MANGALORE UNIVERSITY

CENTRE FOR DISTANCE EDUCATION

Mangalagangothri - 574 199

COURSE 9
Knowledge and Curriculum
(Perspectives in Education)
BLOCKS 1, 2, 3 & 4

B.Ed. DEGREE PROGRAMME

(OPEN AND DISTANCE LEARNING)

FIRST YEAR B.Ed.

Published by

MANGALORE UNIVERSITY

Mangalagangothri - 574 199

Knowledge and Curriculum : Self learning Material for B.Ed. Degree Programme (Open and Distance Learning) of First Year prepared by Dr. Indrani, Dr Shashikala A., Sr. Chrisia Laura Pinto and Janaki A. Published by The Registrar, Mangalore University, Mangalagangothri - 574 199, Karnataka.
Year 2018-19

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Printed at Datacon Technologies, #31/10, Left of Magadi Main Road,
Behind Saraswathi Convention Centre, Bangalore - 560 079, Bangalore.

DTP at: Sagar Offset Printers, Alake , Mangalore

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The Registrar, Mangalore University,
Mangalagangothri - 574199, Mangalore, Karnataka.
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DTP at : Sagar Offset Printers, Alake, Mangalore
Mobile : 9480228399

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COURSE 9

Knowledge and Curriculum

(Perspectives in Education)

The Registrar **Publisher**
Mangalore University
Manalagangothri-574 199

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Contents

Overview of the Course

This course will introduce you to perspectives in education and will focus on epistemological bases of education. It is hoped that this will help you, prospective teachers to take decisions about and shape educational and pedagogic practice with greater awareness of the related theoretical and conceptual aspects. This course will expose you to some important epistemological concepts like knowledge, information, belief and probes you to think more about the similarities and differences among these concepts. These inputs will help you to understand and analyse the content you transact in your classrooms. This course will also introduce you to the ideas of great philosophers (Gandhi, Aurobindo and Tagore and Krishnamurthi) in relation to knowledge and makes scope for you to think further on these issues.

The course will discuss on various important dimensions of the curriculum and their relationship with the aims of education. It poses some basic yet crucial questions such as: What is curriculum? Who prepares the curriculum and why? Who all participate in the making of the curriculum? What is the role of the state in the curriculum? The attempt is to help you question the notion of the curriculum as 'given'. The relationship between the curriculum framework and syllabus is traced. The differences among curriculum, syllabus and textbooks have been discussed. It later helps you to probe the question of representation and non-representation of various social groups in curriculum making. The concept of National Curriculum Framework, and designing curriculum based on this at different stages like nation, state, and school levels have been presented. The different approaches for curriculum construction have been discussed. The role of teacher in generating, researching, transacting curriculum is described. The over all aim of this paper is to equip teachers with epistemological concepts and procedures and issues related to curriculum construction, implementation and research.

In order to realise the aims of the course, the content has been presented under four blocks in this course. In the first block, the concepts of knowledge, information, belief, and truth, their similarities and differences have been discussed. This is followed by the process of knowing, facets of knowledge, role of culture in knowing and the reflections of eminent philosophers on knowledge have been presented. In the second block, the forms of knowledge and its organization have been detailed. The third block deals the different determinants of curriculum, and finally the last block discusses about the aspects related to curriculum development.

Make the best use of the material presented, and become effective teachers in your classrooms and also contribute in the field of curriculum construction, at different levels. Start your investigations and research in the field of knowledge.

Block 1: Knowledge and Knowing

Unit 1: Knowledge: Meaning and Nature

Unit Structure

1.1.1. Learning Objectives

After completing this Unit, the student teachers will be able to

- Explain the meaning and definitions of knowledge;
- Analyse the nature of knowledge.
- Identify the educational implications of knowledge

1.1.2. Introduction

Dear Students,

You might have heard people saying 'knowledge is power'. Do you really know what it means? Read the following story and the case history of a famous person.

Story: There was a small village in the southern part of India where a rich fisherman lived. He was the owner of many giant ships. One day something went wrong with one of his favourite ship's engine and the ship was stuck. He hired expert ship engineers to repair it, but to no avail. At last, someone reminded him of Kutichu, an old man who had been repairing ships ever since he was a kid. Kutichu came fully prepared to figure out the problem. After looking things over, he pulled out a small hammer from his old bag and gently tapped something. Immediately, the engine started to work. A week later Kutichu sent a bill to the owner for Rs.10,000. The rich fisherman was surprised and asked Kutichu to send an item-wise bill for the work. Kutichu immediately sent the details, showing Rs. 2 for tapping and Rs. 9,998 for knowing where to tap. Knowing where to make an effort is nothing but knowledge!

Case history: Fredrick Douglass was the son of a slave woman and a white master. His mother was a plantation worker, and died when he was 7 years old. He lived in his father's house as a slave and saw him beat his aunt regularly. He was then sent away to work for a ship carpenter. While there, he learnt the alphabet from the carpenter's wife who took pity on him. But soon her husband came to know about it and forced her to stop teaching him. Determined to read and write, he paid poor kids with bread in exchange for lessons. As his vocabulary developed, he read political texts. The more he read, the more aware he became of the injustice against him. He started holding church services to teach other slaves how to read the New Testament. His weekly services grew in popularity with over 40 slaves attending it. But soon angry slave owners shut down his classes. Frederick was sold to a new plantation. His new master enjoyed beating him even more. Douglass endured his beatings for 6 months and felt miserable. But one day accidentally as the master beat him, he gave back and the fight lasted for two hours and his master surrendered. Frederick on that day vowed to never let anyone beat him again. At the age of 20, after two unsuccessful attempts, he finally escaped and became a free individual. He wrote 4 books on slavery and founded an anti-slavery newspaper. He advised presidents Lincoln and Johnson on the treatment of black soldiers and the right to vote. He helped to free slaves through the Underground Railroad. He delivered famous speeches on racial tolerance and supported equality for all. Even today, his life is inspiring hundreds of people.

You might have come across any number of people who have grown with the power of knowledge. May be, your life itself is an apt example. Just introspect.

We are familiar with the word 'knowledge' and use it frequently. What exactly does this mean? Does it mean only knowing how to read and write and get information or is it something more than this? It is really interesting to know more about knowing or knowledge. In this part, we will ponder on the meaning of the term 'knowledge' and try to understand the concept and nature of knowledge in a broader perspective.

1.1.3. Learning Points and Learning Activities

1.1.3.1. Meaning of Knowledge

Philosophers all over the world have pondered over the question of 'what is knowledge' for quite a long time. It has been discussed to such an extent that the product of their thinking has resulted in a branch of the discipline of philosophy. That is called 'Epistemology'. Several questions related to the concept of knowledge have been dealt with under this subject.

To start with, let us try to understand the etymological meaning of the word 'knowledge'. You already know that etymology is the origin and history of words. The word 'knowledge' has its roots in the Greek word "gnosis". A word that uses the same root is "recognise". We know what we recognise. So, we recognise experience and bring it into realm of knowledge. There is another version which says that the word comes from the earlier verb form to know, from which knowing or the word *cnowunge* or knowledge was derived. The English word for knowledge comes from the Indo-European, and later Greek, *gno* as in gnosis. In Greek, it meant a mark or token that was familiar and immediately recognisable, with an act of cognition or cognisance. The Sanskrit word 'jnan' meaning knowledge is derived from the root 'jn' meaning 'to know' or 'to be aware of'. Another origin of the word goes to the term 'jnana', which has come from the Pali (language) word 'hang'. It has a wide range of applications such as sensation, perception, self-realisation, inference, verbal testimony, doubt, illusion, error, memory, etc. Jnana in Advaita Vedanta philosophy has a spiritual connotation and is closely related to the knowledge of Brahman. Real knowledge is that which leads to the knowledge of Brahman and false knowledge is that which deviates one from such transcendental knowledge of Brahman.

The dictionary meaning helps us to have more clarity of the term. According to Merriam Webster, knowledge is the fact or condition of knowing something with familiarity gained through experience. It is the sum of what is known- the body of truth, information, principles acquired by a human mind. The Cambridge English Dictionary also gives more or less similar meaning. Knowledge is understanding of, or information about a subject that one gets by experience or study, either known by one person or by people generally, like 'her knowledge of English grammar is very extensive'. The Oxford Dictionary also accepts a similar meaning, but adds some more qualifiers. It defines knowledge as facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject. For example, 'she has considerable knowledge of antiques'. The Macmillan Dictionary explains knowledge as all the facts that someone knows about a particular subject. For example, the teacher's comments are designed to help improve your knowledge and understanding'. Can you identify the common factor of knowledge in these expressions? It is the information gained through human experience.

As we previously saw, quite a lot of effort has been made to define the term and of course, there is some common consensus about the basic criteria of knowledge. Let us analyse these definitions and understand the vast efforts to define the term. An attempt to understand knowledge as defined by philosophers will certainly add to our understanding of the term.

John Locke, the founding father of empiricism defined knowledge as the 'perception of the agreement or disagreement of two ideas. For Theaetetus, (who was a participant in Plato's Dialogue), a Greek thinker, 'knowledge is true belief with an account'. John Dewey, instead of defining, tries to explain knowledge in his own way. He was anti-intellectualist and does not accept what intellectualists perceive about knowledge. According to intellectualists, knowledge is something totally certain, which can be realised by contemplation, by a mind that is at most contingently embodied, working on its own. For Dewey, knowledge is made or constructed with the aid of conceptual instruments of human design, by an intelligent but embodied organism that is a natural part of the world, who is engaged in this undertaking as a collaborating member of a society of intelligent organisms of the same kind. To make it simpler, knowledge is constructed by people, who are lively and functional in society. These people are responsible for constructing knowledge. Socrates defines knowledge as absolute truth. He believes that everything in the universe is innately connected; if one thing is known, then possibly everything can be derived from that one truth. For Socrates, the relationship between all virtuous acts is what virtue is fundamentally. A person can see virtuous acts, but cannot see virtue. Due of this, the idea of virtue must exist somewhere independent of the perceivable world. This is true with all forms (ideas of Socrates) or ideas of perfection: they are something that cannot be known by human sense, but reasoned out by individual human thought. This is real knowledge and it is independent. For Francis Bacon, 'Knowledge is power'. The most accepted definition of knowledge is by Plato, i.e., knowledge is justified belief. For information philosophy, knowledge is information created and stored in minds and in human artefacts like stories, books, and internetworked computers. Knowledge is *actionable information* that forms the basis for thoughts and actions. With the help of the above descriptions, we can say, knowledge means what is or can be known by an individual or by the human kind. Knowledge applies to facts or ideas acquired by study, investigation, observation or experience.

Let us understand the traditional definition of knowledge. Traditionally, according to philosophers, to call anything as a piece of knowledge it should fulfil three conditions. For example,

On Monday, Ramesh says, "Tuesday it is going to be solar eclipse". To consider this as knowledge, the first criterion is that Ramesh believes it to be so.

The next question is,how does Ramesh say so? As his close friend told him that it is going to be so. This tells us that just believing something will not qualify it as knowledge. Therefore, the second condition is 'it should be true'. Truth is not in the head, but "out there." The statement, "Tuesday it is going to be solar eclipse" is true if there is a solar eclipse on Tuesday. Believing is internal. Truth is external.

If the seed of knowledge is belief, what turns belief into knowledge? This is where the justification comes in (some philosophers use the term 'warrant' to refer to this element). A person knows something if they are justified in believing it to be true (and, of course, it is actually true). The person should justify his statement, may be by presenting conditions of the sky on the previous day of the eclipse in the sky, which has been already justified in the past and witnessing the same conditions on the previous day. The possibility of justification should be there. Therefore, there are three criteria to consider something as knowledge. They are belief, truth, and justification.

Check Your Progress 1

Consider the following statements and identify those representing knowledge.

a) Sugar dissolves in water.

b) There are going to be eight continents by the 22nd century.

c) India will win the Cricket World Cup in 2022.

d) My son will surely become a doctor because I am a doctor.

e) The whole world will become corrupt by the next century.

f) White light can be broken up into composite colours.

1.1.3.2. Nature of Knowledge

It is very important for us teachers, to know in-depth about the nature of knowledge because we dwell in the field of knowledge. We deal with different forms of knowledge. We are supposed to make students gain this knowledge. Unless we know what, it is, we will not be successful in our endeavour.

How to understand the nature of knowledge? May be the following three major questions will help us to understand the nature of knowledge:

- What does knowledge consist of?
- What are the different forms of knowledge?
- What are the characteristics of knowledge?

Let us start with the first question. What does knowledge consist of? Or what makes knowledge? Knowledge consists of many aspects. For example, we teach students that air contains different gases; Karnataka is in the southern part of India; a society is a group of people living in a single geographical area; there are different principles of democracy; forests can be classified into different types; action and reaction are equal and opposite, etc. What are these? All these can be called as knowledge. You may find among these examples facts, principles, concepts, laws, theories, etc. These are the contents of knowledge or we can say knowledge is made up of these facts, principles, concepts, etc. Understanding each of these elements will clarify the nature of knowledge in-depth.

You have the experience of teaching each of these in your class. Sometimes you may teach any one of this in your class or a combination of these. What are facts? Thick clouds bring rains; milk is white in colour; and animals have four legs are facts. Fact is something that is known to have happened or to exist, especially something for which proof exists, or about which there is information. Like facts, knowledge includes concepts. The animal with a trunk is an elephant. This is the concept of an elephant, which is different from other animals. Concepts are mental representations, abstract objects, or abilities, which make-up the fundamental building blocks of our thoughts and beliefs. We have the concept of a good student, poor student, weak student, bold student, mild student, and many more types of students. Along with these two attributes (facts and concepts), you are familiar about one more aspect of knowledge. You teach the principles of our Constitution, principles of democracy, Archimedes principle, etc. You are aware of it. What do these principles mean? Principles are fundamental truths or propositions that serve as the foundation for a system of belief or behaviour or for a chain of reasoning. It can also be explained as an idea or rule that explains or controls how something works (Archimedes principle). Apart from these ingredients, knowledge has one more important aspect. You teach about the law of gravitational force, law of conservation of energy, etc. Laws are the descriptions of an observed natural phenomenon that always appears to be true, it is empirically tested and based on observation only. Of course, natural laws are different from societal laws. Societal laws define the conduct between human beings and are determined through governing bodies. Natural laws are determined by the fundamental forces within nature. Natural laws arise from the process known as the scientific method. The law does not explain why a phenomenon exists or what causes it. The explanation of a phenomenon leads to another significant attribute of knowledge known as theory. Theories answer the question why? Whenever we ask why our social world is the way it is and then imagine how it might be changed, we are theorising. This implies that theorising involves a combination of description, analysis, reflection, and application. Theories enable us to see things from new angles understand in-depth the relationship between our subject and social life. Any

explanation cannot become a theory instantly. A theory comes into being when a series of ideas come to be accepted by a wider community of people. It is based on how one views the world, rather than the actual facts.

In order to understand the day- to-day knowledge we deal with in classrooms, we need to understand the different kinds of knowledge. This understanding will help us to clarify the nature of our subjects or disciplines better and lead to plan proper pedagogical tools. Let us analyse those types or kinds of knowledge.

A. Priori knowledge and A Posterior knowledge

Below are given some statements and these statements are classified under two categories. Read them and find out the criteria for classification.

Category 1	Category 2
3+3=6	The room in which I am sitting is dark.
Father and mother make up our parents	Class VII has 42 desks.

Were you able to find the criterion of my classification? You will immediately agree with the statements of category 1, but will hesitate to accept the statements in the second category because you are not sure of it, and you need to see, check, and verify. Therefore, the criterion for classification in the above example is knowledge based on previously accepted and verified knowledge and knowledge that demands observation. This is what we are going to understand under this heading - *A Prioriknowledge* and *APosteriori knowledge*.

Imagine sitting in a room and being asked about the total number of benches in the next room without visiting it. You will not be able to answer. Even if you answer, it may not be correct. Let us say you are made to sit in the same room and the teacher writes on the board 'What is 2+2=?' Immediately you will say '4'. This is *a priori knowledge*. You do not need real-world experience to understand it. Mathematical equations are one of the most popular examples of *a priori knowledge*. It is 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 recognised as true (through the use of pure reason) does not require any further evidence. Logical and mathematical truths are *a priori* in nature. They do not stand in need of empirical validations. Some more examples are the propositions "bachelors are unmarried men" or "a figure having three sides and three angles is a triangle", spinsters are not married, red is a colour, etc.

Let us see what is meant by *'a posteriori' knowledge'*. *'A posteriori'* literally means "from what comes later" or "from what comes after". This is a reference to experience and using a different kind of reasoning (inductive) to gain knowledge. This kind of knowledge is gained by first having an experience (and the important idea in philosophy is that it is acquired through the five senses), and then using logic and reflection to derive understanding from it. In philosophy, this term is sometimes used interchangeably with empirical knowledge, which is knowledge based on observation. One's belief that it is presently raining, the teacher administered an examination this morning, humans tend to dislike pain, water is H_2O, and that dinosaurs existed are all examples of *a posteriori* justification. There are good reasons to support each of these claims, which emerge from one's experience.

Explicit and Tacit Knowledge: Another way to understand the nature of knowledge is to understand its explicit and tacit characteristics. Explicit knowledge is that, which is recorded and communicated through mediums. Our libraries and databases are examples of explicit knowledge. This knowledge can be passed on through different tools like writing, oral tradition, etc. It can be expressed in words and numbers and shared in the form of data, scientific formulae, manuals, etc. It can be readily passed on to individuals and groups formally and systematically. It is well- organised. For example, the famous Amarakosha in Sanskrit is a dictionary organised in verse form, especially made easy to learn by heart. History is dominantly explicit knowledge.

Tacit knowledge is opposite to explicit knowledge. 'Tacit' means unspoken. The concept is comparatively of recent origin. Unlike explicit knowledge, tacit knowledge is not easy to communicate and transfer. It is extremely difficult, if not impossible, to communicate tacit knowledge. For example, an expert musician like Yesudas cannot truly communicate or transfer his knowledge of music to another person, unless the other person makes similar efforts to receive it. Pandit Sivakumar Sharma, a great Santoor artist cannot pass on his talent just by describing how to play the instrument. That knowledge must be acquired. That is why all students of great musicians, in spite of their efforts and imitation are not able to become as great as their masters. Tacit knowledge is highly personal and hard to formalise. Moreover, tacit knowledge is deeply rooted in an individual's action and experience as well as in the ideals, values or emotions one works with. Education intends to impart both explicit and tacit knowledge.

Propositional (Descriptive or Declarative Knowledge) and Non-Propositional Knowledge:

Let us consider when Raju says "I know Indian music". Suddenly someone says, 'Then Raju, sing a song' and Raju says, I actually know that, but do not know to sing those songs'. Raju knows that there are two types of Indian vocal music (Carnatic and Hindustani),

he knows the tunes of the different ragas, but does not know to sing. It is knowledge about Indian music. This is the knowledge that can be literally expressed in propositions, that is, in declarative sentences. Propositional knowledge is simply knowing something or having knowledge of something like 'I know computers, I know the President of India, etc.'. Propositional knowledge is similar to *a priori* and explicit knowledge. The key attribute is knowing that something is true. A is the first letter of the English alphabet and Bengaluru is the capital of Karnataka are some more examples for propositional or declarative knowledge. Again, mathematical equations can be an example of propositional knowledge because it is knowledge *of* something, as opposed to knowledge of *how* to do something. You must have come across a number of manuals, which explain how to do certain tasks. For this, one needs to the instructions given and follow the same. Today you will get this type of guide books for music as well as for several arts. Let us suppose there is a paper craft manual. One may be able to understand what is given in the manual, but may not be able to make the aimed product. The knowledge he/she possesses in this context is known as propositional knowledge. One may know what makes good teaching, but may not be a good teacher.

Non-propositional knowledge is also known as procedural knowledge. This is the knowledge needed to accomplish certain tasks or participate in certain activities. In education, this is considered as a group of specific strategies or skills. It involves knowing how to do something. For example, stitching a frock, making a model, etc. One may not be able to explain how to do it. It involves implicit learning. Procedural knowledge involves more senses such as eyes, ears, etc. simultaneously.

Let us find answer to the third question: What constitute the characteristics of knowledge?

The main characteristics of knowledge can be summarised as follows -

Knowledge is a shared product: Knowledge is generated by many and used by many more. It is not the possession of a few. There is no qualification to generate and use knowledge. It is open to use. People of all generations, geographical regions, creed, castes, and classes have generated knowledge. You must have heard of folk knowledge, tribal knowledge, knowledge generated by rural people, kings, and priests and this demonstrates that the generation and use of knowledge is universal.

Knowledge is cumulative in nature: Knowledge grows and builds on what already exists. Knowledge does not emerge in isolation. Any new knowledge is the development or modification of the existing knowledge. When we were students, we learnt from our textbooks that there are six continents in the world. Now students learn that there are seven continents in the world. You must have heard that Balamuralikrishna and Subbalakshmi

have composed new ragas or compositions. These are compositions based on the existing ragas. A tailor modifies a dress, improvises a dress, but does not stitch something that did not exist so far.

No knowledge is final: There is always a possibility of knowledge getting modified. Some theories will be put forward, and someone else may challenge the same and show that the alternative is true. We had believed that the shape of the earth is flat, and later it was proved to be spherical.

Knowledge develops perspectives: Let us say that you are trying to know more about a 'Dalit' community. As you proceed in your efforts, you realise that you need to study them from a different perspective. Let us say, you want to understand them from a social perspective, and knowing more about them will prompt you to study them from an economic perspective. You will proceed with that and it will open up some more perspectives. Hence, knowledge does not only make you know, but also allows and makes you know from different angles. This is the most advantageous aspect of knowledge. If a student gains knowledge about Gandhi and his work, he is not just gathering facts about Gandhi's work, he is also forming some perspectives based on knowledge.

Knowledge is acquired through sense organs: Rose is red in colour, Lata Mangeshkar sings well, masala dosa is tasty, and jasmine has a good fragrance. How do we gain this knowledge? It is through our senses.

Knowledge is transferable from person- to- person: We have already learnt about explicit knowledge. Knowledge can be passed on to others through records and oral traditions. You must have heard of the 'Shruthi' or 'Vedas' in the Indian context, which were transferred through generations in the oral tradition. Knowledge is meant to be transferred.

Knowledge is based on different sources: Knowledge is based on different sources, since it has explicit characteristics. You must have heard arguments where people say, 'I am sure of what I am saying, because it is mentioned in the holy books', etc. Knowledge is based on sources like books, media, dictionary, formal institutions, etc. Sense perception, inference, verbal testimony (scriptures and valid literature of the past), and sometimes even intuition is believed to be the sources of knowledge.

Knowledge will not perish like other resources: Knowledge is compared with fixed deposits, which no other person can claim. Anything can be robbed or taken away from a person, but not knowledge (Sanskrit phrase '*prcchanna guptam dhanam'*). Though foreigners invaded India, they could not take our knowledge of arts, science, and spiritualism. It remained with us. Knowledge is an asset; it is valuable when compared with physical or financial assets.

Cognitive and analytical ability is necessary to acquire knowledge: Knowledge cannot be accumulated automatically. One needs to make efforts to earn it. This requires some amount of cognitive and analytical ability. One needs to recognise, comprehend, perceive, analyse, reason, synthesise, and apply, and these cognitive operations are required in getting acquainted with knowledge.

Knowledge can be a process or a product: While climbing a mountain, drawing a picture, or building a house, one will be constantly in the process of doing it and at the same time, acquiring knowledge. Every point in the process of acquisition of knowledge, one can experience the product of knowledge. In the process of drawing a picture, one may realise that holding a pencil in a particular way makes drawing better. This is the point where he/she can identify the product of knowledge though they are in the process.

Check your progress 2

1. Exercise: Below are given the contents of knowledge and examples. Try to match them.

1	An animal that barks is a dog.	law	1
2	Water flows.	Fact	2
3	Opposite poles attract and like poles repel.	Concept	3
4	Inheritance involves the passing of genes from parents to offspring.	Theory	4
5	Evolution by natural selection.	Principle	5

2. Match the following:

1	3+3=6	***A posteriori knowledge***	1
2	The next generation will have sight problems	Propositional knowledge	2
3	Knowing the process of swimming	Procedural knowledge	3
4	Knowing how to swim	A priori knowledge	4
5	Value embedded in a society	Explicit knowledge	5
6	Knowledge of historical facts	Implicit knowledge	5

1.3.3. Educational Implications of Nature of Knowledge

So far, we have understood the content and forms of knowledge. We need to know why and in what way this understanding is important for us as teachers.

We teach in our daily classrooms, facts, principles, laws, etc. These are our everyday raw materials. First and foremost, we need to make a judicious selection of these items of knowledge based on the set objectives. So, a judicious selection of facts, principles, theories, etc. should be made while framing the curriculum itself.

We need to be aware of one more thing. We should train our students with skills and competencies to arrive at higher levels of knowledge like principles, laws, and theories. For example, teach students the skill of classification, generalisation, analysis, etc. to understand the principles and laws proposed by others, and more importantly, to arrive at their own laws and theories using the facts available to them. The intention here is to develop the skills of deducting knowledge. This is a very important implication of knowing about knowledge for us as teachers.

There is one more significant implication to the nature of knowledge. The nature of knowledge on hand (for example, Social Science, Mathematics, etc.) decides the pedagogical procedures. We cannot teach tacit knowledge as we teach explicit knowledge. *A priori knowledge* and *a posterioriknowledge* imply different pedagogical procedures. It is very important for teachers to know the nature of knowledge before deciding the pedagogy. We know that there are different methodologies for different disciplines or subjects because the nature of different subjects is different. The nature of language is different from the nature of Mathematics and Science. This difference in nature demands a different pedagogy. Within each subject, you will find explicit and implicit knowledge. Once we know the nature of knowledge that we intend to impart, it becomes easy to impart that knowledge. This is also known as the philosophy of each subject/discipline. You cannot go by the method you would teach *a priori knowledge*, when you teach science. You need to make students observe, experiment, and then accept the truth or knowledge. Therefore, your methodology for different kinds of knowledge varies. The methodology for procedural knowledge is different from explicit knowledge. Music cannot be taught like history because music involves tacit knowledge and history is explicit knowledge. Therefore, in the process of teaching, the first step is to identify the nature of knowledge to be taught and then plan appropriate methodology for the same.

The tendency in education has been to express standards in terms of declarative knowledge, rather than procedural and conceptual knowledge. Students should know explicit knowledge, no doubt, but unless they possess procedural knowledge wherever necessary,

the process of education remains incomplete. There should be judicious selection of both declarative or explicit and procedural knowledge. Tacit knowledge cannot be overlooked. It is very important. One should prepare the students in such a way that they do not miss the value of tacit knowledge in the system.

Knowing the nature of knowledge has some more implications for us. Through time, we have given more importance to declarative or propositional knowledge, and the employers used to find our graduates 'not capable'. We have been teaching swimming, health practices, and physical fitness, but not concentrating on the procedural aspect of the same. We are more concerned about explicit knowledge, than tacit knowledge. Efforts should be made to balance and make learning more meaningful.

Check your progress 3

Below are given a few statements. Identify them as 'true' or 'false'.

1	The nature of knowledge decides the methodology to be adopted.	
2	Education should concentrate only on procedural knowledge.	
3	The teachers teach only *a priori knowledge.*	
4	Propositional knowledge is less important than procedural knowledge.	
5	There is a judicious combination of procedural and explicit knowledge in the school curriculum.	
6	It is easier to teach explicit knowledge than tacit knowledge.	
7	Explicit knowledge is superior to tacit knowledge.	

1.1.4. Let us Summarise

- Knowledge is the information gained through human experience.
- Knowledge means what is or can be known by an individual or by human beings. Knowledge applies to facts or ideas acquired by study, investigation, observation or experience.
- There are three criteria to consider something as knowledge. They are belief, truth, and justification. Knowledge consists of facts, principles, concepts, laws, and theories.

- Knowledge is classified as a Priori knowledge and a posteriori knowledge, Explicit and Tacit knowledge, and Propositional (Descriptive or Declarative Knowledge) and Non- Propositional Knowledge.
- Knowledge has specific characteristics : Knowledge is a shared product; knowledge is cumulative in nature; no knowledge is final; knowledge develops perspectives; knowledge is acquired through the sense organs; knowledge is transferable from person-to-person; knowledge is based on different sources; knowledge will not perish like other resources; cognitive and analytical ability is necessary to acquire knowledge; and knowledge can be a process or a product.

1.1.5. Answers to 'Check your progress 1, 2, and 3':

Check Your Progress 1

a) and f)

Check Your Progress 2

(1) 1-3, 2-5, 3-1, 4-5, 5-4

(2) 1-4,2-1,3-2,4-3,5-6,6-5.

Check Your Progress 3

1-t, 2-f, 3-f, 4-f,5-t, 6-f, 7-f

1.1.6. Unit end Exercises

1. Explain the meaning of knowledge.
2. Analyse the nature of knowledge.

1.1.7. References

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Block 1: Knowledge and Knowing

Unit 2 : Differences between Information, Knowledge, Belief, and Truth

Unit Structure

1.2.1. Learning Objectives

After studying this Unit, the student- teachers will be able to -

- Explain the difference between knowledge and information;
- Explain the differences between knowledge and information;
- Explain the concepts of belief and truth; and
- Differentiate between belief and truth

1.2.2 Introduction

We usually watch advertisements on television. There is an advertisement on TV about a new product, e.g., soap powder. When we take an interest in that product, we will collect particulars about it. It is the information about the product. Yes, it is the information we collect about that product. Information is facts, provided or learned about something/ someone. Information is the knowledge we get about someone.

Knowledge is the awareness or familiarity gained by experience of a fact or a situation. The content of a human mind, apart from its biological structure, contains experiences as a result of its interaction with the environment. It is based on things that one interacts with on a daily basis, as many times people perceive based on what they have seen, experienced, heard, read, learned or inferred after some experimentation. These experiences and perceptions are then categorised in the mind as data, information, knowledge, understanding or wisdom. Unlike wisdom, information and knowledge perceptions are results of what the brain has recorded in the past. The brain assimilates mental figures and impressions.

It is easy to get confused about knowledge and information. People often use the terms interchangeably without knowing that there are slight and subtle differences between knowledge and information.

Belief is a subjective truth. Truth is an abstract imagination; both differ to some extent. It is essential to know how knowledge differs from information. Let us discuss about information-knowledge and belief-truth elaborately in this Unit.

1.2.3. Learning Points and Learning Activities

1.2.3.1. Information and Knowledge

Let us analyse the term information. Information is that which informs, in other words, it is the specific answer to a specific question. It is a concept which provides the description of a subject. Information is raw data.

The word'information' comes from the Latin language and information means to give from the mind which involves instruction and learning points. Data becomes information when it is applied to some purpose and adds value to the recipient. For example, a set of raw sales figures is data. It is the sales report that provides information.

Definitions of Information

"The term information is generally described as the structured, organized and processed data, presented with the context, which makes it relevant and useful to the person who wants it. When raw data turn out to be meaningful after conversion it is known as information. It is something that informs in essence".

Merriam Webster Dictionary defines information as "The data about any content or any person which provides real description."

According to the Oxford Dictionary, "The collection of content through study, communication, research is information".

The factors related to information are notions, constraints, communication, control, pattern, and perception. Information, at its most fundamental is any propagation of cause

and effect within a system. Information is conveyed either as the content of a message or through direct or indirect observation of something. Information can be encoded into various forms of transmission and interpretation.

For example, information can be encoded into a sequence of signs or transmitted via a sequence of signals. It can also be encrypted for safe storage and communication.

Characteristics of Information

- It has different forms/dimensions;
- It changes from period to period;
- It may include twisted or wrong elements;
- It is elaborated knowledge;
- It can be accurate, relevant, complete, and available;
- It can be communicated in the form of a message or through observation;
- It can be obtained from various sources such as newspaper, television, internet, people, books, and direct perception;
- It is a bunch of data and works with the help of data; and
- It may sometimes be inaccurate, irrelevant, incomplete, and not available.

Educational Uses of Information

- Gives different meaning in different contexts;
- Has important role in educational research;
- It is the basic source of all study subjects, which contains some information; and
- Varies in depth, scope, and nature.

Forms of Information

There are two forms of Information. General information, and Selected information. General information is known and shared by all. When we select information for some purpose, it is selected information. Information can be clear or vague. Thus, information is about description, facts, statistics, and context factors in the form of data of a specific system, linked to a subject- matter of any content. It will always be given as content-based message.

Types of Information

Information can be of many types –

1. Numerical Data

   This data has meaning as a measurement such as a person's height, weight, IQ or blood pressure.

   For example, how many pages did you read of your favourite book before sleeping?

2. Verbal Information

   The sharing of information between individuals using speech.

   For example, if you want to be promoted in your job.

3. Pictorial Information

   It is learning from pictures and is useful for children in classrooms, which require cognitive abilities.

4. Descriptive Information

   A set of information, consisting primarily of package descriptions, which is provided for data management to support the findings, ordering, and retrieving.

   For example, museum.

5. Simple and Complex Information

   Simple information is easily understood by others. For example, information about a flower. Complex information needs efforts cognitively to understand. For example, the structure of the brain.

6. Symbolic Information

   Information written as sequences of symbols which is normally text, and is represented by systems of symbols. For example, a red rose may symbolise love and compassion.

7. Scientific Information

   It is a field primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval, movement, and dissemination of recorded knowledge treated both as a pure and as an applied science. For example, science exhibitions.

Knowledge

Collection of information is a way to get knowledge. Knowledge is a self-process, acquired from its surroundings, and by many experiences. It is acquired through education.

Knowledge means what can be known by an individual or by mankind. Knowledge is understanding something about the environment. Knowledge is always concerned about knowing something. This something can be natural objects, man-made things, events, processes, activities, relationships, and many other things.

Knowledge always refers to comprehension. Acquisition of knowledge or build-up of knowledge by its very nature always refers to a process of moving from ignorance to understanding. Knowledge is also common sense, understanding the relationship of the knower with the known.

Definitions of Knowledge

Knowledge is understanding based on information, which a person gets. Human beings can get knowledge through education and from other sources. Information refers to data that has been processed. Knowledge is the result of the ability to make meaning of information. Information comes first and knowledge results from information. To get knowledge, you need some cognitive and analytical ability, while for information you do not need intellectual ability. Information is based on the presentation of data, whereas knowledge comes from the examination of the data.

Sources of knowledge.

Perception, memory, experience, books, journals, experts, problems, research, seminar, conference, websites, media, etc. are the sources of knowledge.

Differences between Knowledge and Information

For example, a list of the parts of the human body is information, but its structure and functions are knowledge.

Knowledge	Information
1. Dynamic 2. Tacit or Implicit 3. Involves awareness and intuition depending on the maturity of the individual 4. It gets information and modifies to make it useful. 5. Identical reproduction is not possible. 6. Most knowledge is based on information.	1. Static 2. Explicit 3. Does not involve awareness and intuition. 4. Processed data. 5. Can be easily reproduced. 6. All information need not lead to knowledge.

Check Your Progress 1

1. What is knowledge?
2. Name some of the sources of knowledge.
3. Write any two differences between knowledge and information.

