BES-126
KNOWLEDGE AND CURRICULUM

Block

1

KNOWLEDGE IN EDUCATION

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Unit 1 adapted from unit 5 (block 2) of the course MES-012 of MA (Edu) programme

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INTRODUCTION TO THE COURSE

Like three basic needs of a human being, Education has, now-a-days has become an important need of a human being. But, 'Education' as a concept is understood differently by different people. A common plan understands it in terms of acquiring qualifications from a formal education system. The knowledge which is to be developed among the learners has to be organized, which is decided in the curriculum framework. This course attempts to develop an understanding about the meaning and concept of curriculum, the process of planning a curriculum, the way it is organized and implemented.The course has three blocks and eleven units.

Block 1 is concerned with knowledge in education. In the beginning, concept and theories of knowledge have been discussed. Any form of knowledge is derived from certain sources. Hence, seven sources of knowledge have been presented to provide you an understanding of the process of knowledge generation. A detailed classification of knowledge and the process of validating these forms of knowledge would help you understand knowledge in education. In pursuant of the understanding of concept and nature of knowledge, a detailed discussion has made to understand concept, nature of knowledge and process of knowing. The block also presents the contribution of philosophical thinking of Mahatma Gandhi, Ravindranath Tagore and Sri Aurobindo to the understanding and development of curriculum. Lastly, it also discusses the role of ideology in curriculum.

Block 2 is devoted to curriculum and its bases. It starts with meaning and concept of curriculum, it discusses various approaches to understand curriculum. Different kinds of curriculum, criteria and processes involved in curriculum have been highlighted. Influence of philosophical, psychological and sociological foundations on the development and implementation of curriculum has been deliberated. The processes involved in curriculum planning ranging from setting of goals and objectives to actual transaction have been presented. The four major components of curriculum design and development along with some models of curriculum development have been discussed. In the end, a detailed discussion on evaluation of curriculum and various approaches to and models of curriculum evaluation has been made.

Block 3 discusses about how school act as the site for implementing curriculum. It highlights the relationship between teaching and decision-making regarding curriculum by shaping the concepts of the teacher as a curriculum implementer, developer and the Principal as a curriculum leader. It also helps in developing understanding about the alternatives related to decisions about what to teach, how you organize knowledge for learning, and how to imparting this knowledge to students.

BLOCK 1 KNOWLEDGE IN EDUCATION

Introduction to the Block

This is the first block for this course on Knowledge and Curriculum. This block will try to set a pace to understand about the knowledge, its types and process of knowing. This block has four units and each unit will help in broading your understanding in this area

Unit 1 will examine human knowledge - its nature, sources and its various kinds. This is the principal task of the branch of philosophy called 'Epistemology'. You will also analyze the role of culture in knowing. You will analyse how is knowledge is validated through varification, confirmation ad regutation. Finally, it will help in understanding about how knowledge can be validated?

Unit 2 will throw light on the importance of constructing knowledge and also about the process of knowing. A teacher is expected to train and help the learners in the critical evaluation of knowledge, so that they can see how different types of knowledge can be judged in different ways. Through this unit, you will evaluate new knowledge related to specific knowledge issues helped to critically. There are different ways by which learners can be initiated into the process of knowing, those will also be discussed in the unit.

Unit 3 In this unit, we will discuss the views of various educational thinkers on knowledge and education. Education as viewed by Indian educational thinkers – Rabindranath Tagore and Mahatma Gandhi and by western educational thinkers – John Dewey and Paulo Freire will be discussed. Later, conceptual-logical and social perspectives of education will be dealt.

Unit 4 discuss about the dynamic nature society where we live with many ideas and aspirations. It will talk about how different ideologies having shared ideals, aspirations and beliefs about the kind of society impact the society. And depending on the kind of society they seek to create, they have their own agenda for education. The unit will discuss about the relationship between curriculum and ideologies. It will also emphasize the need and importance of your own role as a reflective teacher in challenging the status-quoist pedagogy through critical learning and equality of opportunity in classroom.

UNIT 1 UNDERSTANDING KNOWLEDGE

Structure

1.1 INTRODUCTION

Knowledge and its transmission is a main concern of education. What aspects of the vast fund of human knowledge are to be selected for transmission and what criteria are to be used for selection of critical issues in curriculum planning? In this context, knowing about the philosophical basis of knowledge and knowing various sources of knowledge and their validity become important.

Philosophy is conceived as critical inquiry, and as a second-order discipline, it is concerned with the claims of various concrete forms of intellectual activity involving Knowledge. It is an activity of analysis, clarification and criticism of concepts. This view of Philosophy has been inspired by the realization that the results of any sort of enquiry are acceptable only in so far as they are publicly testable, reliable and coherent with the rest of public knowledge. Knowledge must never be thought of merely as vast bodies of tested symbolic expressions. These are only the public aspects of the ways in which human experience has come to be shaped. To acquire knowledge is to become aware of experience structured, organized and made meaningful in a specific way.

In this unit, we shall examine human knowledge - its nature, sources and its various kinds. This is the principal task of the branch of philosophy called 'Epistemology'. We shall also analyze the role of culture in knowing. Finally, we will understand how knowledge can be validated?

1.2 OBJECTIVES

After going through the unit, you should be able to:

- explain the concept of knowledge;

- relate 'knowledge' with 'knowing';

- differentiate between A Priori and A Posteriori knowledge;

- analyse the different sources of knowledge;

- discuss the role of culture in knowing; and

- explain the ways of validating the knowledge.

1.3 CONCEPT OF KNOWLEDGE

In the most common understanding, knowledge includes the beliefs about matters of facts (things, objects, events), about relationships between facts, and about principles, laws, theories that are at work in the nature and society. It also represents our understanding about the relationships; the relationship of the knower with the known. In other words, it is the relationship of the subject with the object. Knowledge is the result of knower's active engagement with the object of knowledge. Knowledge and its intensity depend on the relationship between the knower and the known.

Knowledge includes the fact or condition of knowing which is gained through experience or association. It is a fact or condition of being aware of something, the range of one's information or understanding, the circumstance or condition of apprehending truth. You may conclude that it is the sum of what is known i.e. the body of truth, information, and principles acquired by individuals.

Further, knowledge is understood in terms of enlightenment. The Indian philosophy believes it as breaking the veil of ignorance. One is said to have knowledge, when one is aware of the phenomenon and can also state that the awareness is true. In the school context, knowledge is the sum of conceptions, ideas, laws, and propositions established and tested as correct reflections of the phenomenon.

It is also believed that knowledge can't be defined as it is the sum total of many phenomenon and definitions. But, in spite of this, philosophers have made an attempt to define knowledge. Plato has examined three definitions of knowledge which are as under:

- Knowledge is perception or sensation;

- Knowledge is true belief;

- Knowledge is true belief accompanied by a rational ground.

Plato finally called knowledge as 'Justified truth', and Dewey denotes knowledge as 'inference from truth'.

The National Curriculum Framework (2005), while placing the experience of the knower at centre, also defined knowledge. According to it, "Knowledge can be conceived as experience organized through language into patterns of

thought (or structures of concepts), thus creating meaning, which in turn helps us to understand the world we live in. It can also be conceived of as patterns of activity, or physical dexterity with thought, contributing to acting in the world, and the creating and making of things. Human beings over a time have evolved many bodies of knowledge, which include a repertoire of ways of thinking, of feeling and of doing things, and constructing more knowledge (P.25)."

Knowledge as viewed from a social constructivist approach emphasise that individuals and collective groups are continually constructing and reinventing their understanding of themselves and the world around them.

While understanding about knowledge, you might have come across many terms such as information, truth belief and knowledge which may confuse you. You must have a clear understanding about these terms, which are presented as follows:

Information	Belief and Truth
It is raw data; It is discrete; Pre-meaning stage of knowledge; Prerequisite to knowledge; Preliminary level of knowledge; It is about facts of known; Publicly available.	Belief is personal and primarily subjective feeling and expectation in a person, power or other entity, though shared by others; Could be verified or beyond verification;. This includes 'the' truth, and everything else we accept as 'true' for ourselves from a cognitive point of view. Verified knowledge; Truth is a property of beliefs, and derivatively of sentences which express beliefs.

Knowledge has been classified into different forms based on different conceptulisations. Based on the way, knowledge is obtained; it can be classified under three heads:

(i)**A priori Knowledge**: It is a knowledge whose truth or falsity can be decided before or without recourse to experience (a priori means 'before'). Knowledge that is A priori has universal validity and once recognized as true (through the use of pure reason) does not require any further evidence.

"All bachelors are unmarried" is A priori knowledge, you need not have experienced the unmarried status but you have this knowledge.

(ii) A Posteriori Knowledge: This knowledge based upon observation and experience and it stresses on accurate observation and exact description. The propositions that fall under this category can be looked from the point of view of whether they contain any factual content and from the standpoint of the criteria employed for deciding their truth or falsity. For example, we have propositions like:

● **Ice melts.**

● **Snow is white.**

● **Metals conduct heat and electricity.**

These propositions give us factual information whose truth or falsity can be decided only through observation and verification.

(iii) Experienced Knowledge: This form of knowledge is always tentative and cannot exist prior to experience or be concluded from observation. It must be experienced to have value.

1.3.1   Sources of Knowledge

Before you understand the process of constructing the knowledge, it is important to find out the sources of knowledge. Let us discuss them:

A) Knowledge through Sense Experience

We can know many things about the external world, and their characteristics through our senses i.e., by seeing, smelling, touching, tasting and hearing. But we can commit mistake while perceiving things around us through our senses. For example, we may mistake a rope for a snake which is known as perceptual error. Here, it is not our senses that have deceived us but the error in the judgement. When we make a perceptual error owing to incomplete or fragmentary sense experience, it is always further sense experiences that lead us to discover our error. For example, one can get closer and confirm whether it is a rope or a snake. Thus, one can get the knowledge about the external world through external senses.

There are also 'internal senses', acquainting us with our own internal states (feelings, attitudes moods, pains and pleasures), as well as our own mental operations such as thinking, believing and wondering. In these cases, sense-organs are not involved in knowing; nevertheless, on the basis of certain experiences one may state certain propositions like "I am having a headache", "I feel sad"; "I feel ill" and so on. In all these cases the fact that we are having the experience in question is the only guarantee we have or need for the truth of the proposition. In general, feelings are occurrent states, and their occurrence warrants one to say that he or she has a headache, or feels sad or ill.

The words that can be used to describe people's 'inner states' or 'modes and emotions' are 'dispositional words'. For example, "I am in an irritable mood" means that if someone were to annoy me, I would be irritated more quickly than usual. It is important to make a distinction between occurrent and dispositional state in order to understand knowledge through internal senses. A seed having a potency to grow into a plant, but kept in a jar is said to be dispositional; when it grows into a young plant being provided all favourable conditions, then it is said to be in an occurrent state. Thus we have the knowledge of our inner states of mind which can be occurrent in a situation or dispositional (having the potency or properties) to be something given a chance.

b)   Knowledge through Reason

This type of knowledge is arrived at by means of reasoning, for example 2+2=4.There are two types of reasoning which serve as the source of knowledge : deductive and inductive, let us understand them.

In a deductive reasoning, the conclusion logically follows from the premises. If the premises are true, the conclusion that follows must be true. For example,

- *If it is raining, the streets will be wet.*

- *It is raining.*

- *Therefore, the streets will be wet.*

The above example represents a valid argument. If one accepts the premises, one must also accept the conclusion - conclusion follows from the premises, it is important to distinguish validity from truth. In a valid argument, the premises need not be true; it is only required that the conclusion follow logically from the premises. For example,

- *All cows are green.*

- *She is a cow.*

- *Therefore, she is green.*

In this example, the argument is valid, i.e. conclusion follows from the premises. But the premises are not true. Therefore, the conclusion arrived at is also not true.

Sometimes, the premises may be true, but there may not be valid arguments. For example,

- *India is a democratic country.*

- *2 plus 2 equals 4.*

- *Therefore, he is-driving the car.*

In the above example, the conclusion does not follow from the premises, although all premises happen to be true.

Hence, you can say that in order to know that a conclusion is true, we have to know that the premises are true and the argument is valid i.e. the conclusion follows logically from the premises.

In inductive reasoning, the premises provide evidences for the conclusion - but not complete evidence. The conclusion is not certain but only probable to a certain degree. For example,

- *Crow 1 is black.*

- *Crow 2 is black.*

- *Crow 3 is black, (and so on for 10,000 crows or more than that)*

- *Therefore, all crows are black. Similarly,*

Here, though 10,000 premises where crow being black are true, the conclusion is not established. It is always possible; the next crow, which we may come across, might be white. In inductive reasoning, truth is established based on earlier evidences for something, which is not observed. In an inductive argument, we rely on certain laws of nature, which are formulated based on certain recurring uniformities in the course of our experience. For example,

- *Green plants prepare their own food.*

- *Water vapourises on heating.*

- *Metals expand when heated.*

There are countless uniformities that are quite familiar in our experience, and on the basis of them we construct inductive arguments. In an inductive reasoning, the conclusion is not certain but only probable.

c) Authority

It is not a primary source of knowledge where one experiences knowledge through one's own reasoning or sense experiences. We accept certain things as true on the basis of authority. Following precautions have to be observed in the case of knowledge coming from authority:

- The person must really be an authority, one who is a specialist in his field of knowledge.

- Whenever one accepts another person's statement on authority, he should be able to find out for himself or verify the knowledge. For example, we can empirically check the truth of Einstein's theory of relativity, though it would take years of special training and experimentation.

- The authority should be able to provide evidential proof for the knowledge he possesses and present a logical explain

- The knowledge claimed by the authority should have acceptance by the other experts in that area.

d) Intuition

It is a certain kind of experience when a conviction of certainty comes upon us quite suddenly like a flash. Intuitions sometimes conflict. For example, two people can intuit about tomorrow's weather in different ways. How do we decide which of them is true in that case? If 'X' asserts that it would rain tomorrow and Y asserts that it will not, we can wait for tomorrow to find out which of the claims is true. But this we do through sense experience (seeing it rain), not by intuition. Intuition itself provides no way of deciding which of two conflicting intuitions is correct.

Knowing by intuition does not really explain "knowing how". It tells us nothing about the validating procedure. We have examples from history of scientific investigations (Archimedes principle) and mathematical discoveries where the knowledge was discovered through intuition and proved to be valid also. One can argue here saying, the knowledge was not arrived at as through a flash of thought without certain amount of presuppositions. The problem was contemplated upon for a long period in search of a solution in cases where the scientists were supposed to have intuited. In the process, the scientist must have intuited the solution, which was explained later with sufficient grounds of evidence and reasoning. However, this does not guarantee that every time the scientist intuited, it had carried a valid piece of knowledge.

e) Revelation

This source has the same problem as intuition. Sometimes one claims to know something by means of revelation. For example, "It was revealed to me in a dream" (or a vision). What if one person had a vision that told him one thing, and another person had a vision that told him the opposite? The fact that the person had a dream or a vision, does not show that its message is true or can be trusted. If what it says is true, its truth can be discovered only by other means.

f) Faith

This source of knowledge overlaps the previous one having the same problems. "I know this through faith"; "I have faith in it, so it must be true"; "I believe it through faith, and this faith gives me knowledge". The same difficulty that plagued the claims to knowledge by intuition and revelation occurs here. People have faith in different things and the things they claim to know by means of faith often conflict with one another. Faith is a firm belief in something for which there is no evidence. It is an attitude of belief in something in the absence of evidence. What feeling or attitude one has towards the belief, and whether that belief is true, are two very different things. So it cannot be a valid source of knowledge.

Check Your Progress

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

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

1. Define Knowledge in your own words.

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    ....
    ....

2. Differentiate between A Priori and A Posteriori knowledge.

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    ....
    ....

3. Explain reason as a source of knowledge.

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    ....
    ....

1.4   NATURE OF KNOWLEDGE

In this section, we will try to understand the characteristics of knowledge, which will help you to understand its nature.

(i)   Abstract nature of Knowledge

Till now, you might have understood that knowledge is shared understanding; be it justified truth or agreement between two ideas. This attributes to the abstract nature of knowledge.

(ii)   Social nature of Knowledge

Knowledge is socially shared understanding, as it is developed through collective pursuit of the community members of the society. Individuals acquire a great deal of knowledge from their own experience; simultaneously they build up the knowledge through association with fellow humans. Therefore, the knowledge is acquired and built up only in society, and its roots lies in the social activities of man. Hence, knowledge is essentially social in character.

(iii) Knowledge is Cumulative

Knowledge is cumulative in nature because it is socially preserved and transmitted from one generation to the future generations. It is continuous to grow and develop in generations with the help of new understanding of reality, knowledge of the reality. In this way, incomplete understanding moves towards complete understanding of the reality. Knowledge grows through a process of not only adding to but also perfecting and correcting the already existing body of knowledge.

