comparisons, seek clarification, invite enquiry and seek reasons. Similarly, skills of defining, ordering, classifying, sequencing, judging, etc. can be developed by means of open ended questions. We can pattern our experiences by defining terms, seeking evidence and fitting the elements of enquiry into logical chain of reasoning, This ability to pattern experience into conceptual categories, classes or sets is a fundamental aspect of our intelligence.

If children are to develop their intelligence, their curriculum should be made relevant by relating it to life and the world in which they live. We should encourage depth over coverage in course content and interdisciplinary integration of skills, concepts and information. By depth of instruction, we mean teaching children higher levels of thinking related to significant concepts and themes, problems or issues by connecting ideas across disciplines to extend understanding, find answers, foster generalizations and create new knowledge. Thus, on the basis of these simple patterns more elaborate response patterns are built so that learners can move in stages from novice to apprentice towards experts.

4.9.2 Development of Psychomotor Abilities

Intellectual growth alone will not ensure the total development of the person. Hand in hand with this, all attempts should be made to develop psychomotor abilities and affective abilities like interest, attitudes and values, if we wish to develop the total personality of a person.

Between the age of 5-12, children make great progress in developing physical skills such as coordination, muscular control and manipulation skills. Physical skills are more accurately called psycho-motor skills as in humans there are no purely physical skills, all involve some mental processing. These skills are forms of knowledge learned slowly and through repeated patterns of action. As each skill becomes established, it becomes unique to that person. No one swims or draws exactly in the same way. Bodily skills seem identical in action, but they are the products of individual intelligence, a personally distinct patterning. Once learned, such skills become programmed as a series of sensory motor responses. They become natural and durable. This is why dormant skills such as ability to swim or pedal a bicycle can be re-established quickly after a gap.

Mental and physical skills are closely interlinked in that they require the processing of information, a sense of timing and a sense of direction. The need to remember and to imitate physical actions is common to many skills such as dancing or acting. Whether or not these activities succeed depends on other intellectual skills as concentration, judgment, close observation, etc.

4.9.3 Development of Affective Abilities

Development of cognitive and psychomotor abilities alone does not ensure total development of the person. Along with these, their affective aspects like values, attitudes and interests must also develop. However intelligent and skilled a person may be, if he has not developed any affective qualities, he will be a misfit in the society. It is lack of moral and spiritual values that is responsible for various unfortunate incidents of indiscipline, rioting and even murders that are taking place in various parts of the country. The present is experiencing more than even before the predicament of valueless ness, crisis of character, erosion of morality and spirituality which has resulted in dehumanization which is threatening the very existence of human beings.

Human personality and character consist of a number of traits, which come to the fore as a result of the interaction between environment and heredity. A trait is a specific way of behaving that occurs again and again. It tends to characterize a person and is useful in predicting future behavior. Cleanliness, honesty, responsibility, etc. are examples of traits. A trait when seen in relation to a specific thing, person or idea becomes an attitude. Intolerance, for example, is a trait but intolerance of a particular community is an attitude. Attitudes are derived from experience and they can be modified. Our ways of thinking, feeling and doing go together. Thus, by managing our thinking and attitudes, we can build up habits, which are constructive. Values and principles are other affective aspects that contribute to the molding of our personality and character. Values and principles are qualities that individuals and society consider as worth possessing. Values and principles are generally caught rather than taught.

However, they can also be taught directly through exposition, role-play, discussion, debate, etc.

Inculcation of values and other affective abilities involves several levels of internalization. The first of these is receiving or becoming aware of the presence of something worthwhile in the environment. The second level is responding or displaying some sort of affinity towards that thing or quality. The third step is displaying definite involvement in terms of the quality aspired. The fourth step is internalization and integration of the quality into the repertoire of values of the individual concerned. The fifth and final level is characterization in which the person concerned becomes firmly committed to the value. Either through direct instruction or through mental involvement that passes through several degrees of commitment, the learners inculcate the values which they believe are worthwhile.