1.2.3.2. Belief and Truth

Belief

The term belief and truth are often used in philosophy. Belief is related to a man's mental situation. Based on belief, man thinks about a context. Belief develops in a man from infancy. In the beginning, the value of a fundamental belief develops through the mother, followed by social relations developed on traditional beliefs. A belief is the subjective requirement of knowledge. This means that a belief is biased and personal understanding and judgement. Forming belief is the basic feature of the human mind. When beliefs are justified and proven true, they assume the form of factual knowledge.

The concept of belief was defined by Plato. According to him, 'belief is justification of truth'. It is a mental representation and a positive base for truth. Belief is an acceptance that a statement is true or that something exists.

Etymology of the word Belief

The word 'belief' comes from an old English word '**geleafa',** which means faith or confidence. When a person accepts something without evidence, it is belief.

Definitions

Author	Definitions
Goldin (2002)	Beliefs are multiplied, encoded, internal, cognitive/ affective configurations to which the holder attributes truth value of some kind.
British Dictionary	Belief is a feeling; it is faith about few/any existence of matter or about the truth.
Merrium Webster Dictionary	Belief is a definite confidence about a person or about a matter.

So, belief is a system of thought, that is, comprehension of the information we have accumulated and stored in our brain. All beliefs are not true, for example, people in some cultures believed that smallpox was caused by the wrath of the Goddess. But this was proved false when the smallpox virus was discovered.

Characteristics of belief

There are few characteristics of belief such as -

- Related to man's mental condition;
- Based on person pre- and post- actions;
- Based on appropriate, good, valued elements;
- It is a positive behaviour; and
- It is a psychological notion applied to biological factors.

Kinds of Beliefs

There are 3 kinds of beliefs -

1. Vague belief - When there are no concrete, supporting statements.

   For example, eating nuts can make you smart.

2. Well-supported belief- You cannot rule out such a notion.

   For example, you believed that the test was difficult since you got a failing marks.

3. Beyond a reasonable doubt- We cannot say it is a fact unless we are the one who experienced it. For example, the lady saw the World Trade Centre collapse. It is a fact, but we are still not certain whether it collapsed or not

The Concept of Truth

Truth is fact reality. It is a state of being true. For example, fuel gives energy. Generally, truth is called as fact/reality. In modern context, truth is attestation, true to self. Human activities are based on the concept of truth. It isSubjective, Objective, Relative, and Absolute. Based on these factors, "as time goes on, the knowledge, which in self and in nature without perishing stays permanently, is called truth"

Etymology of the word Truth

The word 'truth' comes from an old English word 'Triewth'meaning faithfulness or constant.

Definitions

Gandhiji said that truth is god and god is truth.

According to Martin Hegdar,

- Truth means involvement of fact in a concept;

- Truth that which is true or in accordance with reality; and
- Truth is defined as that which is unchallengeable.

Characteristics of Truth

- It is a abroad concept;
- It is value- based;
- It is a result of research and enquiry;
- It is a universal statement, based on evaluation;
- It expects evidence, base;
- It is a pool of constant principles; and
- It is an abstract imagination.

Truth is absolutely free from fear or anxieties. It purifies the speech and mind, so truth is the purest knowledge.

The story of Harishchandra is an example to show the value of truth. We talk differently about truth in our material world. Such as scientific truth, permanent truth, time-being truth, all these truths are important in our life.

Differences between Belief and Truth

Belief is an assumed truth. Our actions are led by what we believe in. Truth is characteristic of a statement. It is a property of beliefs; it assumes various forms depending on the context and the emotion it evokes in the knower.

Our beliefs in miracles may actually be accepted truths, whereas truths are variable beliefs. Truth is by research and testing. Belief is by experience and imagination.

Differences between belief and truth

Belief	Truth
1. Indoctrinate and forcing acceptance 2. Subjective 3. Positive imaginative factor 4. Contextual opinion 5. Evidence not required 6. Depends on values accepted 7. A mental condition of a person	1. Rational, reasoning, and universal 2. Objective 3. Concrete- based factor 4. Universal opinion 5. Formed by evidence 6. Depends on factual evidence 7. Related to attestation of context

Truth and belief have some common elements.

For example, fact or reality, but they are not the same.

Example- Your belief- Sun is hot- is a truth

Your belief in honesty is the best policy may not be true.

Some people believe that honesty is the best, should lead life according to it.

But few people also believe that honesty is not true. They think that everything in life cannot be based on honesty. Sometimes it needs compromise with situation and ideas.

Check Your Progress 2

1. What is a belief according to Plato?
2. Write any 3 characteristics of belief.
3. State two difference between belief and truth.
4. Give any two characteristics of truth.
5. In a transacting world, what are the different forms of truth?

1.2.4. Let Us Summarise

- Information is a concept, which provides a description of something. It is raw data and publicly available. Knowledge is a self-process acquired from surroundings and formed by experiences.
- There are few differences between knowledge and information like knowledge involves awareness and intuition; all knowledge is information; information does not involve awareness and intuition; and all information need not be knowledge.
- Belief is a mental representation and a positive base. Truth is a state of being true.
- The differences between belief and truth are that belief is democratic and is according to the mental condition of a person, whereas truth is autocratic and is related to the attestation of a context.

1.2.5. Answers to 'Check Your Progress 1, 2, 3, and 4'

Check Your Progress 1

Refer Section 1.2.3.1. of Self-Learning Material.

Check Your Progress 2

Refer Section 1.2.3.2. of the Self-Learning Material.

1.2.6. Unit end Exercises

1. Explain the characteristics of information.
2. Differentiate between knowledge and information.
3. Explain the concepts of Belief and Truth and differentiate them.

1.2.7. References

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Block 1: Knowledge and Knowing

Unit 3 : Knowing Process

Unit Structure

1.3.1. Learning Objectives

After going through this Unit, the student- teachers will be able to

- Define the meaning of knowledge;
- Explain the process of knowing;
- Identify different ways of knowing;
- Explain the process of construction of knowledge; and
- Enumerate the relative roles of knower and the known in knowledge transmission and construction.

1.3.2. Introduction

Usually, we go to school to be educated. Knowledge is imparted through education.

Schools facilitate and distribute knowledge among its students. Knowledge always belongs to some individual or group and the knowledge of a group may go beyond the knowledge of its individual members. Knowledge is a link between a person and a fact. Now the question arises as to how do people come to know the various happenings around them. What is the mechanism or process of knowing? You should understand that knowing is not a one-time affair, rather people learn things daily and is a life-long process. In this Unit, let us learn about the ways of knowing, knowledge construction, and the roles of knower and known in knowledge construction and transmission.

1.3.3. Learning Points and Learning Activities

1.3.3.1. Different ways of knowing

Any information about a place or thing is known as the knowledge of that particular entity. So, we can say that knowledge is knowing about someone or something. Knowledge is familiarity, awareness or understanding of someone or something such as facts, information, descriptions or skills, which is acquired through experience or education by perceiving, discovering or learning. The interaction of people in society generates knowledge, while developing knowledge means knowledge is based on previous experiences.

The Process of Knowing

The process of knowing is explicate and explains to a large extent the meaning and also the nature of knowledge. Knowing happens through perception, reason, emotion, and codification.

The valid ways of knowing are perception, reason, emotion, and language. All have a particular purpose and place. A child from infancy to early childhood relies heavily on the sense perception for knowledge acquisition. It is only after stepping into late childhood that the other three ways of knowing starts taking place. Language and emotions are followed by reason, and by adulthood, it is combination of all the four that converge in the process of knowledge acquisition.

Let us discuss about the ways of knowing in detail.

1. Sense Perception

It is the most basic and immediate way of knowing, but sometimes it might not be a very reliable source. The acquisition of knowledge begins with the reception of external stimuli by our sense organs, which is immediately converted into the form of perception. Thus, knowledge starts with the experience of the facts or matters through the sense organs, individually and collectively at the individual level or while participating in any social activity.

The ultimate source of all human knowledge is the evidence of reality provided by the senses. All the five senses such as touch, taste, sight, smell, and hearing, contribute towards our quest for knowledge acquisition. They are sometimes referred to as the gateways of knowledge. Sensations are simple sensory experiences. Perceptions are complex constructions of simple elements joined through association. Perception is influenced by expectations, needs, unconscious ideas, values, conflicts, and past learning of a person. Sense perception is a subjective activity, and hence, it varies from individual-to-individual depending upon one's innate abilities. Our physical conditions, motivational dispositions, and mental state direct our sense perception. Perception is the process of attaining awareness or understanding of the environment by organising and interpreting sensory stimuli. It is shaped by learning, memory, and expectation.

2. Language

Language is a system of conventional, spoken, manual, or written symbols by means of which human beings, as members of a social group and participants in its culture express themselves. Language is the primary basis of all communication and the primary instrument of thought. Language is determined by a number of factors such as social background, attitudes, and origin of people. Language acts as a carrier or medium for conveying knowledge from one individual to the other. It integrates knowledge acquired through varied sources at varied places and names it. It helps in memorising and recalling. Language contributes to knowledge acquisition and transmission. Language is so much a part of human activity that it is easily taken for granted. The issues related to language and knowledge call for conscious scrutiny in order to recognise its influence on thought and behaviour.

3. Reason

The action of thinking about something in a logical, sensible way to form a conclusion or judgement is called reasoning. Developing rational and critical thinking abilities is pivotal to acquiring reliable knowledge. It involves both conscious and unconscious reasoning. Sometimes what has happened in the past teaches us to reason with reference to the future. Developing association between past, present, and future occurrences is part of the reasoning process creating patterns in the process of learning.

In logic, we often refer to the two broad methods of reasoning, namely, deductive and inductive reasoning. Deductive reasoning works from the more general to the more specific. Sometimes this is informally called a 'top-down approach'. Inductive reasoning works the other way, moving from specific observations to broader generalisations and theories. Informally, we sometimes call this a bottom-up approach.

Emotion

It is a strong feeling deriving from one's circumstances, mood, and relationships with others. One of the ways of knowing is emotion. Emotions and their expression vary across cultures and hence, knowledge so acquired may not be as reliable. It is subjective and less measurable. It helps as well as hinders in the process of knowledge construction. The training of emotion is a key factor in enhancing the teaching-learning process.

There are few ways by which students can be initiated into the process of knowing. They are by experiencing the situations themselves, by relating to previous knowledge, by dealing with problematic situations and developing rational, abstract knowledge, and by relating to real- life situations.

Check your Progress - 1

1. What is a process of knowing?
2. What are the 'gateways of knowledge'?
3. What are the perceptions?
4. What is the role of language in the process of knowing?
5. What is the top- down approach of emotion?

1.3.3.2. Knowledge Construction - Process of Construction of Knowledge

As we interact with our friends, classmates, and relatives, we are involved in the process of knowledge construction. It is an art of contributing to the development of a body of ideas, attitudes, and beliefs. Knowledge construction is a process by which knowledge new to an individual/group is created based on a generative process.

Knowledge construction is a dialectical process, which involves systematisation of various facts through dynamic interactions between individuals and the environment. Knowledge creation is a spiral that goes through seemingly opposing concepts such as order and chaos, micro-macro, part-whole, mind and body, tacit and explicit, deduction and induction, and creativity-efficiency. There is 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 self-acquiring new knowledge. Learners work with their knowledge such that they link their new knowledge to their existing knowledgebase.

Knowledge is not part of reality. It is reality viewed from a certain context. The same reality is viewed differently by different persons in different times and in different contexts. It means in knowledge construction one cannot be free from one's context. Social, cultural, and historical contexts are important in individuals, because such contexts give the basis to individuals to give meaning to it.

Knowledge construction is a collaborative process and aims to produce new understanding or knowledge, which exceeds something that anyone alone could not achieve. It is also essential that knowledge construction is based on each other's ideas and thoughts.

Knowledge is created through interactions between human agency and social structures. Our actions and interactions with the environment create and enlarge knowledge through the conversion process of tacit and explicit knowledge. We enact with main levels of consciousness, that is, practical consciousness and discursive consciousness in our daily lives.

Discursive consciousness gives us our rationalisations for actions, refers to explicit knowledge, while practical consciousness refers to the level of our lives that we do not really think about and refers to tacit knowledge.

Process of Knowledge Construction

True research is a process of knowledge construction, which requires some levels of combination of interpretation, analysis, synthesis, and evaluation. When an activity requires students to devise procedures, the activity qualifies as knowledge construction.

According to David Berlo, education needs to be geared toward the handling of data, rather than the accumulation of data.

Marvin Minsky says **"**You don't understand anything until you learn it in more than one way".

Students construct knowledge when they apply critical thinking and applied thinking to go beyond knowledge reproduction by generating ideas and understandings that are new to them.

Many have referred to the modern world economy as a 'knowledge economy' in which the possession of knowledge is far less important than the creative uses of knowledge. In this knowledge economy, the development of new knowledge is the greatest driver of innovation.

In the context of a school, the knowledge construction process relates to the extent to which teachers help students to understand, investigate, and determine how implicit cultural assumptions, frames of references, and perspectives and biases within a discipline influence the ways in which knowledge is constructed.

Knowledge construction cannot be achieved when students merely reproduce what they have already learnt. If the knowledge construction is a process by which students generate ideas and understandings, the focus of classroom instruction should be on helping students to learn and experience this process as inter-disciplinary activities provide greater scope for knowledge construction.

Three processes are singled out as crucial to constructing knowledge:

1. Activation of existing knowledge

   Activating knowledge refers to making it explicit and accessible to all stakeholders. Both users and developers of knowledge benefit from activation.

2. Communication between stakeholders

   This consists of creating a shared understanding through interaction among people. It is a social activity in which all participate and contribute to knowledge construction. The understanding created through communication can never be complete, but instead is an interactive and ongoing process in which common ground, for example, assumed mutual belief or knowledge is accumulated and updated through negotiation and accumulation of meaning overtime.

3. Envisioning

   It is a constructive process in the sense that it is based on prior understandings, but extends toward the future. It is different from activation because it builds new understandings, rather than surfacing existing ones.

The recent thinking about knowledge construction assumes that knowledge is not something, which can be transmitted from one person to another, but rather is jointly constructed by all parties involved in the process of knowledge construction.

Constructivism is a theory based on observation, scientific study, and about how people learn. According to this theory, people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences.

Teachers' role in construction of knowledge

- The teacher helps learner to chart the course of learning by laying down specific learning objectives and expecting learning outcomes; and
- 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.

Check Your Progress- 2

1. Why social, cultural, and historical contexts are important for an individual in knowledge construction?
2. What are the main levels of consciousness?
3. Which are the three processes critical to knowledge construction?

4. Mention any two roles of the teacher in construction of knowledge.

5. What are the levels of combinations required in construction of knowledge?

1.3.3.3. Relative Roles of Knower and the Known in Knowledge Transmission and Construction

There is a close relation between the knower and the known, as both together contribute to the transmission and construction of knowledge.

Knowledge creation involves systematisation of various facts through dynamic interaction between individuals and the environment. The capability to increase and utilize the knowledge is considered most advantageous to an individual. The process of knowing is a personalised individual task that is influenced by experience and unintentional contextual cues.

There are three aspects of knowledge-

• the knower (subject/participant),

• the known (the field of study), and

• and the process of knowing (which connects the knower to the known). Modern education focuses only on the known, the field of study and excludes the other two, that is, the knower and the process of knowing of the knowledge.

For example, a teacher teaches about 'Velocity' to the students.

Here, who is the knower? – Student

What is known/field? – Velocity

How are these connected? – Teaching (process)

The knower and the known have relative roles in the construction and transmission of knowledge.

The discussion on the origin of knowledge focuses on the relative roles of the knower and the known in the transmission and construction of knowledge. In order to know the origin of knowledge, it is required to focus on the process of how we come to know.

The process of coming to know begins with the knower's engagement with to–be-known. The contact takes place through senses in a context such as physical, biological, socio-cultural, and others. In this context, the knower's own initiatives for seeking knowledge assumes significance.

Knowledge is the result of the knower's active engagement with the object of knowledge. The knowledge and its intensity depend on the relationship between the knower

and the known. Further knowledge is understood in terms of enlightenment. The Indian tradition considers it as breaking the veil of ignorance. In practice, knowledge is a claim on the sense that the knower proclaims that he/she is aware of the phenomenon. This is to say that having knowledge of the phenomenon means both being aware of that phenomenon and also stating that the awareness is true.

Knower-Known Relationship

Language plays a greater role here. Language facilitates the process of knowing. The role of language in the construction of knowledge is vital. Language is commonly understood as a tool to describe and report the reality. Language not only contributes for content, but also provides context and a way to re-contextualise content. Language influences the way we construct knowledge while interacting with each other. Words expressed through language and their meaning influence how we perceive and interpret the world around us. Language affects our thinking, while constructing knowledge.

Knowledge is socially constructed. Language and meanings plays a crucial role in knowledge construction. In analysing the role of language and meaning in knowledge construction, three issues may be pointed out-

- We know more, than we can tell,
- We say more, than we know, and
- What is said will be interpreted differently.

Culture also plays its role in the transmission of ideas and thoughts along with language. Meaning to the concepts is provided by the language of the society and cultural context. A child born into a culture acts in fundamental ways as the means of knowing with positive emotions in the knower facilitates smoother transmission of knowledge. Culture also helps the knower to transmit his ideas and thoughts to others.

Knowledge creation is a transcending process through which entities such as individuals, groups, and institutions go beyond the boundary of the old into a new self by acquiring new knowledge. In the process, new conceptual artefacts and structures for interaction are created, which provide possibilities as well as constrain the entities in consequent knowledge construction.

Gaining Knowledge and Uniting Knower and Known through the Process of Knowing

Knower (Student)	Process of knowing	Known (Subject matter)
Senses	——————>Perception————->Sensory knowledge of concrete objects	
Mind	——————>Thought——————>Knowledge of relationships	
Intellect	————->Analysis and synthesis————>Rational and abstract knowing	

The level of awareness of the knower determines the corresponding process of knowing as well as the nature of the knowledge gained. The knower and the known are united on the ground of transcendental consciousness.

Check Your Progress 3

Identify whether the following statements are true or false, and indicate with letters 'T' or 'F'

1. Knower and known are aspects of knowledge.
2. On the relationship of knower and known, the knowledge and its intensity depends.
3. Knowledge construction leads to restructuring of knowledge, which does not involve cognitive process of the knower.
4. Knowledge comes to life inside the realm of experience.
5. Knower and known are united on the ground of transcendental consciousness.

1.3.4. Let us Summarise

- Knowledge is a link between a person and a fact. Knowledge is knowing about someone or something. The process of knowing explains and determines the meaning and nature of knowledge.
- There are four ways of knowing such as perception, reason, language, and emotions.
- Knowledge construction is an act of contributing to the development of body of ideas, attitudes, and beliefs.
- Process of knowledge construction—True research is a process of knowledge construction. The three processes involved in the construction of knowledge

are activation of existing knowledge, communication between stakeholders, and envisioning.

- Lastly, we see the relative role of knower and known in transmission and constructing of knowledge in the context of language and culture.

1.3.5 Answers to 'Check your Progress 1, 2, and 3'

Check Your Progress 1

Refer to Section 1.3.3.1. Self-Learning Material.

Check Your Progress 2

Refer to Section 1.3.3.2. Self-Learning Material.

Check Your Progress 3

1. F 2. T 3. F 4. T 5. T

1.3.6. Unit end Exercises

1. Explain the role of a teacher in the construction of knowledge?
2. Explain the process of knowledge construction?
3. Explain the role of knower and the known in the construction of knowledge.

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Block 1 : Knowledge and Knowing

Unit 4 : Facets of Knowing

Unit Structure

1.4.1. Learning Objectives

After going through this Unit, the student-teachers will be able to -

- Identify the different facets of knowledge and their relationship;
- Explain the relationship between local knowledge and universal knowledge;
- Differentiate between concrete knowledge and abstract knowledge;
- Differentiate between theoretical knowledge and practical knowledge;
- Explain contextual knowledge and textual knowledge; and
- Explain school knowledge and out- of- school knowledge.

1.4.2. Introduction

Facts, information, and skills are acquired through experience or education. Knowledge is the awareness or familiarity gained by experience of a fact or a situation. It is deep and detailed idea on a particular thing. It depends on the individual product of raw material, which is the result of some kind of cognitive activity. Knowledge acquisition involves complex cognitive processes such as perception, communication, and reasoning. In a generalised way, knowledge is sum of human understanding of material and mental reality, given and constructed. According to NCF-2005, knowledge can be conceived as experience organised through language into patterns of thought thus, creating meaning, which in turn helps us to understand the world we live in.

Knowledge has many facets. A holistic theory of knowledge and learning must acknowledge all facets of knowledge. In fact, each of the facets of knowledge provides a support needed for the other facets to exist. Let us understand these facets of knowledge in this Unit.

1.4.3. Learning Points and Learning Activities

1.4.3.1. Different Facets of Knowledge and Relationship between Local Knowledge and Universal Knowledge

Local Knowledge

Information or knowledge limited to a state or community or to a fixed area is called local knowledge. It is the knowledge that people in a given community has developed over time and continues to develop. Local knowledge is practical common sense based on teachings and experiences passed on from generation-to-generation. Local knowledge is also known as traditional knowledge or indigenous knowledge.

Local knowledge covers the knowledge of environment such as snow, ice, weather, resources, etc. It is divided into 3 kinds as common knowledge, shared knowledge, and specialised knowledge.

1. **Common knowledge** is held by most people in a community. For example, how to cook the local staple food.
2. **Shared knowledge** is shared by many people, but not by all community members.

For example, villagers who raise livestock will know more about basic

animal husbandry than those without livestock.

3. **Specialised knowledge** is held by only few people, who might have special training or apprenticeship. For example, only few villagers become healers, midwives or blacksmiths.

This type of knowledge is related to age, gender, occupation, division of labour within family, community, socio-economic status, experience, environment, etc. This has significant implications for research and development work.

Characteristics of Local Knowledge

Local knowledge is -

- Based on individual and community experiences,
- Tested over centuries, and
- Based on local culture and environment.
- It includes community practices, institutions, relationship, and rituals;
- It is dynamic and changing;
- It is a collection of facts, concepts, beliefs, and perceptions that people have about the environment around them;
- It applies to knowledge possessed by rural, urban, migrants, etc.
- It is based on tribal, original inhabitants, and experiences of elder generations;
- It is observed, experimented, and experienced by people;
- It reflects people's behaviours, and the ability of problem solving in a specific situation;
- It includes processes whereby knowledge is generated, stored, applied, and transmitted to others;
- It is holistic, and cannot be compartmentalised. It is rooted in the spiritual healing, culture, and language of the people, and is a way of life; and
- It is dynamic and constantly changing as it adapts to a changing environment.

Universal Knowledge

Knowledge accepted by all the people of the world and is common to all is referred to as universal knowledge.

Universal knowledge is a new approach, and is called as meta-science. It provides developmental answers to all questions. It extends to surrounding factors and influence of time. It refers to cumulative and complex bodies of knowledge, know-how, practices, based

on science that are accepted and developed by people with extended research, inventions, experiences, and interactions with the natural environment. This universal knowledge streams from nowhere but it is within the being-ness that this pure untouched knowledge arises in its clearest form. For example, clouds bring rain and burning fuel provides energy.

Characteristics of Universal Knowledge

- It is related to knowledge and thought;
- It changes behaviour among human beings;
- It grows with time;
- It is a collection of facts and phenomena; and
- It helps to understand the originality of existence.

There are a few differences between local knowledge and universal knowledge.

Local knowledge	Universal knowledge
1. Is related to local region 2. Has different opinions 3. Is document- based 4. Is based on local knowledge experience, environment, and rituals. 5. Does not change the behaviour of human beings	1. Is the same for all 2. Has a single opinion 3. Is truth-based 4. Is based on knowledge and thought 5. Changes the behaviour among human beings

Check Your Progress 1

1. What are the different facets of knowledge?
2. What is local knowledge?
3. Write any two characteristics of local knowledge?
4. What is the universal knowledge?
5. Write two differences between local knowledge and universal knowledge?

1.4.3.2. Concrete Knowledge and Abstract Knowledge

Concrete Knowledge

Concrete knowledge is as the name suggests. It involves only those things, which are visible to the human eye and are obvious to anybody looking at them.

Concrete knowledge is empirical knowledge gained by one's own experience and observation. Sensory organs are the gateway of knowledge, with the help of which a child perceives by seeing, smelling, hearing, and touching. Such knowledge is called concrete knowledge.

Philosophers opine that concrete knowledge is direct experience and is neither intuitive-experience nor probability.

There are two types of concrete knowledge

1. Worldly concrete knowledge (Subjective)
2. Non-worldly concrete knowledge (Objective)

Worldly concrete knowledge is direct knowledge based on the perceptions of the sensory organs.

Non-worldly concrete knowledge- When we look concretely at objects, something related to those objects comes to our mind.

For example, when we look at a monkey, the behaviour of the monkey comes to our mind.

Concrete knowledge only considers and emphasises the apparent meaning of something; it involves only those events and words, which have objective value and can be recorded and perceived.

Characteristics of Concrete Knowledge

- Concrete knowledge helps to understand the natural status of an object;
- It is based on concrete experience;
- It does not have depth, and just refers to thinking in the periphery; and
- It is static and the same all the time.

In a classroom situation, while explaining fundamental facts to students, teachers should provide concrete knowledge. Otherwise, that knowledge does not remain for long and will not facilitate further knowledge. Teachers while providing concrete knowledge should bring natural objects/things to the classroom to give empirical knowledge/sensory knowledge.

Abstract Knowledge

Abstract knowledge can be explained as the manner of thinking, and its concentration is on conceptualisation or generalisation. Abstract knowledge involves the much deeper, wider, and multitude of meanings of a single concept or idea, which can arouse other issues that were never seen or discussed before.

A normal person's abstract thinking may be vague and / or incompletebecause abstract thinking goes beyond all visible things and depicts hidden thoughts about meanings and underlying implications of the existing things in nature. An abstract thinker can view a particular phenomenon from an angle that others might not be able to view.Religion and religious books of different countries depict this kind of knowledge. This belief itself is abstract knowledge. Here, belief is an important factor. This knowledge cannot be certified or rejected.

Characteristics of Abstract Knowledge

- It is based on logical thinking;
- It has a variety of perspectives;
- It is based on people's beliefs;
- It is a process of extracting the underlying meaning of concept;
- It is based on abstract thinking;
- It can be upgraded through research and experimentation;
- It cannot be verified; and
- It gives attention to hidden meanings.

Apart from these characteristics, we can also see some differences between concrete and abstract knowledge.

Concrete knowledge	Abstract knowledge
1) Always objective, to the point, and very direct, allowing any individual to observe and understand 2) No depth, just refers to objective reality 3) Can be directly experienced 4) Sensory based experience 5) It is specific, tangible 6) Based on what the person sees as well as facts related to concept 7) Probabilities are less	1) Pays attention to hidden meaning 2) Goes beneath the surface 3) Mental processing is involved 4) Refers to figurative description 5) It is unclear, obscure 6) Based on ideas and beliefs 7) Probabilities are more

Check Your Progress 2

Identify the statements that are correct among the following and indicate the same with '✓' mark.

1. In abstract knowledge, probabilities are less.
2. Mental process is involved in abstract knowledge.
3. Concrete knowledge refers to thinking internally.
4. Concrete knowledge does not involve those elements and words, which have objective value.
5. Abstract knowledge pays attention to hidden meaning.

1.4.3.3. Theoretical and Practical Knowledge

Theoretical Knowledge

Theoretical knowledge reflects the knowledge, abilities or skills possessed by a person. The study about any fact, incident, situation, context, person, and object is called theoretical knowledge. This knowledge may be from books, mass media, periodicals, journals, dictionary, encyclopaedia, etc.

Theory teaches through the experiences of others. It can often lead to a deeper understanding of a concept. It helps to understand why one technique works, while another fails.

- Theoretical knowledge is understanding a concept in a context as a whole and understanding the why behind it.

- It is all about why this is there and to show true is true.
- Theoretical knowledge involves the elements of what, why, when, and how, and also answers all these directly. It provides a full explanation of the content.

  For example, air is important to burn anything.

Characteristics of Theoretical Knowledge

- It is based on theories;
- It is gained by study and research;
- It involves all units of an incident;
- It involves different dimensions of a concept; and
- Its scope is wide.

Theoretical knowledge can be acquired through study, research, observation, and experience.

Practical Knowledge

Practical knowledge means knowledge which is applied to do something or that which directs how to perform a specific skill. It is more directly useful in our life.

The process of applying knowledge to some act is practical knowledge.

There are many activities we can learn only through doing and experiencing. Practical knowledge can often lead to a deeper understanding of a concept through the act of doing and personal experience.

The Dimensions of Knowledge are

- theoretical knowledge,
- observational knowledge,
- suggestions,
- practice or repetition, and
- experience.

For example, learning to play the piano

In the beginning, one has to understand the basic through theoretical knowledge of the piano. Then observing others playing the piano, getting suggestions, and learning through practice and experience, we can learn to play the piano.With the support of these dimensions, we will get practical knowledge about playing a piano.

In the education field, practical knowledge is very useful. The main aim of education is to impart theoretical knowledge, develop skills in students, make them use these in their daily life.

In brief, practical knowledge is a combination of theoretical, factual, and experiential knowledge.

Practical knowledge is more important than theoretical knowledge in everyday life.

1. Interactive education creates a deeper impact

   Practical knowledge is more interactive than theoretical knowledge. Interactive sessions, experiments, and interactive exercises are important features of practical education.

2. Motivates team work

   While imparting practical knowledge to students, most of the activities should involve team projects or activities whereby students are required to work in a group or a team. It improves their ability to interact with fellow students and also make the learning process more interesting.

3. It is easy

   When learning through practical activities, instead of only theoretical explanation, the learning process become comparatively easy.

4. Involves application and deals with real- life situations

   Merely learning about theories and facts is of no use unless theoretical knowledge is applied to real- life situations through practical experiments.

5. Practical knowledge retains in our mind for ~~a~~ longer time

   Both theoretical and practical knowledge are important. You will not survive in any career unless you can bring results, and to do that, you need practical knowledge.

Both theoretical and practical knowledge are important and both make you better at whatever you do.

Check Your Progress 3

1. What is the combination of factors in practical knowledge?
2. What are the dimensions of knowledge?
3. What is theoretical knowledge and ~~the~~ practical knowledge?

1.4.3.4. Contextual and Textual Knowledge

What is context?

Circumstances forming the background of an event, idea or statement in such a way as it enable students to understand the information is known as context.

Context gives meaning and relevance to an event/happening, which maybe physical, cultural, historical, social or political. Context not only provides clarity to situation, but also what is involved in the context like objects, people, etc.

Contextual Knowledge

Knowledge in context, information or skills that have particular meaning because of the conditions that form part of their descriptions. Knowledge acquired during an incident that provides information about the development of the event is contextual knowledge. Contextual knowledge is knowledge on specific and general events, situations, or general content of an event/text.

Characteristics of Contextual Knowledge

- It is related to the context of information;
- The context gives meaning to a situation or event;
- Connectedness within and outside society, it is a linkage between individual and groups and organisations;
- Relationship between factors leads to knowledge;
- Relates classroom subjects to everyday life;
- Knowledge may extend beyond the boundaries of conventional classrooms; and
- High order thinking and problem-solving skills are encouraged.

Factors favourable to acquire contextual knowledge are-

- Culture of the student; and
- Socio-economic level of the community.

Contextual Knowledge is Related to School Knowledge

Context is important in teaching and learning. It is as important as content in a classroom. Who, what, and where are important in providing contextual knowledge to students? Contextual factors like the socio-economic level of the community and the culture of students play a key role in a classroom. So, the teacher should have an idea of these factors in providing contextual knowledge to students.

Learning by doing, hands-on learning is included in contextual knowledge, which is helpful to students for learning. Students are actively engaged and they learn from each other. Students should learn in teamwork, through discussion, co-operation, and self-reflection to acquire contextual knowledge. Students will understand this information better and be more willing to learn. In this way, contextual knowledge is linked to school knowledge.

Textual Knowledge

Text refers to words which are written. It is the most common form of knowledge storage. It is an entity. Textual means that which relates to a text, or which is based on a text. For example, in history illustrations are placed as close as possible to their textual descriptions. The word 'textual' is commonly used in the study of religion, literature, philosophy, science, and law.

Textual knowledge is familiarity with a range of media, textual code, conventions, forms, and contents along with social context. It is an essential resource for inferring the preferred meaning of texts in their reading and interpretation. Textual knowledge is reading the words and understanding them exactly as they are stated. It is teaching, reading, and research for the preservation of knowledge in writing. This knowledge is relevant to the understanding of grammatical aspects of language.

Information is usually stored in textual form. An idea in the form of words or an image existing in the mind can be written down as textual information. A vast amount of information is stored in textual form.

School knowledge is textual and begins with words, and so, in a way it is recorded in a verbal form.

Textual knowledge can be used in all subject areas, but is best in languages, history, literature, science, and mathematics. It is used in newspapers and textbooks in the form of print and other forms, which are very helpful.

Characteristics of Textual Knowledge

- It is a major source in teaching and learning;
- It provides logic and comprehensiveness to information;
- It provides more knowledge;
- It provides direct and indirect experiences;
- It provides textual evidences to support an idea or to answer a question;
- It enhances the appropriateness of the information;

- It arouses interest in students to acquire more information;
- It involves students in higher level thinking, problem solving activities, and extending activities, which lead to acquire more information;
- It is a source of information to both teachers and students;
- It is used in formal and informal education;
- It is helpful to students in self-learning;
- It makes students to think deeply about the text, source, and the authors; and
- As a source of knowledge, it is readily available to teacher and students.

There are some differences between contextual and textual knowledge.

Both contextual and textual knowledge are important in the context of school knowledge. The differences between them provide clarity.

Contextual knowledge	Textual knowledge
1. Knowledge on specific and general events and situations or context 2. Refers to surroundings of the text or events related to describing the situation. 3. Textual knowledge may extend beyond the boundaries of conventional classrooms. 4. It is related to everyday life.	1. Preservation of knowledge in text form. 2. Refers to words and understanding them literally. 3. Helps in self-learning 4. Knowledge is limited to text or written form. 5. Learning related to a specific text of context of a specific period.

Check your Progress 4

1. What is contextual knowledge?
2. Write few characteristics of contextual knowledge.
3. What is textual knowledge?
4. Write any two differences between contextual knowledge and textual knowledge.

1.4.3.5. School Knowledge and Out- of-School Knowledge

To achieve its purpose, society has organised schools, religious institutions, library, entertainment institutions, etc. Among these agencies, the school is important in providing education to children.

The school is a miniature of society or an active institution for teaching and learning. It prepares children in various competencies or skills and attitudes and values.

School knowledge is -

- Knowledge imparted by school/formal institution;
- Knowledge that is provided in a classroom; and
- A school provides learning spaces and learning environments to the students under the direction of teachers.

In a school context, knowledge is the sum of conceptions, ideas, laws, and propositions established and tested as correct reflections of the phenomena.

A school has specific aims and objectives to impart knowledge. The students' educational age is considered for educational period. The school is a mediator for formal education. In school, knowledge is imparted in modern science, arts, languages, commerce, social science, etc. Wisdom and sufficient life experiences are imparted through schools.