(iv) Knowledge is Both Limited and Limitless

The cumulative character of knowledge also informs us both limit and limitless nature of knowledge. At any particular stage in the development of humanity, knowledge comes up against limits set by the limited character of available experience and by the existing means in obtaining knowledge. Therefore, knowledge is always limited, and is at the same time limitless. In other words, the known is always bounded by the unknown but not the unknowable.

(v) Knowledge is Perspectival

Knowledge does not simply 'explain' the objective reality hanging 'out there'; it constructs the reality within the limits set by experience. It is not simply explanatory in character; rather, it is interpretative in character and nature. It is interpreted in a social context. This inherent character of interpretiveness of knowledge makes it perspectival rather than simply perceptual. Knowledge develops perspectives among knowers.

1.5 KNOWING AND KNOWLEDGE

Epistemology is one of the branches of philosophy, which is concerned with the theory of knowledge. It solves two fundamental problems of knowledge– origin of knowledge and validation of knowledge. According to Friere, the cycle of knowing has two important moments which are dialectically related. The first moment is, *moment of production of new knowledge and the other is when the produced knowledge is known to the knower*. Often, the teachers dichotomize these two moments, i.e we make them separate. As a result, the learners are only expected to memorise what teacher says. Consequently, the act of knowledge is reduced to transference of knowledge.

The discussion on origin of knowledge focuses on the relative roles of knower and the known in the making of knowledge. During the process, it generates a wealth of knowledge in both ways and forms of knowing and knowledge. In order to know the origin of knowledge, it is required to focus on process of how we come to know. Process of coming to know begins with knower's (the subject) engagement with to be known (the object). The knower's engagement and relationship begins with his/her contact with to be known. The contact takes place through senses in a context – physical, biological, socio-cultural and others. In this context, the knower own initiatives for seeking knowledge employing different ways assume significance.

As described earlier, knowing is both a process and a product. As a process, it refers to the method of coming to know the phenomenon. Knowledge, as

a product, is resultant of knowing–the process. Knowing happens through perception, reason, and emotion; and codification is done in the language. Similarly, there are means or source of every way of knowing. These sources are the knower's senses and mind.

Check Your Progress

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

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

4. Explain the social nature of knowledge.

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....

....

5. Highlight the relationship between knower and to be known(object) in the process of knowing.

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1.6 FACETS OF KNOWLEDGE

There are many facets of knowledge local and universal, concrete and abstract, theoretical and practical, contextual and textual, school and out of school. It is important to have clarity on each facet, let us understand them in this section:

(i) Abstract Vs. Concrete knowledge

Abstract terms refer to ideas or concepts; they have no physical referents, while Concrete terms refer to objects or events that are available to the senses. This asymmetry between concrete and abstract words has been explained by Paivio (1971, 1986) with the Dual Code theory. According to Paivio, words referring to concrete referents are accessed more easily than those referring to abstract referents because the information they convey rests on both a verbal and an imagery code, while that conveyed by abstract words rests only on the verbal code.

Abstract knowledge is about things that are removed from the facts of the "here and now", and from specific examples of the things or concepts being thought about. Concrete knowledge does not have any depth; it just refers to thinking in the periphery. Hence, Concrete knowledge is just regarding the facts and only has a generalized concept for all things. On the other hand, abstract knowledge requires deep learning and goes beyond the facts.

For gaining the abstract knowledge, mental processes are involved, whereas no such effort is involved in concrete knowledge. Therefore, a person with concrete knowledge does not think beyond the facts and do not have the ability to think beyond a certain limit.

(ii) Theoretical vs. Practical Knowledge

Theoretical knowledge allows you to learn through the experience of others and often leads to a deeper understanding of a context. It helps to understand the concept in its context and thus teaches you to reason and question why. With the help of this knowledge, it is possible to understand the intricacies of a theory and how it can then be applied practically.

For attaining practical knowledge, a deeper understanding of a concept is achieved by doing the act on your own i.e. through personal experience. In other words, you may say that practical knowledge is gained through doing things; it is very much based on real-life endeavors and tasks.

(ii) Universal Knowledge Vs. Local Knowledge

Universal knowledge contains the characteristic of all skills, branches of learning, etc. adapted or adjustable to meet varied requirements of all. You may say that it is a trait, characteristic, or property, as distinguished from a particular individual or event that can be possessed in common.

Thus, Universal knowledge is that which is known to be true everywhere in the Universe and all of the time. Physics and Maths are the two primary fields of study related to this type of knowledge. It doesn't matter where you are or what your situation you can rely on mathematics to remain stable. Equalities will always be equal. All of the functions of mathematics remain constant all the time and they can be used for a great many or all kinds, forms, sizes, etc, intended to be used, or understood by all.

Contrary to Universal knowledge, local knowledge does not embrace many or all skills, branches of learning, etc. It is not adapted or adjustable to meet varied requirements of the universe. Thus, it does not affect, concern, or involve all and is not used or understood by all.

Local knowledge is not experienced by everyone or available for everyone existing or true at all times or in all places without limit or exception. Local knowledge is a collection of facts and relates to the entire system of concepts, beliefs and perceptions that people hold about the world around them. This includes the way people observe and measure their surroundings, how they solve problems and validate new information. It includes the processes whereby knowledge is generated, stored, applied and transmitted to others.

Local knowledge is the knowledge that people in a given community have developed over time, and continue to develop. It is:

  based on experience

  often tested over centuries of use

  adapted to the local culture and environment

  embedded in community practices, institutions, relationships and rituals

  held by individuals or communities

  dynamic and changing

(iv) School-knowledge and Non School-knowledge

School knowledge includes a hierarchically structured, chronologically graded 'education system', running from primary school through the university. And, it includes general academic subjects and a variety of specialized subjects which help the learners to get technical and professional training.

You may say that thus, school-knowledge describes the learning of academic facts and concepts through a formal curriculum. School knowledge includes learning activities that are voluntary and self-directed, life-long, and motivated mainly by curiosity, exploration, manipulation, fantasy, task completion, and social interaction.

School knowledge is organized knowledge guided by a formal curriculum, leads to a formally recognized credential such as a high school completion diploma or a degree, and is often guided and corresponds to a systematic, organized education model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum as regards objectives, content and methodology.

Out-of-school-knowledge includes that knowledge which operates before and after school, on weekends and holidays. This kind of knowledge helps in developing and nurturing the talents, in improving the academic performance and provides opportunities to form bonds with adults and older youth who are positive role models. This knowledge includes a wide array of models and approaches. Some are focused exclusively on boosting academic achievement through special courses, tutoring and homework help. Others are specifically focused on providing cultural enrichment in the visual, performing and culinary arts; recreational activities and athletics; or leadership training and community service. It corresponds to the education process normally adopted by our schools and universities. Out-of-school setting and can be linear or non-linear and often is self-paced and visual- or object-oriented. The outcomes of out-of-school-knowledge learning experiences in science, mathematics, and technology include a sense of fun and wonder in addition to a better understanding of concepts, topics, processes of thinking in scientific and technical disciplines, and an increased knowledge about career opportunities in these fields.

Acquiring Out of School knowledge *is* truly lifelong process whereby every individual acquire 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.

1.7 ROLE OF CULTURE IN KNOWING

The cognitive view of learning highlight that learning is context-dependent – that is, 'situated' – and that new knowledge can only be taken in when connected to existing knowledge structures. This implies that during the process of learning, learners make connections and reorganise knowledge and to develop new patterns and integrated wholes. Thus, learners learn by relating new experiences to what they already know. These new meanings which they develop during the process of learning, are involves making new meanings which are generally expressed through language.

In this way learning, language, meaning and thinking are closely related. Within this perspective, beyond the accumulation and restructuring of information, developing knowledge involves developing processes of self-monitoring and awareness that we refer to as metacognition. Sociocultural theories consider the relationship between thinking and the social, cultural, historical and institutional context in which it occurs.

Thus, in any type of learning context, Language becomes integral that it is the major means by which we make and share meanings with ourselves and with others, and by which we negotiate social relationships and social values. Thus, language becomes one of the means of Knowing, apart from the above mentioned sources/means of knowing. Both the learner's culture and the culture in which meaning is created or communicated have an influence on the ways in which possible meanings are understood. Since, language is a part of the culture or the social context into which a child is born, acts, in more fundamental ways, as the means of knowing.

It is language that makes it possible for an individual to objectify and conceptualise themselves in the world – to give names to experiences, and make sense of the environment, objects, experiences, events and interactions. In short, language is central to the process of conceiving meaning, which is integral to learning.

If you ask your learners about their conceptual understandings about the same object, event or phenomena, you will find variations. This difference in the understanding of the concepts can be attributed to the process of knowing, which is a meaning making process and the meanings to the concepts are provided by the language of the society and the cultural context. Thus, it is through use of language in our interactions with others help that help us learn ways of being in the world. Thus, language helps critically in shaping our knowledge. Construction of social meanings also involves intersubjectivity among individuals and organisations. Social meanings and knowledge are shaped and evolved through negotiation within the communicating group and personal meanings are shaped through these experiences are affected by the intersubjectivity of the community to which the people belong.

Thus, Knowledge as viewed from a social constructivist approach emphasises that individuals and collective groups are continually construct and reinvent their understanding of themselves and the world around them (Jacobs, 2002). Individuals are socialised into a system of beliefs, norms of behaviour and institutions. The influence of the social constructivist's view of knowledge implies that knowledge is a human product, and that it is socially and culturally constructed (Kothari, 2001, p. 148). It points to the notion that individuals create meaning through their interactions with each other and with the environment they live in.

Thus, the very process of experiencing reality is facilitated by the cultural tools and culture acts as means of knowing and knowledge. This is also true in the case of school knowledge. The nature of knowledge provided in schools is textual; which is a representation of our understanding about the world in words. It is nothing but what we call conceptual knowledge. In conceptual knowledge, words play vital role in understanding abstract meaning of concrete. In fact, says Nathaniel Branden (1971), "Words, enable man to deal with such broad, complex phenomena as 'matter', 'energy', 'freedom', 'justice' which no mind could grasp or hold if it had to visualise all the perceptual concretes these

concepts designate." Hence, by means of words, we can express general conclusions about things and their properties, and about how they are to be used.

From the discussion above, it is clear that the social and cultural factors in knowing and construction of knowledge. Thus the diverse cultural understanding and experiences that students bring are highly influential and need to be taken into account, while you teach in classroom.

Check Your Progress

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

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

6) Differentiate between abstract and concrete knowledge.

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7) Why acquisition of out of school knowledge is lifelong learning process?

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8) Explain the importance of language in knowing.

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1.8 VALIDATION OF KNOWLEDGE

We have seen that knowledge is obtained through sense experiences, reasoning, authority and other sources. How do we confirm that the knowledge obtained through these sources is valid?

(i) Verification

Can a statement be verified? Can every statement stating knowledge be verified? What is wanted is a rule or principle which will tell us what sorts of statements have or do not have empirical content, for we cannot examine every individual statement. It is easy to verify statements like "this pot of water will boil at 100 degrees centigrade", since it has empirical content. We can find out whether the statement is true or false by taking the pot of water, heating it and measuring its temperature when it boils.

How about statements like two plus two equals to four? It has no empirical content. But this is an analytical statement and its truth can be shown by purely formal methods. Not all statements are so straightforward as the above empirical statement. Consider statements like "all water is composed of hydrogen and oxygen"; "Saturn is made of green cheese. In the first case, how could we analyse all the water there is to see if it is composed of H_2O? In the second case, we cannot go to Saturn to look or taste.

To verify a proposition is to make such observations, which would entitle us to conclude definitely that the p is true or false. To confirm it is to make one or more observations that would increase or decrease the probability of its truth or falsity without definitely establishing it either way. If 50 marbles out of 100 are found to be black, we have only confirmed but not verified the proposition that all the marbles in the bag are black. It is not verified until one has examined the entire 100. Verifying and confirming are both things we do, operations we perform. We cannot verify or confirm until1 we know the meaning of the statement to be verified or confirmed. What the testability criterion prescribes is that we know the meaning only when we know how it would be verified or confirmed, whether any one has actually done so or not. Considering the example of a star which is 1000 light years away, it is empirically impossible for us to discover what is occurring on the surface of that star today, since at the rate of 186,000 miles per second the light leaving the star today will not reach the earth for 1000 years; yet we say that there are spots on the surface of the star today. This is not meaningless.

What is required is logical possibility of verification. So, it is possible to verify a statement for its true knowledge logically, though empirically not possible.

There are certain issues to be considered in verification, which are as follows:

a) When must the verification take place?

This is an important consideration, for no statement about the past or the future can be verified now.

"Julius Caesar was assassinated in 44 BC".

This statement describes a past event. It is true that we are not in a position to verify it, since it would require our being present at the Roman senate in 44 B.C., which is logically impossible for us to do now. The sentence is about a past event, but any evidences we may find of the statement are present evidences, because nothing will bring us back to the past. The most we can do in the present is to confirm it, that is find some evidence as to whether it is true.The same provision will help us with regard to statements about the future.

"There will be a severe economic depression in the world within the next five years".

This statement cannot be verified now, though it has a meaning. But it can be verified in the future and this is sufficient to make it meaningful according to the criterion. In general, with statements about the future, we simply wait and observe what happens at the time predicted.

b) By whom must the verification be performed?

The idea of verifiability by only one has been considered somewhat suspect in the fear that it would permit many statements as meaningful, which should not be so permitted. For example,

"I verified the p that infinity is like glass, because I experienced it today".

But we should keep clearly in mind that any such statement must be about one's feeing - states only, and that it makes no claims to an objective reality apart from that which could be tested by someone else. Concerning one's own experiences (I have a toothache; I feel the pain) it would seem preferable to say that one doesn't need to verify them rather than that one verifies them by introspecting, reassuring oneself that one feel pain and so on. We talk about verification when we are confronted with a statement about something other than our own experiences, when we have to find out through some procedure whether the statement is true.

c) How can statements with an infinite or indefinitely large range ever be verified?

Consider the example, "all crows are black".

There are not an infinite number of crows, but the class is open-ended. Besides, one could not examine future crows as well as all the crows that lived and died before one's birth.

d) There is a small but peculiar class of statements whose verifiability has a different status in the affirmative than in the negative.

Consider the statement "the earth will continue to exist even after living things no longer exist on it".

No human being can verify this statement, since no one would be there to verify it. Still we do know what the statement means and can speculate about its truth. We can draw a picture of the earth without living things on it. It is logically impossible to verify th is for there would be no one to do the verifying. It is necessary for certain state-of-affairs to occur (present); or to have occurred (past) in order to make a statement true but it is not verifiability. Verifying is something we do, and it requires someone present to do the verifying.

(ii) Confirmability

In view of such difficulties, we speak of confirmability instead of verifiability. For example, one cannot verify that "all crows are black", but one can confirm it by examining thousands of crows and finding all of them to be black. One cannot verify that some day there will be no life on earth, but one can confirm it now by noting that inanimate objects constantly go on existing even after living things die and infer that when the heat and light of the Sun is exhausted, the earth will become too cold to support life. It is easy to see how we can confirm laws of nature (sun rises in the East; water boils at 212" F and so on) not how we could verify them.

Confirmability also involves some special problems of its own. How can I know that observing that this crow is black is a confirmation of "all crows are black" unless I already know what "all crows are black" means? If one does not already

know what the statement to be confirmed means, how can one exclude any observation that is put forth as confirmation of it? This implies that

a) One must know whether "p" describes a logically possible situation before one can know whether it is logically possible to test it.

Whether p is logically possible is a priori consideration to whether it is logically possible to test it. One has to know what a sentence means before one knows what observations would verify or confirm it. Knowing what the sentence means is primary, and knowing how to verify it, is a consequence of knowing its meaning.

In conclusion we can say that verifiability or confirmability criterion, as a general criterion of meaning will not suffice,

i) It will not cover analytic statements, since they are not verified by observation of the world at all.

ii) It will not cover non-assertive sentences such as question, imperative and exclamation. Since these assert nothing, there is nothing that could be true or false.

iii) It will not cover statements about one's own experiences, since these are not verified in any easily intelligible sense of "verified".

iv) It will not cover statements such as "this is good" or "this is praiseworthy" which are of an entirely different order. They are value statements.

v) It will not cover metaphysical statements.

The only area in which verifiability or confirmability is plausible is in reference to empirical statements such as one made in daily life and in science.

(iii) Refutation

Knowledge that is expressed in the form of laws or theories can be refuted on the grounds of incompatibility of an event with the theory. It is easy to obtain confirmation or verification for nearly every theory - if we look for confirmations, confirmations , should count only if they are the result of risky predictions, i.e., to say, if unenlightened by the theory in question. When the event is incompatible with the theory of question, it can be refuted. Confirming evidence should not count except when it is the result of a genuine test of the theory, and this means that it can be presented as a serious but unsuccessful attempt to falsify the theory (in such cases of Corroborating evidence).

Every genuine test of a theory is an attempt to falsify it or to refute it. Testability is falsifiability. But they are degrees of testability. Some theories ar; more testable, more exposed to refutation than the others.