Thus through sustained instruction, conscious and willful involvement, learners can be made to pick up different aspects of knowledge, skills and qualities of the head, heart and hands. As a result of this, the total development of the person gradually takes place. Such an individual who has developed intellectually, morally, spiritually, aesthetically, emotionally as well as socially is an asset to the nation. His conceptual understanding pertaining to different disciplines and areas of knowledge will enable him to grasp matters quickly and rise to the occasion as problems crop up. His facility with various skills and technical know-how will enable him to apply the knowledge in solving his day-to-day problems. His deep-rooted values and his benevolent attitude will enable him to move forward with a win-win attitude. In short, his total development owing to education will enable him move from a state of egocentric to a universal perspective.

Activity

In the light of the discussion, we have undertaken in the proceeding section, briefly explain your conception of education as total development of an individual.

.....

.....

.....

.....

.....

.....

4.10 EDUCATION AS LIBERATION

In the section immediately preceding this, we discussed education as development. Now let us see in what sense education is liberation.

That education is liberation is not an idea that has sprung up in the present. Our sages in the past used to consider education as a medium for attaining liberation. They used to teach their disciples "Sa vidya ya vimuktaye". This implied that true education leads to freedom. That alone is true education, they used to tell, which enables us to preserve our dharma. In order to attain moksha, which we describe as our paramadharma, we should have freedom in the worldly sense as well. He who is ridden with many fears, cannot attain the ultimate moksha. When we succeed to be free from all these, we would achieve the end of human effort. The gurus used to advise people that education which delays our freedom is to be shunned.

However, liberation as it is perceived today has a mundane flavor. It speaks of freedom from dependency, from rigid controls and ability to steer life smoothly on one's own across the tumultuous ocean of life. In the present world, unless education and economy

join hands wherein education provides the right kind of creative and knowledge empowered persons, economy will take a backseat. If we wish to liberate youngsters, we need to develop their capacity to think, to question, to recreate, to solve problem, to analyze, to synthesize, and to apply objective norms of evaluation. In addition, education should encourage them to pick up a basic understanding of technology and inspire them to be technology friendly as these are pre-requisites for coping with the demands of the present world. True education is empowering. Such an education would provide learners with the power to think, to feel, to ask questions, to observe, to draw inferences, to construct or create. Real empowerment consists in helping learners acquire knowledge and understanding, picking up requires skills and attitudes and values by actively involving them and making them find solutions to problems that they confront in life. Just like licensing empowers a driver to take a car safely along crowded streets to its destination, true education should enable youngsters to get along the murky alleys of life without frequent recourse to authority and unconstrained by rigid controls.

Education as liberation has also been stressed by different thinkers as well as committees set up from time to time to recommend on different aspects of education.

According to the Acharya Rammurthy Committee, GOI (1990) in its review of National Policy on Education (1986), education to be an instrument of development, must be also a truly freeing experience, a process of liberation. The Committee has perceived liberation as " liberation from the numerous prejudices based on caste, gender, religion, region, language etc., from prejudices based on superstitious beliefs; from a variety of unfounded fears; and positively, freedom to explore, to investigate; freedom to accept beliefs." Hence the more education a person receives, the more he is supposed to be open, unbiased, less fearful, and less prejudiced. This is what the Committee meant by seeing education a becoming, a freeing experience, an instrument of liberation.

Freire (1994), in his monumental work "Pedagogy of the Oppressed" has talked about humanitarian and libertarian pedagogy. Such a pedagogy has two distinct stages. "In the first, the oppressed unveil the world of oppression and through the praxis commit themselves to its transformation. In the second stage, in which the reality of oppression has already been transformed, this pedagogy ceases to belong to the oppressed and becomes a pedagogy of all in the process of permanent liberation."

True education, thus, should enable youngsters to go about living life with ease, effectiveness and efficiency. It should empower and liberate them from the bondage of debilitating ignorance, poverty, diffidence, and inferiority complex. In short, education should provide learners with the much-desired license so that they would be able to drive their way to prosperity and sublimity and make the best out of their life.

Check Your Progress

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

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

7. Explain how education can be called total development of individual.

.....

.....

.....

.....

.....

8. What is liberation? How is it achieved by education?

.....

.....

.....

.....