Schools provide specified, pre-set, international, and planned curriculum devised by educational authorities. Compulsory education is offered from primary to secondary levels.

Teachers are trained with effective strategies to teach based on their competencies, classroom management, and planned content organised in schools.

School knowledge changes the behaviour of students in a desired way. Students can get job opportunities on the basis of this knowledge. Schools are recognised by the government.

Out- of- School Knowledge

In reality, knowledge in the general sense knowledge acquisition from formal institutions [Schools and Colleges] and informal/out-of-school (family, neighbours, community) are all aspects of educational process.

Out- of- school knowledge is that which the learner acquires from agencies like home environment independently or guided by adults. Knowledge gained through everyday experiences are self-driven. Here, knowledge is incidental and informal. Out- of- school knowledge happens outside the classroom such as after school programmes, and via

community-based organisations, museums, libraries, and so on.Teaching - learning takes place outside a traditional school building. Here, knowledge is imparted through conversation, exploration, enlargement of experience, and dialogue, etc.

There is no specific classroom, as this form of education can take place in any setting. It has less control over the learning environment. Out- of- school educators are not trained; they cannot design environment nor direct proceedings in quite the same way as school education. Out- of- school programmes are examples of informal education.

The goal of out- of- school education is to provide learners with the tools he/she (students) needs to eventually reach more complex level of materials. It is concerned with helping people to develop the understandings and disposition to live well and to furnish together. In out- of- school knowledge programmes, the educators are volunteers, context specialists, youths, social workers, and community-based people. In these settings, there is no strict lesson plan, time-table, specified curriculum, textbooks or time restriction.

Learners gain out- of- school knowledge from birth to death through life experiences. They respond to situations and get experiences.

In out- of- school knowledge, there are no specific aims and objectives of education. No motivation is provided deliberately to the learners. Life progress itself is examination. Life events become textbooks.

Out- of -school knowledge agencies are not bound by rules; they are independent in providing knowledge. Outcomes of education is experience in science, mathematics, and technology, which includes a sense of fun and wonder, in addition to a better understanding of the concepts, topics, and process of thinking in scientific and technical disciplines leading to increased career opportunity in their fields.

Activities organized here are often short, completed within a few minutes or by the end of the programme day. Learners are not always in the same group of peers as attendance is not strictly required.

We can see a few differences between school knowledge and out- of- school knowledge.

School knowledge	Out- of- school knowledge
1. Knowledge is provided through schools. 2. Knowledge is gained only for the specified educational period. 3. Age is considered in the educational period. 4. Knowledge is formal experience 5. It is from prescribed textbooks. 6. Tests and exams are employed to assess the achievement of learners. 7. Elaborate and planned activities are organised.	1. Knowledge is acquired through family, playgroup, elders, and neighbours. 2. Knowledge is gained from birth to death. 3. No age restriction. 4. Informal experience. 5. Live events are textbooks. 6. Life progress is the examination. 7. Short activities are organised.

Both types of knowledge are required in the educational progress of a student. Both ~~the~~ knowledge is related to the all- round development of the students. In reality, educational process involves both school knowledge and out- of- school knowledge. Both offer different strengths to the educational system. Real learning happens in a setting where the student feels comfortable than in a formal classroom. The ultimate goal is that success in an informal setting can lead to ~~a~~ greater confidence in the formal education.

Check your Progress 5

1. List the out- of- school knowledge agencies?
2. What are the differences between learning activities framed in school knowledge and out- of- school knowledge set- ups?
3. Write some characteristics of school knowledge.

1.4.4. Let us Summarise

- Knowledge has many facets such as the local-universal knowledge, concrete-abstract knowledge, contextual-textual knowledge, theoretical-practical knowledge, and the school and out -of -school knowledge.
- All these facets of knowledge have their characteristics and differences, and are related to each other.
- Each facet of knowledge contributes to school knowledge in its own way. A child must have information of all the facets of knowledge in his education.

1.4.5. Answers to 'Check Your Progress 1, 2, 3, 4, and 5'

Check Your Progress 1

Refer Section 1.4.3.1. of Self Learning Material.

Check Your Progress 2

2, 3, 4, 5 - '✓'

Check Your Progress 3

Refer Section 1.4.3.3. of Self-Learning Material.

Check Your Progress 4

Refer Section 1.4.3.4. of Self -Learning Material.

Check Your Progress 5

Refer Section 1.4.3.5. of Self-Learning Material.

1.4.6. Unit end Exercises

1. Explain the facets of knowledge with examples.
2. Discuss the place of both practical and theoretical knowledge in the context of a school.

1.4.7. References

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Block 1 : Knowledge and Knowing

Unit 5 : Role of Culture in Knowing

Unit Structure

1.5.1. Learning Objectives

After studying this Unit, the students will be able to

- Explain the concept of Culture;
- Explain the characteristics of Culture;
- Identify the role of Culture in Knowing; and
- Clarifies the relationship between Culture and Education.

1.5.2. Introduction

We celebrate many festivals like Deepavali, Mahashivarathri, Sankranthi, etc. We celebrate these because they were celebrated by our father and forefathers. These festivals indicate our culture. Culture gives information; it refers to beliefs and customs of a particular group of people. A culture can be observed through many aspects of our lives such as language, food, clothing, symbols, and history. Culture provides a fund of knowledge. Since thousands of years, human race has experienced thoughts, believes, behaviours. The collective form of these is called as culture. It is associated with family, origin, race, ethnicity,

geographic location, and also to food, clothing, and symbols. A child receives culture as from home prior to attending a school.

There is no society without culture and no culture without society, as both move together and are the two faces of a coin. Both depend and nurture each other. Also, we can see a close relation between culture and education. In this Unit, we will study the meaning, definition, characteristics, and role of culture in the process of knowing.

1.5.3. Learning Points and Learning Activities

1.5.3.1. Culture- Its Meaning, Definition, Characteristics, and Types

Meaning

Culture is the characteristics and knowledge of a particular group of people encompassing language, religion, cuisine, social habits, music, and arts. It means good manners and good behaviours. Every culture has its own patterns, socialisation and particulars, and standards of personality like an ideal adult image.

Culture refers to something collective artistic and intellectual. It is the world we inhabit as well as a choice we make or a preference that we have. It influences our life. It cannot be forced as every individual experience it. Culture is often understood as the ultimate paradigm. If a paradigm is a knowledge filter or a model for understanding, then it follows that the culture we inhabit shapes the narratives that we tell ourselves.

Definition of Culture

Culture is no longer fixed; it is essentially fluid and constantly in motion. This makes it difficult to define. A few definitions are given here.

Author	Definitions
Tylor	The complex whole which includes the knowledge, belief, art, law, custom and any other capabilities and habits acquired by man as a member of society is called culture.
R. Leeton	Culture is cultural heritage which is easily transferable from one generation to another.
Herskovits	Culture is the man-made part of the environment.
Sociology	Culture means art, literature, intellectual maturity, ideals, behaviours, lifestyle, economics and politics, etc.

Characteristics of Culture

- It refers to the attitudes and behaviours of a social group.For example, consumer culture and corporate culture.Each of them connotes certain attitudes and behaviours.
- The first characteristic of culture is to give happiness to others
- Culture is a social process;
- It is acquired by learning;
- It is dynamic and transferable from generation- to- generation;
- It is imitational, continuous, changes from place- to- place and from period-to-period;
- Has comprehensive scope;
- Has historical heritage and affects the behaviour of man;
- It is not measurable or universal;
- In a broader sense, it a cultivated behaviour;
- Culture is communication and communication is culture; and
- Involves value-based principles.

Check Your Progress 1

1. What is culture?
2. The word 'culture' is derived from which word?
3. What is the first characteristic of culture?
4. What is material culture?
5. What is non-material culture?

1.5.3.2. Role of Culture in Knowing

Culture gives information that can serve to explain why people behave in a certain way. Culture will help us to understand the reasons behind people's behaviours. The culture into which a child is born acts in more fundamental ways as the means of knowing. As knowing is a meaning making process the meanings to the concepts are provided by the language of the society and the cultural context. Language is a good indicator of how a culture is. There is relationship between language and the mind in creating meaning. Culture significantly contributes to meaning.

Daniel Everett says there is relationship between culture and language. Language itself appears to be a cultural invention. Language is a tool moulded by culture. An account

of meaning ultimately needs to include all three points together like language, mind, and culture. It is the language in its cultural context that creates meaning. Creating and interpreting is done within a cultural framework. Without it, we are in effect a linguistic dunce. In language learning classrooms, learners need to engage with the ways in which context affects and what is communicated and how. Both the learners' culture and the culture in which meaning is created or communicated have an influence on the ways in which possible meanings are understood.

Living in culture and acquiring cultural knowledge enables us to gain meaning from the world around us and from each other.

You must have experienced that the meaning of one object or thought varies from one cultural context to another. For example, a person considered to be intelligent in the cultural context may not be considered so in another culture. Thus, the very process of experiencing reality is facilitated by the cultural tools. In a distinct way from internal sources, culture acts as a means of knowing and knowledge. This is true in case of school knowledge, which is textual knowledge.

Culture has often been understood as a body of knowledge that people have about a particular society. This body of knowledge can be seen in various ways as knowledge about cultural artefacts, and as knowledge about places, symbols, and ways of living. It is possible to teach this aspect of culture in terms of information, which can be mastered by students. It can also be instrumental in influencing and shaping both thought and language. Culture is not however simply a body of knowledge, but rather a framework in which people live their lives and communicate shared meanings with each other.

Culture and Education

Culture and education relate to each other. Culture plays its role in developing good attitudes, social qualities, critical thinking, and ethnic and cultural literacy among children, and promotes effective relationship between home and school. One of the fundamental goals of education is to preserve culture and to impart cultural heritage from one generation to another.

Knowing the cultural background of student education can frame the structure of classroom to provide effective instruction.

The school has to shape individuals through shaping culture. The school imparts values such as co-operation, team-spirit, discipline, and skills. Later, these skills and values are incorporated within the culture of society. In celebrating national or international festivals, the cultural approach is used. Culture in these contexts influences the various norms and ideas of the society and of the country.

School Culture- A school has its own culture. It is characterised by the presence of a set of norms and values that focus everyone's attention on what is important and motivates them to work hard toward a common purpose. It fosters effort and productivity. Improving collaborative activities promotes better communication and problem solving. Schools approach curriculum building with culture in mind. A curriculum that builds on a student's cultural understanding proves to be more effective because students can relate it to their own lives.

Teachers' Role in Cultural Context

Teacher, before teaching, should understand the country culture, value problem and see that taught values are transferred in student's life. Teachers should teach on scientific basis and honestly.

Nowadays culture conscious education is becoming common. The very function of culture is to foster values, and the task of education is to make this process more conscious and practically defensible, and the role of curriculum is making it effective.

As culture changes, so also our educational system's major factors such as educational objectives, curriculum, teaching method, evaluation techniques, school activities, teacher attitudes, and school environment change. Culture gives holistic learning and connects to other disciplines and determines the usage of education in society.

The role and influence of education in culture leads to the following changes-

The traditional classroom is replaced by communication and technology. Child centred education comes in to existence. Adult education takes place in the field of education through the scheme of educating the illiterate. Girls who had no opportunity of education, now achieve higher levels of education.

Diffusion of good culture by quality education makes it possible for culture to maintain its place in society. Culture strongly influences how an individual approaches education, and a society's culture determines how that society educates its citizens. Thus, we see how culture plays its role in knowing and knowledge.

Check your Progress 2

1. Explain the relationship between culture and education.

1.5.4. Let us Summarise

- Meaning of culture- Culture means good ways of leading life. Culture is the characteristics and knowledge of a particular group of people encompassing language, religion, cuisine, social habits, music, and arts. Culture influences our life. It cannot be forced on people.
- Definition— According to R. Leeton, Culture is cultural heritage which is easily transferable from one generation to another.
- Characteristics of Culture— It is dynamic. It affects human behaviour. It is not measurable.
- Types of culture are material and non-material.
- Role of Culture in knowing— Culture helps us to understand the reasons behind people's behaviour. The meaning to the concepts is provided by the language and cultural context. Culture can also be instrumental in influencing and shaping both thought and language.
- Culture and Education— Culture plays its role in promoting critical thinking and positive attitudes among children. Education has to preserve culture and transfer it to the next generation.

1.5.5. Answers to Check Your Progress - 1 and 2'

Check your Progress 1

Refer Section 1.5.3.1 of Self-Instructional Material

Check your Progress 2

Refer Section 1.5.3.2 of Self-Instructional Material

1.5.6. Unit end Exercises

1. What is school culture?
2. Write few characteristics of culture.
3. Clarify the relationship between culture and education.

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Block 1: Knowledge and Knowing

Unit 6 : Reflection on Knowledge

Unit Structure

1.6.1. Learning Objectives

After reading this Unit, the student - teachers will be able to-

- Explain the views of Gandhi on education and knowledge;
- Clarify the contributions of Tagore to education;
- Explain Aurobindo's educational views and his contributions; and
- Analyse the ideas of J. Krishnamurti in the field of education.

1.6.2. Introduction

We know of many educational thinkers and philosophers. Along with eminent western educators, India has also produced a number of masters in the last century. Notable among these are Swami Vivekananda, Rabindranath Tagore, Mahatma Gandhi, Dr. Radhakrishnan, Sri. Aurobindo Ghosh, J. Krishnamurti, etc. They gave us new ideas about education. Among all these educationalists, we will discuss the ideas of Mahatma Gandhi, Rabindranath Tagore, Aurobindo, and J. Krishnamurti.

1.6.3. Learning Points and Learning Activities

1.6.3.1. Views of Mahatma Gandhi on Education, Knowledge, and Curriculum

Definition

"Education is the all-round drawing out of the best in child, man, body, mind and spirit". Education is not making everyone literate but development of intellectual and spiritual man.

Curriculum

Gandhi advocated a complete overhauling of the curriculum. He proposed that education should be related to the environment of the child. Our emphasis should be upon all those subjects, which concern our own country, our people, our life, our physical and social environment. In curriculum, importance should be given to practical work, that is, learning by doing. Activities will lead not only to knowledge, but also to mental changes.

Basic Education

To put his educational ideas into practice, Gandhi placed before the country his Wardha Scheme of Education in 1937. It is also known as the Basic Education Scheme.

It is the outcome of Gandhiji's firm belief that only a Swadeshi system of education can meet the needs and aspirations of the Indian people. He was a great idealist, as well as a pragmatist. He wanted the system of education to be Indian in origin and Indian in setting.

Gandhiji felt that a new pattern of education was needed for a child's future progress, so he advocated the basic education. Basic education is based on the national culture and civilisation of India. It aims at making a child self-reliant by enabling him to use his acquired knowledge and skill; the practical affairs of life. Its outstanding features are Non-Violence Cult, Ideal of Citizenship, and Co-operative Living. In Gandhiji's view, sound education must be rooted in the culture and life of the soil and therefore, he pleaded for relating education to the environment. The scheme of basic education does not stand for mere technique, it stands for a new spirit and approach to all education.

The syllabus in basic education includes craft, mother-tongue, mathematics, social studies, and general science. Drama and music were included for both boys and girls. The procedure of teaching was correlation. The subject matter must be correlated with the craftwork, life problems, as well as the physical and social environment of the child.

It is Indian and a scheme suited to the needs, genius, culture, as well as to the social, political, and economic background of the Indian people.

Characteristics of Basic Education

- Free and compulsory education should be given to all children for a period of seven years;
- Medium of instruction should be mother-tongue;
- Education should be based on the principle of learning by doing and learning by earning;
- Education should be self-supporting to some extent; and
- The process of education should be centred around some form of manual production work in the form of craft.

Check your Progress 1

Explain the views of Mahatma Gandhi on Curriculum and Knowledge

1.6.3.2. Views of Rabindranath Tagore on Education, Knowledge, and Curriculum

Rabindranath Tagore was popularly known as Gurudeva, and was one of the greatest prophets of the educational renaissance in modern India. He was a naturalist and humanitarian.

Education is a continuous process. Education means enabling the mind to find out the ultimate truth which manipulates us from the bondage of the dust and gives us the wealth, not of things but of inner light, not of power but of love, making its own and giving expression to it. According to Tagore, the highest education is that which doesn't merely gives us information but makes our life in harmony with all existence.

Curriculum

Tagore emphasised on religious education, women education, vocational education, national education, and mass education. Tagore wants child to learn from direct sources, from life and society.

According to him, curriculum should not be narrow, but should be structured with future perspectives. Science should be the basic part of a curriculum. The development of

all aspects of a child such as physical, intellectual, social, economic, moral, aesthetic, and spiritual should be in the curriculum. Co- curricular activities and contents which prepare a child to the feelings of national and international should be given a place in the curriculum. Education and life is inseparable; life itself should be the curriculum, so these should be considered in the curriculum- Indian language, mother tongue, other regional languages, mathematics, nature, health education, social science, agriculture, technical, art, music, dance, philosophy, religion, and psychology. Craft work and mother tongue should be main and compulsory.

Tagore wanted to bring a balance between education of nature and education of man through art, music, and dance. He set a high value on creativity.

He emphasised the study of World History as a common heritage of all children. He pleaded for universal outlook in history, and a critical appraisal of the national culture; he pleaded for manual training, not for its utilitarian and social aspect, but for its spiritual aspect. In short, Tagore recommended a curriculum for the full man, satisfying the spiritual, the creative, the aesthetic, and the vocational aims of education.

Tagore's contribution can be seen through the institution he started known as Shanthi Niketan or Abode of Peace. Here, the atmosphere of joy and freedom, love, peace, sympathy and nobleness of spirit was emphasised. In this school, there was homely environment. The school was run under the shadows of trees. Admission was open for both girls and boys. Teachers-students lived together.

General subjects were taught with professional subjects of different kinds such as dance, music, drawing, etc. through activities. Knowledge was imparted through mother tongue and art forms.

In later years, his school Shanthi Niketan was expanded to international university and renamed as Vishwa Bharathi. It is a public central university. This university holds two campuses, one at Shanthiketan and the other at Sriniketan, where the focus is on agriculture, adult education, village, welfare, cottage industries, and handicrafts.

Check your Progress 2

Explain the ideas of Tagore about Curriculum and Knowledge.

1.6.3.3 . Views of Aurobindo on Education, Knowledge, and Curriculum

Meaning of Education

Concept of Education - According to Aurobindo, education should be in accordance with the needs of our real modern life. He writes, education to be true must not be a

machine-made fabric, but a true building or living evocation of the powers of the mind and spirit of human being.

Education means giving creativity to inner powers, developing the mind and soul intelligence in a child. Sri Aurobindo's concept of education is not only acquiring information, but acquiring various kinds of information.

Education means not teaching, not suggesting, but motivating a child to develop according to his nature. Parents should allow a child to develop according to his desire and interest, to develop a good personality. In devising a true and living education, three things should be taken into account such as the man-his uniqueness, the nation, and universal humanity.

Curriculum

Aurobindo prescribed free environment for a child to develop all his faculties to the maximum and suggested that all subjects and activities should possess elements of creativity and educational expression. He wished to infuse a new life and spirit into each subject and activity through which the development of a super human being could become possible.

Moral and religious education should be compulsory in school education. Education should have religious foundation, instead of blind, prejudiced traditions and customs, to develop scientific thoughts.

He laid down a few principles for curriculum construction as follows -

- Curriculum should be in such a way that a child finds as interesting;
- It should include subjects, which promote mental and spiritual development;
- It should motivate children towards the attainment of knowledge of the whole world; and
- It should contain creativity of life and constructive capacities.

On the basis of the above principles, Aurobindo prescribed the following subjects in the curriculum for different stages of education.

At Primary Stage

Mother tongue, English, French, Literature, National History, Art, Painting, General Science, Social Studies, and Arithmetic

At Secondary Stage

Mother tongue, English, French, Literature, Arithmetic, Art, Chemistry, Physics, Botany, Philosophy, Health Education, and Social Studies

At Vocational Level

Art, Painting, Photography, Sculpture, Drawing, Cottage Industries, Nursing, and Mechanical-Electrical Engineering

Three important aspects to be considered in curriculum, according to Aurobindo are,

- Education in mother tongue of the child;
- Training the sense organs to develop understanding and knowledge; and
- Helping in developing logical attitude and scientific intelligence.

Aurobindo's Views on Knowledge-

Sri Aurobindo located the secret of human knowledge in the depths of our being that may not be directly experienced by all of us. He distinguished four types of knowledge.

1. Knowledge by identity (atmavidhya) - Knowledge of one's own existence. This knowledge plays a central role in the Vedas and the Upanishads.
2. Knowledge by intimate direct contact (experimental knowledge) -Awareness of one's own inner states by being with them.
3. Knowledge by separate direct contact (introspection) - Looking at one's own mental processes as if from outside.
4. Separate knowledge by indirect contact (scientific knowledge) - Sense based, constructed knowledge of the outer world. Aurobindo's concept of 'Comprehensive Education' is a unique contribution to the education field.

Auroville is an important organisation inspired by Aurobindo's vision. It is Aurobindo's university in Tamil Nadu, an international township. It is famous as a city of universal culture.

Its aim is the unity of mankind, universal culture, making people karmayogi. Everyone must involve in their duty/work— that is their achievement.

Auroville has a wider concept where all males, females, of all nationality forgetting their political differences live with peace and prosperity. 120 nations have taken the membership of this organisation. Aurobindo conceived education as an instrument for the real working of the spirit in the mind and body of the individual and the nation.

Check your Progress 3

1. Explain the ideas of Aurobindo in relation to knowledge and curriculum.

1.6.3.4. Views of J. Krishnamurti on Education, Knowledge, and Curriculum

J. Krishnamurti is globally regarded as one of the greatest thinkers and religious teachers of all time. He was a philosopher, speaker, writer, and an educationalist.

Education

As a philosopher, Krishnamurti looked at education as the ultimate basis of all learning in the innermost workings of the human mind. According to him, Education is preparation of the whole life. He advocated holistic education. Education in the true sense is helping an individual to be mature and free, to flower greatly his love and goodness. That is what we should be interested in and not in shaping the child according to some idealistic pattern.

Education is important for changes in the mind of man and giving birth to culture.

According to Krishnamurti, education is to help us from childhood not to imitate anybody, but to be ourselves all the time.

Krishnamurti's Views on Knowledge

Concept of Knowledge

According to Krishnamurti,

- Thought is born of experience and knowledge which are inseparable from time and the past.
- Learning is not the accumulation of knowledge. Learning is movement from moment to moment.
- Without love the acquisition of knowledge only increases confusion and leads to self-destruction. Not to know is the beginning of wisdom. Knowledge about yourself binds, ties you down there is no freedom to move and you act and move within the limits of that knowledge.
- Learning is active present and knowledge is the past. Knowledge is static more can be added to it or taken away from it.

Knowledge is of 3 types such as scientific knowledge, individual knowledge, and collective knowledge. Scientific knowledge is from genetics, biology, geography, etc.; Individual knowledge comes from personal experiences; and Collective knowledge from ancestors and society. Intelligence uses knowledge.

Krishnamurti did not expound any philosophy or religion, but rather talked of the things that concern us in our everyday lives; of the problems in modern societies. He explained with great precision the subtle workings of the human mind and pointed to the need for bringing to our daily life a deeply meditative and spiritual quality.

Integral Learning was his major contribution.

Few characteristics of integral learning

- Provides integrated experience;
- Freedom from ready-made ideas and development of a free and mature human being;
- Right understanding of environment;
- Development of international understanding;
- Enable learners to develop capacities to face challenges;
- Development of self-knowledge; and
- Importance not to the system and as long as individual doesn't understand the total process of himself, no system can bring order and peace to the world.

Check your Progress 4

1. Explain the concept of Knowledge and Curriculum according to J Krishnamurti.

1.6.4. Let Us Summarise

- Gandhiji was a great idealist and a pragmatist. He wanted the system of education to be Indian in origin and Indian in setting. His basic education was based on the national culture and civilisation of India. He proposed his curriculum based on basic crafts.
- Tagore was a naturalist and humanist. He said education should be based on a child's interest and emotions. According to him, Curriculum should help to understand nature, to communicate with nature.
- According to Aurobindo, education meant training the sense organs. Integral Education, Comprehensive education was his contribution to curriculum. He proposed four types of knowledge, namely, Knowledge by identity, Knowledge by intimate direct contact, Knowledge by separate direct contact (introspection), Separate knowledge by indirect contact (scientific knowledge).
- Jiddu Krishnamurti, explained with great precision the subtle workings of the human mind and pointed to the need for bringing to our daily life a deeply meditative and spiritual quality.

1.6.5. Answers to 'Check your Progress 1, 2, 3, 4, and 5'

Check Your Progress – 1

Refer Section 1.6.3.1. of Self-Instructional Material

Check Your Progress – 2

Refer Section 1.6.3.2. of Self-Instructional Material

Check Your Progress - 3

Refer Section 1.6.3.3. of Self-Instructional Material

Check Your Progress - 4

Refer Section 1.6.3.4. of Self-Instructional Material

1.6.6. Unit end Exercises

1. Explain the views of Mahatma Gandhi, Rabindranath Tagore, Aurobindo and J. Krishnamurti on Knowledge and Curriculum.

1.6.7. References

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Block 2 : Forms of Knowledge and its Organisation in Schools

Unit 1 : Concept of Curriculum

Unit Structure

2.1.1. Learning Objectives

After studying this Unit, the student-teachers will be able to

- Define the meaning of curriculum;
- Understand the definitions of curriculum;
- Explain the concept of curriculum; and
- Describe the types of curriculum

2.1.2. Introduction

Curriculum is an important factor to achieve educational aims and objectives. Curriculum is often defined as the courses offered by a school, but is rarely used in a general sense. In schools, curriculum includes both curricular and co-curricular activities. In the present Unit, we will learn about the concept of curriculum, its meaning, definitions, and types.

2.1.3. Learning Points and Learning Activities

2.1.3.1. Concept of Curriculum- Meaning and Definitions

- Curriculum is the base in education on which the teaching-learning process is planned and implemented.
- Curriculum includes all planned learning experiences organised by a school based on the educational aims and objectives.
- Curriculum is the sum total of the academic and non-academic experiences of a school. It is based on educational intended outcomes to fulfil the personal and social growth of the learners.

Concept of Curriculum

Traditional Concept of Curriculum

The traditional system of education used curriculum exactly in a similar sense when it insisted on the acquisition of mastery over certain skills and certain areas of knowledge, as the sole aim of education. The teacher was expected to train his pupils for realising the aim of education 'by leading them through the curriculum, prescribed in the purpose'. So, the term 'curriculum' came to signify a group of subjects or courses of study arranged in a particular sequence, for instructional purposes in schools.

In olden days life was simple and the needs of the society were also not very complicated and numerous. So only a few subjects in the curriculum were considered synonymous with academic subjects of instruction.

Modern Concept of Curriculum

Modern curriculum covers all the wider areas of individual and group life. It encompasses all the meaning and desirable activities outside the school provided that these are planned, organized and used educationally. As such, curriculum is something more than textbooks, more than the subject matter, and even more than the courses of study. It is now viewed as a pursuit with no rigidly fixed goal, rather a 'race' in which the goal and the course, leading to that goal, are both fixed in advance.

Narrow and Broader Meaning of Curriculum

In its narrow sense, curriculum means the plan reach the aims and objectives of education. It is restricted to classroom activities concentrating on the study of a few subjects in a major field of study. It is just a tool to achieve the aim of teaching a subject.

- It is limited to classroom activity;
- It emphasis teaching subjects;
- It works to produce certificate and degree;
- It develops only mental ability; and
- It is more under teacher and administrative control.

In its broader sense, curriculum means not only the study of academic subjects traditionally taught in schools, but also includes the sum total of all experiences that a pupil receives through the manifold activities in a school.

- It includes total experiences given by manifold activities;
- Includes both curricular and co-curricular activities;
- It works to develop the personality of the child;
- It has a more creative and forward outlook; and
- It is child- centred

Definitions

"Curriculum includes all the learning experiences offered to all the learners under the direction of the school"-C. Ronald

"The school curriculum becomes what it is in any school at any given moment because of social setting, the ideals and commitment of individuals and the skill, understanding and strategy of those concerned with change"- Kimbal Wiles

"Curriculum as the sum total of student activities which the school sponsors for the purpose of achieving is objectives"- Alberty, A. and Alberty, E

"Curriculum' as all experiences which a pupil has under the guidance of the school"- The Blond's Encyclopaedia of Education

"Curriculum is the totality in the hands of artist (teacher) to mould his material (pupil) in accordance with the ideal in his studio (school)"- Cunningham

Thus, a curriculum is the instructional programme through which pupils achieve their goals. An overall understanding of curriculum also provides insight into the concept of curriculum.

Check your Progress 1

Identify the attributes of curriculum based on different definitions.

2.1.3.2 Types of Curriculum

Curriculum can be classified based on its focus.

1. Traditional or Subject Centred Curriculum

It has been in vogue for a long time, which is conceived in terms of subjects. It is nothing but a statement of the subjects of study with indications of their extent and time-limit. The focus is on the intellectual attainment of the child, rather than on the values of studies for personal and social development.

2. The Activity Curriculum

The subject matter is translated in terms of activities, and knowledge is gained as an outgrowing product of those activities. Activity is used as the medium for imparting all the requisite knowledge, skills, and attitudes.

3. The Experience Curriculum

A curriculum which gives rich and varied experiences of knowledge, skills, attitudes, and appreciation is called the experience curriculum. Experience in fact is the product of the activity process. An educative and meaningful activity must end with gainful experience.

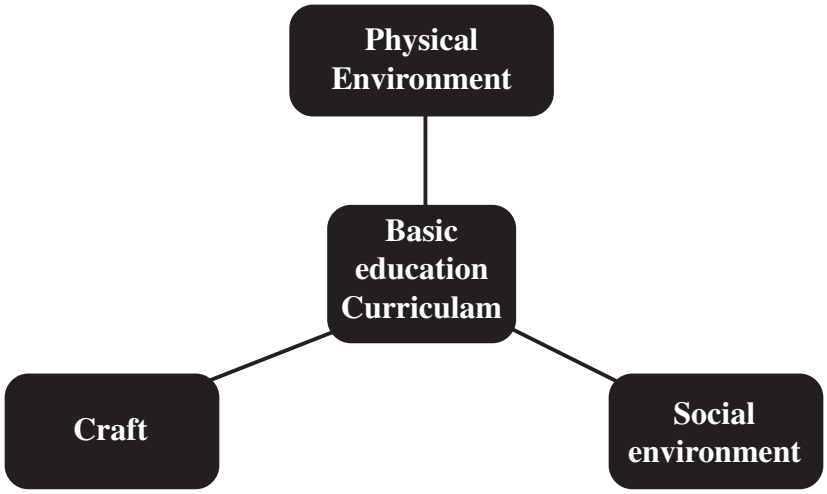
4. The Undifferentiated Curriculum

This curriculum does not aim at the specialised study of various subjects. At the primary and junior secondary school stages, we should have undifferentiated or fused curriculum, which lays stress on the formation of worthwhile habits, skills, and virtues. It contains a certain amount of common knowledge and experience, considered essential for all children without any consideration of their sex or aptitude.

5. Basic Education Curriculum

With a view to bring about the all-round development of the child, curriculum of basic education has been constructed around three integrally related centres such as

- Physical environment,
- Social environment, and
- Craft.



All subjects and activities are coordinated with these centres, in order to give much needed unity to the school curriculum. This curriculum should be interpreted in the light of the general principles of basic education.

Basic education is education for life, and an education through life, which was conceived and explained by Mahatma Gandhi.

There are some more types of curriculum such as overt/written curriculum.

It is written as part of the formal instruction of schooling experiences. It may refer to curriculum document or texts that are overtly chosen to support the intentional instructional agenda of a school.

6. Societal Curriculum/Social Curriculam

Cortes (1981) defines this curriculum as massive, ongoing, informal curriculum of family, peer, groups, churches, occupations, mass media, and other socialising forces that educate all of us throughout our lives. It actively helps to create new perspectives, and can shape both individual and public opinion.

7. The Hidden or Covert Curriculum

Long Street and Shane (1983) offer a common definition, which refers to the kinds of learning. Children derive from the very nature and organisational design of the school as well as from the behaviours and attitudes of teachers and administrators.

8. Learner-centred Curriculum

It gives importance to individual development and curriculum organised according to the needs and interests of the learners. The learner is consulted and tutored individually at difficult points in the curriculum and instructional process.

Check Your Progress – 2

Complete the statements given below with appropriate answers

1. In traditional curriculum, all stress is on_____
2. In activity centred curriculum, activity is used as the medium for imparting _____
3. In activity centred curriculum, activity is used as the medium for imparting all the requisite_____, _____and _____
4. An educative and meaningful activity must end in a gainful_____
5. Basic Education curriculum should be interpreted in the light of the general principles of _____

2.1.4. Let us Summarise

- Curriculum is the base in education on which learning process is planned and implemented. Narrowly, curriculum is restricted to classroom activity and works to produce only certificates and degrees.
- Curriculum in a broad way includes both curricular and co-curricular activities. It is more child-centred.
- There are different types of curriculum such as subject-centred curriculum, activity curriculum, learner-centred curriculum, Experience Curriculum, Societal Curriculum, etc.

2.1.5. Answers to 'Check Your Progress-1 and 2'

Check Your Progress 1

Refer Section 2.1.3.1 of the Self Instructional Material.

Check Your Progress 2

Refer Section 2.1.3.2 of the Self Instructional Material.

2.1.6. Unit end Exercises

Explain the meaning and types of curriculum.

2.1.7. References

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Block 2 : Forms of Knowledge and its Organisation in Schools

Unit 2 : Perspectives of Curriculum

Unit Structure

2.2.1. Learning Objectives

After studying this Unit, the student teachers will be able to

- Explain traditionalist views on curriculum;
- Clarify the empiricist perspectives about curriculum;
- Analysethe re -conceptualist views on curriculum; and
- Clarify the social constructivists' point of view on curriculum.

2.2.2. Introduction

We all have our own perspectives on various things or life. Our perspective differs from one another. For example, your perspective on Gandhi may be, he was the father of the nation, he believed in truth, non-violence, and Satyagraha. My perspectives on Gandhi is that he was a good educationist. His concept of Basic Education is the root of our present vocational education. This example might have clarified the concept of the term perspective. In the same way, experts in the field of education/curriculum have perceived the concept of curriculum with different perspectives and hence today, we can analyse the concept of curriculum from different perspectives.

The concept of curriculum has been analysed by different schools of educationists like traditionalists, empiricists, re-conceptualists, and social constructivists. Let us understand the views of each of these schools on curriculum.

Traditionalists' Views on Curriculum

In traditional education, the teacher is the centre of the teaching-learning process. Curriculum is what students should be taught at schools, i.e., the content which is identified with certain subject-matter, the cumulative tradition of organised knowledge. Traditionalists view curriculum as a plan and stress procedures required to create such a plan. They are concerned with the essential role of the key curriculum players, i.e., teachers, developers, and the bases for selecting, organising, and sequencing of curriculum content.