In his classic work Conjectures and Refutations, Popper uses Marx's theory of Society and Freud's theory of human behaviour as outstanding examples of theories, which fail to meet this important criterion. If political event X occurs, (or human behaviour Y is displayed), then Marx (or Freud) provide a ready explanation. If X or Y do not take place, when they were expected to, then (using a different chapter and verse of the relevant text) that can be explained. Such theories are incapable of making definite and therefore, falsifiable, predictions. In attempting to explain everything, -they explain nothing.

But we cannot get conclusive evidence that there are no more dimensions. We can only say that everything we have observed so far can be explained satisfactorily with laws assuming only three spatial dimensions.

If the basic assumption is true, the conclusion that follows through deducibility would also be true. If the assumption is false, or built upon false premises, the conclusion that follows would also be false. However, the rules of deducing a true case from the basic assumption should be valid. There are cases where propositions are true, but it may not be possible to deduce a specific case, as each of the propositions may stand independently as a true state of affair.

The assumption can never be proved complete (e.g. three dimensional world and infinity of observations related to certain natural phenomena).

1.9   LET US SUM UP

Epistemology is that branch of philosophy, which deals with theories, sources, and the validity of knowledge. Knowledge is expressed in the form of propositions. In order to know a proposition is true, one must know the words involved in the propositions and the concepts underlying the words. There are certain requirements for knowing a proposition, that is, a) the p must be true, b) we believe that p is true and c) there is evidence or reason to believe p. Knowledge is categorized broadly into three divisions depending upon the ways it is obtained. They are a) A priori knowledge, b) A posteriori knowledge and c) Experienced knowledge.

Following are the sources of knowing: sense experience, reason, authority, intuition, faith and revelation. Among these, the knowledge through sense experience and reasoning were considered to be the most reliable sources of knowledge.

The knowledge that is accumulated through man's different ways of knowing consists of various concepts and facts, related to physical phenomenon and human been evolved through continuous observation of natural events in life. True knowledge provides for its own interpretation, verification and explanation. The laws and theories provide explanation of occurrences in nature. Explanations form a hierarchy where the facts on the lowest level are explained by theories, and each theory in turn is explained by the theories on a higher level in a logical manner. Verifiability and confirmability criterion is applied to test the knowledge for its validity. Knowledge with its distinctive features of concepts, facts, generalizations, laws and theories get structured in different forms of knowledge (a-priori, a-posteriori and personal knowledge) under different disciplines. This has great implication to curriculum planning and understanding of the methods and domain of a discipline.

1.10   UNIT-END EXERCISES

1. Analyse the secondary school curriculum and identify examples of A Priori knowledge and A Posteriori knowledge.

2. Give some examples from secondary school curriculum where verification, confirmation and refutation can be used to validate knowledge.

1.11 ANSWERS TO CHECK YOUR PROGRESS

1. You are expected to write your understanding about the concept of education.

2. A priori knowledge includes that knowledge whose truth or falsity can be decided before or without recourse to experience whereas A posteriori knowledge is based upon observation and experience and it stresses on accurate observation and exact description.

3. Reason as a source actually helps in generating knowledge through reasoning. It includes both inductive and deductive reasoning.

4. Social nature of Knowledge describes that knowledge is developed through socially shared understanding, as a collective pursuit of the community members of the society.

5. In the process of knowing, the knower's engagement and relationship begins with his/her contact with to be known. The knower makes contact with the object by using her senses for seeking and developing knowledge.

6. Abstract knowledge refers to ideas or concepts which have no physical referents, while Concrete knowledge refers to the knowledge about the objects or events that are available to the senses.

7. It is because this type of knowledge is acquired by an individual from daily experience and the educative influences and resources in his or her environment.

8. Because it is through language individuals make meaning and share meanings with ourselves and with others.

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UNIT 2   PROCESS OF KNOWING

Structure

2.1   INTRODUCTION

For generating new ideas and understandings, we have to constantly engage ourselves in the process of knowledge construction. By focusing on the process of creating ideas and carefully considering their value, we can become more skilled at thinking critically and creatively. Therefore, it is important that our learners are engaged thoughtfully in creating or generating new understandings. In the previous unit of the block, you understood about the concept of knowledge and various types of knowledge, now it is important that way of knowing to achieve the knowledge construction is also understood.

This unit throws light on the importance of constructing knowledge and also about process of knowing. A teacher is expected to train and help the learners in the critical evaluation of knowledge, so that they can see how different types of knowledge have to be judged in different ways. This allows them to evaluate new knowledge as they related to specific knowledge issues. There are different ways; by which learners can be initiated into the process of knowing will be discussed in the unit.

The last section of the unit will discuss the different methods which a teacher can adopt to promote knowledge construction in classroom.

2.2   OBJECTIVES

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

- explain the process of knowing;

- describe the various ways of knowing;

- discuss the process of knowledge construction in classrooms;

- explain the role of teachers in knowledge construction; and

- describe the various ways of constructing knowledge in classrooms.

2.3   PROCESS OF KNOWING

You would agree that in today's world, the knowledge and the capability to create and utilize knowledge are considered to be most advantageous to an individual. Knowledge develops through an individual's interactions with the world and with others about that world, resulting in an 'epistemic' or 'knowing' triangle. When individuals interact, each displays to the other their perspective on an object of mutual attention. This exposes them to different perspectives on the same topic or issue. Knowledge creation is dialectical process, which involves systemization of various facts through dynamic interactions between individuals and the environment. According to Wells and Arauz (2006), it has many advantages. First, when learners have the opportunity to share their views they are more likely to develop a stake in the process and therefore become motivated to grasp the concepts. Second, cooperative group work can be more productive than individual work. Third, group-generated knowledge can be a resource for individual understanding, and vice versa. Lastly, consistent with Piaget's views, it is within dialogic interactions that learners can revise their own perspectives in light of differing perspectives.

Knowledge creation is also a spiral process that goes through seemingly opposing concepts such as order and chaos, micro and macro part and whole, mind and body, tacit and explicit, self and other, deduction and induction, and creativity and efficiency. There is a need to understand that knowledge creation is a transcending process through which entities (individuals, groups, and institutions) go beyond the boundary of the old into a new self by acquiring new knowledge. In the process, new conceptual artifacts and structures for interaction are created, which provide possibilities as well as constrain the entities in consequent knowledge creation. Thus, knowledge creation is a cyclic process.

You have learnt in the previous unit that knowledge is contextual, which means that the same reality can be viewed differently depending on the context from which one sees it. It means that, in knowledge creation, one cannot be free from one's own context. The social, cultural, and historical contexts are important for individuals, because such contexts give the basis to individuals to give meaning to it. That is why, limited interaction with the environment and externalization of personal knowledge can lead to misconceptions. Therefore, teaching must be concerned with how we understand the process of the development of ideas and how we fit into that process. This can be done by asking why questions? why something happens. This kind of questioning and allows us to stimulates our thinking and also evokes the need for holistic ideas that help context and ideas that fill the enormous gap in our understanding.

From the above discussion it is clear that in knowledge generation, one tries to see the entire picture of reality by interacting with those who see the reality from other angles. Also, it must be understood that for knowledge generation, continuous interaction between individuals and social structures must take place. Out actions and interactions with the environment create and enlarge knowledge through the conversion process of tacit and explicit knowledge.

The process of knowing is a personalized, individual task that is influenced by experience and unintentional contextual cues. There are three aspects of knowledge – the knower (the consciousness of the participant), the known (the field of study), and the process of knowing (which connects the knower to the known).

There are many epistemological models operating in education, which proposes their own understanding about knowledge and process of knowing. For example, the positivist approach, see knowledge as quantifiable, measurable and testable. But, if we are concerned with the meaning of education i.e.it helps the learners to have different understanding about the concept, then we cannot impose to quantify and measure knowledge.

According realism, one derives meaning about the things through our sense-data. This means they believe that knowledge is directly related to perceptual consciousness. Thus, here perception is equivalent to truth and is universally assumed. By using this method of knowing, one would restrict the rich variety of human understanding and interpretation. On the other hand, Idealism believes that reality exists in the human mind; it promises diversity and individuality but does not believe in developing a shared understanding. Thus, the level of awareness of the knower determines the corresponding process of knowing, as well as the nature of the knowledge gained. Education must train the knower to use deeper levels of the mind to gain more useful and fulfilling knowledge. Thus, must help learners to become aware about them and stimulate their thinking to create knowledge based on their understanding about the world. Thus, knowing about the world or concept must be a reflective process and also contextualized.

Any theory that attempts to define the process of knowing is also required to explain as to how information is accessed, stored and retrieved in order to understand how learning takes place. Knowing begins with undifferentiated perception of personal space and time along with undifferentiated sensorial reactions to internal and external stimuli. With the acquisition of language and formulations of self differentiated entities are stored, recalled, imagined, and communicated with maximum contextual relevance.

2.4   WAYS OF KNOWING

In the previous discusssions, you might have understood that there are various valid ways to gain knowledge, which include perception, reason, logic and language. A child, from infancy to early childhood, relies heavily on sense perception for knowledge acquisition as it comes naturally to them. It is only after stepping into late childhood that the other three ways of knowing start taking place. By adulthood, the learners use a combination of all the four to acquire knowledge. Here, the influence of language in shaping thought is seldom noticed as it comes so effortless. Finally, the appeal of a well-constructed argument can be sensed even without any formal training in logic or other forms of reasoning.

A teacher is expected to train and help the learners in the critical evaluation of knowledge, so that they can see how different types of knowledge have to be judged in different ways. This allows them to evaluate new knowledge as they related to specific knowledge issues. There are different ways, by which learners can be initiated into the process of knowing, let us discuss them in some detail.

(i)   Sense Perception

Perception is an active, selective and interpretative process of recording or becoming conscious of the external world through sense experience. These sensory experiences are primarily gained with our five senses: touch, taste, smell, hearing and sight. *For instance*, light reflects off a surface, stimulating our eyes forms a mental construction called as **the percept**. This construction is dependent on the brain's internal structures and strategies. In other words, we use what we already believe to be true about the world to categorize what we perceive. Thus, it is the most basic and immediate 'way of knowing', sometimes it might not be a very reliable source.

Here, it is important to note that perception and sensation are different; sensations are simple sensory experiences helping in awareness of qualities e.g., colour, sound, taste, odour, heat, cold, etc. through using sense organs. While perceptions are complex constructions of simple elements joined through association to form a meaningful experience.

Sense perception is a subjective activity hence it varies from individual to individual, depending upon one's innate abilities. Our intellect defines the limits of our sense perception. Our physical conditions, motivational dispositions and mental state direct our sense perceptions.

Advantages

*   Since knowledge is based on observable facts and thus it is objective.

*   Knowledge gained through this may be tested and verified by others easily.

Disadvantages

*   All phenomenon are not observable

*   We have limited sensory limits and thus can be mislead very easily (for example, optical illusions)

*   Emphasis on objectivity may mask the influences of subjectivity.

(ii)   Language

Language acts as a medium for conveying the knowledge from one individual to the other. It includes with agreed or conventional meanings combined according to a set of rules for the purposes of communication, formulation of ideas, storage of knowledge or as a medium of thought. It integrates knowledge acquired through varied sources at varied places. Language allows for articulating knowledge and integrating various dimensions of knowledge.

Language plays an important role in communicating knowledge because it carries the context which allows for meaning and recontextualization. When a well-structured argumented is presented, it comes to our notice very easily, in comparison to the one which is without any reasoning and logic. It also helps just not in describing our experiences but in structuring our experiences.

Language facilitates the process of knowing. Meaning which is a core element of knowing and it evolves through language. Language helps in drawing out the distinctions and in making categories. According to discourse theory, language is used in constructing reality. While knowing, one modifies the thinking which happens through social intractions. Different members in a social group, come from different contexts thus developing a better understanding of the world whenever a disputes arise over knowledge claims, what is at issue is not only

the facts of the matter, but also the logic or reasons given for acceptance of the facts, and the procedures used in reaching a conclusion. Through using language in our communications, the disputes can be resolved to gain a consensus.

(iii) Emotion

Emotions play a powerful role in shaping thoughts, influencing behaviour, and steering the pursuit of knowledge. While emotions may be a key to self-understanding and to understanding the world.

The emotions and their expression vary across cultures and hence knowledge can acquired through the use of emotions may not be reliable, it is subjective and less measureable. It can help as well as hinders in the process of knowledge construction. The training of emotions is a key factor in enhancing the teaching-learning process. Arousing positive emotions in the knower facilitates smoother transmission of knowledge. The teacher should help create positive emotions in the knower about the known. Curiosity and eagerness are the most essential ones.

(iv) Reason

If you want to understand what reason is, then it must understood that it is the ability to use logical deduction. This allows us to go from starting ideas (premises) to reach valid conclusions. Here's a simple example: Premises 1: Rex is a dog. Premises 2: All dogs have fur (remember this doesn't have to be true) Question: Does Rex have fur? Valid Conclusion: Yes Rex has fur. Going from premises to conclusions like this is called logical 'deduction'. It should be noted that the conclusions are not always true. What it means is that if the premises are true then the conclusions will be true. Here's another example. Premises 1: Suraj is a man Premises 2: All men have eight legs Question: Does Peter have eight legs? Valid conclusion: Yes, Suraj has eight legs. This might not be true, people don't usually have more than two legs. However, the conclusion is still logically valid because it follows from the two starting premises. When we use deductive logic above as we made general statements (about men and about dogs). With inductive logic we take a specific example to tell us something about the general. For example, you might have noticed that most windows are made of glass. We could say the following Step one: All the windows I have seen are made of glass 2: Therefore, all windows are made of glass. You might inter that because you've seen so many windows and they were all made of glass that all windows are made of glass. There's no way, one can prove that all the windows in the world are made of glass. The idea is just inferred from one's experience. This notion of inference helps.

Check Your Progress

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

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

1)   Explain the role of language in knowing.

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> 2) How knowledge is derived according to realism?
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2.5 CLASSROOMS AS A SPACE FOR COLLABORATIVE CONSTRUCTION OF KNOWLEDGE

Before, discussing about how classrooms can promote collaborative construction of knowledge. Let us discuss about the various types of talks which takes place in a classrooms. Mercer (2008) proposed that classroom talk/discussions can be classified in three categories of talk—exploratory, cumulative, and disputational. According to him, exploratory talk uses questioning of one's own and others' assumptions, outlining reasons for claims, making explicit evaluations and critiques, and engaging in persuasion. When learners face challenges in the classroom they give reasons and offer alternatives, in this process, they refine and reconstruct their understandings.

Cumulative talk, by contrast, occurs when learners build a shared understanding and body of knowledge from the accumulation of agreed upon pieces of knowledge. Thus, this type of talk results in the development of knowledge by mutual agreement. Hence, the learners are accountable only to one another. Cumulative talk may appear to be cooperative interaction, given the valuing of others' contributions and the sharing of power and control that characterize such interaction.

Disputation talk is a highly constraining, competitive form of social interaction characterized by an "unwillingness to take on the other person's point of view, and the consistent reassertion of one's own" (Mercer, 2000, p. 97). Lack of engagement impedes participants from gaining new perspectives and insights. A central feature of disputational talk is thus its oppositional quality. Consistent with the negative emotional climate of disputational talk, participants actively seek to protect and maintain their respective individual identities as opposed to forming a collective identity. Thus, this type of talk lack the active engagement required for joint reasoning on the part of learners.

From the above discussion, it is clear that collaborative engagement in a classroom takes place where learners engage one another's ideas through joint or collective reasoning. The specific form of talk that helps in a collective interaction is *exploratory talk*. As a teacher, we must promote it in our classrooms for active construction of knowledge.

It is observed that learners construct knowledge most effectively in active social classrooms, where they negotiate understanding through interaction and varied approaches. Hence, if the learners are promoted to work in groups, there will be better collaboration in learning. Baker (2002) defined collaboration as "a symmetrical and aligned form of co-operation in problem solving independently of whether the participants agree or not". According to him, interaction is *symmetrical* if the participants adopt certain roles equally throughout the interaction, i.e. participate equally in problem solving.

Stahl (2004) described that collaborative knowledge construction is a cyclical process where individual's tacit understandings– related to phenomena, concepts or material tools available and relevant to understanding the topic under discussion – are made explicit, i.e. interpreted in the discourse. According to him, tacit knowledge refers to knowledge that individuals have but may not be able to put in words. Tacit knowledge may include, for example, an ability to use some physical tools or unstated background knowledge about the world, about other people and objects referred to in discussion.

During the process of collaborative knowledge construction, this tacit knowledge is made explicit, clarified and negotiated in an interpretive process, and as a result a shared understanding of the meanings is created. As discussion proceeds further this explicitly stated and negotiated shared understanding about any concept becomes tacit knowledge which can be used as a resource in developing understanding further.

Thus, you can derive from here that learning is viewed as an active process, in which there is construction of new knowledge rather than only reception of knowledge from the teacher to the learner. During this process, learners remain active, they apply current understandings, note relevant elements in new learning experiences, judge the consistency of prior and emerging knowledge, and based on that judgment, they can modify knowledge.