4.11 LET US SUM UP

Education, as we have already noted, is a sustained instruction through which we provide people with the required knowledge, understanding, skills, attitudes and values needed for living life in the society as effectively and meaningfully as possible. As knowledge and skills required by people keep changing with time, the system of education also has to change in consonance with them so that it remains dynamic and functioning all the time. When we look at education from this perspective, we will find that education is not a static system but something that is always in a state of flux.

As we look closely at education for finding its characteristics, we shall not fail to find its multifacetedness and varied dimensions. Depending upon the roles that education plays in the society and the stress that we lay on it, education can be characterized differently such as education as initiation, education as upbringing of children, education as socialization, education as cultivation of desirable behaviors, education as reconstruction of experiences and education as liberation. We need to take a deep plunge into relevant literature, if we wish to get a vivid picture of the varied characteristics of education.

4.12 UNIT-END ACTIVITY

1. Observe different environments where education takes place and identify at least three examples of the following processes of education:
   - i) Acculturation
   - ii) Enculturation
   - iii) Promotion of desirable of behaviours
   - iv) Extinction of undesirable behaviours
   - v) Reconstruction of experiences

4.13 POINTS FOR DISCUSSIONS

1. Why does upbringing of children occupy an important position in education? What suggestions would you like to offer towards ideal upbringing of children?
2. What is the relationship between socialization and education on the one hand and enculturation and acculturation on the other? Why is enculturation important in a multicultural society?
3. In which sense is education a reconstruction of experiences? With the help of proper examples highlight the details involved
4. How does education lead people to liberation? What benefits does liberation bring to them?

4.14 SUGGESTED READINGS

Arends, R.I. (1994): *Learning to Teach*, New York: McGraw Hill, Inc.

Bloom, B.S. et. al. (1956): *Taxonomy of Educational Objectives: The Classification of Educational Goals*, N.Y.: Mc Cay.

Dewey, John (1916): *Democracy and Education*, New York: MacMillan.

Erickson, H.L. (1995): *Stirring the Head, Heart and Soul: Redefining Curriculum and Instruction*, California: Crowin Press.

Freire Paulo (1994): *Pedagogy of the Oppressed*, New York: Trans Myra Bergman.

Godefroy, C.H. (1993): *Mind Power*, London: Judy Piatkus Publishers Ltd.

Government of India (1990): *Review of NPE – 1986, Towards an Enlightened and Human Society*, New Delhi: MHRD.

Khera, S. (1998): *You Can Win*, New Delhi: Macmillan India Ltd.

Joseph, K.S. (2003): *Learning to Educate*, Vadodara: Gold Rock Publications.

Podesta, C. (1990): *Self-esteem and the Six Second Secret*, Corwin Press, Inc.

4.15 ANSWERS TO CHECK YOUR PROGRESS

1. Education of a child starts in the womb of the mother. It is believed that the mind of the pregnant mother and the environment in which she lives have a shaping influence on the mind and behaviour of the child.
2. Family is the first institution where the child gets initiated into the world of knowledge through the process of socialization.
3. A code of conduct and a time-table are necessary for child; they show them direction and provide them needed guidance.
4. Self-esteem refers to a state of feeling of the mind wherein the person has an objective and accurate understanding as to his own self-worth. It helps children to succeed in their lives.
5. Socialization is learning cultural patterns in childhood and enculturation refers to the acquisition of new cultural patterns in adulthood.
6. When individuals belonging to various cultures learn from cultures of one another, this takes the process of acculturation.
7. When children keep their classrooms neat and clean, teachers should promote such desirable behaviours by providing positive reinforcements but if they adopt cheating in the examination, teachers should discourage such undesirable behaviours by providing negative reinforcements.
8. John Dewey advocated that education is reconstruction of experiences. When a child encounters a new learning situation, he reconstructs and experiences it which becomes educative. According to him, a child who puts his finger into the fire experiences the consequences of involving in certain type of activity i.e. putting finger into the fire.
9. Liberation is basically experiencing of freedom in all spheres of human life. Education liberates human being form the bondage of ignorance, poverty, diffidence and inferiority complex.