All the students are taught the same material. Students learn about the religious, customs, traditions, and culture of society. The aim at present is still the same and the only thing that has changed is the needs of people and the scenario of life. Traditional education is also called customary education or conventional education.

Ralph Tylor and Hilda Taba are considered as the major traditionalists. Traditional perspective represents the foundational idea that dominated the curriculum field from the beginning of the 20th century until well after the middle of the century. Traditionalists designed and developed a school curriculum in the narrow sense of the term that served practitioners in teaching the appropriate content and installing the particular skills in an uncontested way. The traditionalist perspective pertains to curriculum development in the service of schools and not as a larger cultural phenomenon in which schools are but a part.

The traditional perspective was a response to a contemporary problem during the 19th century. The perspective is bent upon perceiving cultural heritage, that is, it takes the position that educational curricula's primary goal is to transmit the accumulated knowledge of society as well as those skills, facts and standards, moral and social conduct that adults consider to be necessary for the next generations in terms of material and social

success. John Dewey described Traditional Education as being imposed from above and from outside. The students are expected to docilely and obediently receive and believe these fixed answers. Teachers are instruments by which this knowledge is communicated and these standards of behaviours are enforced.

Traditionalists are disciplinarians espousing the belief that if you exercise the mind like any muscle, it will get stronger. They encourage rigorous mental involvement to strengthen the mind, and the theory is based on perennials and essentialist philosophies, which are the outgrowth of realism and idealism.

Perennialism is one of the earliest philosophies where reality is a world of reason and god; truth is in reason and revelation. Schools exist to reveal God's will and the instructional objective is to educate the rationale person and to cultivate the intellect. For essentialism, realism is the world of intellect, truth is in the consistency of ideas and goodness is in rationalism. Schools exist to sharpen the mind and intellectual processes. The instructional objective is to promote the intellectual growth of the individual. The main differences between essentialism and perennialism are that essentialism calls for core courses. Education is constant, absolute and universal, and therefore, the same curriculum should be for prescribed for everyone.

Traditionalist Views on different aspects of curriculum

Theory

The theory, from the traditionalists' point of view, is not essential to the improvement of practice. Curriculum development is a practical enterprise and not a theoretical study.

Classroom

Thestudents matched by age and possibly also by ability. All students in a classroom are taught the same material.

Student

Students should obey the teacher, and also receiving should behave according to the expectation of teachers, and memorize the content taught.

Traditional Educators

Teachers are considered as reputed role models in the community. Teachers maintain that if one knows a subject well, then one can teach well. Here, the teacher receives no guidance on how to facilitate the learning process. The teacher is viewed as an anchor who can transmit the knowledge to students.

Focus of Curriculum

Curriculum focuses on disciplinary subjects, literary analysis, eternal thoughts, essential skills, and essential subjects (Science, History, and Foreign Languages).

Traditionalists agree that issues about teaching methods and the hidden curriculum are relevant to what children learn in schools. Traditional curriculum follows established guidelines and practices, where exchange between students and teachers is less encouraged, and the facilitation of class discussion is also not a part of this curriculum.

Educational Objectives

It should be determined prior to the instruction, achievable and measurable.

Learning Experiences

This includes culture and improves student skills in different subjects

Instruction

It is putting the plan into action and subject- matter is important than instruction. What is to be taught is more important than how to teach it.

Evaluation

Teacher is responsible about the evaluation. The student is not involved and it measures how much are the objectives achieved.

Teaching Method

Teacher- centred methods are used. It relies mainly on textbooks, the presentation of material starts from part to whole, and memorisation and recitation techniques are used. It emphasises on direct instruction. Students learn through listening and observation.

Merits of Traditional Perspective

- There is scope for receiving instruction in core subjects such as Mathematics, Science, and Social Sciences.
- Scheduled and properly carried out lectures, provision for tests, and there is scope for students to be more disciplined.
- Offers active mode of learning in classroom, and students are able to learn very quickly.
- Traditionalists identified key elements in curriculum development.
- Traditionalists offer quality instruction.
- Traditional curriculum may include transmission of moral standards, social conduct, and skills which educators consider important for students to learn.

Limitations of Traditional Perspective

- Emphasis on what information is taught to students and not on how it is taught
- Social, emotional needs, interests, and experience (background) of the students are not considered in curriculum planning.
- All students are taught the same content in the same timeframe with no adjustments made for students, who have difficulty with the material or for those who find the material easy and are ready to move ahead of the rest of the class.
- Is divorced from any real-world application or use of the facts learned.
- Does not allow students to develop problem solving and critical thinking skills.
- Less freedom in learning environment.
- Students depend on teachers in study related matters.
- Teachers have minimal involvement in the curriculum development process.
- Does not take into account theories of learning and motivation.
- Does not promote democratic values as it adopts authoritative position regarding the general knowledge of a given society.

Check Your Progress 1

A few incomplete statements are given below. Read them carefully and complete them selecting appropriate answers given in the brackets.

1. Traditional perspective's foundational idea dominated the curriculum field during _____(19th century/ 20th Century)
2. Traditionalist concept of curriculum is considered to be _____(narrow/ broad)
3. Traditional perspective is bent on preserving_____(social/ cultural heritage)
4. John Dewey described traditional education as _____(imposed from above/ within
5. Traditionalists have the belief that if we exercise the mind, like any muscle it will get_____(weaker/ stronger)
6. Traditionalist theory is based on perennialist and _____(Idealist/ Essentialist)

2.2.3.2. Empiricists' Perspectives of Curriculum

John Locke, George Berkeley, and David Hume were the primary exponents of empiricism.

- Empiricists apply scientific methods to educational research. The result of research function to serve school practitioners in content and instruction.
- They argue that scientific knowledge of human behaviour, including curriculum, is possible through research.
- They focus on content even more than the traditionalists.
- Whatever we learn, accordingly to empiricists, we learn through perception.
- They uphold that all our knowledge is ultimately derived from our senses or our experiences. They, therefore, deny the existence of innate knowledge, i.e., knowledge that we possess from birth.
- It struggles however to account for certain types of knowledge, i.e., knowledge of pure mathematics or ethics.
- Curriculum focus is based on student's interests and experiences.
- Curriculum involves application of human problems and affairs, organisation of discipline and knowledge, which is based on empirical research.
- Large curriculum packages are developed because of the belief that every discipline has its own structure of concepts relationships and rules, and the best way to learn the discipline is to learn structure (whole or in part)
- The ultimate goal is to structure the content so that learners will learn better.
- If students fail to learn, it becomes their fault not the teacher's.

Role of Students

Active participation and contribution for learning.

Role of Teacher

- They are consultants, guides for problem solving and scientific inquiry, motivate the students and creates environment that promotes learning.
- Empiricist question – What are the teachers teaching? Why have they arranged the school content in the way they have, and what influence do they have on the learners?

- Empiricists are involved in substantive theorising, which aims at highlighting and identifying appropriate curriculum content.
- They analyse current situations and suggest alternatives to current patterns of content and experiences included in most curricula.
- They emphasise content-based theories. These theories state that knowledge can be structured according to its key concepts, and then these concepts can be organised in a manner that reveals major relationships among them. They believe that a curriculum so organised will help students to easily grasp the conceptual basis of knowledge resulting in a more detailed understanding.

Merits:

- Empiricism is the most logical approach, and provides the most solid foundation to the study of how a human brain learns.
- It has more scope for observation.
- Empiricism says that knowledge comes from using the senses to observe the world
- They emphasise content learning from whole to part.
- Empiricists are interested in applying cognitive science to the curriculum and instructional research.
- Their curriculum focuses on student interests and experiences, etc.
- It requires nothing from the learner, but a willingness to learn.

Limitations

- A major weakness of empiricists is their failure to work extensively with school teachers to understand the specific problems they face with the curricula or consider their ideas for improvement.
- A curriculum designed with rigid instructional methodology is rejected by creative, intellectual teachers, who feel insulted by the assumption of the curricularists about their teaching ability and personal dedication to the field.
- When students fail to learn, the fault lies with the students, rather than with the manner by which the content was organised or with the teaching methods.
- Empiricists are ignorant of the history of the field of curriculum and many have no experience in classroom teaching.
- The curriculum is not predetermined as in traditionalists, but depends on scientific research

Check Your Progress 2

Some statements are given below. Read each one carefully and indicate the true statements with 'Š' and false statements with 'x'

1. Whatever we learn, we learn through perception.
2. Empiricists deny the existence of innate knowledge.
3. Empiricists have not struggled for the knowledge of pure mathematics.
4. The best way to learn the discipline is from whole to part
5. Radical empiricism is based on pragmatic theory.

2.2.3.3. Reconceptualists' Perspective of Curriculum

Reconceptualism is based on existentialist and reconstructionist philosophies. Its principles are grounded on existentialist philosophy and humanistic psychology.

Views on curriculum.

According to reconceptualists, the aim of education is not to control instruction in order to preserve an existing order, but to emancipate society from traditional outmoded orders through individual choice.

The aim of the curriculum is to develop models of criticism and social practices, which free individuals and social groups from the subjective and objective conditions that bind them to the forces of exploitation and oppression.

In general, curriculum advocated by them includes social sciences, history, political science, economics, sociology, psychology, and philosophy, and not the hard sciences. They expanded the field by including mystical, intuitive, personal, linguistic, political, and social systems of theorising.

The curriculum is child- centred and emphasises subject -matters of art, ethics, and skills and the subjects need to identify and ameliorate the problems of the society. Learning is active and concerned with contemporary and future society.

Emphasis is also on social sciences and research methods with examination of social, economic, and political problems. The curriculum focuses on present and future trends as well as national and international issues.

According to reconceptualists orientation, curriculum development should move from organising content- based curricula (traditional) and structuring disciplines (conceptual empiricist) to the development of an individual person. Therefore, social issues such as self- freedom, collective freedom, civil rights, equality of life, and others influence curriculum development.

Liberation, which comes from within the person as described in existentialism philosophy, is a key concept in the reconceptualists' curriculum. Curriculum development is politically connected with a view of history and contemporary social order. They are very sensitive to social, political, philosophical, psychological, and economic implications. Their discourse on curriculum is moving from the realms of the scientific towards the realm of ethical and the aesthetic. They wish to use the theory to enable curriculum developers to create programmes that will free students

Reconceptualists have two agendas:

The first one is the human concerns and emphasising the psychological and social development of the human being, and the second is focus on society.

Reconceptualists seek to reshape the field of curriculum studies. They look at curriculum from various philosophy saturated perspectives. One of their claims is considering curriculum as a discourse and the main task of curriculum framers is to understand this discourse (). They state that the crucial question in the field of curriculum is how to understand curriculum and not how to develop it. They insist that curriculum can be clearly understood from various multiple perspectives and that does not mean refusing technical models of curriculum development, but rather not to take them for granted.

Reconceptualists approached curriculum as an act of critical self- reflection. They were sceptical of dominant ideas from social science and positivist notions of knowledge. Their approach to curriculum includes ideological issues, that is, investigating and influencing social, economic, and political issues. They stress on broader problems and attempt to refine, reflect, rethink, interpret, and re-conceptualise anything. According to them, theory is more important than practical application.

Merits

- The reconceptualists view can be applied in any situation where the educational system does not consider students' needs and interests and does not respect their intellectual abilities.
- This view puts all people of the society in charge of the educational process, and gives all individuals the right to educate themselves in ways they believe, appreciate and meet their needs and interests.
- It emphasises the development of dialogue skills, critical thinking skills, problem solving skills, decision making skills, and personalised clarification
- It influences institutional theory.For example,teachers are responsible and should determine how to reach curriculum content so that these skills are developed; they are involved in curriculum planning and development.

Limitations

- More emphasis to intellectual than to interpersonal relation;
- Did not suggest any particular procedure to examine how language shapes curriculum orientation.

Check Your Progress 3

Complete the sentences given below with appropriate answers.

1. The aim of curriculum is to develop models of_____and_____.
2. The key concept in reconceptualist's curriculum is _____
3. Reconceptualist looks at curriculum from various perspectives that are _____
4. Reconceptualist consider school as an extension of———————.
5. Traditional curriculum is focused on_____, _____, and _____

2.2.3.4. Social Constructivists' Perspective of Curriculum

In traditional curriculum, we see teacher-centred education. Teacher is the whole and sole of the teaching-learning practice in the classroom. Interests and attitudes centre around the teacher. But as time changes, we can see changes in the above type of curriculum and also in the teaching and learning practice.

Constructivism is a theory of learning that has roots in both philosophy and psychology. The essential core of constructivism is that learner's actively construct their own knowledge and meaning from their experiences. This core has roots that extend back to many years and to many philosophers including John Dewy, Hegel, etc.

Constructivism is divided into three broad categories such as –

- Cognitive Constructivism,
- Social Constructivism, and
- Radical Constructivism.

Cognitive Constructivism

It is headed by Jean Piaget, who isconsidered as the father of cognitive constructivism. It proposes that humans cannot be given information which they can immediately understand and use, instead learners must construct their own knowledge. They must build their knowledge through experience.

Social Constructivism

It is the thought of constructivism given by Piaget and socio-cultural theory of Vygotsky. It is more correctly an epistemology or philosophical explanation about the nature of learning.

Radical Constructivism

It is the idea that all learning must be constructed and there is no utility or meaning in instruction that is teacher or the textbook driven.

Social constructivism is headed by the post-revolutionary Russian psychologist, Lev Vygotsky, who is often considered to be the father of social constructivism. Social constructivism is a sociological theory of knowledge, according to which human development is socially situated and knowledge is constructed through interaction with others. Social constructivism is a variety of cognitive constructivism that emphasises the collaborative nature of learning.

The main focus of social constructivism is the role that social interaction and social processes play in creating knowledge. Vygotsky believed that learning cannot be separated from social context. He argued that all cognitive functions begin as a product of social interactions. His theory of socio-cultural learning highlights the role that social and cultural interactions play in learning.

Social constructivism extends constructivism into social settings, wherein groups construct knowledge, collaboratively creating a small culture of shared artefacts with shared meanings, when one is immersed within a culture like this, one is learning all the time about how to be a part of that culture on many levels. Vygotsky added the social perspective of learning to the constructivist theory and practice, emphasizes on the social aspects of the learning process has become very important in thought about learning and teaching.

Nature of knowledge

According to social constructivists, knowledge is a human product, which is socially and culturally constructed in an active manner and not something which can be discovered. Knowledge exists as the outcome of mental contradictions that result from one's interactions with other people in the environment. Social constructivists emphasise on the role of language and culture in cognitive development. Human cognitive structures are socially constructed. Knowledge is not simply constructed, but it is co-constructed.

Learning

Learning is based on real- life adoptive problem solving, which takes place in a social manner through shared experience and discussion with others such that new ideas

are matched against the existing knowledge and the learner adopts rules to make sense of the world. Learning as something that emerges from group interaction processes not as something which takes place within the individual. Learning is seen as an active socially engaged process, not one of a passive development, in response to external forces. Meaningful learning occurs when individuals are engaged in social contexts. Social constructivist sees as crucial both the context in which the learning occurs and the social context that learners bring into their learning environment.

Curriculum

Social constructivist demands to understand a social phenomenon, also recognise the importance of the larger social context in the construction of individual interpretative practices. This requires some grasp of historical background of the phenomenon understanding, as well as recognition of the political and economic relationships within which sense making takes place. Curriculum is based on what students know; curriculum is digging deeper into big ideas rather than presenting a breadth of coverage.

This approach centres on the ways in which power, economy, political, and analogical factors affect the ways in which groups of people form understandings and formal knowledge about their world. These bodies of knowledge are not considered to be objective representation of the external world. Constructivists learning theory became an important element of the curricular focus on a specific domain or discipline with a goal of developing in students the ability to think mathematically, historically, literally, scientifically, musically and so on.

Vygotsky is well- known for introducing the concept of the zone of proximal development (ZPD). The notion of scaffolding or ZPD is the main idea of social constructivism. Vyogotskybelieves that learning takes place in the ZPD. The ZPD is defined as the distance between a student's mental age when working alone and that when working with a person of greater mental age. The learning tasks can be placed into three categories:

- Those performed independently by learners;
- Those that cannot be performed even with help; and
- Those that fall between the two extremes, the tasks that can be performed with help from others, in material form (as in scaffolding a building under construction).

This model has two developmental levels -

The level of actual development – a point the learner has already reached and can solve problem independently; and

The level of potential development – a point the learner is capable of reaching under the guidance of teachers or in collaboration with peers.

Merits

- Internal subjectivity of learning experience in the individual and the interactive social environment;
- Value of active participation in the learner and social nature of learning;
- Effective approaches are used in teaching like knowledge building communities, collaborative inquiry, and reciprocal teaching;
- Teacher leads students to construct new skills;
- Teacher- student jointly contribute to learning; and
- Encourages the students to take ownership of the ideas.

Limitations

Emphasising the role of the social and collective while ignoring the role of the individual;

Fails to address how the external world is bridged to the internal mind; and

It is too quick to dismiss the role of passive perception and memorisation in learning.

Check Your Progress 4

Some statements are given below. Read each one carefully and indicate the true statements with '✓' and false statements with 'X'

1. Knowledge is not simply constructed; it is co-constructed.
2. Intrinsic motivation is created through rewards.
3. Meaning does not strictly be language based but can also be a product of action
4. Constructivists learning theories are an important element of the curriculum.
5. Social constructivists do not allow that multiple realities exist.

Relate your answer given in the brackets.

2.2.4. Let Us Summarise

- Traditional perspectives represent the foundational idea that dominated the curriculum field from the 20th century. Its primary goal is to transmit the accumulated knowledge of society.
- Traditionalists theory presents that curriculum development is a practical enterprise not a theoretical study. They have their views on learning experiences, instruction, evaluation and teaching method, etc.
- Empiricism began has a counter- part to rationalism. Modern empiricism began with Francis Bacon. Empiricism is a philosophical perspective based on experience and observation.
- Empiricism has its views regarding the role of a teacher, student, curriculum, teaching strategies, and has its strengths and limitations.
- Reconceptualism began as a reaction to the traditional ways of looking at a curriculum and the reaction of conceptual empiricists. They focus on curriculum as child-centred. Their two agendas were human concern and society. Their approach is more concerned with change and reform of curriculum.
- Reconceptualists have views on concept of school, teaching strategies, and research. The merits of reconceptualist influences the instructional theory
- Social constructivism is headed by Lev Vygotsky. He is often considered as the father of social constructivism. Its philosophy rejects the role of superman necessity in either the invention of knowledge or its justification.
- Constructivists' learning theory became an important element of curriculum in social constructivism. Teacher is a facilitator. Classroom discussion and interaction on topic is encouraged

2.2.5. Answers to 'Check Your Progress 1, 2, 3, and 4'

1.Twentieth; 2. Narrow; 3. Cultural; 4. Imposed from above; 5. Stronger; 6. Essentialist)

Check Your Progress 2

1,2,4,5, - '✓', 3-'x'

Check Your Progress 3

1-Criticism, social practices; 2-Liberation; 3-Philosophy saturated; 4-Society; 5-Design, implementation, evaluation

Check Your Progress 4

1,3,4,- '✓'; 2, 5-'X'

2.2.6. Unit end Exercises

1. Explain the key elements of curriculum according to traditionalists
2. Explain the nature of curriculum according to empiricists.
3. Discuss the nature, merits and limitations of social constructivist and reconceptualist perspectives.

2.2.7. References

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Block 2 : Forms of Knowledge and its Organisation in Schools

Unit 3 : Nature of Curriculum and Importance of Curriculum in Schools

Unit Structure

2.3.1. Learning Objectives

After studying this Unit, the student teachers will be able to

- Explain the meaning of curriculum;
- Explain the nature of curriculum; and
- Analyse the need for curriculum in schools.

2.3.2. Introduction

Education is a multiple process, where curriculum plays an important role. A curriculum should include such subjects and activities, which are useful for the development of society. There is a mutual, encompassing relationship between society and curriculum because a school exists within the societal context. Curriculum is a course of study or training leading to a product or education. It includes the sum total of all the experiences that a pupil receives through the manifold activities that go in the school, library, laboratory,

workshop, playground, family, society, etc. An understanding of the concept and nature of curriculumhelps us to realise the goals of education as well as society. Let us discuss the nature and need of curriculum in our schools.

2.3.3. Learning Points and Learning Activities

2.3.3.1. Meaning and Nature of Curriculum

Nature of Curriculum

A curriculum is-

- A sum total of the school subjects and other activities;
- A mirror which reflects a school's curricular and co-curricular activities; and
- Includes all subjects, which help a child in its cognitive development.
- Curriculum includes many activities such as classroom lesson, cultural activities, laboratory activities, workshop, and sports activities.
- Curriculum is the totality of experiences.
- Curriculum provides experiences to respond, react, and reflect on various processes of learning. It depends on the learner, and as to what he experiences.
- Curriculum is based on intended learning outcome.
- Curriculum, in one sense, is cultural reproduction- Concepts of knowledge and skills such as values, religion, and political system are incorporated in the curriculum, which in turn reflects belief and all cultural aspects.
- It is an agenda for social reconstruction- Schools provide an agenda of knowledge, which is curriculum based, and this guides students to enrich society and cultural institutions.

Check your Progress 1

Some statements are given below. Read each one carefully and indicate the true statements with '✓' and false statements with 'X'

1. Curriculum is sum total of school subjects, other activities, and work experience.
2. Curriculum includes all those subjects which are not helpful in child's cognitive development.
3. Curriculum is not an agenda for social reconstruction.
4. Cultural aspects are incorporated as concepts of knowledge and skills in the curriculum.

2.3.3.2. Importance of Curriculum in Schools

Curriculum has a broader meaning, and helps in achieving educational aims and objectives. Curriculum is needed in schools since it contributes in the following ways:

- Gives necessary constructional frame to achieve educational aims. It indirectly shows the specific path to achieve educational aims and gives effective learning to students by providing a variety of learning experiences.
- Curriculum mainly helps in children's all- round development. It builds a balanced personality and helps to use of leisure time constructively.
- Curriculum coordinates the processes of learning-teaching-evaluation.
- It develops creativity and forward outlook
- It contributes to bring equality of education.
- Curriculum helps teachers to maintain quality education. It sets standards, goals, and learning outcomes that enable teachers to judge whether or not students are able to move onto the next level.
- An effective curriculum provides teachers, students, administrators, and community stakeholders with a measurable plan and structure for delivering quality education.
- Curriculum develops discipline to achieve educational aims. It makes educational aims move in a right path through which develops discipline.
- It provides opportunity to students to participate in curricular and co-curricular activities.
- It helps to develop qualities such as friendship, co-operation, compassion and love for social justice via various social settings.
- It develops democratic values such as liberty and fraternity among students. Society needs a curriculum, which is functional and relevant to achieve educational goals.
- A curriculum identifies learning outcomes, standards, and core competencies that students must demonstrate before advancing to the next level. An evidenced-based curriculum acts as a roadmap for teachers and students to follow on the path to academic success. It helps to understand the diverse culture, social system, and cultural heritage of people living in different parts of the country.
- A curriculum is needed in carrying successfully educational programmes.

Check your Progress 2

Indicate the correct statements with '✓' mark

Curriculum aims at

1. satisfying parents' expectations
2. inculcating values among students
3. developing positive outlook
4. achieving the aims of school
5. achieving the aims of education
6. achieving the aims of society
7. contributing to plan school activities effectively
8. making scope for students to take part both in curricular and co-curricular activities.

2.3.4. Let us Summarise

- Curriculum plays an important role in the educational process. Curriculum is a course of study to a product or education.
- It is the knowledge and skills that students are expected to learn as they progress through the school system. We see the nature of curriculum such as including all the subjects, which help a child in its cognitive development. It is a programme of planned activities.
- We need curriculum in schools because it gives the necessary constructional frame to achieve the educational aims. It helps in the all- round development of a child. It helps teachers to effectivelymaintain quality education. Curriculum contributes for successfully carrying out the educational programme.

2.3.5. Answers to 'Check Your Progress 1 and 2'

Check your Progress - 1

1,4 - '✓', 3,4 - 'x'

Check your Progress - 2

2, 3, 4, 5, 6, 7, 8- '✓'

2.3.6. Unit end Exercises

1. Explain the nature of curriculum and substantiate its need in schools.

2.3.7. References

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Block 2 : Forms of Knowledge and its Organisation in Schools

Unit 4 : Concept of Core Curriculum, Hidden Curriculum and Spiral Curriculum; School Knowledge and its reflection in the form of Curriculum, Syllabus, and Textbooks

Unit Structure

2.4.1. Learning Objectives

After studying this Unit, the student-teachers will be able to

- Explain the concept of core curriculum;
- Analyse the concept of hidden curriculum;
- Explain the concept of spiral curriculum;
- Identify the school knowledge reflection in the form of curriculum;
- Elucidate the school knowledge reflection in the form of syllabus; and
- Discuss about school knowledge in the form of textbooks.

2.4.2. Introduction

We know that curriculum is the totality of experiences provided by schools inside and outside the school with the view of achieving the objectives of school as well as education. In this process, we need to concentrate on many aspects. For example, we need to give some experiences that are common to all students. This is the core of the curriculum. Sometimes the students understand a few aspects from the very culture of the school or the way the school activities and routine are planned. This is not planned deliberately, but are the aspects that are not obvious. This is known as hidden curriculum. It is also important to know how the content should be presented and experts have suggested number of ways to organize the content. We also need to be aware of how school knowledge is reflected in curriculum, syllabus and text books. We are going to deal with all these aspects in the present unit.

2.4.3. Learning Points and Learning Activities

2.4.3.1. Concept of Core Curriculum

Core curriculum, is based on essential learning and a common scheme of studies, which helps students for a successful future and for academic achievement.

Meaning of Core Curriculum

Definition

Core curriculum is a set of school or college courses in subjects considered essential to a suitable education, as providing necessary skills or common cultural knowledge. Core curriculum is a set of courses that are considered basic and essential for future classwork or graduation. In core-curriculum, there exists a set of common learning, including knowledge, skills, and values. The common learning usually consists of the following compulsory subjects like social science, geography, biology, history, etc. In core curriculum, along with compulsory subjects optional subjects like Fine Arts, Home Economics, Language, Music, etc. are also included. This general education is considered necessary for students, irrespective of their choices in major subjects. Maths, science, arts, music, visual arts, English, history, geography are examples of core curriculum in a Middle School or High School.

Characteristics of Core Curriculum

- Core courses emphasise discussion and group problem solving;
- Learning is not restricted to the classroom;
- Students' needs and learning experiences take precedence over subject matter.

- Courses form a coherent whole, integrated either through disciplines, themes, content, or a combination of these;
- Offers the study of many types of original materials, and not only great books;
- Core course emphasises practice over subject matter in disciplinary arts as they are applied to original sources;
- Core programmes weave common elements together for common reflection and discussion;
- It utilises the problems of personal and social development common to all;
- It encourages the use of the problem-solving technique to face and solve problems;
- It provides means for developing social competence.

Concept of Hidden curriculum

Hidden curriculumincludes things which students learn because of the way in which the work of the school is planned and organised, but which are not in themselves overtly included in planning or even in the consciousness of those responsible for the school arrangements.

Hidden concepts that describe the often unarticulated and unacknowledged things students are taught in schools and that may affect their learning experiences. There are often unspoken and implied lessons unrelated to the academic courses. Students perceive certain aspects just being in school

The term 'hidden curriculum' is attributed to Phillip W. Jackson.

Meaning of Hidden Curriculum

- Unofficial expectations, implicit but expected messages;
- Unintended learning outcomes;
- Implicit messages arising from the structure of schooling; and
- Created by students.

Definition

Hidden curriculum can be defined as the lessons that are taught informally and usually unintentionally in a school system. These include behaviours, perspectives, and attitudes that students pick up while they are at school. This is contrasted with the formal curriculum such as course and activities and students' participation.

Hidden curriculum refers to unwritten, unofficial, and often unintended lessons, values, norms, and beliefs, perspectives that students learn in classrooms, social environment, and school. Students learn to form opinions and ideas about their environment and their classmates through hidden curriculum. Hidden curriculum is described as hidden because it is usually unacknowledged or unexamined by students, educators, and the wider community. For example, children learn 'appropriate' ways to act at school. For example, may pick upon the fact that year end test scores are what really matters.

Characteristics of Hidden Curriculum

- Consists of unspoken or implicit academic social and cultural messages that are communicated to students while they are in school;
- Coping with continuous evaluation; and dealing with unequal power share.
- Has scope for undemocratic teacher behaviour and practices; for high control for student behaviour; for isolation of students from teacher; for valuing content over process; for valuing convergent thinking over divergent thinking; for valuing answering questions than asking questions; for Social comparison.

Key Features of Hidden Curriculum

Non-academic focus on teaching values and skills apart from official curriculum; consciously or unconsciously hidden at least for a group of students; not written and not explicitly acknowledged; and has potential to lead to positive and negative influences on individuals.

Aspects of learning contributing for the success/failure of the hidden curriculum.

- Social structures of classroom and environment of the school give rise to hidden curriculum.
- Teacher's exercise of authority;
- Rules governing the relationship between teachers and students;
- Standard learning activities;
- Teacher's use of language, textbooks, and audio-visual aids;
- Furnishing, architecture, and disciplinary measures;
- Time tables, tracking systems, and priorities to curricular activities;
- The physical school environment can be a component of hidden curriculum because it can impact learning.
- Peer pressure-Child is ridiculed, teased, and made to feel inferior by peers.
- Cultural expectations- The academic, social and behavioural expectations established by schools and educators communicate messages to students. Low

academic expectations, which may lead to negative effects on student's academic achievement or feeling of self-worth.

- Cultural values- The values promoted by schools, educators, and peer groups may also convey hidden messages. For example, some schools may expect and reward conformity, while punishing non-conformity, whereas other schools might celebrate and even celebrate non-conformity.
- Cultural perspectives- How school integrates diversity and multicultural perspective may convey both intentional and unintentional messages.
- Curricular topics- The subject that teacher chooses for courses and lessons may convey different ideological, cultural, and ethical messages.
- Teaching strategies- the way that schools and teachers choose to educate students can convey both intentional and unintentional messages.
- School structures-The school programme organised can convey messages to students. For example, non-English speaking students are largely separated from their peers for most of the school day, which effects students' sense of cultural belonging.
- Institutional rules- May communicate a wide variety of intentional and unintentional messages to students, for example, some school require students to wear school uniforms. Some ban certain types of attire (short shirts, etc.), and others have very liberal clothing policies. The strict dress code policies communicate that students will be judged on appearances of inside and outside of school, while looser policies might communicate that they will be judged on other qualities.

Concept of Spiral Curriculum

It is a curriculum design/approach to education that introduces key concepts to students at a young age and covers these concepts repeatedly with increasing degrees of complexity. This approach is also known as spaced or distributed approach. It contrasts with blocked or massed curricula, which does not introduce difficult concepts until the student has reached a higher level of education.

It is a technique often used in teaching or textbooks in which first the basic facts of subjects are learned without worrying about details.

Definition

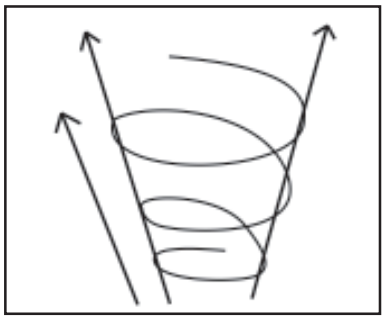
A spiral curriculum can be defined as a course of study in which students will see the same topics throughout their school career, with each encounter increasing the complexity. Dividing the content of a lesson into small units and organising according to students' age,

mental level, and intelligence is called spiral curriculum. Learning takes place from simple to complex, general to specific. With repetition of content learning becomes more effective. Units are organised in such a way that students comprehend the subject/content in a spiral way. The word 'spiral'is descriptive of the idea of repeated learning in spiral fashion.

Spiral approach is aimed at enabling learners to strengthen the retention of learning and development of the above skills since the design is organised through repeated learning opportunities. Bruner (1960) discussed the idea of spiral curriculum in his book 'The process of Education'.

The diagram below shows the levels of learning, revisits, and level of difficulty.

4-Topics are revisited within and across terms
3—Topics taught with greater depth each time
2-Level of difficulty
1-Level of areas



Nearly any subject can be taught with a spiral curriculum. Such curricula break down key concepts into 'strands' that are taught year after year, adding to the depth of knowledge each year by setting higher comprehension goals for each grade level as students gain mastery of the subject. For example, in Mathematics, a curriculum designed with a spiral approach organises its lesson around six categories of mathematical concepts that is taught in multiple units each year, rather than waiting until students have mastered addition, subtraction, multiplication, and division. Curriculum returns to these ideas frequently adding new information each year with higher comprehension goals.

Key Features of Spiral Curriculum

- Spiral curriculum has some key features such as –
- The students revisit a topic or theme/subject several times throughout their school career;
- The complexity or the theme increases with each revisit;
- New learning has relationship with old learning and is put in context with the old information; and
- The key features of spiral curriculum show the very gist of it.

Check Your Progress 1

Some statements are given below. Read each one carefully and indicate the true statements with 'Š' and false statements with 'x'

1. The term hidden curriculum is attributed to Philip W. Jackson.
2. Children in hidden curriculum internalise attitudes and ideas through natural observations and participate in classroom and social activities.
3. Physical school environment can be a component of hidden curriculum.
4. Piaget was the proponent of the spiral curriculum
5. Spiral curriculum sets low comprehension goals for each grade level as students gain mastery of the subject.

2.4.3.4. School Knowledge- Its Reflection in the form of Curriculum

Teaching, learning, time-table, examination, etc. lead to acquire knowledge through the curriculum. So, knowledge acquired through curriculum in school context is school knowledge.

Let us see the aspects in school knowledge.

In school context, knowledge is the sum of conceptions, ideas, and prepositions established and tested as correct reflection of the phenomenon.

A school is one of the agencies which write down, transact, and transform knowledge and thereby, influence the life of children who attend school for a specified number of years. School facilitates and distributes knowledge among its inmates. Though human individual gets knowledge from every experience in life, the knowledge that a child receives in school decides his/her future life and place in society knowledge. Since a teacher as a professional deal with knowledge, there is need to understand the concept of knowledge itself. School knowledge- learning happens when we connect new information to what we already know. With respect to school knowledge—

- Students get experience in the classroom;
- Process being taught in schools and classrooms; and
- Knowledge is imparted through different subjects.

We come across the concept of curriculum in the context of school knowledge.Curriculum is the sum total of the school's efforts to influence learning whether in the classroom, on the playground or out of school. The real goal of education is learning to learn. Curriculum is taught in a school. It is a programme of studies. Curriculum refers

to lessons and academic content taught in a school. Its goal is to improve the learning opportunities. The curriculum is well- planned, designed, and guided by the government of the educational institution. It is aimed at both physical and mental development of a student. Curriculum can refer to the entire programme provided by a classroom, school, or state. A classroom is assigned sections of the curriculum as defined by the school.

Curriculum includes the educational environment and programme of study. It focuses on the body of knowledge, information that a teacher teaches and students are expected to learn in a given subject/content such as English, Science, etc. Students learn facts, concepts, and principles taught-learned in a specific course. A classroom curriculum is a sequence of activities jointly developed by teachers and students, and parents and communities that reflects their understanding of the potential of a programmatic curriculum. Curriculum works on all sections of the students' psyche and aids in the total development of the student. It provides a structured platform, which gives every child an equal opportunity to excel.