If you analyse the construction of knowledge in the context of your school then you would realize that whatever knowledge is constructed in the classroom, is with the help of teachers. They help learners to understand, investigate, and determine how implicit cultural assumptions, frames of references, perspectives, and biases within a discipline influence the ways in which knowledge is constructed.

During this process of knowledge construction, teachers must pay attention to two particular factors. First, they should consider the learner's zone of proximal development, which is the distance between the actual developmental level as determined by independent problem solving and the level of potential development and give learners the help they need in constructing new knowledge and meanings. Second, they should facilitate peer interaction and cooperation between learners, since the social and cultural context of learning is essential in constructivist philosophy.

The socio-constructivist perspective based on the Piagetian view of learning believed that individuals actively construct knowledge by a process of equilibration. This means that individuals aim to hold a consistent, equilibrated conception of their world. Knowledge construction takes when individuals accommodate present cognitive structures to represent the context in a better way. During this process of accommodation, the present knowledge structures or concepts are reorganised or new knowledge is constructed. From their viewpoint of learning, the state of disequilibrium of cognitive structures is important in enhancing the process of equilibration. But, in the Piaget view of constructing knowledge, the role of social interaction has been minimized. But, Piaget (1965, 1995) introduced the notions of cooperation and constraint as a way to describe forms of relationship/social interaction that differentially influence the development of knowledge. According to Wright (1982), cooperative relations involve mutual respect and such relations also help in developing a positive emotional climate of "mutual sympathy and affection". Piaget (1932/1965) argued that such

relationships were ideally suited for achieving mutual understanding and knowledge development.

Check Your Progress

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

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

3) State the importance of relationships in classroom in knowledge development.

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2.6 ROLE OF TEACHERS IN KNOWLEDGE CONSTRUCTION

Classrooms are seen as places where inquiry and co-construction of knowledge takes place. In the constructivist classroom, the teacher's role is to prompt and facilitate discussion. Thus, the teacher's main focus should be on guiding learners by asking questions that will lead them to develop their own conclusions on the subject. Parker J. Palmer (1997) suggests that good teachers join self, subject, and learners in the fabric of life because they teach from an integral and undivided self, they manifest in their own lives, and evoke in their learners, a capacity for connectedness.

You may also say that the teachers are the facilitators and who questions rather than transmit the information. The question raised by the teachers the classroom help in initiating discussion. The learners assume the role of questioner, syntheizer, and analyst. By asking questions, exploring, and assessing what they know, they become active learners. During this learning process, the learners develop their understanding about the concepts by finding and analyzing the relationships among concepts. They also relate and inter relate the form and content of knowledge of one area with another.

Here, each learner is actively involved in constructing her own understanding of the content. For example, while studying about respiration, learners construct meanings for terms such as diaphragm, trachea,lung, inhalation, and exhalation with the help of a lung model to better visualize these structures and provides evidence to support their understanding. Teachers can help Learners to experiment further with this model by observing how the lungs are affected by altering other variables associated with respiration and disease. Thus, a teacher has to encourage using multiple approaches to problem solving by providing opportunities for learners to share their strategies.

The shift in the teacher's role from a transmission mode of content to asking why questions, and encourages relational understanding. The focus point here for teachers is to make learners aware of why they create relationships among selected aspects of constructed reality. In this way, learners establish relationships between previous experiences and present experience. Learners understanding about the concepts can be assessed through their ability to communicate coherent

conceptions of the relationships by using a reasoned argument during discussions with the teachers and peers.

Learners control their own learning process, and they lead the way by reflecting on their experiences. This process makes them experts of their own learning. The teacher helps create situations where the learners feel safe questioning and reflecting on their own processes, either privately or in group discussions. The teacher should also create activities that lead the learner to reflect on his or her prior knowledge and experiences. Talking about what was learned and how it was learned is really important. For example, Learners keep journals in a writing class where they record how they felt about the class projects, the visual and verbal reactions of others to the project, and how they felt their own writing had changed. Periodically the teacher reads these journals and holds a conference with the learner to assess (i) what new knowledge the learner has created, (ii) how the learner learns best, and (iii) the learning environment and the teacher's role in it.

The teachers must ensure that a positive and supportive learning environment in which learners feel emotionally secure and able to challenge themselves cognitively. The teacher must be flexible and adapt to learners' individual interests and needs.

As teachers, we must encourage learners to constantly assess how the activity is helping them to gain understanding. By questioning themselves and their strategies, learners in the constructivist classroom ideally become 'expert learners'. This gives them ever-broadening tools to keep learning. With a well-planned classroom environment, the learners learn 'how to learn'. One might look at it as a spiral. When they continuously reflect on their experiences, learners find their ideas gaining in complexity and power, and they develop increasingly strong abilities to integrate new information. One of the teacher's main roles becomes to encourage this learning and reflection process

Example: a group of learners in a science class are discussing a problem in physics. Though the teacher knows the 'answer' to the problem, she focuses on helping learners restate their questions in useful ways. She prompts each learner to reflect on and examine his or her current knowledge. When one of the learners comes up with the relevant concept, the teacher seizes upon it, and indicates to the group that this might be a fruitful avenue for them to explore. They design and perform relevant experiments. Afterward, the learners and teacher talk about what they have learned, and how their observations and experiments helped (or did not help) them to better understand the concept.

Learners build strong conceptual frameworks when teachers help them assess and clarify prior knowledge; facilitate environments through active learning activities that interconnect ideas and vary approaches to knowledge; and invite learners to reflect, co-build course road maps, and pursue other forms of metacognition.

Thus, a teacher has to provide such a learning environment that helps in solving the inconsistencies between learners' current understandings and the new experiences before them. The challenge here is that a teacher cannot assume that all children understand something in the same way. Therefore, she has to provide different learning experiences to satisfy different levels of understanding of the learners.

You may conclude to state the following points about the role of teachers in constructivist classrooms:

- Teachers employ techniques which can encourage group interaction, where the leaners get a chance to become explicit about their own understanding by comparing it to that of their peers.

- The teacher should inter-relate concepts, subjects and activities across the curriculum so that what is learned in one activity gets strengthened and reaffirmed in another (Integration of Concept).

- promote active learning with hands on activities that emphasize process

- provides a range of activities with case discussion, teacher challenges students to reach beyond the simple factual response. Learners are encouraged to connect and summarize concepts by analyzing, predicting, justifying, and defending their ideas.

- Student autonomy and initiative are accepted and encouraged. By respecting students' ideas and encouraging independent thinking, teachers help students attain their own intellectual identity. Students who frame questions and issues and then go about analyzing and answering them take responsibility for their own learning and become problem solvers.

- recognizes that learning takes place in a social context and utilizes the context to support understanding

- develops concepts from real world problem situations and integrates problem solving and higher order thinking skills into subject matter units rather than teaching these skills in isolation.

- Provide Scaffolding which is a more systemic approach to supporting the learner, focusing on the task, the environment, the teacher, and the learner. Scaffolding provides temporary frameworks to support learning and learner performance beyond their capacities. Effective scaffolding requires the teacher to:

  ✓ Inquire into the learner's understanding of concepts, exploring misconceptions and untrue ideas

  ✓ Encourage dialogue between learners and teachers to develop understanding

  ✓ Provide opportunities to learn through questions and through peer exchange

  ✓ Seek elaboration of learners responses and justification for opinions.

Check Your Progress

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

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

4) Why teachers must pay attention to ZPD in knowledge construction?

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5) State any two important role of teachers in knowledge construction.

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2.7 METHODS PROMOTING KNOWLEDGE CONSTRUCTION IN CLASSROOMS

In the classroom that follows constructivist approach, learners work primarily in groups, and learning and knowledge result from the dynamic interaction in the group. There is a focused emphasis on social and communication skills, as well as collaboration and exchange of ideas among the group members. Contrary to the traditional classroom in which learners work primarily alone and learning is achieved through repetition wherein the subjects are strictly adhered to and are guided by a text book, in constructivist classrooms various active learning activities are encouraged. Thus, the focus of classroom instruction should be on helping learners to learn and experience this process. This implies that the learning activities must be planned that provide opportunity to construct ideas, connect them to other content, and internalize understandings.

Activities that require learners to generate ideas typically include one (or more) of the following:

- **Interpretation** – means drawing inferences beyond the literal meaning. For instance, learners might read a description of a historical period and infer why people who lived then behaved as they did.

- **Analysis** – means identifying relationships among the parts of a whole. Learners might investigate local environmental factors to determine which are most likely to affect migrating birds.

- **Synthesis** – means identifying the relationships among two or more ideas. Learners might compare and contrast perspectives from multiple sources.

- **Evaluation** – means judging the quality, credibility, or importance of data, ideas, or events. Learners might read several accounts of an event to determine which they find most credible.

A teacher can use a variety of teaching methods to achieve the objective of knowledge construction in classrooms. Let us now discuss them.

(i) Expository Teaching

The teacher presents the subject matter and directs the learners through the lesson. A rule is presented with an example and then practice is provided. The teacher focuses the learners' attention on the key points of the subject and may use graphics, diagrams, or other representations to elaborate on the subject. Examples include pictorial relationships, application of the rules, context through historical information, and prerequisite information. Such examples are provided to give contextual elaboration and to help learners see the subject matter from many different perspectives.

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(ii) Guided Exploration

In guided exploration, problems can be incorporated into lecture, laboratory work, and field courses. They fit beautifully into the exploratory phase of the learning cycle approach to teaching and work best when they are assigned before any lectures or readings on the topic.

For example, while beginning study of the Periodic Table of Elements. You might start with activities that involve determining patterns and classification. You may ask your learners to arrange the following substances in a meaningful order based on their properties" of color, number, and stars.

Learners will most likely come up with more than one way of arranging the substances and the strengths of various arrangements can be debated. There is no one "right" way of arranging these facts, but some arrangements may prove to be more useful than others. If an unknown substance was missing from the arranged pattern (or a gap appeared in the pattern), many of it's properties could be hypothesized. Then, you can ask them to study the development of the Periodic Table to come at a valid conclusion. Through this, learners are introduced to it as a useful tool for understanding the elements, their properties, and as an aid for understanding chemical reactions.

During this process of exploration, you have to use strategically prompts, cues, questions, direct explanations, and modeling to guide learner thinking and facilitate an increased responsibility for the completion of a task to foster deep learning.

(iii) Cooperative/Collaborative Learning

The constructivist classroom relies heavily on collaboration among learners. There are many reasons why collaboration contributes to learning. The main reason it is used so much in constructivism is that learners learn about learning not only from themselves, but also from their peers. When learners review and reflect on their learning processes together, they can pick up strategies and methods from one another.

In this method, each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Learners work through the assignment until all group members successfully understand and complete it. Cooperative efforts result in the participants striving for mutual benefit so that all group members gain from each other's efforts.

Example: In the course of studying ancient civilizations, learners undertake a project on archaeological dig. As the learners find different objects, the teacher introduces classifying techniques. The learners are encouraged to (i) set up a group museum by developing criteria and choosing which objects should belong, and (ii) collaborate with other learners who worked in different quadrants of the dig. Each group is then asked to develop theories about the civilizations that inhabited the area.

(iv) Inquiry or Problem-based Learning

In this type of learning, the learner attempts to investigate questions, scenarios, often assisted by the teacher. This approach puts learner's questions, ideas and observations in the centre. Inquiry-based learning concerns itself with the creative approach of combining the best approaches to instruction, including explicit instruction and small-group and guided learning, in an attempt to build on learners'

interests and ideas, ultimately moving learners forward in their paths of intellectual curiosity and understanding.

For example, while studying about seed germination, learners study various factors affecting germination in a whole group and small group setting. The whole class has a prior learning experience of growing seeds in a plastic Bag. In small groups, factors affecting germination are studied. One group studies how the amount of light affects seed germination, another groups studies the temperature, and another group studies how different types of seeds germinate under similar conditions.

After experimenting, each group shares the results of their observations with the whole class. A list of factors affecting seed germination begins to emerge from the whole group discussion. Each learner has a contribution to make to the discussion. Each learner has experience upon which to construct their ideas about seed germination.

In both of the preceding examples, when the teacher returns to the whole group discussion, it is possible that some learners' hands will shoot up to answer questions, while other learners do not seem to participate. Although it appears that all learners have an equal opportunity to participate, individual differences among learners in their willingness to speak in front of a group, their self confidence, their learning styles, or other differences, may make this learning scenario favor some learners over others. It is important that the teacher know strategies to encourage all learners to participate. Effectively using wait time, so that learners are given the time they need to construct answers and think about the questions posed is critical for equitable participation. Allowing learners to express their knowledge in non-verbal ways (writing, drawing, drama) also will encourage greater participation. There are many other teaching strategies which help all learners learn. The constructivist teacher effectively utilizes a wide range of these strategies to encourage active learning.

(v) Anchored Instruction

The anchored instruction approach is an attempt to help learners become more actively engaged in learning by situating or anchoring instruction around an interesting topic. The learning environments are designed to provoke the kinds of thoughtful engagement that helps learners develop effective thinking skills and attitudes that contribute to effective problem solving and critical thinking.

Anchored instruction emphasizes the need to provide learners with opportunities to think about and work on problems and emphasizes group or collaborative problem solving.

There is often a believe that seasons change based on the earth's proximity to the sun. In reality, seasons change as the earth tilts toward or away from the sun at different times of the year. To counter this misconception, a teacher can implement a Think-Pair-Share activity. Where, first, she asks learners what causes the seasons, in order to assess their prior knowledge and potential misconceptions. Learners then pair with a partner to discuss answers and share as a class. The teacher then presents a well-organized lesson on this topic directly addressing the misconception. Learners again pair and explain the seasons. Learners harboring the misconception may experience cognitive dissonance during the activity as they learn. Further activities continue to restructure and confirm their knowledge.

Check Your Progress

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

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

6) Which type activities help in generating idea in the classroom?

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7) Explain problem based learning.

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2.8 LET US SUM UP

In unit, we have discussed about the process of knowledge construction. It is argued that Knowledge construction is a dynamic process, which involves continuous dialogue and practice. There is interplay of the knower, the content and the process of knowing, which results in knowledge construction. The different ways of knowing which include: sense perception, language, reason and emotion. The learners keep using any of these ways to acquire knowledge. The role of the knower and the known in the process of knowledge construction thus becomes crucial.

For acquiring the knowledge, one has to be an active learner, who has to continuously strive to get new knowledge. Thus, in the classroom, teachers have to provide such opportunities to the learners which help them to actively involve themselves in the process of learning. It is discussed in the unit, how the relationships in the classrooms can yield a respect and develop an environment of active learning in the classroom. It is discussed in the unit that how Constructivism can help in making learning an active and constructive process. Learners actively construct or create their own subjective representations of objective reality. In the end of the unit, various methods which a teacher can adopt including direct instruction, expository teaching, guided exploration; cooperative/collaborative learning, inquiry/problem based learning etc. have been discussed.

2.9 UNIT-END EXERCISES

1. Observe any classroom where teaching is done through constructivist approach, and make a report of the strategies teacher used to generate ideas in classroom.

2. Analyse the role of a teacher in the construction of knowledge.

2.10 ANSWERS TO CHECK YOUR PROGRESS

1. Language helps in communicating knowledge. When a well-structured argument is presented, it is understood easily. Through language we can, describe our experiences and structure our experiences.

2. In realism, individuals derive meaning about the things through our sense-data.

3. Cooperative relations involve mutual respect and such relations also help in developing a positive emotional climate of mutual sympathy and affection. Such relationships helps in achieving mutual understanding and knowledge development.

4. ZPD helps the teachers in analysing the distance between the actual and potential development. If a teachers knows the ZPD of a learner, then she can formulate her strategies in such a way that a learner can achieve the potential development.

5. a) Promote active learning

   b) encourage learners to analyse, predict and define their ideas.

6. Activities which include interpretation, analys is synthesis and evluation.

7. It is an approach which helps in solving problems through investigating questions and ideas.

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UNIT 3 EDUCATIONAL THINKERS ON KNOWLEDGE

Structure

3.1 INTRODUCTION

In the previous units of this block, we have already discussed the concept of knowledge and its various types. We have also discussed about the process of knowing, it was also highlighted in the unit that the process of knowing is a personalized, individual task that is influenced by experience and unintentional contextual cues. The three aspects of knowledge – the knower (the consciousness of the participant), the known (the field of study), and the process of knowing (which connects the knower to the known) were also explained. In this unit, we will discuss the views of various educational thinkers on knowledge and education. Education as viewed by Indian educational thinkers – Rabindranath Tagore and Mahatma Gandhi; and also by western educational thinkers – John Dewey and Paulo Freire will be discussed. Later, conceptual-logical and social perspectives of education will be dealt.

3.2 OBJECTIVES

After going through the unit, you should be able to:

- describe the views of Indian educational thinkers – Rabindranath Tagore and Mahatma Gandhi on education;

- elucidate education as viewed by the westerns educational thinkers – John Dewey and Paulo Freire;

- discuss the conceptual-logical perspectives of education; and

- explain social perspectives of education.

3.3 VIEWS OF INDIAN THINKERS ON EDUCATION

You may be aware of the fact that the socio-political environment of pre-independence India contributed a lot in shaping-up various aspects of philosophy of Rabindranath Tagore and Mahatma Gandhi, including their views on education. In the following sections, we will discuss their thoughts on education, in general, and on various aspects of education, in particular.

3.3.1 Rabindranath Tagore

Rabindranath Tagore is the world famous poet- Vishwakavi and is popularly known as "Gurudev", the respected teacher. He was awarded the Nobel Prize for his book "Geetanjali". Shantiniketan and Viswabharti are the renowned contributions of Tagore to the field of education.

According to Tagore, the supreme truth of life is not merely to live, but also to know our existence and realize the self through love and sympathy with others. Hence, it is essential that the growth of a balanced and well-integrated personality of the child is to be promoted and move should be made towards the achievement of the ultimate goal of life i.e. achieving 'Sachidananda'(sat+ chit + anand). He believed that freedom should be the guiding principle of education. By freedom, Tagore meant the liberation of all the aspects and powers of the personality, namely the senses, the vital energies, the various mental capacities including intelligence and imagination; also the functions of the heart-feelings, emotions, sympathy and love. Here, it can be noticed that the idea of Tagore is similar to the ideas of Rousseau, Froebel and Dewey, who have emphasized freedom, which lies in the perfect harmony of relationships, which we realize in the world.

He also emphasized that self-expression is very important and provision should be made for its development among students. Self-expression is creative in nature and should be organized through various forms of arts, music, dramatics, handiwork, etc. He believed in activity in education. Hence, he encouraged play and work as the instruments of teaching children and adults respectively.

He advocated fullness of experience; and viewed education as a process of harmonization of various elements – intellectual, physical, social, moral, economic and spiritual. For facilitating the creative self-expression of the child, he accentuated the importance of integrating painting, sculpture, music, dance, poetry, etc. with education. He realized the need of education for universal brotherhood and internationalism; and advocated the integration of western and eastern culture so that children learn to appreciate cultures of other countries.

Tagore introduced the elements of sympathy and joy to education. He believed that joy should be pivotal in all educational activities. He also emphasized the principle of curiosity and interest and the spirit of play. According to him, child should be brought in contact with nature to promote self-learning, which will be having freedom, fullness and vastness of experiences. According to him education should facilitate rational thinking and imagination in child so that he is able to assimilate new ideas and knowledge. Tagore wanted education not just to develop individual personality but also social characteristics. To him, education should not only prepare a child to earn his livelihood but also it should sensitize him towards social service; and also make him to contribute for development of the country. Tagore has emphasized mother tongue as the medium

of instruction for the child's education since child can freely express his thoughts in his mother-tongue.

Tagore's views on education are a clear reflection of his humanism, naturalism, individualism, universalism and spirituality, and his contribution made him one of the brightest stars of galaxy of educational thinkers such as Rousseau, Froebel, Montessori, Dewey, etc.

Further, he envisaged that education given to our children should aim at the following:

- encourage and foster freedom of thought, independent spirit and free will,

- promote moral and spiritual development of an individual, and liberate him from different kinds of bondages

- develop the ability of assimilation and application of new ideas and knowledge, and the ability of thinking and imagination

- make the younger generation aware of their national cultural heritage and grasp its significance for them; enable them to appreciate the cultures of other countries too and also to learn from them.

- make Indian men and women more rational and less subject to meaningless social and individual rituals.

- help students to acquire 'scientific temper'. In other words, to stimulate constructive doubt, the love of mental adventure, the coverage and longing to conquer the world by enterprise and boldness in thought and in action.

- develop the individual personality as well as the social characteristics,

- develop fellow feeling among students and enable them to render social service and service to the country.

3.3.2 Mahatma Gandhi

Very much like Tagore, social-cultural context in which Gandhiji lived, contributed a lot towards shaping-up his ideas about education. He believed that educational reconstruction was necessary for social and national reconstruction; and introduced a national scheme of education which was known as 'Basic Education'. Gandhiji's basic education emphasized craft-centred education, which was a kind of revolt against the impractical colonial British education system, which aimed at political enslavement and economic dependency.

Gandhiji believed that education is not a "pouring in process" but a "drawing out process". The locus of knowledge does not lie 'out side' but 'within' the child. He says, "By education I mean an all-round drawing out of the best in child and man – body, mind and spirit". Gandhiji believed in holistic development of human personality. According to him, education is not merely literacy, it is a quest for truth and non-violence, training of body and mind, and awakening of soul. Thus, it should develop high morals, self control and right thinking in child, leading to self-realization. He believed that learning included the acquisition of information and training that is useful for the service of mankind, which will pave way for liberation of the individual and the nation at large from this 'dependency syndrome'. He believed that individual cannot realize his full

potential in absence of society, and society cannot prosper without the well being of is individuals. Therefore, he emphasized the importance of social transformation through social service.

Gandhiji propounded basic education, which is a craft-centred education, provides purposeful, creative and socially useful education, which inculcates a spirit of cooperation, unity, and group responsibility in children. Basic education attempts to establish interrelationship between various subjects and subject knowledge with real life. Since craft is both a means and an end, it is central to teaching of all the subjects. This interweaving craft with other subjects was an attempt to provide the child constant interface with the community. He conceived school as a miniature society where children as social participants had rights and responsibilities. Thus, he finely blended sociological aspects with pedagogy of education.

According to Gandhiji education must stimulate spiritual, intellectual and physical faculties of the child, accordingly, he emphasized coordination of these faculties for training of three Hs – Head, Heart and Hand. He believed that "Persistent questioning and healthy inquisitiveness are the first for acquiring learning of any kind." He firmly believed that primary schooling should be compulsory for all the children between the age of seven and fourteen and it should be imparted in child's own language. Gandhiji wanted teachers to be free from interference from government and state bureaucracy. For his contribution in education, Gandhiji is known as holistic educational reformer – naturalist in his educational setting, idealistic in his educational aims, and pragmatic in methods of teaching. Mahatma Gandhi saw education as a means of awakening the nation's conscience to injustice, violence and inequality entrenched in the social order (NCF 2005).

To conclude, Gandhiji's educational philosophy is sound and scientific, psychologically as well as sociologically. By introducing craft, he tried to remove the gap between manual and intellectual labour, the educated and uneducated mass and promote dignity of labour, social solidarity and national integration. He also desired that ideals of democratic citizenship be inculcated in the children and regarded the school as a democratic society where they would learn citizenship, knowledge, skills and values like co-operation, love, sympathy, fellow-feeling, equality. Gandhiji's vision of the democratic society is "Sarvodaya Samaj" characteristics of which are social justice, peace, non-violence and modem humanism.

Check Your Progress

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

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

1) "As far as educational philosophy is concerned, Tagore's was a naturalist, whereas Gandhiji was a Pragmatic." Explain with examples.

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2)   What are the aims of education according to Tagore?

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3.4   VIEWS WESTERN THINKERS ON EDUCATION

While in India new educational ideas were taking shape, in west the existing school practices were being challenged. Dissatisfied with the prevailing educational practices, among other, John Dewey and Paulo Friere are the two main thinkers who thought 'out of the box', and introduced innovative ideas for reforming the prevailing education system. Their views have lasting impact on contemporary educational thinking and practice.

3.4.1   John Dewey

John Dewey's has been one of the most influential educational thinkers of modern times. His educational philosophy has been referred to as Pragmatism, Experimentalism, Functionalism, Instrumentalism, Operationalism, Practicalism, and Progressivism.

To begin with, Dewey was idealistic, but later moved towards the pragmatism and naturalism of his mature philosophy. The central focus of his philosophy is epistemology or the theory of knowledge that contested the dualisms of mind and world, thought and action, which had marked western philosophy since the 17th century. This theory of knowledge emphasized the "necessity of testing thought by action if thought was to pass over into knowledge". His work in education was intended in part, to explore the implications of his functional pedagogy and to test it by experiment. Dewey's educational philosophy helped forward the progressive education movement and spawned the development of 'experiential education' programs and experiments.

He referred to education as a "social need and function", as a "process of living and growth" which includes both social and individual aspects that are mutually dependent on each other. From the social viewpoint, education is essential to the continuous existence and transformation of the organization of social life in all its shades and grades. From the individual perspective, it is a method to enable individuals to play an effective role as members of a human community or society.

According to him," Education is the process of reconstruction of experience, giving it a more socialized value through the medium of increased individual efficiency". He wanted each philosopher and personality to be developed not according to any absolute standard, but according to a pupil's own capacities and opportunities and specifically in a social setting as the child is considered to be a unit of society. Further, he advocated education for democracy and this he considered one of the goals of education, to help people become more effective members of a democratic society.

The main aims of education, according to Dewey are natural development, Social efficiency, cultivation of mind of individual with respect to appreciation of ideas, art and broad human interests. Dewey believed that the purpose of education

should not revolve around the acquisition of a pre-determined set of skills, rather the realization of one's full potential and the ability to use those skills for the greater good of society. Thus, education and learning are social and interactive processes, and the school itself is a social institution through which social reform can and should take place. For Dewey, education is a social function. Until we know what sort of society is best, we do not know what sort of education is best.

According to Dewey's philosophy, the goal of education is to release the human potential for growth. Growth through freedom, creativity, and dialogue is, for him, the all-inclusive ideal, the greatest good. For Dewey, the capacity to cultivate growth is the criterion for evaluating the quality of all social institutions. Dewey believes that democracy is the social structure that contributes most to freeing intelligence to grow, and, therefore, education should be democratic. Dewey did not subscribe to the notion of freedom as complete absence of any discipline.

Dewey had specific idea regarding how education should take place within the classroom. He criticized the undue importance given to the curriculum, which leads to the inactivity of the student in the entire process of learning. He believed that students thrive in an environment where they are allowed to experience and interact with the curriculum, and all students should have the opportunity to take part in their own learning. He emphasized that content must be presented in a way that allows the student to relate the information to prior experiences, thus deepening the connection with this new knowledge. He advocated for an educational structure that strikes a balance between delivering knowledge while also taking into account the interests and experiences of the student. It is a continuous process of adjustment, having as its aim at every stage an added capacity of growth.' He advocated the importance of education not only as a place to gain content knowledge, but also as a place to learn how to live. Experience of the child occupies the central place in method of learning; 'all learning must come as a by-product of actions…' child learns through participation in various activities. He firmly believed in 'learning by doing' and 'learning by living', and always criticized rote memorization of facts and formulae.

Dewey argued that thinking does not occur in isolation from social situation, without 'experience or action'. Thinking arises when the individual confronts a 'problem'. According to Dewey, 'thinking is a method.' It is the method of 'intelligent experiencing'. It is connected with increase of efficiency in action, and with learning more about ourselves and the world in which we live. 'An ounce of experience is better than a ton of theory simply because it is only in experience that any theory has vital and verifiable significance'.

Dewey regarded the child as the core of the whole educational process; 'education must begin with a psychological insight into the child's capacities, interests, and habits…' But he looks at these capacities and interests in the social context and not in abstraction, for it is in the social context alone that they can be developed.

According to Dewey 'education is life itself and not a preparation for life'. Dewey regards school as an institution essential to social life. To him school is an absolute social necessity. The school is not a place where some knowledge is imparted and an attempt is made to develop certain habits among children; it is a place where the child learns by its own experiences. It is 'lengthened arm of the family'. There should be no sudden break in the activities of the child in the home and in the school. In the beginning, the school should try to preserve, continue

and rebuild those experiences and activities with which the child has been familiar in the home. Thus the school should provide to the child the atmosphere of the home.

Dewey believed that method is not separable from subject matter. For him, method, or structure, is structure for a purpose: "Method means that arrangement of subject matter which makes it most effective in use. Never is method something outside of the material". According to him "the teacher should be occupied not with subject matter in itself but in its interaction with the pupils present needs and capacities. Just teaching the subject matter does not mean one is teaching well. To teach well, the teacher must connect the subject matter to the needs, desires, interests, stage of cognitive development, etc. of the student, within the physical, social, and political context that the students and teachers find themselves. Good teaching requires moral as well as cognitive perception of the needs and abilities of the student. It also requires a complete and confident command of the subject matter to reconfigure it to meet the needs of every individual student.

Dewey's qualifications for teaching – a natural love for working with young children, a natural propensity to inquire about the subjects, methods and other social issues related to the profession, and a desire to share this acquired knowledge with others – are not a set of outwardly displayed mechanical skills. Rather, they may be viewed as internalized principles or habits which "work automatically, unconsciously"

Teachers are responsible for disciplining the individual to understand and appreciate the existing norms and practices of a culture. However, they should to do so in such a way as to realize unique individual potential. This implies educating the individuals creative and artistic ability as well as their ability to engage in critical inquiry and, if necessary, carry out the reconstruction of the existing social order to evolve a better society in the future.

Views of John Dewey are clearly reflected in NCF, 2005, when it talked about construction of knowledge. "The teachers' own role in children's cognition could be enhanced if they assume a more active role in relation to process of knowledge construction in which children are engaged. A child constructs her/his knowledge while engaged in the process of learning. Allowing children to ask questions, that require them to relate what they are learning in school to things happening outside, encouraging children to answer in their own words and from their own experiences, rather than simply memorizing and getting answers right in just one way – all these are small but important steps in helping children develop their understanding."

3.4.2   Paulo Freire

Paulo Freire's pedagogy developed in the particular historical and political circumstances of neo-colonialism and imperialism. Freire's perception of society and social relations is based on class relations. He sees social dynamics through the oppressor-oppressed dialectic.

Freire discusses two types of knowledge, unconscious, sometimes practical knowledge and critical, reflective or theory knowledge. Beliefs are shaped into knowledge by discussion and critical reflection. Knowledge should not be limited to logic and content, or emotions and superstitions, but should seek the connections between understandings and feelings.

His pedagogical critique of 'banking education' and his 'problem posing' pedagogical propositions are rooted in his concept of man. Paulo Freire was highly critical of prevailing educational practices. He called education as it was practiced as 'banking' concept of education. In the banking concept, education is treated and practiced as a depositing activity. In this depositing act, students become depositories and teacher the depositor. The scope of action allowed to the students, 'extends only as far as receiving, filling, and storing the deposits.' By acting as a depositor, the teacher 'domesticates' the child into oppressor consciousness. The banking concept of education, says Freire, has done immense damage to teacher-taught relationship and process of education. Freire's description of banking education and his prescription of problem-posing education are based on his understanding about man, his consciousness and relation to the world. According to Freire, banking education begins with a false understanding of men as objects. 'Implicit in banking concept is the assumption of a dichotomy between man and the world; man is merely in the world, not with the world or with others; man is spectator, not re-creator. In this view, man is not a conscious being; he is rather a possessor of consciousness; an empty 'mind' passively open to the reception of deposits of reality from the world outside.' The programme content of problem posing education is generated from the investigation into this 'thematic universe'. Banking education, through its pedagogy works for the continuation of 'domination', whereas problem-posing education through its pedagogy thrives for liberation. Freire's proposes a pedagogy to conscientize human beings based on praxis and dialogue. Conscientization constitutes both growing critical awareness of the learner by himself and a willingness to act on the reality to change it. Praxis is interwoven methodological state of human action and reflection. Dialogue is not only a method of education, but an existential necessity for humanization.

Hence, learning is a process where knowledge is presented to us, then shaped through understanding, discussion and reflection. Education should raise the awareness of the students so that they become subjects, rather than objects, of the world. This is done by teaching students to think democratically and to continually question and make meaning from everything they learn.

Freire firmly believed that knowing is a social process, whose individual dimension, however, cannot be forgotten or even devalued. The process of knowing, which involves the whole conscious self, feelings, emotions, memory, affects, an epistemologically curious mind, focused on the object, equally involves other thinking subjects, that is, others also capable of knowing and curious. This simply means that the relationship called "thinking" is not enclosed in a relationship "thinking subject – knowable object" because it extends to other thinking subjects.

Freire believed that teaching is a political process. It must be a democratic process to avoid teaching authority dependence. The teacher must learn about (and from) the student so that knowledge can be constructed in ways that are meaningful to the student. The teachers must become learners and the learners must become teachers. Only insofar as learners become thinking subjects, and recognize that they are as much thinking subjects as are the teachers, is it possible for the learners to become productive subjects of the meaning or knowledge of the object. It is in this dialectic movement that teaching and learning become knowing and re-knowing. The learners gradually know what they did not yet know, and the educators re-know what they knew before.

Freire's critical pedagogy talked about making teachers and students aware of the "politics" that surround education. The way students are taught and what they are taught serves a political agenda. Teachers, themselves, have political notions they bring into the classroom. Freire believed that "education makes sense because women and men learn that through learning they can make and remake themselves, because women and men are able to take responsibility for themselves as beings capable of knowing – of knowing that they know and knowing that they don't".

The purpose of Freire's education is liberation; it is achieved through authentic dialogue in which every one speaks one's own word with the mediation of the world to name the world. This, in a nutshell, is the 'Pedagogy of the Oppressed'.