Curriculum provides formal experience in the classroom. It includes the experiences of the students, and content and instructional methods. Here, school knowledge is the source of information. Knowledge and culture are organised and knowledge imparted through different subjects. Curriculum provides the basic knowledge; tacit, explicit, and contextual knowledge related to classroom subject to real life. School knowledge is based on textual knowledge. Knowledge acquired here is incidental also.

Reflection of School Knowledge in the Form of Syllabus

Very frequently the terms 'curriculum' and 'syllabus' are used interchangeably, but there is a great difference. Curriculum is a wider term and includes syllabus

Syllabus is defined as the documents that consist of a topic or portion covered by a particular subject.

Syllabus is a teaching plan. It is the summary of the topics covered or units to be taught in a class. Its meaning is narrow because it only develops specific competencies. The syllabus is provided to students by teachers so that they can develop an interest in a subject. It is fixed normally for a year. Syllabus includes knowledge aspect and curricular activities.

The word 'syllabus' is derived from the Modern Greek word "syllabus" meaning list. In a narrow sense, syllabus holds the methodology, selection, and grouping of contents.

Purpose of syllabus- It allows students to work their schedule for their maximum efficiency and effectiveness. Syllabus is an academic document that communicates course

information and defines expectations and responsibilities. It is descriptive. There are essential components in an academic syllabus.

Academic syllabus contains seven essential components such as instruction, information, general course information, course objectives, course policies grading and evaluation, learning resources, and the course calendar

School Knowledge in the Form of Textbook

A textbook is one of the common resources used in a classroom. It is a guide for the teacher and the students to mark the scope of knowledge they are supposed to deal with. It is a book used as a standard work for the study of a particular subject. It contains facts about a particular subject that is used by the people studying that subject. It is a collection of the knowledge, concepts, and principles of a selected topic or course. It is usually written by one or more teachers, college professors or education experts, who are authorities in a specific field.

Textbooks represent the syllabus of the course. India's school curriculum is extremely textbook centred. It is a course book, a formal manual of instruction in a specific subject, especially one for use in schools.

Textbook in the Context of School Knowledge

A textbook is written material including syllabus. It gives proper direction to implement the prescribed syllabus. Schools impart knowledge through textbooks and other source books. It may be prescribed for the course. School knowledge is in the form of textual knowledge. So, textbooks represent textual knowledge.

We see textbooks at the elementary, High School, Vocational, and College levels. E-books are common nowadays and they can be regularly updated online. It incorporates video and online connectivity.

Few facts about syllabus and textbook

Syllabus	Textbook
1. It is concerned with the content part of the curriculum	1. Concerned with the written material and includes only the syllabus
2. Includes knowledge aspect	2. Includes textual knowledge
3. Confined only to classroom	3. Classroom work becomes more systematic
4. Teacher gives to students	4. Easily available resource for teachers and students
5. Includes only curricular activities	5 Provides direction to implement the syllabus

Check Your Progress 2

Some statements are given below. Read each one carefully and indicate the true statements with '✓' and false statements with 'x'

1. The goal of curriculum is to improve learning opportunities.
2. School knowledge is based on textual knowledge.
3. Modern textbooks are made possible by the printing press
4. Today textbooks are published only in digital formats
5. India's school education is not text-book centred.
6. Textbook includes syllabus.

2.4.4. Let us Summarise

- A curriculum based on essential learning and a common scheme of studies is referred as core-curriculum. The learning of these aspects are not restricted to classrooms. It encompasses everything that goes with a school.
- Hidden curriculum refers to unwritten, unofficial, and often unintended lessons, values, norms, and beliefs, perspectives that students learn in classrooms, social environment, and school.
- Spiral Curriculumis a curriculum design/approach to education that introduces key concepts to students at a young age and covers these concepts repeatedly with increasing degrees of complexity.
- Curriculum refers to the entire programme provided by a classroom or a school. It is based on textual knowledge.
- Syllabusis a summary of the topics covered in a classroom. It involves instruction, learning, resources etc. It functions as informing students the objectives of course. Syllabus is a part of the curriculum
- Textbooks is a collection of the knowledge, concepts and principles of a selected topic/Course. It is one of the common resources of the classroom. Textbook is in the form of school knowledge used by teachers and students. Textbook represents the textual knowledge.

2.4.5. Answers to 'Check Your Progress 1 and 2

Check Your Progress 1

1,2,3,- '✓' ; 4.5- 'x'

Check Your Progress 2

1,2,3,4,- '✓': 5,6,- 'x'

2.4.6. Unit end Exercises

1. Explain the concepts of core curriculum, hidden curriculum and spiral curriculum with examples
2. Explain how school knowledge is represented in curriculum, syllabus and text book.

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Block 2 : Forms of Knowledge and its Organisation in Schools

Unit 5 : Curriculum Framework, Curriculum, and Syllabus: Their Significance in School Education

Unit Structure

2.5.1. Learning Objectives

After studying this Unit, the student teachers will be able to

- Explain the curriculum framework in the context of school education.
- Analyse the significance of curriculum in school education.
- Explain the significance of syllabus in school education.

2.5.2. Introduction

Curriculum is a means to achieve the goals of education. These goals of education are decided by the philosophical, sociological, economic and technical focus of the nation. The goals of education are formed according to the goals of the nation. These goals are

common to all schools within the country. Apart from these some global goals are also formed as goals of education. These goals are to be understood by everyone working in the field of education. Curriculum also is framed based on these goals and contributes to achieve the goals. With this view, there needs to be a common curriculum framework for the whole country which informs the goals of education, methodologies, content, role of teacher, school and students with this focus of achieving goals. This should be communicated to all interested in the field of education. This is known as national curriculum framework. The framework keeps changing according to the needs of the societies and policies in Education. A new educational policy has been proposed recently in 2019 which seeks to address the challenges of: (i) access, (ii) equity, (iii) quality, (iv) affordability, and (v) accountability faced by the current education system. The curriculum framework, curriculum that is derived from the framework, the syllabus that is derived from the curriculum are all significant in the educational process. We shall see in the present unit, how and why these aspects are important.

2.5.3. Learning Points and Learning Activities

2.5.3.1. Curriculum Framework- its Significance in School Education

School is crucial in preparing children to become their future selves. School is an agency for socialization-which build a network of friends and like-minded community teamwork. These school activities are based on curriculum. The whole life of school becomes the curriculum which touch the lifeof students at all points and help in the evolution of their balanced personality.

In some cases, people see the curriculum entirely in terms of the subjects that are taught and a set-out within the set of textbooks, and forget the wider goals of competencies and personal development. This is why a curriculum framework is important. It sets the subjects within these wider contexts and shows how learning experiences within the subjects need to contribute to the attainment of the wider goals.

Meaning of curriculum framework

A Curriculum framework is a supportive structure to help schools to plan and develop their own curriculum. It comprises a set of interlocking components, including essential learning experiences, generic skills, values, attitudes, and key-learning areas. Curriculum framework is one of the most important tools in ensuring consistency and quality in a curriculum system.

Curriculum is usually a document or a set of documents that sets standards for curriculum and provides the context in which subject specialists develop syllabuses. A

curriculum framework is an organized plan or set of standards or learning outcomes that defines to be learned in terms of clear, definable standards of what the student should know and be able to do.

Definition of curriculum framework

Curriculum frame work is a document that sets standards for curriculum and provides the context (available resources) capabilities of teachers and system support in which subject specialist develop syllabuses. It is usually a single document which is supplemented by other materials to guide the implementation of specific parts of framework. These may give more detailed specification or guidance by individual year, subject or learning area, addressing the requirements of the school system, individual schools and the classroom. The documents may include syllabuses, programmes of study, year plan and lesson plans. They may be developed locally or by individual teachers, and may have the status of support material or official documents which must be used. A curriculum framework describes the educational environment in which syllabus (or subject specific outlines of objectives, outcomes, content and appropriate assessment and teaching methodologies) can be developed.Curriculum framework defines a set of curricular standards which enables a range of curriculum to co-exist, on the provision that each curriculum implies with specific criteria. A curriculum framework is therefore a very useful mechanism for allowing flexibility and diversity among countries within an affiliation of or ethnic groups within a single state each individual system can maintain the identity of its own curriculum while ensuring consistency and quality through compliance with a set of agreed standards expressed in the framework.

A curriculum framework is most commonly developed at a national level, but a form of curriculum framework could be developed at the international level by a group of countries with similar goals and educational environments.

Needfor curriculum framework

- To develop qualities that make a child socially effective and happy in various social settings such as friendliness, cooperativeness, self-disciplines, self-control, love for social justice etc.
- To develop pre-vocational/vocational skills, willingness to work hard, dignity of manual work and job satisfaction.
- For understanding of the environment and its limited resources and the need for conservation of natural resources and energy.
- To develop ability to appreciate and discover beauty in various life situations and integrate it into ones own personality.

- To develop knowledge of scientific methods of inquiry and its use in solving problems.
- To facilitate schools and teachers to make decision about choice of content, pedagogy, teaching, and learning material, evaluation etc, at school level.
- To give schools and teachers flexibility and ownership to plan and develop alternative curriculum modes to meet their varied needs.
- To help to review school curriculum, learning and teaching strategies and to develop school assessment policy.
- To help the teacher in becoming reflective practitioner who learns from their own experience.
- To emphasize learning with understanding and learning to learn, and helps children develop their own understanding based on their life experiences.
- To set out what students should know, value, and be able to do at the various stages of schooling.

We also see few functions of curriculum framework in the field of school education.

Functions of curriculum framework

Few functions of curriculum frame works are as follows—

- It defines a set of curriculum standards that enable a range of curricula to co-exist on the provision that each curriculum compiles with specific criteria.
- It functions as a tool that may assist teacher to put the national policy on education—educating our future into practice.
- It develops certain quality standards for curriculum, evaluation is also needed.
- Gives guidance to syllabus and text book writers.

Once a curriculum framework is agreed, other documents can be developed including most importantly subject or learning area, syllabuses and text books. It determines the detail of a range of other policy and funding priorities.

In curriculum framework, we see few related factors that build the relationship between curriculum and aims of education. The structure demands workable principles and criteria in most of the areas such as selection and organization of content, ways of interacting with children and classroom organization, type of teaching learning material, etc. The fundamental assumptions a curriculum framework uses, needs to be internally consistent, as clearly articulated as possible, and acceptable to all stake holders.

Finally, operational definitions have also been placed for consideration to facilitate the process of curriculum development.

We see that, curriculum framework is part of an outcome-based education or standards based education reform design. The framework is the second step- defining clear, high standards which will be achieved by all students. The curriculum is then aligned to the standards and students are assessed against the standards.

NCERT is the official agency in India for deciding the curriculum framework for schools. In India during 2005 National Curriculum framework (NCF-2005) the new policy was drafted (NCF-2005, 2012).

NCF is a needful feature of national education system.

National education system is a common education system at a different level. This aims to bring minimum level of learning at all levels providing minimum facilities to all schools of nation so that specific quality of education can be provided to children. It is an approach to minimize the provincial inequalities among children.

NCF 2005recommends

- Bringing arts, work, peace, health, physical education into the domain of the curricular infusing them in all areas of learning, while giving them an identity of their own at relevant stages. Enable learners to find their voices, nurture their curiosity to think, ask questions, integrate their experience with school knowledge rather than reproduce textual knowledge.
- Shift from content-based testing to problem-solving and competency-based testing.
- Use of technology in teaching-learning
- Shift from teacher centric to learner centric with flexible designs, processes providing wider social context to learning as well as multiple and divergent exposures.

The elements and functions of curriculum framework:

	Elements	Function/ Purpose
1.	Introduction to current context.	Describes the social, economic environment in which educational policy is made and in which teaching and learning occur.
2.	Educational policy statements.	Describes government goals for education such as universal literacy, development of skill for economic prosperity and creation of stable and tolerant society.
3.	Statement of Board learning objectives and outcomes for each level.	Describes what students should know and be able to do when they complete their school education. Outcomes should be expressed in terms of domains- knowledge understanding skills, etc.
4.	Structure of the education system.	Describes the school system within which the curriculum framework is to be applied- it should be specified as – - Number of years of schooling. - Stages of schooling and their durations. Number of teaching periods in school week.
5.	Structure of curriculum content, learning areas and subjects.	Describes the pattern of subjects studied in each stage. A brief description of each subject, the number of hours to be assigned to each subject.
6.	Standards of resources required for implementation.	Describes standards as they apply to- - Teachers- qualifications, teaching load. - Students- number per class in each subject. - Materials- textbooks, computers, etc. Facilities- classroom, furniture, etc.
7.	Teaching methodology.	Describes the range of teaching approaches that might be employed in the implementation of the framework.
8.	Assessing and reporting student achievement.	Describes the importance of assessing the extent to which students achieve the outcomes of each subject, prescribes type of assessment strategies.

Other agreed elements can be added to the above list such as how content and student learning can be integrated, incorporation of competencies or any other matter which requires a standard to be defined.

Check Your Progress- 1

Some statements are given below. Read each one carefully and indicate the true statements with '✓' and false statements with 'x'

1. Each individual system can maintain the identity of its own curriculum without agreeing to the standard expressed in the framework.
2. A curriculum framework is a mechanism that allows flexibility and diversity among countries.
3. NCERT is the official agency in India in deciding the curriculum framework for schools.
4. Curriculum framework doesn't help school to review its curriculum.
5. A curriculum framework facilitates schools and teachers to make decision about choice of content and pedagogy, evaluation, etc. at school level.

2.5.3.2. Curriculum and its Significance in School Education

In accordance with the NCF-2005, curriculum is significant in school education for the following reasons:

- Curriculum works to all-round development of the child. It is child centered, develops all values.
- Creates the citizenry conscious of their rights and duties, commitment to principles embodied in our constitution. This must be the priority of the school education.
- Enables the younger generation to reinterpret and re-evaluate the past with reference to new priorities and emerging outlooks of a changing societal context.

Significances of curriculum in the context of school education

Impact of Curriculum on administrators-

Administrators follow a detailed curriculum to help students achieve state and national standards of academic performance. The curriculum ensures that each school is teaching students relevant material and monitoring the progress of students from all types of backgrounds.

Impact on teachers-

A school curriculum informs teacher what skills must be taught at each grade to ultimately prepare students to next level. In the absence of a curriculum, teachers would not know whether student are building a solid foundation to support learning at the next level.

Impact on students-

Curriculum outlines for students a sequence of courses and tasks, that must be successfully completed to master a subject,

A good well-developed curriculum promotes skill development. A good curriculum allows student to ask Questions. Curriculum lays out the directions and the end point of the class. Curriculum allows schools, families to guide their expectations. It also enables them to teach important subjects like- literature, geography, science, etc. effectively this is so that families can support their children and to teach them properly. Curriculum develops democratic values- liberty, fraternity, and equality in the minds, of students. Curriculum is significant in every walk of life.

Check Your Progress - 2

Some statements are given below. Read each one carefully and indicate the true statements with '✓' and false statements with 'x'

1. Curriculum does not create the citizenry conscience of rights and duties.
2. Curriculum works to all-round development of the child.
3. Curriculum must design content for acquisition of knowledge through interdisciplinary studies.
4. National learning is not a feature of human development.

5. Curriculum sets the framework for a course where education follow up the framework.

2.5.3.3 Syllabus and its Significance in School Education

Syllabus is a descriptive document of a course. It is the study of outline and timeline of a particular course. It will typically give a brief overview of the course objectives, course expectations, list of reading, assignments, homework deadlines, exam dates, etc. it connotes both the subject as well as the topics covered in the course of the study.

The syllabus determines the basic content of instructions in a given subject and the range of knowledge and skills which the pupils must acquire and establish in detail, the themes and individual points to be studied in each school year. The syllabus is a refined detail of the curriculum at a particular stage of learning for a particular subject.

The syllabus is a contract between faculty members and their students designed to answer students' questions about a course, as well as inform them about what will happen should they fail to meet course expectations. It is also a vehicle for expressing accountability and commitment overtime, the notion of a syllabus as a contract has grown more literal but is not in fact an enforceable contract.

Hutchinson and Waters- define that syllabus as a document which says what will be (least what should be) learnt.

Syllabus is significant in school education due to the following reasons:

- Syllabus informs students about objectives of the course.
- Provides a kind of contract between instructors and students to document expectations for assignment and grade allocations.
- Provides a guiding reference as a resource to which students, instructors all can refer for logistical information
- It holds all the information you need to know regarding what is expected of you and what you need to do to prepare for each class.
- Helps instructor to prepare and organize the course.
- Conveys to students a clean idea of the course content and knowledge, they will gain throughout the course.
- Teacher and students are brought together.
- Helps to avoid conflicts with the other courses.
- Provides strategies for evaluating students' achievement.
- Provides appropriate teaching strategies to a subject.

- Provides rationale for the subjects.Example- Why subject is included in the curriculum and its relationships.

Though syllabus focus on particular subjects and curriculum is related to all-round development of a student skill, both are connected to each other. We can say that syllabus is essentially a part of curriculum. Curriculum and syllabus have their own significance in school education.

Curriculum	Syllabus
1] A blue print of a whole level/stage of education system	Content IndexList of books to read and for higher studies
2] Achievable aims and objectives of a whole stage	Achievable objectives, aims of each subject
3] Its objective is all-round development of the child	It is supplementary to achieve the objectives
4] Wide scope/meaning.	Rigid scope /meaning
5] Includes content, learning experiences and learning activities	Only includes content
6] Indicates curricular, co-curricular activities.	Only indicates curricular activities
7] Understand able to both teachers and students	Only to teachers
8] No specific time to fulfill.	Time is specified
9] Helps to prepare syllabus	It is a part of curriculum
10] Source of school activities.	Only limited to classroom activities.

There are differences between the Curriculum and the Syllabus.

Check your progress-3

Some statements are given below.Read each one carefully and indicate the true statements with '✓' and false statements with 'x'

1] Syllabus is a descriptive of a course

2. Syllabus gives a brief overview of the course objectives, course expectations, List of readings

3] The syllabus is not a contract between faculty members and students

4] Syllabus as a contract that is more enforceable

5] Syllabus is a part of curriculum

2.5.4. Let us summarise

- School is a miniature of society. It is crucial in preparing children to become their future self.
- In the school context, in formal curriculum we see three components such as - curriculum framework, syllabus and textbook.
- Curriculum Framework is one of the most important tools in ensuring consistency and quality in a curriculum system.
- Curriculum Framework in school education is needed since it helps to develop quality standards. It helps schools to plan and develop their own curricula.
- Common elements in curriculum framework - introduction, current context, learning objectives and outcomes for each level.
- Curriculum is a route map for the academic year. It is broader than schooling in a broader sense. It refers to total learning experiences of individuals not only in school but in society.
- Curriculum is not only a study of academic subjects but also the sum total of all experiences that a pupil receives through the manifold activities.
- Curriculum creates citizenry conscious of their rights and duties. Significant education seen as an impact on teachers, on administrators, on students.
- Syllabus is a description of a course. It is a study outline, timeline of a particular course. It is significant in school education as it inform students about objectives of the course.

2.5.5. Answers to check your progress

Check Your Progress- 1

1. 'x', 2. '✓', 3. '✓', 4. 'x', 5. '✓'

Check Your Progress - 2

1- 'x' 2- '✓' 3- '✓' 4- 'x' 5-'✓'

Check your progress-3

1-'✓' 2-'✓' 3-'x' 4-'x' 5-'✓'

2.5.6. Unit end exercises

Explain the significance of curriculum framework, curriculum and syllabus in the context of school education.

2.5.7. References

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Block 2 : Forms of Knowledge and its Organisation in Schools

Unit 6 : Curriculum Visualized at Different Levels- Nation Level, State Level, School Level, Class Level and Related Issues

Structure of the Unit

2.6.1. Learning Objectives

After studying this Unit student, the student teachers will be able to

- Clarify the curriculum visualized at Nation Level
- Clarify the curriculum visualized at State Level
- Clarify the curriculum visualized at School Level
- Clarify the curriculum visualized at Class Level

2.6.2. Introduction

In India, the central government establishes Board Education Policies for school curriculum development and management policies. These serve as guidelines for the states. Education in India is provided by the public sector, private sector, with control and funding coming from three levels – Central, State and Local. Though the curriculum at school level is decided basically be the state government, there is flexibility to adopt the curriculum at state, local and school levels. Let us discuss in this Unit, the Curriculum visualised at national, state, local and school level.

2.6.3. Learning Points and Learning Activities

2.6.3.1.Curriculum visualized at Nation Level

In developing a society, first the school curriculum particularly in higher education must be developed to preserve the country's national identity and to ensure its economy's growth and stability. Nation has its role in providing education to its citizens. It is the responsibility of Nation to frame the effective curriculum to its students for effective learning and to their bright future.

Curriculum at national level is a common program of study in schools that is designed to ensure nationwide uniformity of content and standards in education. It is usually legislated by the national government, possibly in consultation with state or other regional authorities.

The national curriculum is a set of subjects and standards used by primary and secondary schools. It covers what subjects are taught and the standards children should reach in each subject.

National Council of Educational Research and Training [NCERT] is the apex body located at New Delhi capital city of India. It makes the curriculum related matters for school education across India. The NCERT provides support, guidance, technical assistance to a number of schools in India and overseas many aspects of enforcement of education policies.

Aims of curriculum at national level

- Protection of environment, protection of natural resources
- Without any discrimination of caste, race, gender, providing compulsory education to all children.
- Providing equal opportunity to all children not only to the admission but also the successful outcome of the situations.

- Being 10+2+3 pattern into existence
- Framing the national curriculum framework
- Fixing minimum level of learning to each level of education
- Bringing awareness among children about different culture and social system of people living at different parts of the nation.
- Appreciation of the need of a balanced synthesizing between the continuity of country's cultural heritage.
- Bringing an awareness of inherent equality of all and need of global fraternity with a strong commitment to human values and to social justice.
- Providing the knowledge of national symbols and desire and determination to uphold the ideals of national identity and unity.
- Development of knowledge, skills, competence, attitudes, values that improve the quality of life of our children.
- Ensuring the learning shifts from rote methods.
- Promotes – improving quality of education and raising student achievement levels.
- Flexible learning programmes providing diverse and integrated learning experiences to children.

Features of National curriculum work.

- Developing human resources to achieve aims of national development.
- Broad foundation of general education to all who are studying at primary and secondary levels.
- Common learning methods to primary and secondary levels
- Selection of content which helps in achieving minimum level of learning
- Child centered and activity based approaches in executing curriculum.
- Restructuring the examination system, being continuous comprehensive evaluation which includes school and out of school activities.

Curriculum related issues at Nation Level

- Focus on product instead of process.
- Focus on societal needs as compared to individual.
- Standards are written and enforced by non-educators
- Usually has a subject matter focus rather than personalize for each student
- Lack of professional freedom and judgement to teachers
- Lack of student teacher interaction
- Leads to testing lower level knowledge comprehension and memory emphasis
- Lack of Creativity
- Imposed ideologies and imposed religion
- Does not realize the complexity of curriculum development
- Does not account the characteristics of learners in local institutions
- Curriculum plans are developed by subject area scholars than teachers. Are the subject area scholars are better equipped than teachers in the area of specialization?
- Three Boards operate at national level and the curriculum will be framed by the respective boards. They are CBSE (Central Board of Secondary Education), ICSE(Indian Certificate of Secondary Education), NIS(National Institute of Open Schooling).The CBSE and ISC are recognized internationally and most universities abroad accept the final results of CBSE and ISC Examinations for admission purposes and as a proof of completion of secondary school. Central Board of Secondary Education [CBSE] sets curriculum from grades 1 to 12 and conducts examinations, that are called Board Examinations.
- Council for the Indian School Certificate Examinations [CISCE] sets curriculum from grades 1-12 and conducts examinations like the Indian Certificate of Secondary Education [ICSE – Class 10].
- The Indian School Certificate [ISC- Class 12] and Certificate in Vocational Education [CVE-Class-12].

Check Your Progress - 1

Complete the incomplete statements with appropriate answers –

1. The Indian Curriculum is rapidly gaining worldwide _____
2. The aim of curriculum at nation level is to provide the knowledge of _____symbols and determination to uphold the ideas of _____and_____
3. States frame curriculum on the basis of _____
4. National Education Policy-1986 has put forth to develop_____and _____in the curriculum.
5. Standards determine what students should know and able to do in a variety of_____

2.6.3.2 Curriculum visualized at State Level

Curriculum at state level defines what students should know and be able to do at each grade level in their content areas – Languages, Science, Social Sciences, Physical Education, Technology education, Mathematics are studied. The curriculum should align with content standards and assessment programme. Objectives of curriculum provide teachers with very clear information about what specific learning should occur. States frame their own curriculum based on National Curriculum framework.

The States are heavily involved in the establishment, selection, regulation of curriculum, teaching methods, instructional material in their schools. Consequently, each state has different standards and policies which may impact the quality of education offered.

Schools however, offer courses and activities in the instructional program beyond those required by state statute.

There are few curriculum bodies governing School education systems specially at state level.

State Government Boards of Education

Most of the state governments have at least one state board of secondary school education. The boards set curriculum from grades 1 to 12 and curriculum varies from state to state has more local appeal with examinations conducted in regional languages in addition to English.

State level curriculum is considered less rigorous than central curriculums such as CBSE or ICSE/ISC. Other organizations that frame curriculum at state level are:

- National Institute of Open Schooling
- Islamic Madarasas
- Autonomous Schools – like Sri Aurobindo's International School of Education, Pondicherry etc.
- International Schools [Under International Baccalaureate]
- Special Education [IEDC] – a special integrated education for disabled children. This program was started in 1974 with a focus on primary education, but which was converted to inclusive education at the secondary stage.

State governments have insight into the kinds of skills that are useful to the local economy and can often recommend the specific class-room materials. An important consideration is the age, maturity and sophistication of the students to which educational materials are to be prevailed. It specially takes care of the cultural settings of the state.

States have been providing more and more curricular guidance to local districts and schools.

Four functions seem to be essential at the state level

- States are responsible for developing curriculum frameworks. The term is used here to mean a set of statements guiding the standards for and development of curricula, along with a general description of the states assessment program. Broad goals should be kept in mind.
- States are responsible for and implementing tests and other performance measures.A limited approach is best, states should focus their assessment efforts on the subject areas of languages, Science, Mathematics, Arts etc. Assessment should be limited to three transition points grades 5,8, and 12, such limited approach would give the state officials, district leaders, public, sufficient information to make major decisions without devoting too much time and energy to testing.
- State should provide school districts with the resources needed to develop and implement high quality curriculum. Adequate fiscal resources and effective technical assistance seem to be the most important.
- State Frameworks should be carefully evaluated while they are being produced.

State standards which are necessary to curriculum consistencyare

- are aligned with expectations

- are clear, understandable and consistent
- Include rigorous content and application of knowledge through high order skills
- are evidence based
- build upon strengths and lessons of current state standards.

Issues at State Level Curriculum

- While planning the curriculum, local needs and preferences are not considered by local authorities.
- Disagreement exists with respect to the nature and components of State frameworks.
- Curriculum standards are often not supported with other systemic changes such as – new approaches to teacher education.
- State initiatives may be seen as fragmented and often contradictory.
- Limited resources and accompanying reducing staff.
- Most state departments of education do not help local districts to implement the state standards.
- State-wide competency assessments foster harmful instructional practices – such as retention and misuse of special education placement, while not encouraging school improvement.

Issues can be resolved in the following ways:

- Approaches should include new view of how students learn and by supporting interaction of all components of the curriculum.
- The State Curriculum Framework should include components like Philosophy, rationale, goals, learner school outcomes, content standards, student performance standards, inter-disciplinary strategies etc.
- Emphasis in assessment about competency and improvement of students and schools.
- State standards should set according to needs of local schools.
- Efforts made in upgrading the teacher's quality and experience and othe involvement in curriculum development works.

Check Your Progress-2

Some statements are given below. Read each one carefully and indicate the true statements with '✓' and false statements with 'x'

1. State's standards and policies may not impact the quality of education offered.
2. The CBSE and ISC are recognized internationally and most universities abroad accept their final results.
3. States have been not providing efficient curricular guidance to local districts and schools.
4. States are responsible for developing curriculum frameworks.

2.6.3.3 Curriculum visualized at the School Level

Curriculum in school education is crucially important as it provides a framework for all activities to be conducted in the school to achieve desirable quality of education.

What is School Curriculum?

School curriculum refers to a particular set of courses that a school or governing body designates but may also refer to a variety of activities designed to foster education and meet the needs of a learning community.

In school curriculum, we see all the courses offered by an educational institution. It encompasses educational program, Syllabus, Schedule, Studies, Subjects and program of studies. Specified curriculum is followed which is planned, devised by the government or boards. The school boards have consistently been endeavouring for meaningful learning for its students in affiliated schools for meeting challenges of the present and the future. Board focuses on creating a learning environment that helps develop confident and enterprising citizens who would promote harmony and peace and bring glory to this great Nation. Schools offer curriculum that is effective to students and easier for teachers to do their job, schools make necessary changes that will help both teachers and students get through the year better.

Aims of Curriculum at School Level-

- To enhance self-awareness and explore innate potentials.
- To promote capabilities related to goal setting
- To inculcate values
- Help to acquire the ability to utilize technology and information for the betterment of human kind.

- To promote physical fitness, health and well beingFoster cultural learning and international understanding in an interdependent society
- Provide total learning experience
- Promoteskill development

Points to be considered while framing curriculum at school level

- Curriculum in school must be based on legitimate, pedagogical concerns. These concerns include teaching material/classroom expression.
- The school curriculum can be enriched with local stories, history and community experiences.
- At primary education curriculumis a cultural reproduction. This image assumes that the school curriculum should be directly linked to the cultural aspects and it should reflect the culture within the school, community and the broader society focuses on productive and meaningful learning experiences through curriculum.
- Curriculum emphasizes general education, covers basic subjects such as reading, writing, arithmetic, supplemented by History, Geography, General Science and Civics. All in the state schools, English is required from Standard V.
- In the Secondary education, two stages lower [Standards IX & X] and the higher [Standards XI & XII] stages are controlled by the state and the central boards. (New policy has proposed different structure and the pattern changes accordingly)
- In operational sense, the secondary curriculum is learner-centered with school being a place where student would be acquiring various skills, building self-concept, sense of enterprise, aesthetic sensibilities and sportsmanship, therefore, for the purpose of fostering core competencies in learners this curriculum encompasses seven major learning areas from scholastic and co-scholastic points of view. Scholastic—— Languages, Social Sciences, Mathematics and Science.Co-Scholastic—— Work education, Art Education, Health and Physical Education.

Functions of Curriculum at the School level

- Develop the school's vision of a high-quality curriculum building on the districts vision.
- Supplement the district educational goals.

- Develop its own program of studies within district guidelines.
- Develop learning centered schedule.
- Determine nature and extent of curriculum integration.
- Provide staff development for all teachers who will use the curriculum guide.
- Align the written, tested, supported, taught and learned curricula.
- Monitor and implementation of the curriculum.
- Evaluate the curriculum.

Overall administration of school education is shared by the central department of education and the state ministries of education.

Issues in curriculum at school level. Teachers themselves are not trained and efficient

- Lack of focus on skill development
- Lack of Team work
- Applying a prescribed curriculum to all types of students.

Issues can be solved in the following ways:

- Teacher should be well trained and they should update their knowledge which helps in student's learning and building nation.
- Individual differences, skill development must be emphasized in curriculum development at School level.

Check Your Progress – 3

Explain the issues of curriculum at school level and suggest how to solve the issues.

2.6.3.4. Curriculum visualized at Class Level

A classroom curriculum can be described as the teaching and learning that takes place in classrooms and other educational settings. At the heart of the classrooms curriculum are teachers' decisions based on evidences about student learning and effective practice.

The curriculum at classroom refers to the lessons and academic content taught in a school or in a specific course or program.

Some important questions related to class curriculum are:

- What is important to be given?
- Where are my students at present?

- What strategies are most likely to help my students to learn?
- What happened as a result of the teaching and what are the implications for future teaching?
- What are the next steps to be followed to make learning more effective?

Class Syllabus includes –

- Goals and objectives of learning, materials and expectation from the students' [Knowledge and Skills].
- Available materials include whole school, year level and classroom planning linked to curriculum learning areas.
- Schools can adopt materials to suit individual student's learning needs and local context.
- In classroom, we see intended and hidden curriculum – students learn because of the way in which the work of school is planned and organized but which are not in themselves overtly included in the planning or even in the consciousness of those responsible for the school arrangement.

A Lesson Plan is a curriculum used by the teacher in classroom. The lesson in each piece of curriculum are designed to help every style of learning and support students with varying emotional and behavioural needs. The day to day lessons and activities should always support the learning goals articulated by the curriculum. Student appreciate understanding what their learning goals are and how each lesson brings them closer to understanding.

Teacher develops their own unit-plan which helps to master specialized classroom discourse. Unit is not just a curriculum artefact but it is also a mapping process that enables teacher to think carefully about research supported teacher learner content interactions, within a unifying theme. A unit guides in sequence and process of skills and knowledge acquisition described in more granular detail by lesson plans.

Classroom functions with respect to curriculum:

- To enrich the curriculum
- Develop long term planning calendar to implement the curriculum.
- To develop units of study
- To individualize the curriculum
- To evaluate the curriculum

- To implement the curriculum, helping all students to achieve mastery
- Emphasize on individual differences among students.

The classroom curriculum identifies the learning outcomes, standards and core-competencies that student must demonstrate before advancing to the next level.

The Classroom curriculum reassures students that they are on right track to reach their goals and achieving desired skills. Thus, classroom curriculum determines how to teach a subject and sequence concepts to be taught in such a way that it flows, hand on class room activities can be integral to any subjects, which enhances student's experiences.

Issues

- Curriculum is not helping to develop personality of a child.
- Lack of empathy and support between students
- Teachers are working too many roles at the same time.
- Does not cater to individual differences of students.
- Applying a prescribed curriculum to all types of students
- Values and motivations vary by classroom What works in one classroom often would not work in next period.
- Pre-packaged curricula undermine teachers' professionalism and agency
- Cultural sensitivity does not come in a package [Curriculum].
- Inadequate emphasis on learner needs and interests as well as their developmental levels.
- Classroom size - if the size exceeds 30, teacher cannot pay attention to every student in a classroom.
- Poverty – Affects student learning at classroom.
- Technology – Students love of technology distract them from school work.
- Student attitudes and behaviour – Apathy and disrespect for teachers assume major problem facing classroom today. It is more in secondary school.
- Parent involvement – Interfering with educational process.

Issues can be solved in the following ways:

- Flexibility, Intention and Judgement needed by teachers in class work
- Cultural sensitivity in activities

- Individual needs, interests will enhance student learning. Curriculum should serve all types of learners.
- Social adaptation and development of the learner should be emphasized.
- Classroom size should not exceed 30 students.
- There are ways the parents can become involve and support their children education
- Curriculum should cater to child's needs, development of team work, individual differences, teacher role and quality aspects.