By analyzing Freire's pedagogy, we are able to identify his significant contribution to education:

- Emphasis on dialogue - he upheld that education is a dialogical (conversational) rather a curricular form and this dialogue should not involve one person acting on another, but rather people working with each other. A dialogue, not only requires critical thinking, but also generates critical thinking in the participants.

- Concern with praxis - action that is informed and linked to certain values. He upheld that dialogue should result not only in deepening understanding, but also in taking informal actions and making a difference in the world.

- Concern with conscientization - developing consciousness that is understood to have the power to transform reality.

- Insistence on lived experience of participants - provide educational activity to suit the living situation/experience of the people.

Influence of Freire's view may be observed on NCF 2005, wherein it is mentioned that teaching is no more an activity of planning a lesson or presenting ready-made knowledge for achieving outcomes that can be measured objectively. Now it has been seen as a process of making children "think and try out what they are learning". A teacher has to shift away from his/her traditional stance of "informing" to that of "eliciting" and "guiding". A teacher's role is one of facilitating construction of knowledge and engaging children by raising the right kind of questions and organizing well chosen activities and tasks. "Active engagement involves enquiry, exploration, questioning, debates, application and reflection leading to theory building and creation of ideas/positions. Schools must provide opportunities to question, enquire debate, reflect, and arrive at concepts or create new ideas." (NCF, 2005).

Check Your Progress

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

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

3) Education is social need and function. Explain

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4)   Explain 'banking concept'.

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5)   What are the core components of Dewey's philosophy?

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3.5   COMMONALITIES AND DIFFERENCES IN AIMS OF EDUCATION

So far, we have studied the aims of education as enunciated by different modern thinkers (both Indian and Western). Now, we shall try to look into the commonalities, and differences in these aims of education.

It is interesting to note that there are more common points among the Indian thinkers whom we have discussed. All of them thought of education in terms of the development of the total personality of an individual (child or adult) or in other words, the all round development of an individual. All of them have emphasized the spiritual **aspect** of life highlighting the relation between matterlmind and spirit, and advocated education for spiritual development.

To put it other way, they believed in a universal community of human beings though no distinction is made among them on any criteria, but all are loved, respected and considered equal. They appealed for a sense of unity in this world to see a society without crisis. Further, they upheld the view that an individual has no value without society and society cannot think of its development without an individual's upliftment. They considered the individual and social aims as complementary to each other.

One more point of commonality among Indian thinkers is provision for freedom to learners. They advocated the right kind of freedom for learners as nothing could be achieved by compulsion.

Tagore and Gandhi stood together regarding the consideration for culhlral aspect of education. According to them, education should aim at making people aware and proud of the cultural heritage of our country and appreciate other cultures too. As regards differences among the Indian thinkers regarding education: Tagore has emphasized the relationship of man with Nature and advocated education for harmony and self-expression. He deserves credit for having revived the ancient Indian ideals in the modem times. On the other hand, Gandhiji emphasized craft centered education and advocated education for self-sufficiency and self-reliance leading to *Sarvodaya Sumaj.*

To conclude, it is quite clear that there are more similarities than differences in the aims of education enunciated by different Indian thinkers. Each thinker has explained the same view in a different way using different language1 terminologies. Ultimately, all of them have upheld the point that education should enable the person to understand himself, to know his potentialities and move towards the achievement of ultimate goal of life.

All the modern thinkers under reference commonly professed that education should lead to personal and social liberation both in thought and deed. They also considered the total development of personality as the main goal of education and both individual and social aims of education as being equally important. Individuals should get equipped well to perform their role in the modem society. Like Indian thinkers, the Western thinkers also recognised the significance of individual freedom for learners. But they differed in the way they expressed their ideas emphasizing the different aspects of education.

John Dewey described school as a unique social institution where the child's basic native impulses- to communicate, construct, inquire and express - are to be activated to promote its active growth. He recommended learning by doing/ experience in place of dogmatic instruction.

Paulo Freire, like Dewey, professed integration of theory and practice. Believing that education could improve human condition and contribute to humanization, he developed the 'pedagogy of oppressed'. This pedagogy insisted on dialogical and action oriented approach, as well as conscientization. Hence, the ultimate goal of education, according to Freire, is the development of 'critical consciousness' among people.

The main difference noticed between Indian and Western thinkers is regarding the spiritual aspect of education. While all the Indian thinkers upheld the significance of spirituality in education and considered spiritual development as one of the aims of education, the western thinkers are concerned themselves, more with man in relation to their social environment.

3.6 CONCEPTUAL LOGICAL PERSPECTIVE OF EDUCATION

Education as a concept has been compared to 'reform' and 'curing' by eminent educationists R. S. Peters in his analysis of education. According to him, "education refers to no particular process; rather it encapsulates criteria to which any one of a family of processes must conform." In this way it is rather like 'reform'. According to him education as initiation, is to regard processes of education as task relative to achievement. Initiation is meant 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. It implies that a man who is educated is a man who has succeeded in relation to certain tasks on which he and his teacher have been engaged for considerable period of time. Thus, achievement is relative to a family tasks which we call processes of education. The set of these processes are termed as 'Curing', which contribute to making the man morally better. On the same lines, educating people suggests a set of processes whose principle of unity is the 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. The learnt content must be worthwhile and morally unobjectionable. The aim of education is to reform; and to reform means to make men better by encouraging the sense of responsibility. According to Peters (1967) the three main criteria of education are:

i) An educated man is one whose form of life is thought to be desirable;

ii) Whatever he is trained to do he must have knowledge, not just knack, and an understanding of principles.

iii) His knowledge and understanding must not be inert.

We do not call a person 'educated' who has simply mastered a skill. For a person to be educated, he must also have some body of knowledge and some kind of conceptual scheme to raise this above the level of 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 person's outlook is transformed by what he knows. The knowledge must not be static 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 person 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 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.

Check Your Progress

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

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

6) Explain education as a process of initiation.

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3.7 SOCIAL PERSPECTIVE ON EDUCATION

Education can be studied from different perspectives. These perspectives merge at some point as they all deal with education as an important activity in any society. In this section, we will discuss relationship between education and society with particular reference to school as an agency of socialization, and education as an agency of social change and social control – how culture of a society impacts the kind of education children receive; and how the content and methodology of education is conditioned by social and cultural context.

A significant feature of modern child study is that the object of 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 of the main aims of education is to create social link between individuals on the basis of shared references, which leads to fulfillment of individual as a social being. Education facilitates socialization with the interplay of culture and values. In any society, some states of mind, modes of conduct structured by the forms of thoughts and awareness and culture are regarded as intrinsically valuable. Education is a term which we use for a family of procedures by the means of which individuals are initiated into such forms of thought and awareness and into activities and modes of the

conduct informed by them. The social aims of education are to give all pupils an insight into their social inheritance, ideals, conditions, customs and institutions of society, which leads to the development of sympathy for all branches of society. It is done through social communication and social service, which develop social efficacy of an individual. Education is basically being considered as a preparing the individual for adaptation and making adjustment to his social environment. Education must help individual to acquire universally accepted and attitudes of his social group. And also to keep himself away from the social ills viz. crime, drug abuse, etc.

All social institutions define the pattern of relationships and behaviour expected of the persons who belong to them. The principal social institutions are concerned with regulation of economic, political, familial, educational, and religious aspects of human life. It helps the child to train for the future roles of adult life. In other words, the child learns the rules of social behaviour through the process of education. Therefore, the child prepares himself or herself to take multiple roles through the process of socialization, in general, and education, in particular. Social perspective of education contributes essentially to the maintenance of social order by transmitting the values and norms of the society, which may also be called social control. It focuses on the social relationships, which prepares people to fit into the complex social structure through the process of socialization. In this context, education will also be informal – received from the family and peer groups; in addition to formal education, which is received in the schools.

Every society believes in education as an important instrument of social change and for this reason, great importance is attached to schools. Schools play important role in changing the society by changing the individuals who make up the society. An individual comes to a full realization of his own social dimensions through an apprenticeship of active participation in the functioning of social structure, where necessary, through a personal commitment in the struggle to reform them.

Education, being an instrument of social control and social change, develops social feelings, socially efficient individual, improvement of vocational efficiency, use of leisure time, and development of healthy recreational pursuits, transmission of social heritage, leading to development of constructive and creative outlook of the individual. Education, hence, plays an important role in inculcating the feeling of for social service, social efficiency, emotional integration, national unity and patriotism in a child.

Check Your Progress

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

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

7) Education is an instrument of social change. Explain with the help of examples.

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8) Differentiate between logical and social perspectives of education.

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3.8 LET US SUM UP

In the present unit the educational ideas of four influential educational thinkers of modern times – Tagore, Gandhi, John Dewey and Paulo Freire were highlighted. If we scan through their ideas on education, it will be found that, in all four cases, it begun with criticizing the prevailing education system and practices. As far as aims of education is concerned, all four thinkers go beyond the material self and uphold the primacy of development of psychological, moral and spiritual self. They emphasized the freedom of child for self realization. They also believed that individual transformation is a basis of social transformation, thus they suggested synthesis of individual and social aims for the holistic development. Though, the method and practices suggested by them are quite different from each other. Tagore talks about active communion with nature, whereas Gandhiji propounded craft-centered education.

Further, Dewey's educational ideas are based on his pragmatist and experimentalist philosophy, which promulgates learning by doing. Education, for him, is a process of experiencing, constructing and reconstructing. It is not a preparation for life but life itself. While Paulo Freire criticizes banking education, which treats human mind as an empty vessel. He advocated problem-posing education which treats man as a conscious being in constant dialogue with the world. We have also explained conceptual-logical perspective of education, according to which, education is a process of initiation for 'curing' and 'reform'. Towards end of the Unit, social perspective of education was discussed, wherein, education is seen as a process of socialization vis-à-vis an instrument for maintain social control as well as a key for bringing about social change in the society.

3.9 UNIT-END EXERCISES

1. Explain the implications of John Dewey on the educational system of India.
2. "Education is a process of socialization." Discuss

3.10 ANSWERS TO CHECK YOUR PROGRESS

1. Read section 3.3 to provide the answer
2. Aims of education were:
   - encourage and foster freedom of thought, independent spirit and free will,
   - promote moral and spiritual development of an individual, and liberate him from different kinds of bondages
   - develop the ability of assimilation and application of new ideas and knowledge, and the ability of thinking and imagination
   - make the younger generation aware of their national cultural heritage and grasp its significance for them; enable them to appreciate the cultures of other countries too and also to learn from them.
   - make Indian men and women more rational and less subject to meaningless social and individual rituals.

- help students to acquire 'scientific temper'. In other words, to stimulate constructive doubt, the love of mental adventure, the coverage and longing to conquer the world by enterprise and boldness in thought and in action.

3. From the social viewpoint, education is essential to the continuous existence and transformation of the organization of social life in all its shades and grades.

4. In the banking concept, education is treated and practiced as a depositing activity, where students become depositories and teacher the depositor. The scope of action allowed to the students, 'extends only as far as receiving, filling, and storing the deposits.'

5. Integration of theory and practice.
   - Theory of knowledge contesting the dualism of mind and world, thought and action.
   - Experiential education/progressive education.
   - Emphasis on learning by doing / experience.
   - Commitment to democracy.

6. Refer to section 3.7 for understanding and then state examples from your experience.

7. 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

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UNIT 4   KNOWLEDGE, SOCIETY AND POWER

Structure

4.1   INTRODUCTION

Education, you would agree, is not something static and ahistorical. In fact, a careful look at history suggests that what we call education changes from time to time, and alters its priorities. These days you may feel that education ought to be secular, scientific and professional; but then, as some of our ancient texts depict, when religious institutions were overwhelmingly powerful, education, far from being secular and technical, was essentially spiritual and theological. Each society has its own notion of education. To make sense of education – what we learn, what is being regarded as 'legitimate; knowledge, or the way we learn – we need to contextualize or situate it in specific time and space. As a matter of fact, when you begin to look at education sociologically, you realize that it cannot be seen in isolation; it is organically related to the social needs of a particular age. What prevails as education cannot be separated from

its polity, economy and culture. Let us take two examples. These days, environmental education is being taught from school to higher education level. A major reason for this is that in complex/industrial societies environment has become a matter of great concern, and it is important to strive for the kind of knowledge that makes sense of the growing environmental crisis, and arouses ecological sensitivity to resolve it. Likewise, as women's movements are gaining more and more legitimacy, school curriculum is accepting *gender sensitisation* as an important objective of school education.

You would agree that it is not difficult to appreciate that education is integrally related to our collective concerns. These collective concerns manifest themselves as politico-economic ideas. It is interesting to explore the relationship between education and politico-economic ideas. At this juncture, you can also notice that every dynamic society lives within many such ideas and aspirations. If you look at our own society, we would find that there are, for instance, Gandhians, Marxists and Dalit activists, and each of these has a set of people with shared ideals, aspirations and beliefs about the kind of society that needs to be created. And depending on the kind of society they seek to create, they have their own agenda for education. These different socio-economic projects, be it Gandhism, Marxism and Ambedkarism, are often regarded as **ideologies**. With your sociological imagination it is not difficult for you to understand that education or curriculum is inseparable from these ideologies. That is why, every dynamic society has been perpetually debating on education. It is, in fact, a site of contestation.

4.2 OBJECTIVES

After working through this Unit, you should be able to:

understand the meaning of ideology, and how it shapes and organises social institutions and society, including those dealing with education;

analyse if education is or can be neutral and 'value-free';

relate ideology to the study of curriculum and analyse premises of different curriculum ideologies and their manifestation in pedagogy;

examine and analyse the hidden curriculum in formal curriculum and as manifested in classroom practices including teacher's biases and attitudes and its role in impacting student learning;

explore the concept of 'relative autonomy' of education in formulating the curriculum; and

appreciate the need and importance of your own role as a reflective teacher in challenging the status-quoist pedagogy through critical learning and equality of opportunity in classroom.

4.3 MAKING SENSE OF IDEOLOGY

As we intend to explore the relationship between ideology and curriculum, it is important to conceptualize what is ideology, in our everyday conversation we often use this word. We tend to equate ideology with a set of beliefs, attitudes and aspirations that a person or a social group cherishes and use the word to describe political beliefs – say, Gandhism, Marxism, Liberalism, etc.

4.3.1 Understanding the Concept

Ideology is the lens through which a person sees the world. It is the world view a person has and reflects the sum total of the culture, values, beliefs, assumptions, common sense, and expectations people have for themselves and of others. Ideology shapes our thoughts, actions, interactions, and what happens in our lives and in society at large.

It helps understanding one's own position in the world, their relationship with others, as well as their individual purpose, role, and path in life. Through the ideological lens, one sees the world and interprets events and experiences. It is like a frame that captures and focuses certain things and excludes others from view and consideration.

Ideology determines how we make sense of things; view of the world, our place in it, and our relationship to others, shaping and organizing social life and society as a whole. Since, it is deeply important to our social lives and society we live in, we cling to ideology and defend it, without even being conscious of doing so. Although, ideology emerges out of the prevalent social structure, economic system of production, and political structure but the social interests expressed therein are hidden and not explicit. It tends to form a closed system and maintains itself in the face of inconsistencies.

The concept of ideology itself however is general in nature and not tied to one particular way of thinking only. *Although ideology is seen as an individual's worldview, it is, infact, a well-articulated worldview of a specific group at a particular juncture in history. There are various and competing ideologies operating in a society at any given time, and some are more dominant than others.*

4.3.2 Ideology as a Perspective

The concept 'ideology' has different meanings according to different theories. According to some thinkers like Marx and Engels, ideology is false-consciousness or a system of distorted and misleading ideas because although it seems 'objective and value-neutral', it hides the reality to preserve the interests of the ruling class ;for scholars like Adorno and Thompson, ideology is a neutral

concept, and is linked to a specific group's value system or any set of ideas such as liberalism, fascism and behaviourism among others. In fact, Sociologists have been debating on the meaning of ideology for quite some time. From this fairly long history of this debate we would choose three major trends.

Karl Mannheim who developed and enriched 'sociology of knowledge' as a sub-discipline made a remarkable contribution to the understanding of ideology. For Mannheim, 'there are modes of thought which cannot be adequately understood as long as their social origins are obscured'. We do not think in isolation. We think as a social group. What we think – or the way we perceive the world – depends on our group experiences: the life we lead, the struggles we engage in, the interests we seek to retain, and the hopes we cherish. Each social group (and this group, Mannheim emphasized, need not necessarily be based on economic class, it may rest on caste, racial, gender, ethnic or religious identities) has its own mode of thinking; each social group is looking at the world from a particular vantage point. To put it otherwise, each social group has a 'perspective' or a 'worldview' which, according to Mannheim, can be regarded as a *'total ideology'* of the group. As a total ideology, it is rooted in concrete socio-historical experiences; it need not be confused with the 'psychological motive' of a particular individual. For example, when we say that capitalists have an ideology we are not talking about what capitalists as individuals are thinking. Instead, we are interested in knowing how capitalists as a class, because of their engagement in a concrete socio-historical setting, are looking at the world.

According to Mannheim, a distinction can be made between *ideology* and *utopia*. For example, the ruling group has a vested interest in preserving the existing order. Its ideology retains the status-quo; it is conformist in nature. But the emergent group seeks to overthrow the system; its thinking is revolutionary. Mannheim regarded it as utopia.

4.3.3 Ideology as 'False Consciousness'

Karl Marx is considered the first to provide theoretical framing of ideology with relevance to sociology. According to Marx, ideology emerges out of the mode of production in society, meaning ideology is determined by whatever is the economic model of production. In his case and in ours, the economic mode of production is capitalism.

Marx's approach to ideology was set forth in his theory of base and superstructure. According to Marx, the superstructure, which is the realm of ideology, grows out of the base, the realm of production, to reflect the interests of the ruling class. The fundamental premise of the materialist conception of history is that men must be in a position to make history, and for that they need to fulfill the basic needs of eating, drinking, clothing and shelter. What we are depends on what we produce and how we produce. In other words, morality, religion, metaphysics and all the rest of ideology no longer retain semblance of independence; they depend on the *mode of production*: the forces and relations of production. No wonder, 'the hand-mill gives us a society with the feudal landlord, and the steam engine with an industrial capitalist'. '.

Ideology, in the Marxian sense, need not be equated with all ideas. Essentially, what gives its distinctive identity is that it serves the interests of the ruling class. Although it projects itself as objective and value-neutral, the fact is that, as

the Marxists would argue, it *falsifies* and *hides* the reality for preserving the interests of the ruling class. Whereas the ruling class sees its ideology as a desirable proposition for the entire society, the Marxists debunk it as 'false consciousness'. Let us take an example. The idea of 'individual equality' is cherished in a capitalist society. Yes, on the surface, the worker is free to enter into any agreement with an employer which is suited to his or her own interest. But the real fact is that this ideology of freedom falsifies the reality and hides its contradictions. The reason is that workers, far from being free, are forced to sell their labour power if they want to survive precisely because they have been deprived of their means of production. In other words, the ideology of individual equality in a capitalist society, as the Marxists argue, is merely an illusion.

4.3.4 Ideology and Hegemony

Another important thinker who enriched our understanding of ideology was *Antonio Gramsci* – an Italian Marxist .What is important to note is that Gramsci was not contented with the 'negative' conception of ideology, as in case of Marx, because, for him, ideology is precisely 'the terrain on which men move, acquire consciousness of their position, struggle, etc'. Moreover, ideology is also the terrain on which the ruling class achieves hegemony (supremacy) not simply through coercion, force or violence but by gaining legitimacy by acquiring *consent* even from the oppressed/marginalized clauses. In other words, the ruling class *hegemony* is established by creating a shared ideology. In the process of consolidating the ideological hegemony of the ruling class, argued Gramsci, civil society – mass media, educational/cultural institutions – play a key role. Another important fact about the Gramscian understanding of hegemony needs to be understood. Hegemony presupposes that one takes into account the interests of the groups over which hegemony will be exercised. According to Gramsci, to counter ideological hegemony revolution requires a new strategy, which is, an alternative hegemony to be established by the working class. This requires an active role of the 'organic intellectuals' of the working class. In other words, ideology remains an important terrain on which these intellectuals have to play an extraordinarily creative role.

You can now see that social sciences have been enriched by this intense debate on ideology – its nature and formation, its circulation and hegemony. Although there is a difference of opinion among social scientists, it is not altogether impossible to have a comprehensive understanding of ideology on which we can have a reasonable amount of consensus. In the following Box, we summarize the key points emerging out of our discussion on the concept of ideology:

Ideology is a perspective or a worldview reflecting the nature of society a specific social group seeks to create: its polity, economy, culture, and network of relationships.

Ideology is essentially sociological, not psychological. In other words, ideology is not about one's personal likes and dislikes. Instead, it is a well-articulated worldview of a specific social group at a certain juncture of history. It is in this sense that one can say that Brahminism or Gandhism or Marxism is an ideology.

Ideology is not necessarily false or erroneous. As a perspective, it may be partial, incomplete or fragmented. It is, therefore, not proper to

distinguish 'objective' Science from 'subjective' ideology. In fact, Science itself can be seen as an ideology of some kind. It is better to see ideology as a representation of the world, may be an incomplete and inadequate representation.

A dynamic society is the one having multiple ideologies. Far from being static and homogeneous, a dynamic society is an arena of conflict. This conflict manifests itself in the form of ideological struggles. If we look at our own society we see divergent and conflicting ideologies: Gandhism, Ambedkarism, Marxism and liberal individualism.

Not all ideologies have, however, the equal power to establish their supremacy or hegemony. It is more likely that the dominant/privileged classes are more successful – particularly because of their control over mass media and educational institutions – in giving a 'universal' character to their ideology. Yet, it should not be forgotten that history is in continual flux, and even marginalized ideologies assert themselves, and resist the dominant ideology. Society evolves because of this conflict.

Check Your Progress

1. What do you understand by ideology?

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2. What does the term 'hegemony of ideas' mean? In the discussion above, whose ideas are being referred to?

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4.4 CURRICULUM AS A CONTESTED TERRAIN

For many of us as teachers, curriculum is a list of content that is to be taught based on the existing practices of teaching that content. For some, curricula is what schools consciously and purposefully do. So what is curriculum? In simple terms, the curriculum is a prescription for what is to be studied in a school or a system of schools and what is prescribed is the content to be covered at a level or in a course or set of courses and the prescribed methods of teaching

and assessing what is taught. The definition of curriculum can be seen in a broader perspective to include learning objectives, methods of teaching and ways of assessing the students; classroom organization and management practices.

However, what most of us are not aware is that the prescribed content is both a hotly contested and fiercely debated area. You you might have noticed the government, parents, teachers and different groups are engaged in discussions around curriculum from time to time. Why does the idea of the curriculum attract such attention and significance in educational discourse and policy making?

To answer this question, we need to understand that school curriculum reflects different visions of society as seen through the eyes of teachers, parents, interest groups and employers and there is no unanimity or consensus on issues such as what the content should be, how teaching should be undertaken and the larger issues of what are the aims of schooling, the expectations from schools and the quality and nature of what schools do as opposed to what is expected of them.

Since, there is no single opinion about the aims of education, discussions about curriculum always involve unresolved differences or viewpoints about good / bad consequences of one or another curriculum and unanswered questions like Should the curriculum be based on the needs of the economy or society? On international or rational or local contexts? On the need for preserving or changing the society and culture? On bridging the divides that exists in society? Or on what type of life human beings aspire for or is worth living?

Any curriculum is the outcome of ideas about *what should be taught and learned*, so the fundamental question or the starting point underlying the development of the curriculum is an answer to questions such as *"What knowledge is worth teaching"?* or *"What knowledge is of most worth"?* This is an important issue because the curriculum should reflect the knowledge that is most significant and worthy of being taught. Answer to this question involves building reasoned arguments involving ideological or philosophical aspects to develop one or the other framework of curriculum. Depending on the ideological persuasion, this framework can be based on the contemporary understanding of the scope and nature of education, or it can be a critical one highlighting the hidden curriculum involving issues of race, gender, caste and class, and is aimed at making the school children unfold the layered understandings of these categories and their own place in the social and cultural order in that society.

*Based on the ideological framework it draws upon, the curriculum serves three kinds of functions; these could be described as conservative, creative and critical. I*n its conservative aspect, education has tried to preserve and transmit through instruction, the existing social structure, its belief and value systems, customs, traditions and mores. In this way, it has acted as an agency to preserve the status quo, an existing pattern of social life and give society at any point of time a stability. To give an example of how the sheer weight of tradition decides the kind of knowledge to be included in the curriculum, Latin continues to be taught in Europe for centuries, although, it had lost its relevance on the pretext that it trains the mental faculties of reasoning, memory concentration etc.

However, in history, education has not only functional as a residual institution merely to preserve existing social patterns but also taken on a more active role, that of enriching social heritage by adding on to it and creating new knowledge, ideas, technologies and forms of art and craft, and by creating among students the urge to think independently, critically and the urge for change. As explained earlier, it is in the very nature of education to disseminate cultural heritage and at the same time to develop new thinking and urge for change. Even the most conservative and traditional societies have therefore, transformed under the impact of education, conservatism slows down the process of change but cannot stop it.

It is important to recognize that curriculum issues about what to teach and how to teach it are themselves a response to political (and ideological) questions about whether existing, cultural, social and economic patterns in society ought to be preserved or transformed and what kinds of knowledge, skills and attitudes should the curriculum reflect so that preservation and transformation of society can take place.

4.4.1 Is there Anything Like a 'Neutral' Curriculum?

We have discussed earlier that curriculum is always an area of contestation and debate and this arena of 'ideological battle' does not only reflect the conflicting personal opinions of individuals, but different political ideologies through which individuals acquire their understanding of society, social life and the relationship between education and society. Out of the prevailing ideologies, the one that has the backing of powerful social institutions and classes becomes dominant in a society. As already discussed in the previous section on *Ideology and Hegemony,* this subtle hegemony of ideas which Gramsci mentions, is also the terrain on which the ruling class achieves hegemony not simply through coercion, force or violence but by gaining legitimacy by acquiring *consent* even from the oppressed/marginalized classes. Among other social institutions engaged in the process of socialisation, educational institutions like schools play an important part in the legitimisation and perpetuation of the ideologies that seek to serve the interests of the dominant groups. These underlying ideological perspectives influence curriculum thinking and development but are not explicitly stated and do not emerge on the surface. This makes the curriculum seem 'objective','value neutral' and 'unproblematic'.To understand this better,it is important to examine how the vision of what the school curriculum should be, has changed from time to time depending on the way in which the relationship between education and society has been interpreted. These changes are reflected in the selection and organization of curriculum content, and the methods for its transmission and assessment .How school curriculum is a product of the interests, values and expression of the dominant social groups in society can be examined along two dimensions: curriculum change and curriculum continuity.

4.4.2 Curriculum Ideologies

Curriculum ideologies reflect the vision of what the school curriculum should be-the purposes of schooling and how these purposes can be acieved. In other words, each ideology embodies distinct beliefs about the type of knowledge to be taught in schools, how instruction should take place, how children should be assessed -each ideology is based on its own distinct values, its own purposes of education.

In this section, we will briefly discuss the different curriculum ideologies in order to understand how the agenda of education-questions of what is to be taught, how it is to be taught and assessed get shaped by the needs of society and the functions education is expected to perform to fulfill those needs.

The *classical-humanist ideology* had its origins in pre-industrial society and remained important till the end of the 18th century. It was based on the view of society ruled by a set of elite who acted as the protectors of traditional and classical values based on universal truths. They sought to transmit the same values through education and saw the role of education as ensuring continuity and stability and preparing elite who could preserve the culture and traditions in society. The curriculum for the objective of *cultural reproduction* in this society, lay emphasis on classic subjects such as history, mathematics, grammar and literature and ignoring modern subjects as science and technology. Rigorous standards of academic excellence are required to uphold this view of education from teachers and students. Teaching or instruction is mostly formal and didactic, based on books and assessment of learning is examination oriented to test the acquired knowledge. Since within this ideology, the objective is preservation and conservation of society, the objective of the curriculum is not to espouse change by critiquing the prevalent traditional values.

Enlightenment in Europe in the 18th century shaped a vision of society which is liberal and progressive, with emphasis on freedom and equality of individuals. *Within this ideology, the reproductive function of education is political,* to have a society in which individuals are free and equal and come together to determine the common good for society. This vision draws its inspiration from the ideals espoused in Rousseau's Social Contract, and the educational views expressed in his Emile.

Liberal-progressive ideology which has its roots in the Enlightenment saw education as a process which emphasises development of rationality of all rather than focussing on development of authoritative knowledge of a handful elite. Since it is based on individual freedom and autonomy, the curriculum reflects the developmental needs of the learner rather than the preservation and transmission of society's culture. Here the focus is on stimulating the curiosity of the learner with the help of the teacher who is seen a guide or a facilitator.

Subsequent to Enlightenment, was the advent of industrialisation in Europe during the 19th and 20th century which had a different function for education. It necessitated the fulfilment of the economic needs through a mass-based school system. According to the *modernist-vocational ideology*, *reproductive function of education is not cultural or political, like in the case of the two ideologies discussed earlier, but economic*: to reproduce and regenerate the patterns of economic and industrial life on which the modern technocratic society is founded. The main purpose of the curriculum, within this ideology, is to impart the requisite knowledge and skills for producers and consumers to function in a market economy. The curriculum is geared towards preparing pupils for the world of work, by emphasising knowledge and practical skills that are relevant for working life.

	CLASSICAL	PROGRESSIVE	VOCATIONAL
POLITICAL PERSPECTIVE	Conservative	Liberal/ Communitarian	Technocratic
VIEW OF SOCIETY	Elitist	Egalitarian	Meritocratic
REPRODUCTIVE FUNCTION OF EDUCATION	Cultural continuity	Social Improvement	Economic regeneration
GUIDING EDUCATIONAL METAPHORS	'Academic Excellence'	'Learning from Experience'	'Practical Relevance'
TYPES OF SCHOOLS	Public Schools	Private and public Schools	Vocational/ polytechniques Schools
CLASSROOM ORGANISATION	Rigid grouping of pupils on the basis of intellectual ability	Flexible grouping of pupils on the basis of needs and interests	Grouping of pupils on the basis of vocational needs
CURRICULUM CONTENT	Subject-centered: rigid subject differentiation	Child-centered: weak subject differentiation	Worked-centered: differentiation of subject matter around practical work-related activities
CURRICULUM KNOWLEDGE	Objective Knowledge	Subjective Knowledge	Technical Knowledge
TEACHER'S ROLE	Expert, transmitting cultural heritage	Facilitator, enabling pupils to learn from personal learning	Manager, maximizing effective achievement of objectives
TEACHING METHODS	Formal methods	'Discovery' instruction	Practical
ASSESSMENT PROCEDURES	Traditional examinations to test the acquisition of knowledge	Informal evaluations of qualitative qualitative developments in pupil's	Practical tests to assess skill in apply knowledge

Source: *Wilfred Carr, The curriculum in and for a democratic society. Journal of Curriculum Studies. Vol. 6, 1998, issue 3, pp 323-340*

Check Your Progress

3. What do you understand by the curriculum?

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4. What kind of curriculum do schools need to perform following roles?

    a) preservation of society;

    b) progress and change;

    c) both roles, that is, a & b

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4.4.3 Classroom Practices and Ideology: Exploring the Linkages

On the basis of our discussion about the relationship of curriculum with ideology, let us examine how educational notions and practices are linked with ideologies.

Most educational institutions are status quoist and aim to preserve the existing order. Knowledge is viewed as static, fixed and predetermined. This ideology of knowledge encourages a certain type of pedagogy that facilitates the fulfilment the objective of transmitting the knowledge that exists from one generation to another without much of critical reflection, innovation or creativity. Students are considered as 'blank slates' or 'empty jugs' and teachers job is to fill these empty minds.

The ideology of learning supported by this type of pedagogy is that which encourages rote learning and memorisation of fixed, given facts and information. The ideology of learning does not encourage any questioning or challenging of existing facts or knowledge.

This model of 'teacher- controlled passive learning' is further supported by the ideology of the existing assessment system wherein students are only expected to reproduce chunks of information without any understanding or application of the acquired knowledge. This type of education system supports the existing power structures and ideology of the dominant groups.

4.4.4 Pedagogy of Change

The transmission model of education has to be changed to give way for a model that facilitates critical thinking by challenging the notions of aims of education, pedagogy, learning and assessment. The locus of control in this type of learning is the learner herself, the teacher acting as a facilitator of learning. Students are encouraged to think critically, develop and apply ideas and concepts about the existing physical and social phenomenon; they are asked to express their opinion on various matters. Teaching is done through methods like 'cooperative learning' to not only increase student achievement but also give equal opportunity to all. Performance of students is judged by using approaches like 'Portfolio assessment' which focuses on assessment over a period of time and on self improvement.

Activity

The following paragraphs on school curriculum are from two different historical and political contexts .Read them carefully, in the light of our discussions so far, and answer the questions given below:

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1. *Thus the school curriculum came to be dominated by literacy and numeracy, increasingly framed as generic employment skills, with more specific preparation for work from age 14. Apart from ICT-the poster boy of New Labour (Political Party in the UK) modernisation-policy makers showed little interest in the rest of the curriculum and inevitably there followed little interest in the rest of the curriculum and inevitably there followed a serious decline in the number of pupils taking languages, history or geography. Even creative subjects such as music suffered....*"

2. *"The most important aspect, however was the content of education which was limited to passive and learning of ideas projected by British authors and conveyed through books published in Britain. These ideas denigrated oriental learning, cultivated the concept of British and Western superiority, encouraged prejudices based on community, language and region, and promoted alienation from Indian society and culture. All this suited the rulers, and made most of the educated people to uncritically accept the point of view of the British ruling classes. The spirit of questioning and enquiry, of critical evaluation in social and economic life of creativity in science, technology and other fields was discouraged and constrained in a variety of ways.... For both teacher and pupil, the textbook was the curriculum. It was seen as containing the only knowledge that mattered in the sense of having been approved by authorities as the basis of examination"* (Kumar, 1991, pp 67)

a) Discuss the general ideological perspectives and vision of society that underpin the curriculum stated in the two paragraphs above. Give reasons to justify your answer.