Check your progress – 4

Complete the statements by selecting appropriate answers given in brackets.

1. The term curriculum refers to Students' _____(learning/instructional goals)
2. A Lesson Plan is a form of curriculum framed by the _____ (teacher/ student)
3. School can adopt materials to suit individual student's learning needs in the _____ (local/global context).
4. Curriculum at school level reassures that the students are on the right track according to_____ (state policies/ global policies)

2.6.4. Let us Summarise

- A curriculum at national level is a common program of study in schools that is designed to ensure nationwide uniformity of content and standards in education.
- National Council for Educational Research and Training, makes the curriculum related matters for school education across India.
- Aims of the National Curriculum - Providing equal opportunity to all children
- Due to National Education Policy 1986, few factors are made compulsory in curriculum
- There are basic features of National Curriculum work which need to be considered at every stage
- There are number of issues related to Curriculum and need to be settled.
- Curriculum at state level defines what students should know and be able to do at each grade/level in content areas – Languages, Science, Mathematics etc.

- Curriculum at school level includes all courses offered by an educational institution
- Curriculum at different levels have something in common and something related to their geographical aspects.

2.6.5. Answers to Check Your Progress

Check Your Progress - 1

1-Recognition

2-National, National identity, unity

3-National Curriculum Framework

4-National integrity, values

5-Academic Subjects

Check Your Progress-2

1-'x', 2- '✓' 3-'x', 4- '✓'

Check Your Progress – 3

Refer Section 2.6.3.3. of Self Instructional Material

Check your progress – 4

1. learning
2. teacher
3. local
4. state

2.6.6. Unit end Exercises

Mention the functions and issues of curriculum at national, local and school level.

2.6.7. References

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Block 3 : Curriculum Determinants and Considerations

Unit 1 : Broad Determinants of Curriculum Making

Unit Structure

3.1.1. Learning Objectives

After going through this Unit, the student- teachers will be able to

- Explain the meaning of determinants of curriculum;
- Analyse the philosophical determinants of curriculum;
- Explain the psychological determinants of curriculum; and
- Identify the scientific and technological determinants of curriculum.

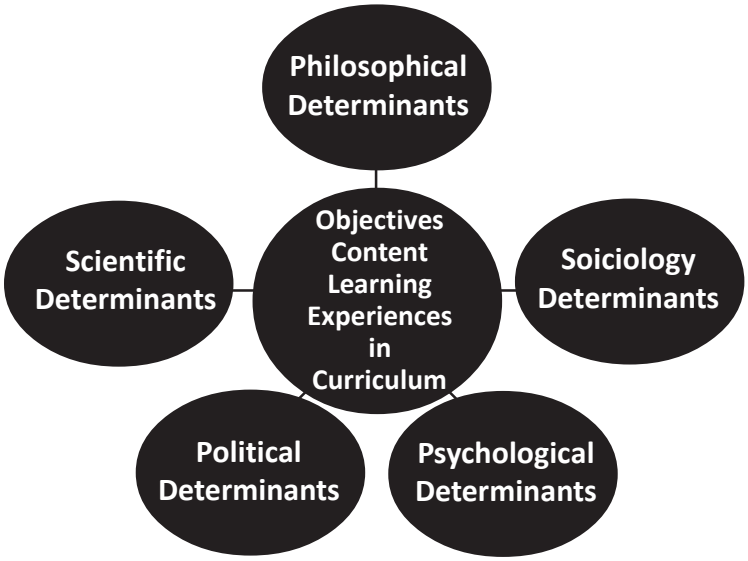
3.1.2. Introduction

The curriculum should enable young people to become successful learners and responsible citizens, and achieve many more objectives. How do we arrive at these aims of a curriculum? What should a curriculum include to achieve these aims? How can we ensure that we have achieved these objectives? It is determined by some important aspects that determine the curriculum. What are these aspects? We are going to analyse these in the present Unit.

3.1.3.1. Concept of Determinants of Curriculum

Let us understand the meaning of the term 'determinant'. The Cambridge Dictionary describes the word 'determinant', "as a factor which decisively affects the nature or outcome of something". For example, consider the statement, "Pure force of will was the main determinant of Ravi's success". Force of will affected the success or force of will resulted in success. According to the Merriam Webster Dictionary, "determinant is an element that identifies or determines the nature of something or that fixes or conditions an outcome".

Let us apply these meanings in the context of a curriculum. Determinants are those factors, which affect the nature or outcome of a curriculum. These are the forces, which also determine the success of a curriculum. These are the factors that decide what should be the goals, content, learning experiences, and the evaluation procedures in the curriculum. Therefore, it is significant for curriculum designers to be aware of these factors, since they have to consider it in the process of curriculum construction. They are presented in the following diagram.

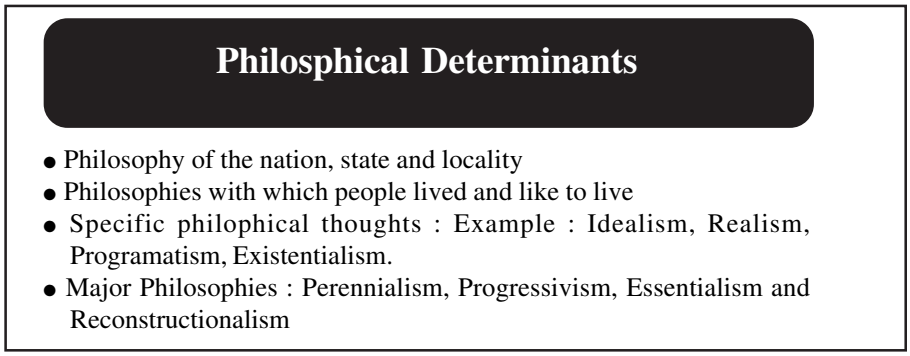


These aspects together guide in the process of deciding the different characteristics of a curriculum. Curriculum determinants set standards, learning goals, and outcomes that enable teachers to judge whether or not the students are capable of moving on to the next level.

Check Your Progress 1

1. Explain the meaning of curriculum determinants and list the various determinants of a curriculum.

3.1.3.2. Philosophical Determinants of Curriculum



Philosophy provides curriculum specialists with a framework of broad issues and tasks in general, and the experiences and activities to stress in a school and classroom, in particular. The reasons, goals, intentions or the purposes for which a curriculum has been developed constitute the philosophical determinants of a curriculum. A curriculum is normally designed for the all -round development of a student and also to develop national ideals, desired values, a proper philosophy of life, cultural, social, cognitive, and other desirable values. In total, it aims at preparing a person capable of growing individually as well as contributing to the progress of the nation and for the good of humanity.

Curriculum is strongly influenced by the philosophy of the time and therefore, curriculum designers should be familiar about the contemporary dominant philosophy and identify the aims or goals on the basis of that philosophy. At the same time, they need to be constantly aware of the changing philosophy of the times. It is common that more than one philosophical thought will be popular at a time and hence, no one philosophy should guide the curriculum. The philosophical perspective needs to be eclectic with no undue emphasis on one particular philosophy. In essence, the curriculum should be based on a practical philosophy that is socially and politically feasible and satisfies the needs of the individual and of the society.

Four Schools of Philosophy

In our context, we need to be familiar with the four schools of philosophy, which emerged at different times and were popular in the context of education. They are Idealism, Realism, Pragmatism and Existentialism.

Idealism proposes that matter is an illusion and reality exists mentally. Reality exists as it is experienced. Truth is the same at all times. Moral values are absolute, timeless, and universal. Human behaviour is rational. It has specific implications for curriculum makers. The materials related to great people who lived for values should be modelled, the learning experiences should focus towards developing values, especially truth, beauty, and goodness. Intellectual, aesthetic, and moral values should be focused on in the curriculum

The second school of thought is Realism. According to this, education is a matter of reality, rather than speculation. The theory and principles should be followed through practice and application. The world is real and can be experienced. The curriculum therefore, should impart knowledge about the world of the child. Values should be stressed on and focused, but should not come in the way of realising the nature and experience of the world. The outcome of innovations in different disciplines are true and should be taught to children. Curriculum should help a child realise the world he/she lives in. Learning resources should be properly made use of. Curriculum should include real and essential facts.

Pragmatism is another philosophy proposed by different philosophers. It emphasises the reality of change. Truth is relative and changes with context. Value also is relative. It depends on the consequences. Whatever fulfils one's purpose is true and useful. Whatever contributes for growth is worth. Learning experiences need to be active, and not passive. There are no absolute values. Values emerge in a situation. Students should be trained to understand the values in a given situation. Knowledge is not absolute; it keeps changing. Change is the characteristic of life. A curriculum should prepare students for rational thinking. It should be exploratory. It should develop the ability to solve problems in life. Learning by living should be the motto. Students should be open to the ways of learning. A curriculum should be based on the principles of utility, freedom, activity, interest, experience, and an integration of all these values.

Existentialism is more popular these days. It is about focusing on an individual, promoting diversity in the curriculum by emphasising on personal needs and interests of the learners. According to this philosophy, there are no values outside human beings, and therefore, human beings should have the freedom to make choices and then be responsible for the consequences of those choices. Existentialists suggest complete autonomy to be given to the learner. What might be relevant in a particular time and situation may not be relevant in another context. Social changes demand changes in the realm of education also.

Existentialists' implication for curriculum is not very evident because they are not in favour of a common curriculum. They have no faith in providing the same education for all. Individual learners should not be forced into pre-determined goals. Learners' interests, choices, and needs should be respected. Curriculum should contain many self- expressive activities. A teacher should only be a resource facilitator and not someone who forces children to learn.

Four Major Philosophies

Four major philosophies emerged from these schools of philosophy, which have direct implications for curriculum construction. Their knowledge is very significant for curriculum designers. They are Perennialism, which focuses on classical subjects and literary analysis, and considers curriculum as constant. Essentialism proposes the essential skills of reading, writing arithmetic, language, history, science, and foreign language. Progressivism focuses on students' interests, and human problems. It proposes subjects that are interdisciplinary, interactive, and integrative. Reconstructivism focuses on present and future trends and issues of national and international interests in the curriculum. Let us understand these in more detail.

Perennialism originated from Idealism. It advocates the permanency of knowledge. The curriculum of perennialists is subject-centred. It draws content from defined disciplines or from logically organised bodies of content. It proposes to teach content in compartmentalised fashion. Only those contents, which are considered hard should find a place in the curriculum. The teacher is viewed as an authority in a particular discipline. The curriculum should be the same for all. To deny opportunity for one type of curriculum is like denying equality of educational opportunity.

Progressivism emerged as a protest against the perennialists' thinking in education. According to them, curriculum should include problem solving, scientific inquiry, co-operative behaviour, and self-discipline. The curriculum should be inter- disciplinary in nature, and the teacher a guide and facilitator. It is against memorisation, authority, text books, and static aims.

Essentialism originated from both idealism and realism. It evolved mainly as a critique of progressive thought in education. It believes that education should prepare learners to a changing society. The curriculum should consist of experiences to master the subject matter that reflects currently available knowledge in various disciplines. The teachers should play a highly directive role by guiding student towards knowledge in respective disciplines. Competency- based programmes, grade level achievement standards, and re-emphasising academic subjects in schools are the contributions of essentialists.

Reconstructionism is a philosophical thought, which emphasises on education as a means to reconstruct society. It believes that as a school / college is attended by all youth, it must be used as a means to shape the attitudes and values of each generation. As a result, when the youth become adults, they will share common values. Curriculum should promote contemporary social, economic, and political education. Subjects should be used to enlighten students about social problems. There should be scope in the curriculum for the critical examination of the cultural heritage of the society as well as the civilization, scrutiny of controversial issues, commitment to bringing about social and constructive change, and enhancement of cultural renewal and internationalism. It emphasises social sciences, political science, economics, sociology, psychology and philosophy, and not pure sciences. It focuses on developing individual self-realisation and freedom through cognitive and intellectual activities and thus, on liberating people from the restrictions and controls of society.

Check Your Progress – 2

Identify the statements which denote the philosophical determinants of curriculum.

1. Provides curriculum specialists with a framework for broad issues and tasks in general, and what experiences and activities to stress in school and classroom.
2. When changes and alterations occur in society, consequently the curriculum is expected to get modified.
3. Gives clarity about reasons, goals, intentions or the purposes for which a curriculum has been developed
4. Aspects like transmission of culture, economic issues, technological aspects, home/family, diversity, environment, politics, and religion need to be considered.
5. Eclectic perspective should be followed.
6. Curriculum should encourage finding answers for the problems faced by society in areas like poverty, protection of environment, etc.
7. The values of truth, beauty, and goodness should be emphasised.
8. The school has to update children to address the needs of the contemporary and future society.

3.1.3.3. Psychological, Scientific and Technological Determinants of Curriculum

a) Psychological Determinants of Curriculum

We have already studied the philosophical and sociological determinants of the curriculum. These dimensions help to identify the goals and content of a curriculum. The next step is to plan the implementation process or the process of transmitting curriculum. Here comes the need and importance of taking into consideration the psychological aspects. The learning experiences need to be planned based on psychological theories related to learning. These principles determine the ways or procedures of transacting or facilitating learning. Even the use of words 'transaction' and 'facilitation' depends on different psychological theories.

Psychology deals with how children or adults learn and behave. Since the main goal of curriculum is to facilitate learning, curriculum developers need to know how it takes place in children. Thus, they can incorporate psychological principles when designing the curriculum. John Locke compared children's mind to a blank slate. He expressed it as 'tabula Rasa'. But today this theory has been denied by experts and we also know that children's minds are not empty vessels. They come to school with multiple experiences, abundant knowledge, and expectations.

Curriculum makers should see if the curriculum has an apt psychological basis by asking the following questions and conforming that the answers are positive:

- Is the curriculum designed keeping in view the needs and interest of the learners?
- Is it graded and sequenced according to the age and particular stage of the development of the learners?
- Is it flexible enough to make allowances for individual differences among learners?

- Does it foster a sense of innovation and independent thinking in individuals, besides the acceptances of group norms?
- Does it develop a realistic confidence, besides tolerance to others in the area of the learning?

In order to be familiar to the aspects of psychology that determine the curriculum, especially in relation to the processes of learning, we need to understand the tenets and implications of different psychological perspectives as mentioned in the following sections that have influenced curriculum in the past and many of these ideas, which are relevant today.

1. Behaviourism

Behaviourists consider learning as habit-formation. Teaching is regarded as arranging learning experiences in such a way as to promote desirable behaviour. According to them, behaviours can be conditioned by altering the environment. An organism can associate a particular stimulus (S) with a particular response(R). Learning is the result of an association formed between a stimulus and a response. Edward Thorndike proposed three laws of learning, namely, law of effect, law of exercise, and law of readiness. According to these laws, response that is reinforced will become habitual. The connection of stimulus and response can be strengthened by practice, and certain behaviours are more likely to be learned than others because the nervous system of the organism is ready to make the connection leading to a satisfying state of affairs.

According to another behaviourist Skinner, when a particular response or behaviours is reinforced or rewarded, the individual is conditioned to respond. The mastery of the subject matter is given more emphasis in this context. So, learning needs to be organised in a step-by-step process. The use of drills and repetition are common.

2. Cognitivism

You have studied about cognitivism in detail under Course 1.

Cognitivists emphasise that learning is primarily cognitive in nature. Growth and development refer to changes in the structure and function of human characteristics. They focus on how individuals process information and manage their thinking. The basic questions that cognitive psychologists ask are:

- How do the learners process and store information?
- How do they retrieve data and generate conclusions?
- How much information can they absorb?

Thus, cognitive psychologists promote the development of problem-solving and thinking skills and popularise the use of reflective thinking, creative thinking, intuitive thinking, and discovery learning among others.

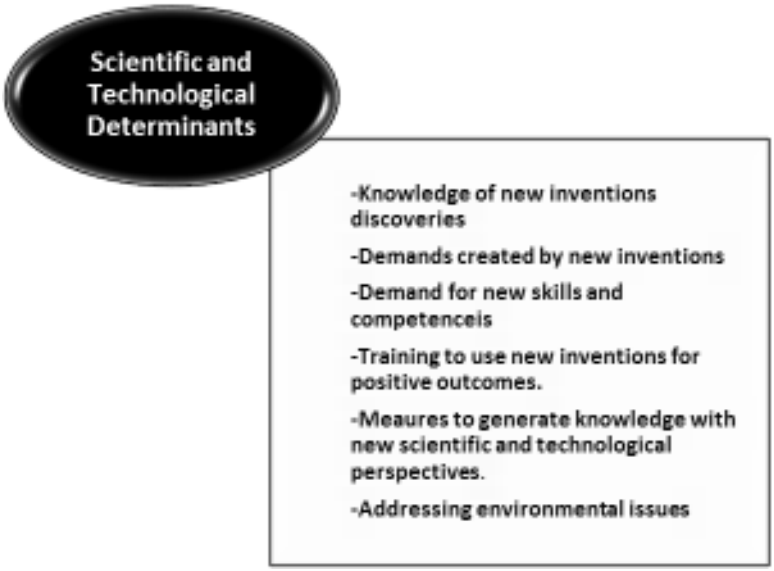
3. Humanism

Humanism is taken from the theories of Gestalt, Abraham Maslow, and Carl Rogers. This group of psychologists were concerned with the development of human potential. According to this theory, curriculum should focus on the process, rather than on the product. It should focus on personal needs, and not on the subject matter; thus, clarifying psychological meanings and environmental situations. In short, curriculum views founded on humanism posits that learners are human beings, who are affected by their biology, culture, and environment. They are neither machines nor animals. A more advanced, more comprehensive curriculum that promotes human potential must be crafted along this line. Teachers not only educate the minds, but the hearts as well.

4. Constructivism

This is a learning theory, which proposes that learning involves construction of new understanding by combining prior learning with new information. Knowledge cannot be either given or transmitted, but it can be constructed only by the learner, and facilitation is the role of education.

c) Scientific and Technological Determinants



We know that science is the discovery of nature and technology is the application of scientific results to daily living. Science and technology bring a lot of changes from time-to- time through their discoveries and invention. They literally demonstrate the fact that

'no knowledge is final'. This necessitates the curriculum makers to take care of these issues. There was a time when a school curriculum emphasised that 'there are six continents in the world'. With scientific discoveries, this perception has changed. Technology driven curriculum development is the norm of the present century. The discoveries of science and technology create a demand for new skills and competencies, and a curriculum has to take care of these demands. Today, curriculum at every stage has to address the demands of the information and communication technology. No one can escape these skills, and the responsibility of developing these skills has to be taken- up by the curriculum makers. The use of the internet, the ethical issues related to it, and the validity and reliability of this information are to be addressed on priority today. Environmental issues also have to be tackled by the curriculum. World awareness and actions towards reversing and ending pollution continues to affect curriculum development.

Check Your Progress – 3

Classify the following statements based on psychological (PS), scientific and technological determinants (ST) of curriculum.

1. The use of the internet, the ethical issues related to it, and the validity and reliability of this information are to be addressed on priority today.
2. Curriculum should keep in view the needs and interest of the learners.
3. They literally demonstrate the fact that 'no knowledge is final'.
4. Curriculum developers need to know how learning takes place in children.
5. Curriculum at every stage has to address the demands of the information and communication technology.

3.1.4. Let Us Summarise

- Determinants are those factors, which affect the nature or outcome of a curriculum. These are the forces, which also determine the success of a curriculum.
- Curriculum cannot be designed in a vacuum. There are certain aspects that decide the goals and inputs of a curriculum. Thus, those aspects which determine the nature of curriculum are known as the determinants of a curriculum.
- The different determinants of curriculum are the philosophical, sociological, psychological, political, and scientific and technological factors
- Philosophy provides curriculum specialists with a framework for broad issues and tasks in general, and what experiences and activities to stress in school and classroom.

- Psychological determinants decide the transactional process of a curriculum.
- The needs that arise as a result of science and technology have to be fulfilled by the curriculum.
- Curriculum should focus on developing healthy environmental practices.

3.1.5. Answers to 'Check Your Progress – 1, 2, and 3'

Check Your Progress 1

Refer Section 3.1.3.1 of Self-Instructional Material.

Check Your Progress 2

1,3,5, and 7 – PD

Check Your Progress 3

1, 3,5-ST

2,4-PS

3.1.6. Unit end Exercises

1. Explain the philosophical determinants of a curriculum.
2. Clarify the psychological, scientific and technological determinants of a curriculum.

3.1.7. References

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Block 3 : Curriculum Determinants and Considerations

Unit 2 : Socio Political Aspirations, including Ideologies and Educational Vision

Unit Structure

3.2.1. Learning Objectives

After going through the Unit, the student teachers will be able to

- Explain the social aspirations of Curriculum;
- Analyse the political aspirations of Curriculum;
- Clarify the major curricular ideologies; and
- Explain the educational vision as a base for curriculum construction

3.2.2. Introduction

You have studied the philosophical, psychological, scientific and technological determinants of curriculum. In the same way, the social and political aspects also determine the curriculum. This can be expressed as socio political aspirations of the larger society in which curriculum has been framed. The social and political aspirations are the determinants

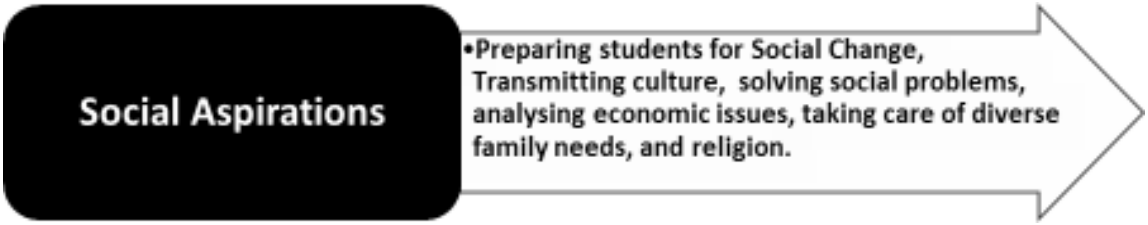
of curriculum. Based on these social and political aspirations the curriculum ideologies emerge. Educational vision also forms an important base of curriculum construction. Let us understand in this Unit, these social and political aspirations that form the social and political determinants and the curricular ideologies as well as our educational vision.

3.2.3. Learning Points and Learning Activities

3.2.3.1. Social and Political Aspiration as Determinants ofCurriculum

Sociological Aspirations as a Determinant of Curriculum

Social aspirations are the strong desires of the people of the society which they expect to achieve. These aspirations are expected to be achieved mainly through the educational institutions.



As we know, curriculum is defined as a planned, purposeful, progressive, and systematic process of creating positive inputs to reach the goals of education. When changes and alterations occur in society, consequently the curriculum is expected to be modified. The curriculum needs to be updated according to the needs of individuals and society. Take the example of the emergence and development of information and communication technology in our context. As this trend became more popular, society demanded related skills from individuals and naturally, the curriculum was modified to focus on the development of new skills required of individuals. As we became more conscious of the importance of catering to women's needs, new subjects of study like 'women studies' emerged in the curriculum. The curriculum has a wide scope to include much more than just studying subjects and moving up the ladder of education. It has wider goals. Society looks at schools to prepare individuals according to its needs. The school has to update children to address the needs of the contemporary and future society. The school is a miniature society. It needs to find answers to the problems faced by the society in areas like poverty, protection of environment, politics, economics as well as sustainable development. The aspects that need to be considered in a curriculum from the societal point of view are social change, transmission of culture, social problems and issues, economic issues, technological aspects, home/family, diversity, environment, politics, and religion.

Preparing members according to Social Change

Science and technology have brought enormous changes in society. Technology has changed the world. The influence of mobile technology is evident at all levels and in all places. The positive and negative results of technology have changed the lifestyles of people to a large extent. Today people can connect to anyone at any time in a very economical way. Every individual has access to knowledge and information. These advantages require people to use technology extensively. At the same time, its negative effects also have to be considered. It has come in the way of human aspects like inter- personal communication, concern for others, and empathy and has resulted in waste of time and misuse or disuse of human energy. This has to be addressed by the curriculum at all levels. This is one example. The results of social changes like this need to be considered by the curriculum. Curriculum should prepare students not only for the present, but also for future. Hence, through curriculum, students should be equipped with competencies and knowledge required in contemporary society.

Transmitting Culture

Education is said to be the process of consumption, transmission, and enrichment of culture. Culture is the totality of knowledge, beliefs, arts, morals, customs, and other human aspects. We have experienced that each of these aspects keep changing. Until recently, women were forced to live within the four walls of a home. That was the expectation of society and was considered good for humanity. But today our thinking and beliefs have changed. Women are progressing on par with men. The present society cherishes this aspect. Accordingly, people have to change. Parents should be educated to send their daughters to schools. Illiteracy of girls is considered as a serious problem. The curriculum has to address issues like this. Today we are promoting inclusive education, which is very relevant in a country, where diversity is one of the basic features of the society. This naturally implies that educational experiences should be diverse, according to their needs. Empowerment of women, education of the disadvantaged, and mainstreaming the education of backward children are all the results of modern ways of thinking. The curriculum should be framed with this perspective.

Analysing Economic Issues

Transmission of curriculum has a number of economic implications. Society promotes the idea of universalisation of education, but it should be in a position to bear the expenses in this regard. The strategies and methods proposed in the curriculum also have financial implications. For example, if a curriculum proposes technology-based teaching and learning, the managements should be in a position to provide access to the gadgets required for such a mode of learning. The schools should be in a position to provide access to computers,

internet connection, electricity, technical experts, etc. The curriculum designers should take these aspects into consideration. If the curriculum proposes new methods, there should be provision for in- service teacher training. Therefore, the type of learning experiences provided should be based on the economic status of the community.

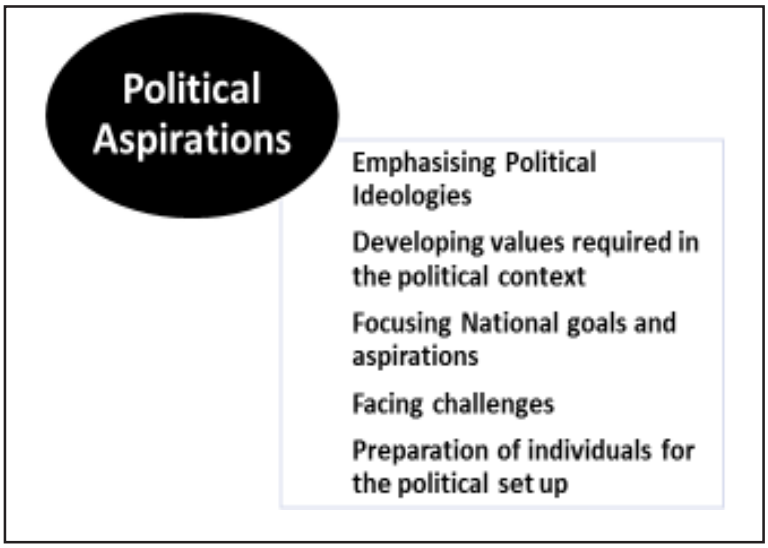
Considering the culture of Families

The curriculum needs to take into consideration the nature and structure of a family also. We know that there is a vast difference between urban and rural families. The learning experiences that suit rural children may not suit urban children and vice versa. Therefore, family background is a significant factor that should determine the curriculum. The beliefs, values, modes, and mores of rural children needs to be understood with greater care and experience. Joint family system, agriculture-based living, and indigenous practices and culture can still be found in many villages of India. The social, economic, and political contexts in rural areas are different. These need to be considered while planning curricular aspects.

Solving Societal Problems

Societal problems like war and greed, prejudices, threats, dissolution of family, regionalism, population explosion, etc. should be addressed by the curriculum.

b) Political Aspirations as Determinants of Curriculum



The curriculum designers need to keep in mind that a curriculum is framed within a political set- up and for a specific political set- up. The demands of the political structure or the type of government need to be taken care of while framing the curriculum. In our context, there is no doubt that we need to imbibe the ideals of our Constitution (you have studied under Course 2) among students. This needs to be considered very seriously because

lack of such values may lead to serious negative consequences in the future life of students. The curriculum should make provision to demonstrate vividly the behaviours needed to live happily and progressively, the values to be lived with, and the type of relationship and interaction to be adopted in a democratic set- up.

It is important to acknowledge that education is essentially a political activity. The political climate prevailing in a country is very important and significant in determining the type of schooling and curriculum for the young.

Education has a political function, in that it promotes ideologies, which influence the power structure within society. It is noteworthy also that political forces, the most powerful of which are associated with the government of the time, are responsible for the allocation of resources necessary to support a curriculum. Hence, there is a need to consider the politicians' views in curriculum planning. In addition, a curriculum worker is also likely to have a political and ideological stand in life that would influence his/her decision-making process in curriculum matters.

The political set-up poses a number of challenges to education. Each party, when it comes to power, brings into practice different educational plans to the nation. These plans at times will not be in tune with the previous plans. The thrust areas in education keep changing as per the plans of the political leaders. This may cause frustration to ~~the~~ faculty members. A curriculum should balance these aspects.

Check Your Progress -1

1. Explain the social aspirations as determinants of curriculum
2. Identify the points to be considered in relation to political aspirations while framing the curriculum.

3.2.3.2. Ideological Dimension of Curriculum

Ideology of curriculum is a collection of ideas, a comprehensive vision, a way of looking things, or a worldview that embodies the way a person or a group of people believes the world should be organized and function. It is "a certain ethical set of ideas, principles, doctrines, myths and symbols of a social movement, institution, class, or large group that explains how society should work, and offer some political and cultural blueprint for certain social order". Curriculum ideologies are the curriculum visions, philosophies, doctrines, opinions, conceptual frameworks, and belief systems of educators. Curriculum ideologies refer to people's endeavours while they engage in curriculum activity or think about curriculum issues.

Experts have classified curriculum ideologies into four different categories and they are as follows: Each of these ideologies reflects different epistemological beliefs regarding schooling, teaching, learning, childhood, knowledge, evaluation, and education in general.

The first type of ***curriculum ideology***, the Scholar Academic position (SA), intrinsically proposes all intellectual skills and domains of knowledge. Educators who possess this ideology basically view education through the eyes of institutions. Curriculum developers working within the SA Ideology view curriculum creation from the perspective of the academic disciplines.

Secondly, the ***Social Efficiency Ideology*** (SE) believes that the initial purpose of schooling is to meet the needs of society. Curriculum developers and educators who adopted the Social Efficiency Ideology view the curriculum as an instrument that prepares students to be contributing members of society and support the view that schools are places where students are prepared for a meaningful adult life. The central concern of the Social Efficiency Ideology is scientific instrumentalism. This concern asserts that curriculum should be developed in a scientific manner and that curriculum development should be an instrument for fulfilling the wishes of a client. The curriculum developer's first job is to determine the needs of society – his client. The things that will fulfil these needs are called the terminal objectives of the curriculum. The developer must then find the most efficient way of producing a product, the educated man, who meets the terminal objectives of the curriculum and thus fulfils the needs of society

The third belief, the ***Child Study position*** (CS), represents a child centered perspective. This ideology aims to create more enjoyable school settings where children naturally train themselves for socialization. According to the Child Study Ideology teachers should be able to present meaningful experiences for students in order to contribute to their learning experiences. The child study developer conceives of the child as containing his own capabilities for growth, as the agent who must actualize his own capabilities, and as essentially good in nature. In addition, the child is viewed as the source of content for the curriculum; his ends and his means are considered to be the appropriate ends and means for the curriculum

The last category of curriculum ideology, the ***Social Reconstruction position*** (SR), represents a social perspective. It assumes that society is fragile and therefore should be reconstructed. In this reconstruction process educators and schools are seen as active agents of this transformation. Social Reconstruction developers assume that education of the masses is the social process through which the society is to be reconstructed. These developers have supreme faith in the ability of education, through the medium of curriculum, to educate

students to understand the nature of their society in such a way that they will develop a vision of a better society, and then act so as to bring that vision into existence

To a greater or lesser degree, the radical changes in school curriculum policy that are currently occurring in many countries around the world are being driven by discourses pertaining to globalization that stress the need for education systems to prepare school students for participation in a competitive global economy. Today's scientific and technological progress, the economy, global integration, and culture play major role in education sector.

Educational vision as a determinant of Curriculum

You have already studied about the 'vision of Education in India' in detail, under course 2(2.3.3.1). Study the same with curricular perspective.

Check Your Progress - 2

Explain the classification of curriculum ideologies and identify their implications.

3.2.4. Let us Summarize

- Social aspirations are the strong desires of the people of the society which they expect to achieve. These aspirations are expected to be achieved mainly through the educational institutions. something high or great. Preparing students for Social Change, Transmitting culture, solving social problems, analysing economic issues, taking care of diverse family needs, and religion.
- It is important to acknowledge that education is essentially a political activity. The political climate prevailing in a country is very important and significant in determining the type of schooling and curriculum for the young.
- Ideology of curriculum is a collection of ideas, a comprehensive vision, a way of looking things, or a worldview that embodies the way a person or a group of people believes the world should be organized and function. It is "a certain ethical set of ideas, principles, doctrines, myths and symbols of a social movement, institution, class, or large group that explains how society should work, and offer some political and cultural blueprint for certain social order".
- Experts have classified curriculum ideologies into four different categories. Each of these ideologies reflects different epistemological beliefs regarding schooling, teaching, learning, childhood, knowledge, evaluation, and education in general.

3.2.5. Answer to Check Your Progress

Check Your Progress -1

Refer Section 3.2.3.1. of Self-Instructional Material.

Check Your Progress -2

Refer Section 3.2.3.2. of Self-Instructional Material.

3.2.6. Unit end Exercises

1. Explain the social aspirations as determinants of curriculum
2. Explain the classification of curriculum ideologies.

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Block 3 : Curriculum Determinants and Considerations

Unit 3 : Cultural Orientations

Unit Structure

3.3.1. Learning Objectives

After studying this Unit, the student teachers will be able to

- Explain the need and importance of curriculum being culture oriented;
- Explain the activities that need to be incorporated in the curriculum to make it culture oriented; and
- Analyse the strategies for incorporating cultural aspects in the curriculum.

3.3.3. Introduction

You have understood that philosophical and sociological factors determine a curriculum. Culture is another most important factor that decides the content and drives curriculum. The essence of education is to transmit the cultural heritage of a society to the

younger generation of the society. Curriculum is a veritable tool for attaining the educational goals of a nation. Education is the hub of all consequences of development in any country. No country can develop in a weak educational system which lacks focus to its culture. Curriculum planning should attempt to integrate the components of culture to ensure that the products of the educational system would be functional members of their society. The knowledge of how culture can be assimilated in the curriculum is essential for teachers because they are the prime members in the process of curriculum construction. Hence, in the present Unit, let us understand why and how culture can be taken care of by curriculum designers.

3.3.3. Leaning Points and Leaning Activities

3.3.3.1. Curriculum Planning, Culture and its Components

Curriculum can be defined as the document, plan or blue print for instructional guidance which is used for teaching and learning to bring about positive and desirable learner behaviour change. This definition refers to the formal curriculum, which is planned ahead of time, bearing in mind the characteristics of the curriculum recipients, the philosophy and goals of education reflecting the culture of the people, the environment, the resources, methods of teaching, and evaluation procedures. It is the road map to attainment of the goals of education. Learning experiences, which are culturally based are embedded in curriculum. These learning experiences are learner oriented, goal oriented and culture oriented. One cannot talk about curriculum without referring to the programme of studies, which is seen in form of subjects, contents, subject matters and bodies of knowledge. All these mirror the culture of the society. Curriculum can be further regarded as the instrument by means of which schools strive to translate the demands and aspirations of the society in which they function into concrete realities. It is planned and sequenced. Education is a vehicle through which curriculum objectives are attained. The essence of education is to transfer the knowledge, facts, skills, values and attitudes learnt from one situation to solving problems in another situation, and this is done through curriculum that reflects the culture of the people. It is believed that curriculum pre specifies competencies to be developed. The competencies reflect the elements of the learners' culture, which when imbibed by the learners make them functional citizens of their society.

Curriculum planning

Curriculum planning is the selection and sequential arrangement of the content and learning experiences to be presented to the learner. Curriculum development precedes curriculum planning. In planning a curriculum, a number of elements are considered. They are the learner, the teacher, the society, philosophy of education, psychology of learning, examinations, economy of the society, resources, subject specialists, and values. Each factor of curriculum, needs to have link to the culture, as nothing can be done in education without

reference to the culture of the society. There are different models of curriculum planning and each focuses on the culture of the society for which the curriculum is being planned. Tyler (1971) and Wheeler (1978) emphasize selection of the objectives as the first step, while Taba (1962) and Nicholls and Nicholls (1978) believe that Situational Analysis should be the first step so as to understand the culture of the people and the available accumulated body of knowledge, before embarking on selection of the objectives. Therefore, for any curriculum to be worthwhile, the planning must have its foundation on the culture of the society that owns the learners.

Culture and its Components

Culture has different meanings and it is used in different ways. Culture can be used for a good-mannered person or a person with good taste. It depicts good behaviour. It is the people's pattern of learned behaviour. Culture refers to people's pattern of behaviour. It is the totality of the way of life of a people. It involves everything that can be communicated from one generation to another. Culture is the fabric of ideas, ideals, beliefs, norms, customs and traditions, systems of knowledge, institutions, aesthetic objects, and material things of arts. It involves food habits, languages, festivals, marriage ceremonies, methods of thinking and etiquette. Culture is maintained and modified through education. It is believed that wherever educational institutions discharge their responsibilities well, they influence the life of the society, which implies their culture. Curriculum must be a reflection of what people do, feel, and believe. All these have cultural affiliation. It is said that culture is to education what current is to electricity. Any society whose education is not founded on its culture is in danger of alienating the products of that system from their culture. The curriculum planners must be familiar with the culture of the society for which the curriculum is being planned.

There are three components of culture. Sociologists have categorised culture into three, namely, universals, specialties and alternatives. The universals of culture are the core of any culture; everything that is generally accepted by all the members of a society. They are the things that bind the society together, promote peace and sustainable development. They are the norms of the society and they are obstinate and difficult to change, for example, language. The importance is seen in its value. Every language develops from a cultural milieu. People's beliefs and values belong to the universals of culture. These generally accepted behaviours are inculcated to man through enculturation both at home and in the school. The purpose is to produce individuals who are well integrated and interactive and to maintain the culture of that society. The specialties of culture are the different domains of knowledge or discipline in which members of the society are well trained to earn their living and contribute to the development of the society. Members of

this group are groomed in the knowledge, skills and ethics of the profession or vocation and they are expected to exhibit these in their practice of the profession. Some examples of the specialties are teachers, medical doctors, lawyers, engineers, wine tapers, farmers and potters, etc. Existence of specialties in the society enhances division of labour and thus the sustainable development of the society. Through specialties of culture, the individual contributes his/her quota to the development of his/her society. The specialization of some group or class is based on their capabilities and interests. Their specialization leads group awareness, which encourages or leads members to develop specific patterns of behaviour or skills. Since every normal human being is a potential contributor to the advancement of society, opportunities for specialization in a variety of trades and vocations should be provided by the educational system. This explains why there are varieties of subjects in the school curriculum. The essence is to present to the learners with options from where they can select areas of specialization based on their capabilities and interests. The cultural alternatives are different methods, means, designs and ways of doing things that are acceptable by the society. The society recognises that individuals can make use of their endowments and giftedness to invent things and methods of doing certain things. This is only possible with very intelligent, resourceful and creative people. The inventions are acceptable as far as they do not disregard the ethical, moral or religious standards of the society. Members of this group are talented. They require very special education to perfect their respective talents. They undergo more rigorous discipline than ordinary members of the society do. For example priests, artists, philosophers. Inventors also belong to this group. Their education lasts longer and it is more intensive than the requirements for general education. The alternatives are exceptional, creative and gifted members of the society. They are limited in number. The school programmes are organized in such a way that these components are recognized. The universals are grouped as the core curriculum, which every learner must offer; e.g. English, Mathematics, an indigenous language. The specialties are seen in the subjects required for specialisation in different professions and vocations, while the alternatives fall within the elective courses. This is why in curriculum planning there are: the core, the ancillary and the electives. It gives the learners the opportunity to fulfil their needs.

Check Your Progress -1

Explain the meaning of culture and its components with examples.

3.3.3.2. Culture Oriented Activities to be included in the Curriculum

Inclusion of the following activities will make a curriculum culture focused:

- The school curriculum should be process based, and experiential, with sufficient flexibility to integrate local culture. The development of the curriculum should

be taken up with the involvement of local resources: human and otherwise. The curriculum should have sufficient flexibility to accommodate the hopes, aspirations, needs and culture of the local community. Village Education Committees could be involved in developing the 'school curriculum'.

- The role of the textbooks and the manner in which they are used needs to be re-defined. The 'dominant' nature of the textbook should be toned down. There must be sufficient space for accommodating local art forms, practices, places, institutions, festivals, rituals, artifacts, literature, even local riddles and humour.
- The teaching learning process (and the teachers) should not thrust upon the students the values, beliefs and behaviours of the dominant cultures in such domains as religion and family life which only need to be learned for general awareness and understanding rather than for advocated active use.
- Conscious efforts should be made to ensure that the teaching learning process does not become culturally sterile: consciously or unconsciously promoting one particular culture / sub-culture.
- The teacher should become a friend and facilitator encouraging different cultural patterns and processes. Children enjoy talking about their own lives, their families, what they personally like and dislike and so on. Teachers should be sensitized to encourage children to explore their own as well as alien lifestyles.
- Different folk art forms, folksongs, stories, riddles, and games, should be included as 'text' material. Conscious efforts should be made to ensure that the Illustrations in textbooks reflect local culture. Decorations, embellishments in textbooks could use local forms such as local mural paintings, Rangoli, Kolam and others.
- The teaching-learning process should make use of a variety of 'home-tongues', dialects and other local languages. The teaching-learning process should make the best use of the diversity of local challenges.
- For the pre-primary and elementary stage of school education the mother tongue shall be the medium of instruction so that children do not feel 'threatened' by an alien language thrust upon them. This will ensure that the thinking processes of the child, which happens in the mother / home tongues do not get hindered.
- The 'terrain of culture' should have sufficient free space for all local languages and dialects.

- The school calendar should have at least two periods a week set apart exclusively for cultural activities. Local artists, musicians, painters, writers and storytellers could be guests and performers at some of these sessions. Children should be encouraged to directly interact with them.
- The school library should be the nodal point for all 'cultural' learning in the school. Every school library should have a carefully selected collection of literature and reference books. The school library should also have a collection of 'renowned' paintings, music, and so on. All teachers should be sensitized so that they can help children get gradually acquainted with the masters and their masterpieces.
- In the elementary grades, every child should be given opportunities to participate in activities including singing, dancing, developing stories from pictures, role play, amateur dramatics and so on. Thus, children would get ample opportunities to practice music, drawing, dramatics and so on in a non-threatening atmosphere as part of the regular.
- At the Upper Primary stage, teachers could gradually introduce children to the nuances of the 'general' grammar of art forms (concepts such as rhythm, movement, melody, balance, harmony, general principles of drawing, painting and so on) and also organize direct exposure to these art forms.
- By the Upper Primary stage children could be encouraged to get involved in creative dramatics in a much more 'technical'' manner. The school theatre could be used for getting children to imbibe and practice the elements of theatre: script writing, stage-setting, costume making and so on.
- Children's camps could be organized during vacations where 'cultural' activities could be freely explored in a non-threatening atmosphere.

Check Your Progress – 2

1.Explain the activities that make a curriculum culture focused.

3.3.3.3. Strategies for Incorporating Cultural Aspects in the Curriculum

1. Integration: Integrating the cultural components into the curriculum

Integration involves inclusion of the required knowledge, skills, values and attitudes in the curriculum. According to Agwu (2009:172), 'integration means that what the school offers must be related to what the community requires.' In the organization of content and

learning experiences, integration refers to the horizontal relationship of curriculum content and learning experiences. It is the merging of related content and experiences from different subject areas into one area of knowledge. It deals with using content from one subject area to solve problems in another content area. At the basic education level, which includes primary and junior secondary schools, the curricula are integrated. The essence is to integrate the learners as functional members of the society. The broad fields design is used whereby aspects of related knowledge, skills, and attitudes are brought together and systematically arranged in terms of their gradient of difficulty. For example, Social Studies, Basic Technology, Basic Science, Language, Cultural and Creative Arts and Civic Education are all integrated subjects. Integration cannot be attained if the school curriculum is planned without recourse to the culture of the community. It therefore behoves the curriculum planners to link the curriculum content and experiences to the culture of the people.

Situational Analysis

Integration of culture in curriculum can be achieved by doing a situational analysis before curriculum planning as given by Nicholls and Nicholls (1978); and Taba's (1962) curriculum planning models. Situational analysis is the diagnosis of all the elements that influence curriculum planning and implementation. It surveys the society, the environment, the educational system, the learner factors, the teacher factors, learning process, school facilities, and available accumulated body of knowledge. The societal values are also taken cognisance of, as respect for the values of the society are very important. It gives one the sense of belonging and well-being, self-respect, and self-esteem (Obilor, 2003). Khan (2004) identified three types of values. They are behavioural, procedural and substantial values. Behavioural value deals with the type of behaviours exhibited by the teacher and the learners. It is reciprocal in nature. The teacher exhibits good behaviour which the learners imbibe and internalize. Procedural value entails manner of approach in problem solving; for example, respect for evidence, willingness to participate in rational discussion. Substantial value are beliefs held by individuals as a result of their family, ethnic, religious or cultural experiences or attitudes of people to social of political issues. The data collected from these sources would furnish the curriculum planner with the required capability to plan a good and functional curriculum. Another way of sourcing for data for curriculum planning is through interview of the significant others in the society, the experienced and exposed elders, who will supply information on their culture, values and ethical issues on which to base the curriculum. These are integrated in the curriculum to make it functional. Related knowledge areas are brought together to form Broad fields curriculum, for example, Basic Science and Basic Technology, Social Studies, and Cultural and Creative Arts. There are aspects of culture that cut across different subjects which are introduced in the subjects

such as Mathematics, English, Literature in English and so on; such as honesty, etiquette, festivals, respect, etc. The inclusion of the mode of delivery of the curriculum at the planning stage takes cognisance of the nature of integration. Such modes include role play, dramatization, collaboration, field trips, games and simulation, and other interactive modes. Through these modes, it is easy to relate the curriculum content to the real life experiences of the learners to show them the worthwhileness of the school programmes. Through these modes of instruction, they will be well equipped to transfer what they learn in school to solve their problems. This is the essence of education.

2. Cultural Assimilation:

Though it is rarely made explicit, and is often unintended, one of the most distinguishing features of schools in cultural minority settings is their overwhelming press toward assimilation into mainstream cultural patterns. Whether intentional or not, the basic thrust of schooling is toward the breaking down of particularistic orientations and developing in their place, a universalistic orientation. Even where accommodations are made to include ethnic studies or bilingual education in the curriculum content, the structure, method, and processes through which the content is organized and transmitted are usually reflective of mainstream patterns and exert a dominant influence on the student (cf., Bayne, 1969). Schools are agents of the dominant society and as such, they reflect the underlying cultural patterns of that society. As long as they reflect the structure and social organization of the dominant society, they can be expected to perpetuate its values, attitudes, and behavior patterns within an implicit framework of assimilation.

On the surface, a cultural assimilation orientation would seem to offer the minority student an opportunity to gain access to the skills and resources necessary to participate in the larger society on equal terms with others. This expectation often goes unfulfilled, however, because of the school's inability to adequately respond to the differences in learning styles associated with differences in thought, communication and social interaction on the part of the minority student. Consequently, the requisite skills are not learned, status differentials are reinforced, and access to societal resources is further impeded, thus thwarting the minority students' aspirations. The school cannot contribute effectively to the assimilation process without careful attention to the unique cultural conditions out of which the minority student emerges.

If assimilation is desired and is to be achieved in full by a cultural minority, it must be supported by social, political and economic forces beyond those available through the school. If cultural assimilation is not desired, alternative goals must be adequately articulated so as to be able to assess the extent to which schools may or may not be able to contribute to their

attainment. One such alternative goal that has received widespread attention is that of cultural pluralism.

3. Cultural Pluralism:

Whereas assimilation stresses the ways of the dominant society, cultural pluralism is intended to stress the ways of the minority society. Cultural pluralism is advocated as an educational goal by those who seek a pluralistic, multi-cultural society in which each ethnic, racial or religious group contributes to the larger society within the context of its own unique cultural traditions (Banks, 1976).

The school's task, therefore, is to recognize the minority culture and to assist the student to function more effectively within that culture.

However, with an emphasis on cultural autonomy and homogeneity, cultural pluralism falls short of being a realistic goal toward which the schools may direct their efforts. In addition to participating in various ways in the cultural traditions of their own society, most (if not all), minority group members also participate in varying degrees in the cultural traditions of the larger society

Even if cultural pluralism were to be viewed as a realistic goal (and it may be, under certain conditions of oppression), we would still have the problem of using an institutional artifact of one society (i.e., the school) to promote the cultural traditions of another. To change the subject-matter (content) without a concomitant change in the structure, method and processes through which that content is conveyed, may in the end, only strengthen rather than weaken the influences of the larger society. To achieve educational independence does not necessarily lead to cultural independence, if the educational experiences remain within the structural framework of the dominant culture.

It would appear then, that neither extreme of complete cultural assimilation or separation is appropriate or adequate as an educational goal, nor are either realistically attainable through the traditional framework of the school. We must, therefore, seek an alternative goal that rests on the middle ground between assimilation and pluralism, and then devise a means by which such a goal might be achieved.

4. Cultural Eclecticism:

Since there are features of both the assimilationist and pluralist perspectives which seem desirable in developing educational programs for minorities, an eclectic approach, which allows for minority selection and adaptation of those features seem to be desirable, and attempts to overcome the previously stated limitations. The goal of this approach will be referred to, therefore, as "cultural eclecticism." This is not to imply that the school is to present a hodgepodge of cultural practices from which students choose, but rather that the

school will assist the student in understanding the nature of the diverse experiences which are a natural part of his/her existence, and thus contribute to the development of an integrated cultural perspective suitable to the student's needs and circumstances.

In developing an eclectic approach, it should be considered that, each minority group has unique characteristics that distinguish it from other groups, and that all groups share characteristics common to the larger society. Variations exist within and between groups, in orientation toward minority vs. dominant cultural characteristics. Some individuals and some groups wish to stress the minority culture, while others are oriented toward the dominant culture, with still others desiring the "best of both worlds." The curricular approach that respects this vast diversity, while introducing everyone to the range of options available, so that they themselves are able to exercise some degree of choice in their individual or group life style and goals. Such an approach must recognize the multifaceted and dynamic nature of a large, complex, open, continually evolving society, and must allow for the varied cultural expressions of ethnic, religious and political beliefs and practices within the broader framework of that society.

Check Your Progress – 3

Explain the different strategies for incorporating cultural aspects in curriculum

3.3.4. Let Us Summarise

- Each factor of curriculum, needs to have link to the culture, as nothing can be done in education without reference to the culture of the society. There are different models of curriculum planning and each focuses on the culture of the society for which the curriculum is being planned.
- Taba (1962) and Nicholls and Nicholls (1978) believe that Situational Analysis should be the first step so as to understand the culture of the people and the available accumulated body of knowledge, before embarking on selection of the objectives.
- Culture has different meanings and it is used in different ways.
- Culture is the fabric of ideas, ideals, beliefs, norms, customs and traditions, systems of knowledge, institutions, aesthetic objects, and material things of arts.
- There are three components of culture. Sociologists have categorised culture into three, namely, universals, specialties and alternatives. Curriculum should make scope for all three components of culture.

- The curriculum should take care of the specific activities that help to orient students towards culture.
- Strategies for incorporating cultural aspects in the curriculum include Integration, Cultural Assimilation, Cultural Pluralism and Cultural Eclecticism.

3.3.5. Answers to Check Your Progress – 1,2 and 3

Check Your Progress – 1

Refer Section 3.3.3.1 of Self-Instructional Material.

Check Your Progress – 2

Refer Section 3.3.3.1 of Self-Instructional Material.

Check Your Progress – 3

Refer Section 3.3.3.1 of Self-Instructional Material.

3.3.6. Unit end Exercises

Explain the procedures to make curriculum culture oriented.

3.3.7. References

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Block 3 : Curriculum Determinants and Considerations

Unit 4 : National Priorities

Unit Structure

3.4.1. Learning Objectives

After going through this Unit, the student teachers will be able to

- Explain the national priorities of education as envisaged by Vision 2020 document;
- Explain the national priorities of education as envisaged by Draft National Policy 2019;
- Analyse the priorities in relation to curricular aspects as proposed by these documents; and
- Clarify the implications of these priorities to curriculum construction at school level.

3.4.1. Introduction

Priority means the fact or condition of being regarded or treated as more important than others. National priority means those which are considered as more important than other aspects in a particular field by a nation. National priorities of education mean those issues which are considered as more important than others and those which need to be focussed from the point of view of the progress of a nation. Any curriculum should base its content on the priorities identified by its nation in the field of education. These are expressed in different documents of education and normally prepared and published by the government. We have two important documents to identify the national educational priorities identified in our country. The first one, is the Vision 2020 document developed by NCERT and the second one, is the draft of National Education Policy 2019 revised document. Let us understand, in this Unit, the national priorities of education in India, in relation to education in general and curriculum in particular.

3.4.3. Learning Points and Learning Activities

3.4.3.1. National Priorities as envisaged by Vision 2020 document

National Priorities according to Vision 2020 document. The content as it is found in the document is presented below:

Vision Statement

Keeping in view the achievements and gaps of education and keeping in view the present mood of the country and the economic and technological upswing we would like to construct a vision statement based on the faith that India will become a developed country by 2020 and all activities be taken up in a mission mode.

"By 2010 India will have 100% elementary education for the age group 6-14. School curriculum will be so planned that it will promote peace, harmony, social cohesion and composite culture. Education will empower learners for self-growth and higher quality of living. Distance and open learning will become an integral part of instruction at all levels. Virtual classroom and self learning (using networks and websites) will get strengthened. Education will protect and promote ancient wisdom and will be indigenous in nature. School and university education will have an open window to international achievements. Educational management systems will become more sensitive, open, transparent and learner friendly and will focus on to provide academic support to students. The overall vision of Education – 2020 is to create a learning and knowledge society."

About curriculum:

Let us identify those aspects of this document, which are directly related to curriculum construction at school level. The following have been identified as thrust areas in school education:

- With elementary education becoming universal, more efforts will be put to provide quality secondary education, parent education, vocational education and teacher education.
- Intensive efforts will be made to provide educational opportunities through distance education using information and communication technologies.
- Students evaluation will become more formative and flexible.
- Curriculum will have a provision to offer cafeteria approach.
- School curriculum will not unnecessary load students. At the same time it will have comparative international standard and promote critical and independent thinking.
- Pre-primary education and early childhood education will become an important element of school education supported through public funds.
- Preservation, protection and modification of indigenous knowledge and composite culture will become an important objective of education.

Strategies identified to achieve the priorities:

Strategies identified to achieve the above areas also have been specified, which give some insights to curriculum developers. They are as follows:

- **Networking school-level resource institutions:** This strategy is based on the assumptions that resources are always inadequate, and widely distributed, it is by their proper mobilisation that they can put them together and make a critical mass.
- **Building strong educational information management system:** This action area is based on the assumption that in the existing situation most of the actions are taken on the basis of personal liking and disliking, personal preferences and on hunches. If decisions are made on the basis of information available, they would be more objective. Thus, developing a management information system is the first prerequisite.
- **Making available parent education programmes round the clock** : This action area is based on the assumption that parents want to increase their awareness

about various educational matters. If appropriate educational awareness programmes are telecast and made available to the general public especially parents, it will help them to become better productive members of the society.

- **Offering special programmes for gifted and talented students:** It is known to everyone that the real treasure of a country is its youth and specially youth who are gifted and talented. Any country which does not nurture the giftedness and the talent of its youth can never dream of becoming a progressive and forward-looking society.
- **Special Programmes for Girls Education:** Providing girls education and ensuring their full enrolment should be the educational objective to be attained by 2020.
- **Education of Scheduled Castes, Scheduled Tribes and other disadvantaged groups:** For achieving cohesive and productive society special programmes have to be launched for the Scheduled Castes, Scheduled Tribes and other disadvantaged groups.
- **Special programmes for countries which have Indian-originpopulation**: Countries like USA, Canada, South Africa, U.K, Australia, Caribbean Islands have large population of Indian origin.
- **Inclusive Education for Special Needs Students:** By 2020 attempts will be made to offer integration education on comprehensive basis for physically and mentally handicapped children.
- **Providing and promoting indigenous knowledge:** In the knowledge society communities will assess education in quality and utility as per their own norms.
- **Curriculum: Review, Revision and Development**

✓ School level resource institutions like National Council of Educational Research and Training, State Council of Educational Research and Training, Central Institute of Educational Technology etc., as well as Universities will have to develop a mechanism for curriculum review, revision and development, both at schools and university level, which should expose students to latest global developments as well as to indigenous knowledge.

✓ Curriculum will pay attention to indigenous tradition and enormous amount of wisdom and experience that has been drawn from various regions and sections of the Indian society in knowledge relating to Ayurveda, herbal treatment, massage therapy, achievements in psychology, mental health, logic, epistemology, jurisprudence, pedagogy, etc.

- ✓ Curriculum will also offer fast track and front line curriculum in areas such as information technology, bio-technology etc. Curriculum will emphasise value education, meditation and importance of silence. It will gradually build in students higher levels of awareness from animality to humanity to rationality to civility to divinity.
- ✓ Curriculum should make students aware of positive and critical thinking and the harms of negativity and negative thinking.
- ✓ Curriculum will be so designed that it will not load students; neither with the physical load, nor with the load of non-comprehension, and irrelevance.
- ✓ Curriculum will stress on joyful learning, functional science and functional mathematics. It will not unmindfully reject memorisation.
- ✓ A mechanism will be evolved to ensure that school college and university curriculum as well as the curriculum of teacher education gets reviewed, revised and updated every five years.
- ✓ It may also be stressed that Curriculum in school education provides enough stress and importance to computer education, information and communication technologies and other frontline curriculum.
- ✓ It should also be stressed that distance education and open learning systems are optimally used. Computer education will be introduced in a phased manner:
- o Computer literacy in all schools.
- o Computer assisted learning in a large number of schools (10,000).
- o Computer aided learning in some schools (1,000).
- o Intensive computer education in some selected schools (100 called as smart schools).
- ✓ Teaching-learning material which is largely in the form of textbooks and workbooks, now will accordingly change when facilities of Internet and Website are made available in schools. Multimedia packages, CD ROMS and hyper texts need to be developed and made available in the library and students.

Check Your Progress -1

Explain the priorities of education as envisaged by Vision 2020 document

3.4.3.2. National Priorities as envisaged by Draft National Policy 2019

National Priorities according to draft document of National Educational Policy 2019, published by MHRD.

Section 4 of the document deals with the issues of curriculum in schools. The content of the document has been reproduced here:

Section 4: Curriculum and Pedagogy in Schools

Objective: Curriculum and pedagogy are transformed by 2022 in order to minimise rote learning and instead encourage holistic development and 21st century skills such as critical thinking, creativity, scientific temper, communication, collaboration, multilingualism, problem solving, ethics, social responsibility, and digital literacy.

4.1. A new curricular and pedagogical structure for school education

A new developmentally appropriate curriculum and pedagogical structure for school education: 5 + 3 + 3 + 4 design.

- 5 years of the Foundational Stage: 3 years of pre-primary school and Grades 1, 2.
- 3 years of the Preparatory (or Latter Primary) Stage: Grades 3, 4, 5.
- 3 years of the Middle (or Upper Primary) Stage: Grades 6, 7, 8.
- 4 years of the High (or Secondary) Stage: Grades 9, 10, 11, 12

Interactive and fun classrooms, where questions are encouraged, with creative, collaborative, and exploratory activities for deeper and more experiential learning.

4.2. Holistic development of learners

The key overall thrust of curriculum and pedagogy reform across all stages will be to move the education system towards real understanding and learning how to learn - and away from the culture of rote learning present today. The goal will be to create holistic and complete individuals equipped with key 21st century skills. All aspects of curriculum and pedagogy will be reoriented and revamped in order to attain these critical goals.

4.3. Reduce curriculum content to enhance essential learning and critical thinking: Reduce curriculum load in each subject to its essential core content, in order to make space for more holistic, experiential, discussion-based, and analysis-based learning.

4.4. Empower students through flexibility in course choices: There will be no hard separation between 'arts' and 'science' streams, or between 'academic' and 'vocational' streams.

4.5. Education in the local language/ mother tongue; multilingualism and the power of language: Since children learn languages most quickly between 2-8 years, and multilingualism has great cognitive benefits for students, children will be immersed in three languages early on, from the Foundational Stage.

4.6. Curricular integration of essential subjects and skills

While students must have a large amount of flexibility in choosing their individual curricula, at the same time this policy envisions that certain subjects and skills should be learned by all students in order to become good, successful, innovative, adaptable, and productive human beings in today's rapidly changing world. In addition to proficiency in languages, these skills include: scientific temper; sense of aesthetics and art; languages; communication; ethical reasoning; digital literacy; knowledge of India; and knowledge of critical issues facing local communities, States, the country, and the world. Young children learn and grasp nontrivial concepts most quickly in their home language/mother tongue.

4.6.1. Inculcate scientific temper and encourage evidence-based thinking throughout the curriculum

Evidence-based reasoning and the scientific method will be incorporated throughout the school curriculum - in science as well as in traditionally "non-science" subjects - in order to encourage rational, analytical, logical, and quantitate thinking in all aspects of the curriculum.

4.6.2. Art and aesthetics

Any education emphasising creativity and innovation must include the arts. It is well established that people (including engineers and scientists) who are well educated in the arts as children tend to be more productive, creative, and innovative in their lives as adults.

4.6.3. Oral and written communication

Communication skills - both verbal and written - have become increasingly important in the modern world. People spend much of their daily lives communicating messages, requests, questions, opinions, feedback, anecdotes, and more - both in person and in written or digital form.

4.6.4. Physical education, wellness, and sports

Physical education is important for both physical and mental health and development. It helps improve a child's muscular and cardiovascular strength, flexibility, endurance, motor skills, and mind-body connection and wellness. It gives children the opportunity to set and strive for personal.

4.6.5. Problem-solving and logical reasoning

Just as exercising the body is important to keep it fit and healthy, so too is exercising the mind. Games of strategy, logic and word puzzles, and recreational mathematics are the best way to excite children about mathematics, and to develop the logical skills that are so critical throughout their school years and indeed throughout life.

4.6.6. Vocational exposure and skills

Vocational education is extremely vital for our country to run efficiently and properly, and thus it is beneficial to increasingly incorporate elements of vocational education into the school curriculum to expose children to its utility and its value as art. Indeed, some exposure to practical vocational-style training is always fun for young students, and for many students it may offer a glimpse of future professions while for others it would at the very least help teach and reinforce the dignity of all labour.

4.6.7. Digital literacy and computational thinking

Integration of digital literacy: The new curriculum will also integrate digital literacy for all learners at the basic level, with hands-on assessments and worksheets keeping in mind the available digital infrastructure on the ground.

4.6.8. Ethical and moral reasoning

Introducing an "ethics" component to the curriculum early on and throughout the years of school is also considered extremely important in helping students to build character, grow up into moral and good human beings, lead productive and happy lives, and contribute positively to society.

4.6.9. Knowledge of India

Indian literature and traditions contain deep knowledge in a variety of disciplines, including mathematics, philosophy, art, logic, grammar, law, poetry, drama, astronomy, chemistry, metallurgy, botany, zoology, ecology, environmental conservation, medicine, architecture, water management, agriculture, music, dance, yoga, psychology, politics, fables, and education. These knowledge systems, which occur in ancient as well as more recent Indian literature, folk arts, and local oral and tribal traditions, serve to impart culture as well as valuable knowledge - yet much of this knowledge remains better known outside India than in India.

4.6.10. Current affairs

The knowledge that schools impart to students is not an end in itself, but a means to a better and more meaningful and purposeful life in the future. In particular, since possible future endeavours and occupations to be taken up after school or university are dictated by

the realities of the evolving world around us, we must encourage a constant connect between the classroom and the real world, and not isolate the two.

4.7. National Curriculum Framework

Revision of the National Curriculum Framework: The NCF 2005 outlines many excellent strategies that are still relevant for accomplishing a more constructivist type of learning. This document will be revisited and updated by the end of 2020, taking into account the changing context of education today and, in particular, all the above Policy points, and will be made available in all regional languages.

1.8. National textbooks with local content and flavour

The reduction in, and increased flexibility of, school curriculum content - and the renewed emphasis on constructivist rather than rote learning - must be accompanied by parallel changes in school textbooks. All textbooks shall aim to contain the essential core material (together with discussion, analysis, examples, and applications) deemed important on a national level, but at the same time contain any desired nuances and supplementary material in accordance with local contexts and needs. Where possible, teachers will also have choices in the textbooks they employ - from among a set of textbooks that contain the requisite national and local material - so that they may teach in a manner that is best suited to their own desired teaching styles and to the needs of the students and communities.

4.9. Transforming assessment for student development

The changes in curriculum described in Section 4.2-Section 4.8 must be accompanied by parallel changes in assessment procedures and mechanisms. The very aim of assessment in the culture of our schooling system must shift from one that primarily tests rote memorisation skills to one that is more formative, promotes learning and development for our students, and tests higher-order skills such as analysis, critical thinking, and conceptual clarity. The primary purpose of assessment should indeed be for learning - it should help the teacher and student - and the entire schooling system - continuously revise teaching-learning processes in order to optimise learning and development for all students. The culture of assessment must shift from one that primarily tests rote memorisation to one that is more formative, promotes learning, and tests higher-order skills.

4.10. Support of students with singular interests and talents

Every student has innate talents, which must be discovered, nurtured, fostered, and developed. These talents may express themselves in the form of varying interests, dispositions, and capacities. Those that show particularly strong interests and capacities in a given realm must be encouraged to pursue that realm beyond the general school curriculum.

Check Your Progress -2

Explain the priorities of education as envisaged by Draft National Policy 2019

3.4.4. Let Us Summarise

- Priority means the fact or condition of being regarded or treated as more important than others. National priority means those which are considered as more important in a particular than other aspects in a particular field by a nation.
- National priorities of education mean those issues which are considered as more important than others and those which need to be focussed from the point of view of the progress of a nation.
- Any curriculum should base its content on the priorities identified by its nation in the field of education.
- We have two important documents to identify the national educational priorities identified in our country. The first one, is the Vision 2020 document developed by NCERT and the second one, is the draft of National Education Policy 2019 revised document.
- These documents have visualised important areas of curriculum and suggested strategies to achieve the same.

3.4.5. Answers to Check Your Progress – 1 and 2

Check Your Progress -1

Refer Section 3.4.3.1. of Self-Instructional Material.

Check Your Progress -2

Refer Section 3.4.3.2. of Self-Instructional Material.

3.4.6. Unit end Exercises

Explain the national priorities to be considered while designing curriculum.

3.4.7. References.

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Block 3 : Curriculum Determinants and Considerations

Unit 5 : System of Governance and Power Relations

Unit Structure

3.5.1. Learning Objectives

After studying this Unit, the student teachers will be able to

- Explain the process of governance of curriculum
- Explain the nature, merits and limitations of governance of curriculum at different levels

3.5.2. Introduction

Curriculum is a fundamental component of any education system, but its development and implementation rely on other components of the whole system, including teacher training, resources and supervision. Therefore, educational management and governance structures, as well as the quality of related systems can influence the quality of curriculum that is developed and the effectiveness of its implementation. This implies that the success of the curriculum depends on the governanceor management of the rest of the related aspects. Therefore, successful management of the curriculum requires successful management of the whole system of education. The curriculum can be managed or governed

at different levels and let us understand in this unit the different levels of governance of the curriculum and the nature of governance at each level.

We know that the success of curriculum governance depends on the management of the whole system. "System management" can be defined as the process of planning, implementing, monitoring and evaluating the various parts of a system. In education, these parts may include strategic and operational planning, human and financial resources, teacher education ,accreditation, curriculum evaluation and student assessment.

3.5.3.1. SystemManagement, Governance and Curriculum Management

Babcock, McNeil and Tanners stated that "Curriculum can be considered as a system for dealing with people and the processes or organization of personnel and procedures for implementing the system".

Some important guidelines have been suggested by International Bureau of Education, UNESCO/ 2013 in the document titled "Training Tools for Curriculum Development — A Resource Pack" related to Policies and processes related to the governance and management of curriculum. This document highlights the relationship between different aspects of education including curriculum and highlights the need to manage and evaluate the curriculum in relation its systemic aspects.

Considerations about system management, governance and their relationship with curriculum

From the administration's point of view, curriculum is centrally defined and students across the system are expected to be taught the same thing, in the same way at the same time. Even when this approach might seem able to control the quality of learning, it does not guarantee that the needs of individual students and local communities are met.

Number of agencies are involved in the process of education of a nation. They should work in an interdependent fashion for the success of education. But this cannot be reduced to a hierarchical structure or managed using a top-down approach. Instead, governance should be based on the role of local communities and decisionmakers. "Governance" refers to the ethics of an organization and the professional conduct of its employees. Accordingly, a curriculum development trend has emerged that more genuinely acknowledges the social and economic needs of local communities and individual groups, allowing local authorities and schools to develop their own curriculum. This involved three major risks:

- To what extent does this approach ensure the quality of curriculum?
- To what extent does this approach ensure the balance of the needs at both local and national levels?

- To what extent does this approach ensure the national goals and priorities to the expected level?

If these risks are properly managed, the decentralization of curriculum development can reap many positive benefits. For instance, it can facilitate the democratization of education by allowing local stakeholders greater autonomy and participation in curriculum design, implementation and evaluation that remain consistent with the achievement of national goals and standards.

The transfer of authority to regional, provincial and/or local levels in a decentralized system may include:

- Wider sharing of educational management and governance functions;
- Broader participation in decision-making processes; and
- Increased local autonomy in certain policy or management aspects.