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b) In your opinion, how is the question 'what is worth teaching', in the paragraphs above, influenced by ideological considerations? Justify your answer by highlighting the linkages between ideology and selection of content.

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c) Discuss how the organisation of curriculum content and methods of its transaction and assessment derived from dominant ideologies. Give examples from the above paragraphs.

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d) How are the curriculum ideologies discussed different? Explain the differences.

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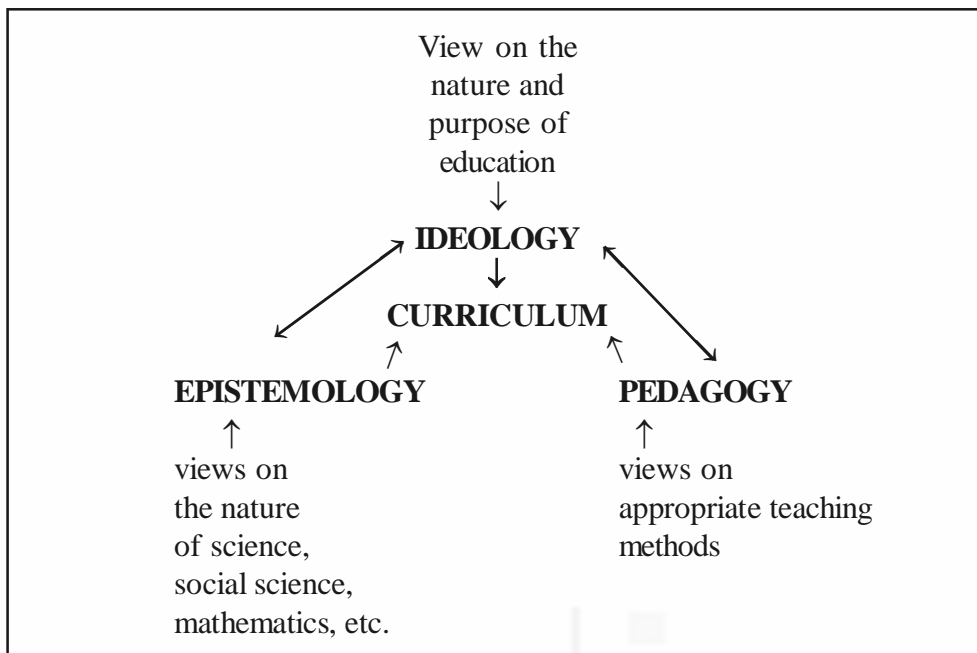
4.5   IDEOLOGY, CURRICULUM AND THE HIDDEN CURRICULUM

You can now understand why education plays a key role in the process of transmission and communication of ideologies. It would not be wrong to say that in modern times we are living in a schooled society. Because it is at school that the child learns many important lessons of life; it is a leading source of socialization. No wonder, learning material, school texts, modes of teaching and evaluation – in fact, the entire curriculum – acquire tremendous relevance. One's worldview depends, at least to a certain extent, on what one learns at school, and how one learns. *It is believed that the school curriculum is a major carrier of ideological messages.*

You can take some striking illustrations to see the relationship between ideology and curriculum. To begin with, let us take the most important or visible aspect of the curriculum – the contents of knowledge as defined through multiple disciplines like mathematics, geography, physics, history and literature. Mathematics, for instance, is often being seen as an abstract/value- neutral science of numbers. But then, a careful analysis would suggest that in a patriarchal/capitalist society school mathematics is not entirely free from ideological biases. It often legitimizes gender stereotypes: men as active doers (traders, businessmen etc) in the public space vs. women as passive consumers (buying vegetable, milk etc). Again, while introducing concepts like 'percentage', it depicts essentially a mercantile world of profit and loss. Seldom is mathematics used for other meaningful social purposes (for instance, the philosophy of sharing can be introduced while the child learns concepts like 'division' and 'fraction'). Likewise, school history, as critics point out, is not particularly known to be sensitive to the history of marginalized communities, tribal and women.

We have already discussed in the earlier section that the prevalent dominant ideology shapes the curriculum and the curriculum, in turn, plays an important social and political role in initiating pupils into the culture, practices and social relationships of the society. In this section, we will discuss how curriculum serves to reinforce the dominant ideology and the existing patterns of economic, cultural

and political life of society, mainly through the hidden curriculum. So you will note that more than the manifest curriculum, it is the hidden curriculum which is filled with ideological messages.

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                    View on the
                    nature and
                    purpose of
                    education
                        ↓
              ↗     IDEOLOGY    ↖
            ↙           ↓          ↘
          ↙        CURRICULUM       ↘
                    ↑        ↑
    EPISTEMOLOGY              PEDAGOGY
          ↑                       ↑
      views on                views on
      the nature              appropriate teaching
      of science,             methods
      social science,
      mathematics, etc.
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Source: Littledyke, M (1996): Ideology, Epistemology, Pedagogy and the National Curriculum for Science: the influence on primary science, p. 121. Curriculum *Studies, Volume 4, Number 1.*

4.5.1   What is Hidden Curriculum?

Hidden curriculum is different from the formal curriculum The hidden curriculum is the informal curriculum and is not reflected in the formal statement of what the student is expected to learn, like but it impacts students' learning in different ways. In fact, the formal curriculum impacts learning in a smaller measure which is as little as 10 percent of all learning; the rest is attributed to the hidden curriculum (Massialas, 1989). Yet the role of hidden curriculum as a force is not taken into account by the teachers, parents, students, and curriculum policy makers. In schools, textbooks or the 'official school knowledge' contain a big part of hidden curriculum, the other part is communicated informally by other schooling practices like teacher attitudes, their beliefs embedded in cultural assumptions and peer interaction.

Let us, for instance, look at the hidden curriculum manifesting itself through some of the 'taken-for-granted' school rituals and practices like morning assembly, roll call, classroom seating arrangements and classroom practices. What do you recall?

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Even today the teacher-taught relationship, as Paulo Freire would have argued, remains hierarchical (Freire, 1972). The child is seen as a passive receiver of knowledge; he/she is not an active participant arguing, questioning, contesting and evolving with the teacher.

> *Likewise, examinations objectify children and hierarchize them; other 'disciplinary' activities (school uniform, 'right posture' in the classroom, regular assembly, strict division of time according to the 'time table') tend to create a docile body and mind. The result is that, as critics argue, through schooling the child grows up as a 'conformist', a 'loyal' citizen who accepts the status quo, and is deprived of spontaneity and the language of dissent. In other words, this hidden agenda needs to be known. Schools, far from being neutral, serve the interests of the Establishment!*

4.5.1.1   Learning obedience and respect for authority

One of the most important skills that students learn in school is obedience and respect for authority. By being obedient, passive and conformity to rules, their teachers and seniors, students learn to experience success, academically and socially. Students learn that although formal curriculum lays stress on learning, scholarship and academic excellence, with the values of hidden curriculum like pleasing the authorities and following rules unquestioningly, they are able to cope effectively in school.

4.5.1.2   Individualism and competitiveness

The values of cooperation and common good are extolled by the formal curriculum, but the hidden curriculum promotes individualism and competition. Teachers lay stress on individual achievement, promoting competition in the class so that students strive for 'highest scores.' This is a commonly observed in our country during the Board exams.

From the discussions, we find that the formal curriculum and the hidden curriculum teach contrarian or opposite values; the former teaches 'common good', while the latter teaches 'competition; formal curriculum teaches equality of opportunity, hidden curriculum teaches that some children are priveleged over others; formal curriculum teaches democracy whereas hidden curriculum teaches children that school is an authoritative place.

4.5.1.3   Schools reproduce and reinforce social inequalities

Schools are a part of the larger social structure which is characterized by inequalities in social class, caste, language, gender and ethnicity. Do schools also reflect the unequal social relations that exist in society? How does this happen in school?

The Right to Education Act (RTE) makes education the fundamental right and duty of every child aged between six and 14. Non-discrimination and equality in school are fundamental to the Right to Education. A report by HRW (2014) says discriminatory practices such as verbal and physical abuse, segregation and denial of school meals are forcing many marginalised children to quit school. This is contrary to almost 100 percent enrolment in primary schools shown in government figures. The Report notes that, Instead *of encouraging children from at-risk communities who are often the first in their families to ever step inside a classroom, teachers often neglect or even mistreat them."*

Although all schools should function on the principle of equality of opportunity for all, there are several studies suggest that, in actuality, as in the larger society,

the school does not treat students equally. There is a deep rooted discrimination by teachers and other school staff against the poor and the marginalised students in school. In this context, Nambissan's study (2009) reveals how teachers engage in caste based discriminatory practices evident in the division of tasks in school. Tasks like sweeping are more likely to be given to Dalit, those like serving water and food to teachers are given to children from general castes.

According to the United Nations Children's Fund, 80 million Indian children drop out of school before completing elementary education. Many are from low caste or Dalit communities, Muslims and indigenous tribes people, who have long faced mistreatment because of deep-rooted prejudices.

> …….Another Musahar boy in the same class told researchers the teacher would make them sit in a corner of the room and throw keys at them when she was angry.
>
> *"We only got food if anything was left after other children were served. The teacher hit my classmate so hard that she broke his hand. After this incident, gradually all Musahar children stopped going to school."*
>
> Other children spoke of being forced to sit separately and subjected to insulting, derogatory remarks by teachers and other staff.
>
> In some schools, such children were never considered for leadership roles such as class monitor because of their caste or community, the report said. Many children were expected to perform unpleasant jobs such as cleaning toilets, it added.
>
> This demoralises children and leads to low self-esteem, possibly to truancy, and to early employment and marriage.
>
> *Source: https://in.reuters.com/article/india-school-children-dropout/ bigoted-teachers-lead-marginalised-indian-school-kids-to-drop-out-hrw-id*

> ***Unequal social relations that exist in society are also reproduced and reinforced in school in several ways which includes curriculum, pedagogy, teacher attitudes and behaviour, peer interaction and day to day school rituals and practices which get institutionalised over a period of time.***

4.5.1.4 Seating arrangement in class

Students are expected to sit freely in the classroom but it is observed that, in practice, children are guided by the teacher's preferences. 'Intelligent' *children sit in front and those considered 'weak' sit at the back.* In many cases, girls and boys are segregated and occupy different spaces on teacher's perception of 'good, well-behaved and intelligent' children, reinforcing existing cultural norms through gender segregation. The front benchers are expected to learn the lesson by rote and answer questions asked by the teacher, the rest, for fear of humiliation prefer to remain out of the teacher's gaze. Children who can reproduce textbook information also become 'teacher's pet', as they display 'good behaviour' and are more willing to follow rules and instructions. The

message that gets conveyed by the teacher is that some children are 'intelligent' and 'capable' of studying, are 'disciplined, whereas others are not only lack the ability and interest to study and are 'disobedient'. Consequently, the teacher denies such children meaningful opportunities to interact and learn, leading to a lack of confidence and low self esteem. Research suggests that children who are considered 'weak' by the teacher, more often than not, belong to the marginalised groups in society (Dalits, Scheduled Tribes, Minorities, Urban Poor and girls) and come from poorly schooled or non-literate backgrounds, the discriminatory attitude of the teacher pushes them to the margins of the classroom where they get no pedagogic attention.

4.5.1.5 Textbooks and representation of the marginalized

Earlier we have discussed how components of hidden curriculum affect student learning-explicitly and implicitly. It is important to examine here if the formal curriculum or 'textbooks' adequately represent the stories, lives and struggles, and the heroes of the marginalised groups. In an exploratory study conducted near Jaipur, Rajasthan, Dalit children felt it was rare for the teacher to draw attention of the class to the lives of the Scheduled Castes or their leaders. (Nambissan, 2009, p. 10)

The textbooks points to the lack of presence of women and lessons focus mostly on men. Studies in the Indian context (Karlekar, 1986, 2003, p. 83) Bhog, 2002, p.1640) show that stories in language textbooks were mostly male-centered and in nearly 50% stories men were the only actors. It was also found that women are portrayed in the stereotypical role as wives and mothers confined to household chores. Most research suggests that textbooks and the hidden curriculum in schools also reinforces rather than counter the subject choice of girls and boys based on gender (Nambissan, p. 536, Seminar, 2004); man come across as 'doers' engaged in work with technical skills, women are shown in passive roles.

Stereotyping of gender roles in textbooks: Man in 'active' and woman in 'passive' role

Research by Western scholars highlights the hidden curriculum of teacher bias towards boys, their negative attitude towards girls, the 'masculine' atmosphere in science labs as partly responsible for girls losing confidence in science and maths. (Ibid, p. 537).

The foregoing discussion highlights the role of the hidden curriculum made visible through textbooks, teacher attitudes and biases, and attitude of teachers themselves, in reproducing and reinforcing the unequal social and gender relations that exist in society. Schools as public institutional spaces offer equality and non-discrimination, but in practice, as in the larger society, the school treats students differentially, depending on their social class, religion, language and gender. Students reinforce and reinforce the larger system of inequality and the status quo continues.

Check Your Progress

5. What is hidden curriculum and how does it impact student learning?

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6. How do the marginalised get affected by the hidden curriculum transmitted by teacher biases? Explain.

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7. What are the advantages of using 'cooperative learning' strategies in classroom in the context of hidden curriculum?

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4.6 REVISITING THE DISCUSSION ON CURRICULUM AND IDEOLOGY: RELATIVE AUTONOMY OF EDUCATION?

In the previous discussions, we have seen the linkages between ideology and curriculum. Ideological values of the dominant group and their vision of society find reflection in the curriculum through selection of content, its transaction and assessment. In this way, we have discussed, curriculum is not value-neutral; it legitimises the ideas and interests of the dominant groups. But does this mean that the educational and curriculum philosophies have no role in deciding what is taught?

4.6.1 School as a 'Local' Institution

The school is a complex institution which has a 'local' character and functions to meet the expectations of various stakeholders like students, parents, community and the employers. Although curriculum can be seen as a product of the dominant ideology, classroom practices may, at times, support particular

teaching and learning practices as a response to local factors. These relationships have themselves been changing over time as a result of growing knowledge – for example, increasing awareness of the importance of teachers' assessment practices (Black & William, 1998).

4.6.2 Role of political actors and bureaucracy

Curriculum formulation involves a wide range of participants. The authority over curriculum rests, in most cases, with central or state governments. The role of political and bureaucratic personnel becomes important in making decisions about formulating policies about curriculum and revision. A powerful bureaucrat's or politician's opinion or individual preferences can influence what might be added of dropped from a proposed curriculum.

4.6.3 Role of stakeholders

Teachers, principals, administrators, politicians and subject matter experts from schools, colleges and universities play an important role in the curriculum formation and revision process and have their preferences and opinions.

4.7 LET US SUM UP

In this Unit, we have discussed that ideology is a perspective or a worldview reflecting the nature of society a specific social group seeks to create: its polity, economy, culture and network of relationships. A dynamic society is likely to have multiple ideologies, divergent and conflicting, which results in ideological struggles in society. All ideologies do not have equal power to establish their supremacy and hegemony; it is the ideology of the dominant classes that are successful in hegemonising through the civil society, educational institutions and media, etc. This ideological battle is played out in the domain of education too where questions such as 'what is worth teaching" whose knowledge is most worthy' become the premises on which curriculum is formed. Curriculum therefore is not neutral or value free because curriculum ideologies reflect the vision of what the school curriculum should be-the purposes of schooling and how these purposes can be achieved.

School curriculum, especially the hidden curriculum is a major carrier of ideological messages and impacts student learning adversely in case of marginalised.

By and large, schools reinforce the status quo and reproduce social and gender inequalities. Only a pedagogy that empowers the learner to critique and question the given and fixed knowledge will enable her to question the transmission model of education and challenge the aims and purposes of education.

4.8 UNIT END EXERCISE

1. Analyse the role played by schools in developing ideological hegemony.

2. Examine any text book and illustrate how textbooks convey hidden messages to learners.

4.9   ANSWERS TO CHECK YOUR PROGRESS

1.   Ideology is seen as an individual's viewpoint of a specific group at a particular juncture in history.

2.   Hegemony of idea refer to the process of by which dominant culture maintain its dominant position. Here, ideas of dominent culture is referresed to.

2.   Curriculum covers all that is supposed to be taught in schools i.e. content, methods teaching and assessment.

4.   (c)

5.   It is an informal curriculum and is not reflected in the formal curriculum.

6.   Refer to section 4.5.1.5

7.   Cooperative learning strategies will help in promoting cooperative values, and thus minimise individualism and competitiveness promoted hidden curriculum.

4.10   SUGGESTED READINGS AND REFERENCES

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