In some cases, this trend has led to significant modifications in the organizational structure of ministries of education. For example, decentralization may imply the transference of administrative functions from central to regional, provincial or local levels. Additionally, with respect to curriculum, there is a trend towards the development of localized curricula that is sensitive to the cultural and socio-economic diversity of local communities. Schools produce their specific plans by formulating a vision and primary focus of teaching based on the community context. They use their autonomy to make decisions about how to teach and prioritize content, ideally using a collaborative framework of consensus, and outlining points that each teacher will introduce in his or her work plans at the school level.

One noteworthy aspect of the overall school model is the school-based curriculum plan, where teachers reflect and make decisions based on the central curriculum framework, adapting it to their context. In this instance, they agree upon what their students will learn and the rationale behind it, the type of performance they should expect of learners at each key stage, the methodological guidelines to be implemented, the competencies that learners should develop, the content that should be prioritized to promote this development and the manner in which students will be assessed.

Management and Governance of curriculum at different levels:

The following aspects help to understand the management and governance of the curriculum.

1. Balancing national and local needs and interests: Reflecting the needs and interests of various stakeholders to gain support and lead acceptable curriculum implementation.

2. Curriculum localization, challenges and opportunities: Reflecting upon the constraints that limit localization processes and potential solutions.
3. School-based curriculum development: Processes that each school can follow to generate its own curriculum projects.
4. The role of supervision and inspection in monitoring the curriculum.

The above discussion gives an understanding that the management or governance of curriculum can be taken care of at the central or national level, local level or school level. But at each level special care needs to be taken in such a way that the focus of the curriculum is not lost. At the national level the curriculum should not lose the focus of local needs, at local level it should not cover the national needs and at school level it should take care of school level, local level as well as national level needs.

Check Your Progress -1

Complete the sentences using appropriate words/phrases

1. In centrally defined curriculum, students across the system are expected to be taught _____
2. curriculum development trend has emerged that more genuinely acknowledges the social and economic needs of _____
3. In school-based curriculum plan, teachers make decisions based on the central curriculum framework, adapting it to_____

3.5.3.2. Curricular management issues

1. Balancing national and local needs and interests

Processes of curriculum change are increasingly shaped by the trend towards greater decentralization of educational management and governance. In order to reinforce the involvement and empowerment of local communities, current trends promote decentralized education systems, particularly with respect to:

- Decision-making;
- Participation in educational policy-making; and
- Curriculum design and implementation.

A range of technical, educational and political rationales are often advanced to justify the need for decentralization. These include managerial efficiency, enhanced quality and the relevance of curriculum content to local cultural and economic realities, as well as the increased legitimacy of curricula through greater stakeholder participation in policy design.

In some cases, local-level empowerment may encourage teachers to redefine their roles as educational researchers and curriculum developers concerned with the specific needs of their students. However, the quality of this work largely depends on a number of factors, including local levels of expertise.

In particular, the nature and quality of educational management systems is a key factor in determining the manner and scope of decentralization in educational management and governance. Although there are differences in the degree of decentralization, many countries usually decentralize elements of their educational administration and management systems at the national, provincial, district and school levels.

A strong central government remains important, particularly for the development of national curriculum frameworks, quality assurance standards, school-effectiveness indicators, and assessment and evaluation systems to ensure quality. These overlapping frameworks provide broad parameters within which educational processes and products may be moulded to meet local needs and secure the support and participation of civil society, including parents and local communities.

It is precisely for this reason that a strong, centralized system can be effective in addressing a wide range of issues. Each country must achieve a particular balance between centralization and decentralization that is responsive to its specific needs.

2. Challenges and opportunities in curriculum localization

The relevance of curriculum content is a crucial dimension of quality education. The promotion of localized curricula is one way of encouraging such relevance in very different political, cultural and socio-economic contexts. It is an important component of the decentralization of education, governance and management.

The contextualization or localization of curriculum can allow learning to become more meaningful and relevant. It supports policy formulation and standard setting for curriculum reform and its impact on teacher skills and knowledge. Localization entails the use of local materials, both as the subject and object of instruction. It also includes making the local culture an integral part of the curriculum.

However, there are a number of constraints in the devolution of responsibility for curricula to local levels, including absent or weak local-level technical expertise and material resources, fear of the unknown and resistance to change among teachers and educators.

If the education system is viewed as a learning organization and the individuals within it as learners, the roles of the policy-maker and the implementer entail facilitating change and developing the capacity of the entire system. When embarking upon a process of

localization, educators at all levels of the education system are required to assume additional responsibilities, perform new roles and familiar tasks in innovative ways. Such a process can be stressful, frustrating and at times difficult. Therefore, strategies for supporting the agents of change are needed to advance the process and overcome any challenges.

Effective contextualization of localization processes demand the clear articulation of policies, and a comprehensive understanding of the new demands on individuals and organizations that can be achieved by:

- Developing a curriculum framework, including a clear set of curriculum standards, at the central level;
- Ensuring compliance with these standards in local and school-developed curriculum, either through documentation-based accreditation or endorsement processes or through supervision and monitoring processes (or both);
- Providing training that enables teachers to articulate what is prescribed by the centralized framework within their knowledge of the given context; and
- Ensuring clear and open communication between central and local authorities.

3. School-based curriculum development

In reality, there is no school that operates one hundred per cent in accordance with the principles and practices established in the centralized curriculum because each school often has its own needs or goals that differ from those of other schools, even in neighbouring communities. This may lead a particular school with a strong identity and high-quality leadership to adopt a modified teaching profile. Consequently, school-based curriculum development operates as a programme of learning experiences designed by the school community to cater for specific community needs and the unique identity of the school. In this sense, the process differs from the usual adaptation of the curriculum produced when learning is centrally planned, and is characterized by several features:

- Collaborative decision-making processes;
- Clear institutional focus, usually drawn around a well-defined vision or goal; and
- A creative development space, that serves as a catalyst for innovation and the utilization of experimental teaching methodologies.
- The rationales advanced for promoting a school-based curriculum include:
- Increased learning opportunities and experiences that fit the needs, concerns, goals and interests of the students and school community at large;

- The identification and incorporation of local resources to the learning experiences of students; • Curriculum that adjusts to new ideas about teaching and learning, increasing the flexibility and creativity of teachers; and
- The introduction of democratic practices in the decision-making processes of the school community.

Some factors that influence the likelihood of school-based curriculum development are:

1. National educational goals and philosophy: the schools must produce a curriculum that reflects the national framework for education and its goals, as well as educational philosophies and political ideologies accepted by the mainstream.
2. Centralized curriculum definitions: as a general rule, schools don't have the broad autonomy to exclude subjects that are included in the central curriculum, or to reorganize them by modifying the officially-sanctioned time allocations. They also cannot add subjects; they must consider the additional resources required and this is usually not feasible for public schools.
3. Resources available at the school: the selection of activities in school-based curriculum systems are limited by the availability of resources, including room space, materials and personnel. While room space refers to labs, libraries and resource centres, material resources refers to textbooks, tools and computers. Human resources refers to teachers with specific competencies that are aligned with the focus identified by the school-based curriculum, as well as the possibility of receiving coaching and relevant capacity-development opportunities.

4. The role of supervision and inspection in curriculum monitoring

The State usually employs supervisors and/or inspectors whose mission is to monitor and follow-up on school operations. Assuming they accept it as part of their role, supervisors are also expected to monitor implementation of the curriculum. When there is comprehensive curriculum reform, monitoring can be conducted extensively through special groups assigned to this particular task. However, in day-to-day implementation, when a decentralization paradigm has been established and most curriculum decisions are made at the school level, supervisors and inspectors play a central role in monitoring the curriculum as a part of a continuous process of inspection cycles.

The habitual sources of information used to complete this task include:

- Analysis of school documents;
- Classroom observation;
- Focus-group discussions; and
- Surveys.

The school visit is a common procedure that integrates several sources of information. This strategy may include exchanges with the school staff, the revision of additional documents about the school context, the observation of classes, and oral interviews with students and teachers. In some situations, the process takes the form of a curriculum audit whereby a team of external auditors examines the practices and policies applied in the school and draws conclusions about the curriculum's level of implementation. The auditors gather data from interviews, documents and reports on the visits to opine on the school-based curriculum and the ways it is delivered to students. This task is usually accompanied by a collaborative internal audit using structured questionnaires for self-assessment that are answered individually or in a groups, and usually specify where discussions can be held between the different stakeholders, including community members.

The monitoring process may be oriented according to different approaches to curriculum implementation. For instance:

Fidelity perspective: measures the extent to which a particular innovation is implemented and identifies factors that enable or prevent the implementation.

Mutual adaptation perspective: assumes that curriculum developers and implementers need to make mutual adjustments.

Enactment perspective: based on the educational experiences developed by the teacher and student

From a fidelity perspective, the monitoring process will identify those indicators that signal the faithful implementation of the curriculum as it was conceived. Subsequently, research based on the paradigm of mutual adaptation will attempt to discover what happened to the curriculum during the implementation process. The enactment perspective will try to discover the effects of external factors (materials, policies, student and teacher features) on the implemented curriculum.

Points to consider during analysis

There are several activities that can be undertaken to assess curriculum at the school level. Formal curriculum levels are characterized by those elements of the formally-adopted structure of what should be taught. The verification process includes:

(i) ensuring that a written document exists;

(ii) checking that each and every teacher has a copy of the plan; and

(iii) verifying that the document is operational (i.e. presents the scope and sequence of objectives or contents, explicit reference to those objectives/contents in

textbooks and supplementary materials, learning scenarios, worksheets, projects, etc. for each objective, as well as items that should be assessed for each objective).

The next step is to analyse whether there is a correlation between the formal curriculum and the way it is implemented in the school. If any emphasis is placed on controlling this aspect, monitoring will adopt a bureaucratic tendency. Consequently, school actors may be forced to produce documents that satisfy the administration. However, these documents might not describe the actual classroom practices. To better understand real practices, the inquiry process must proceed by revising the curriculum materials that teachers use most frequently so they are related to the aims and structure of the formal curriculum. This also implies revising supplementary curriculum materials that are frequently available for teachers to use.

The level of the curriculum that is actually experienced can be deciphered through conversations between the auditor and students to determine the extent to which students understand the aims/objectives of the lessons. Such an inquiry should also allow the students to reflect upon what they have experienced during the lessons in the classes. The monitoring of the experienced curriculum should also take into consideration the previous learning, individual experiences and preferred learning styles of the students.

Finally, in order to monitor the assessed curriculum, the monitor can review the tests that teachers give their students, the students' portfolios and the answers students provide on applicable standardized tests.

Check Your Progress: 2

Match the items of 'A' group with the items of 'B' group

	'A' Group	**'B' Group**	
1	Decentralization paradigm	based on the educational experiences developed by the teacher and student	a
2	Mutual adaptation perspective	ensuring that a written document exists	b
3	Enactment perspective	inspectors play a central role in monitoring the curriculum	c
4	Assessment of curriculum at school level	measures the extent to which a particular innovation is implemented	d
5	Fidelity perspective	curriculum developers and implementers need to make adjustments	e

3.5.4. Let us Summarise

- Curriculum is a fundamental component of any education system, but its development and implementation rely on other components of the whole system, including teacher training, resources and supervision. Therefore, educational management and governance structures, as well as the quality of related systems can influence the quality of curriculum that is developed and the effectiveness of its implementation.
- "System management" can be defined as the process of planning, implementing, monitoring and evaluating the various parts of a system.
- Curriculum can be considered as a system for dealing with people and the processes or organization of personnel and procedures for implementing the system
- Issues related to management of curriculum at different levels are: balancing national and local needs and interests, Curriculum localization, School-based curriculum development, The role of supervision and inspection in monitoring the curriculum.

3.5.5. Answers to Check Your Progress- 1 and 2

Check Your Progress -1

1. the same thing
2. local communities
3. their context

Check Your Progress: 2

1- c,2 -e,3 -a,4 -b, 5-d

3.5.6. Unit end Exercises

Explain the process of management of curriculum at different levels and bring out the merits and limitations at each level.

3.5.7. References

1. UNESCO/IBE/2013/OP/CD/01 Training Tools for Curriculum Development — A Resource Pack ©UNESCO International Bureau of Education (UNESCO-IBE), 2013.
2. Kelly A B (1996) : The Curricular Theory and Practice. Harper and Row, Us.
3. NCTE(2009): National Curriculum for Teacher Education
4. Taba, Hilda(1962): Curriculum Development:Theory and Practice, Har Court, Brace and Wald, New York.

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Block 3: Curriculum Determinants and Considerations

Unit 6 : Special considerations in Curriculum Development: (At school Level)

Unit Structure

3.6.1. Learning Objectives

After going through this Unit, the student teachers will be able to

- Explain the special considerations of curriculum before deciding the curriculum at school level
- Explain the special considerations of curriculum related to process and outcome.

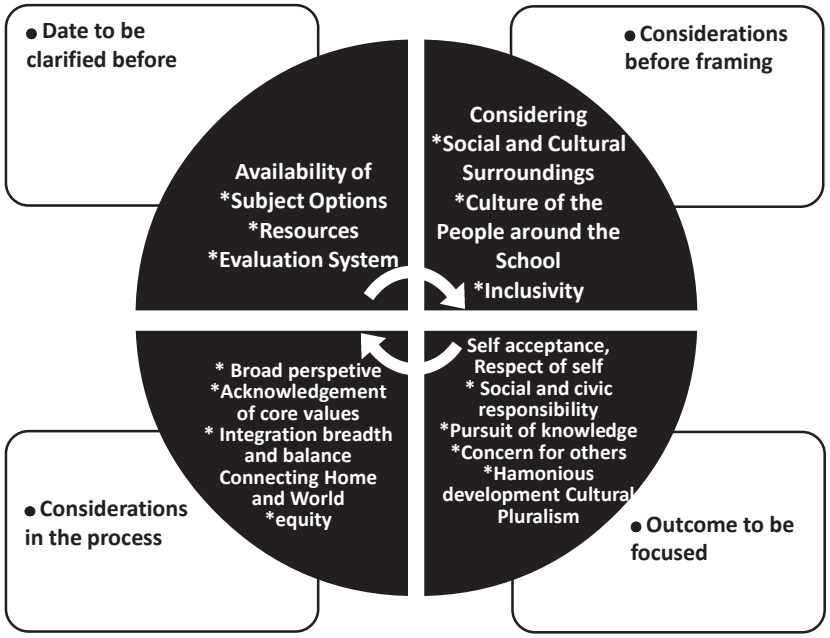
3.6.2. Introduction

You are already familiar of the concept and types and determinants of Curriculum. You also know about the major aspects that determine the curriculum, at national and state level. But this will not suffice our purpose. When we are implementing a curriculum at school level, we need to take into consideration some more aspects, at the institutional level also. These points will not be considered specifically at the national or state level because the status and nature of schools at different levels will be different. It is also true

that, no two schools will be similar. From this perspective, we need to consider some special aspects at the school level while implementing the curriculum and hence some modifications are required in the curriculum already framed at higher levels. This necessitates each school to frame a curriculum of its own, based on number of aspects. We are going to discuss these special considerations of curriculum at school level in the present Unit.

3.6.3. Learning Points and Learning Activities

Before implementing the curriculum framed at the centre or the state level, each school has to review the curriculum and see whether it is apt from the school perspective. In this process, some data has to be collected and some points have to be considered before reviewing the curriculum, some aspects have to be considered in the process of reviewing the curriculum and specific outcome has to be considered as the result of the curriculum. Let us understand each of these points. Observe the diagram given below:



3.6.3.1. Special Considerations before processing the curriculum

Before reviewing and deciding the curriculum the school has to keep some specific data in order to decide the structure of the curriculum to be followed in the school. They are as follows:

Resource Availability By resources, we are referring to learning facilities, materials and personal factors such as qualification and experience. One should check whether the human and material resources needed to adopt the curriculum are available in the school.

Availability of Subject Options: A school should not select a subject merely because other schools are offering it. A secondary school should not offer computer science if it has no electricity, or opt for rugby if there are no grounds and trainers qualified to coach the sport. The developers must look at the resources that are available before selecting a subject for the school.

Evaluation System and Strategies

One should also note that the designer of a school curriculum should consider the system and strategy for the evaluation of the curriculum. Practical assessments for certain subjects such as chemistry require special equipment and apparatus that the school might not be able to afford. Learners might be frustrated if they followed a course of study for which they were not assessed, because where there is no assessment, there is no certification. In addition, the instructors teaching these subjects may not take them seriously. Without commitment from both the teacher and the learners, teaching these subjects wastes time and money. It also would not make much sense to offer a subject in a trade that required industrial testing equipment if the school could not expose the learners to the same environment and conditions found in industry. These examples stress the need to consider evaluation seriously.

Considerations before attempting to frame the curriculum:

Culture of the People Around the School

At a secondary school, it does not make much sense for the Bible to be taught in a Hindu society or the Koran to be taught in a Christian society. In any country, subjects such as commerce, economics, science and accounting make a lot of sense because they will help the learners to acquire skills needed to produce goods and services. To humanists, it makes sense to include literature, history, science and geography. The content and learning experiences provided by a school should have cultural relevance for its learners. The School Environment Planners should consider what the environment could offer to the learner and how the environment can be exploited to facilitate the teaching and learning process. For example, if the school is located in a desert area, you might think of offering a course on crop science and farming in arid environments.

Social and Cultural Values of the Surroundings

Culture in modern times has become so vast, so varied that informal agencies like the family and the community are quite incapable to shoulder to responsibility of transmitting this huge treasure of knowledge to the rising generation. School is the only formal agency

to complete this task. The school has to imbibe the culture of the surroundings and transmit the same to the next generations.

Inclusivity

The curriculum framework is intended for all students in Indian schools. Inclusivity means providing all groups of students, irrespective of educational setting, with access to a wide and empowering range of knowledge, skills and values. It means recognizing and accommodating the different starting points, learning rates and previous experiences of individual students or groups of students. It means valuing and including the understandings and knowledge of all groups. It means providing opportunities for students to evaluate how concepts and constructions such as culture, disability, race, class and gender are shaped. The perspective of curriculum from the point of view of inclusion for each school will be different and can be decided only by the individual school before framing the curriculum.

Data to be clarified before framing the curriculum	Considerations before framing the curriculum

Check Your Progress 1:

Fill appropriate points in the columns provided

3.6.3.2. Considerations during the process and the outcome to be focused.

An Encompassing View of Curriculum

Curriculum is much more than a syllabus. A syllabus normally outlines the content to be taught. Curriculum on the other hand is dynamic and includes all the learning experience provided for the student. It encompasses the learning environment, teaching methods, the resources provided for learning, the systems of assessment, the school methods and the ways in which students and staffs behave towards one another. All of these provide experiences from which student learn. Together they add meaning, purpose and enjoyment to students' lives. Particular attention is required to ensure that there is congruence between the various local dimensions of curriculum.

An Explicit Acknowledgement of Core Values of the Community

The activities and content of curriculum should make scope to develop the core values cherished by the cultural society around the school. Some of these values are unique to the schools of each geographical reasons. Some regions highlight the values of nature, some the values related to god, and some more have roots in human relationships. The school should prepare students basically for the immediate community, imbibing the values of that particular geographic region. For example, in places where there are sea shores, some festivals and activities related to worshipping sea, sea god, et becomes more popular. In places where there are thick forests, where people need protection from snakes and other creatures, worshipping rlated gods become more important. The culture is naturally related to these aspects. Along with developing these cultures, there should be scope to develop an analytical mind and curious mind to find out how these specifics of culture came into existence.

Integration, breadth and balance

Effective education enables students to make connections between ideas, people and things, and to relate local, national and global events and phenomena. It encourages students to see various forms of knowledge as related and forming part of a larger whole. While opportunities to specialize must be provided to allow for specific talents and interests, all students need a broad grasp of the various fields of knowledge and endeavour. They also need experience in building patterns of interconnectedness, which help them to make sense of their own lives and of the world.

Connecting Line between Home and the World

The family develops in the child various qualities and values namely love, sympathy, sacrifice, cooperation, tolerance and service, but all these qualities remain connected with the members of the family and its four walls. This makes the child narrow-minded. School is a connecting link between the family and the external world. In School the child comes in contact with children belonging to different families. This contact widens his outlook with the result that the hild becomes capable enough to face the challenges and multifarious problems of life and the wider society outside.

Equity

Each school should make scope in the curriculum to identify and provide systematic help to those who fall behind and reduce retention. Should strengthen the link between school and home to help disadvantaged parents and their children to learn. Respond to diversity and provide for the successful inclusion of migrants and minorities within mainstream education. Should provide education according to the needs of the physically,

mentally, socially and economically disabled children. The schools should make enough scope within the curriculum to allow each one to develop to their maximum.

Outcome to be focused

The outcome that the school wants to bring out through the curriculum should be very clear. The values to be achieved as an outcome of the curriculum should be specified and preferable should include the following:

A commitment to the pursuit of knowledge and achievement of potential, resulting in a disposition towards striving to understand the world and how best one can make a contribution to it, and the pursuit of excellence in all fields of experience and endeavour.

Self-acceptance and respect of self, resulting in attitudes and actions which develop each person's unique potential-physical, emotional, aesthetic, spiritual, intellectual, moral and social aspects.

Respect and concern for othersand their rights, resulting in sensitivity to and concern for the well-being of others, respect for others and a search for constructive ways of managing conflict.

Social and civic responsibility, resulting in a commitment to exploring and promoting the common good; meeting individual needs in ways which do not infringe the rights of others; participating in democratic processes; social justice and cultural diversity**.**

Environmental responsibility: Developing responsibility towards the environment can be achieved in unique ways by each school. There should be scope to reflect upon this aspect in both curricular and co-curricular subjects. The curriculum should result in bringing up a comprehensive culture that develop sensitivity towards environment. resulting in a respect and concern for the natural and cultural environments and a commitment to regenerative and sustainable resource use. These values which are listed in full on the inside back cover of the document, are woven through all aspects of the framework.

Harmonious development of personality: The family and other agencies of education are always necessarily do not focus on the individual's development. Sometimes the vagueness of activities affects the personality of the children adversely and develops in them undesirable habits and attitudes. Therefore, the school should deliberately make all provision to focus and achieve the development of personality of each child in all dimensions: physical, social, emotional, aesthetic and moral.

Development of Cultural Pluralism: In school, children belonging to different religions, castes, creeds and social hierarchy come together and mix up freely with each other in friendly atmosphere with the result that they develop sympathy, co-operation, tolerance and respect for the views and cultures of others in a natural way. Curriculum

should focus on developing these values among students and contribute to celebrate the cultural richness of the place.

Perpetuation and Development of Society: Society review and develops itself thought the active cooperation of school. All social problems and needs of society are flashed in one way or the other in school which provides the desired solutions for all the problems of society. In this way, social progress goes on and on with the help of school. Provision should be made in the curriculum to analyse the problems of the community, to reflect upon and to develop sensitivity to solve those problems.

Encouragement of Corporate Life: Individual life needs socialization. The child should be encouraged to be more and more social in his outlook and behaviour. Schools provide these experiences for the child to understand social behaviour and develop in him a sense of social responsibility and corporate life.

Creation of educated citizens: In democracy, school has a special importance. Children learn their rights and duties and develop love, affection sympathy, co-operation, tolerance and responsibility in school. With the development of these socially desirable values they prove useful citizens when they become adults. School as Better Place of Education than Home: Under the influence of group life in school a child learns many social qualities and courtesies. Since the physical surroundings of school is healthy, there is ample provision for games, sports and various kinds of cultural activities. A family cannot provide all these facilities. Hence, school is a better place than home for the socialization and culturalization of the child.

Co-operation of Different Agencies: School is the only agency through which cooperation of different agencies namely the family, the community and the state may be successfully achieved. It is why all these agencies try to extend their full co-operation in all the activities of school. Without the active co-operation of these agencies school cannot achieve its objectives.

Considerations during the process	Outcome to be focused

Check Your Progress -2

Fill appropriate points in the column provided

3.6.4. Let us Summarise

- Before reviewing and deciding the curriculum the school has to keep some specific data in order to decide the structure of the curriculum to be followed in the school. They are as follows: Availability of human and material resources within school , Resources related to subject options, evaluation system and strategies
- Considerations before attempting to frame the curriculum: Culture of the people around the school, Social and Cultural Values of the surroundings and Inclusivity.
- Considerations during the process: An encompassing view of curriculum. An explicit acknowledgement of core values of the place, Integration, breadth and balance, connecting line between home and the world and equity
- Outcome to be focused: A commitment to the pursuit of knowledge, Self-acceptance and respect of self, Respect and concern for others, Social and civic responsibility, Environmental responsibility, Harmonious development of personality, Development of cultural pluralism: Perpetuation and development of society: Encouragement of corporate life: Creation of educated citizens, Co-operation of different agencies.

3.6.5. Answers to Check Your Progress – 1 and 2

Check Your Progress 1:

Refer Section 3.6.3.1. of Self Learning Material

Check Your Progress -2

Refer Section 3.6.3.2 of Self Learning Material

3.6.6. Unit end Exercises

1. Explain the special considerations for curriculum development at school level.

3.6.7. References:

1. http://www.bdu.ac.in/cde/docs/ebooks/B-Ed/II/KNOWLEDGE%20AND%20CURRICULUM.pdf
2. https://cd.edb.gov.hk/la_03/chi/curr_guides/Maladjusted/ema-3.htmhttp://oasis.col.org/bitstream/handle/11599/725/Module14.pdf?sequence=18&isAllowed=y

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Block 4 : Curriculum Development (at School Level), Implementation

Unit 1 : Approaches to Curriculum Development I : Subject-Centred and Behaviourist

Unit Structure

4.1.1. Learning Objectives

After going through this unit, the student teachers will be able to

- Explain the concept of Subject Centred Curriculum;
- Clarify the nature of Behaviouristic Approach for Curriculum Construction;
- Identify the merits and limitations of Subject Centred and Behaviouristic approach for Curriculum Construction

4.1.2. Introduction

You have come across words like methods, approaches, techniques and strategies in literature related to education. You might have also come across different approaches of teaching and learning process. So, what is an approach? An approach is a way of dealing with something that connects the thought with practice. Curriculum Approach is a way of linking curricular practices with its philosophical thoughts. Curriculum practitioners and

implementers may use one or more approaches in planning, implementing and evaluating the curriculum. In this unit, we are going to learn about three different approaches of curriculum, their characteristics, as well as the merits and limitations of each of these approaches.

4.1.3. Learning Points and Activities

Before moving on to understand the different approaches to curriculum, let us learn more about curriculum approach. According to the Webster's dictionary, an approach refers to a way of dealing with something, a way of doing or thinking about something. Accordingly, curriculum approach refers to dealing with curriculum or thinking about curriculum. An approach to curriculum shows the viewpoints of curriculum development and design, the role of the learners and teachers, as well as the curriculum specialists in the planning of the curriculum. It also includes the goals and objectives of the curriculum. It is an expression of developer's view of reality, philosophy, psychology, social issues and the domain of knowledge. It reflects the values deemed important and the amount of knowledge he or she possesses. They are also the strategies employed in organising curriculum content and learning activities that are presented to the learners. These approaches to curriculum can also be regarded as models of curriculum development.

Ornstein and Hunkins have provided the following as features of curriculum approach

- A curriculum approach reflects a holistic position, or a meta-orientation, encompassing the foundations of curriculum, domain of curriculum, and the theoretical and practical principles of curriculum.
- It expresses a viewpoint about the development and design of curriculum, the role of the learner, teacher and curriculum specialist in planning curriculum, and the important issues that need to be examined.
- Curriculum approaches can be technical- scientific or non technical -non scientific. The technical-scientific approach encourages students to learn specific subject matter with specific output. This approach believes that knowledge can exist unaffected by the process of creating and learning it. It provides for systematic outline of procedures that facilitate curriculum development. In this approach, curriculum development is a useful blueprint for structuring the learning environment On the other hand, in the non-technical-non-specific approach, the key focus is not on the content, or learning outcomes, but on the learner. Ornstein and Hunkins says, 'Subject matter tentatively selected in the development process has importance only to the degree that a student can find meaning in it for himself or herself'. There is emphasis on activity in the learning

process. It believes that curriculum should evolve rather than being planned precisely. Learners' perception of needs and preferences is given preference. Learners are a part of the curriculum development process and the curriculum is less structured and flexible.

Now, let us move on to study the different approaches to curriculum.

4.1.3.1. Subject-Centered Approach to Curriculum

It is a traditional model proposed by Ralph Tyler in 1949. As it surrounds knowledge, it is also called as knowledge centred curriculum. It is an academic curriculum, where students are expected to acquire knowledge of their world as a function of their adult life.

Tyler did not concern himself with how people view curriculum, but argued that any curriculum and plan of instruction can be developed in a systematic way that accounts for differences in perspective by answering four fundamental questions:

- What educational purposes should the schools seek to attain?
- What educational experiences can be provided that are likely to attain these purposes?
- How can these educational experiences be effectively organized?
- How can we determine whether these purposes are being attained?

Answering the questions become steps in designing curriculum. The content of the curriculum is organised into smaller units and the sequence of what is taught follows the logic of the subject matter. This organisation is from simple to complex with the help of the experts, specialists, teacher's supervisors, planners, writers and administrators. Learning subject matter is an end in itself.

The teacher plays the role of a scholar using a variety of teaching strategies to share the knowledge. The environment in which teaching-learning takes place is the traditional classroom where discipline is maintained and students are seated in their seats. Focus is mainly on academic aspects and stress is on intellectual development.

Practice in skills is emphasized. The main aspect of subject based curriculum is that there is continuous practice or drill in a specific skill. For this purpose multiple methods are used. Evaluations, exercise session, tutoring classes are often dedicated to such type of practices and all the students are given equal opportunities to participate.

There is a uniform standard for all the students to pass the subject, else they will have to repeat the subject. Therefore the experts of the subject centered approach strongly support the minimum standards for examination so that everyone achieves the set standard and

qualify the examination. The teacher tries to help the weak students and to bring him to the set standard and pass the exam or repeat a grade.

Core curriculum is an example of a subject-centered design that can be standardized across schools, states, and the country as a whole. In standardized core curricula, teachers are provided a pre-determined list of things that they need to teach their students, along with specific examples of how these things should be taught.

Advantages: Based on the above understanding of our subject based curriculum, we can list out the following as the advantages of it.

- It is easier for the teacher to perform
- It is widely accepted by parents as they have gone through it.
- The simple-complex concept makes it easier to administer.
- Intellectual development is achieved in a child's thinking.
- It is useful for specialisation in any branch of knowledge

Disadvantages: The primary drawback of subject-centered curriculum design is that it is not student-centred. In particular, this form of curriculum design is constructed without taking into account the specific learning styles of the students. This can cause problems with student engagement and motivation and may even cause students to fall behind in class.

Carolyn Scheidies has identified the following as the major disadvantages of subject-centred curriculum.

- Subject-centred curriculum prevents students from understanding the wider context of what they are learning. In the traditional method of learning, students learn math in one period, reading in another, science in another and social studies in yet another, separate class. Every subject is taught as though it exists in and of itself without regard for how one subject impacts another subject.
- A traditional subject-centredcurriculum focuses on each subject in an individual context, students don't understand how one subject impacts another subject or how each works together. Learning is fragmented into little boxes instead of flowing together toward deeper comprehension of subject matter as a whole. Students are not taught to use different aspects of their knowledge in an integrated fashion.
- Students are discouraged from entertaining a different point of view than what textbook or teacher presents. The subject matter has already been

chosen by experts in the different subjects, by school boards and by teachers and deemed of value for students to learn. The subject matter is of critical importance, while students become little more than receptacles to be filled, rather than thinking, rational individuals who need to be part of the learning process. The subject-centered curriculum fosters not excitement about learning and knowledge, but passivity.

- The traditional subject-centered curriculum depends upon a system of authority. Students are not part of the authority hierarchy. Their needs are considered only in conjunction with type and difficulty level of the material. Subject-centred learning does not offer a wide range of options that take into account ethnic background, family situations that impact learning or different learning styles of students. Material is covered and does not change regardless of the needs of individual students or classes. The material must be taught and students are expected to absorb the material in the time allotted. Testing, then, is often based solely on regurgitating material and not on overall comprehension or the practical use of the material in everyday life to solve problems.

Check Your Progress 1

1. Some statements are given below. Indicate which of them suit Subject centred Approach

   a) Teacher rarely uses the text book in the class.

   b) Emphasis is given on the real life experiences.

   c) Students always try to memorize the content.

   d) Spiral curriculum is an example of this approach.

   e) Learning needs of students are supposed to be fulfilled through the text book.

2. List any three characteristics of subject-centred approach to curriculum development.

4.1.3.2. Behaviourist Approach to Curriculum

This approach is developed based on the principles of behaviourism of Frederick Taylor. His main aim was to improve efficiency. Behaviourism is concerned primarily with the observable and measurable aspects of human behaviour. According to Power, the basic Principle of behaviourism is – Whatever can be known about human beings must

come from an observation of behaviour, based on the strict methods of scientific procedures that are used in the physical sciences. It looks at development as a continuous process in which children relatively play a passive role. The setting of goals and objectives is considered as important ingredients in curriculum implementation.

Behaviourism is a teacher centered philosophy that is closely related to realism. This philosophy focuses on human behaviour as a reaction to external stimuli and believes that changing the environment can change misbehaviour. This approach is also based on the view that there is one right way, one truly that the student needs to learn and that knowledge is the same for all learners.

The basic principles of behaviourism include the following.

- Behaviour that is positively reinforced will reoccur; intermittent reinforcement is particularly effective
- Information should be presented in small amounts so that responses can be reinforced ("shaping")
- Reinforcements will generalize across similar stimuli ("stimulus generalization") producing secondary conditioning

Behavioural approach to curriculum is generally underpinned by a plan specifying goals and objectives. Contents are sequenced, structured activities, methodologies and learning outcomes with corresponding criteria and evaluation forms, taking into account the established curriculum goals and objectives. Thus the behavioral approach covers the curriculum development in its wider sense. It is not restricted to curriculum evaluation only. Infact the behavioral approach is oriented to the behavioral objectives. The behavioral approach focuses on what learners should be able to do as a result of teaching and learning process.

Franklin Bobbit(a behaviourist) viewed curriculum as a science that emphasized the needs of the students. This view point explains why lessons are planned and organized depending on the needs of the students and these needs must be addressed by the teachers to prepare them for adult life. The curriculum itself was comprised of the school experiences that educators constructed to enable children to attain these. He identified the objectives as the starting point for curriculum making.

Behavioural approach believes that a learner starts out with a clean slate and behaviour is shaped by positive and negative reinforcement. The approach suggests that all students will learn knowledge in the same way. It typifies the classic model of the student as a passive vessel.

Behavioural approach identifies the teacher as the expert. Teacher is the centre of teaching learning process. Teacher should always be positive and let any students know that they can do it, and can do it well. Teacher should encourage positive behaviour and correct wrong behaviour. The teacher employs external reinforcement to motivate and encourage students to reach the stated objectives. Punishment is avoided unless absolutely necessary. This approach posits that educators should not be as concerned with a focus on content as they should be on the behaviours students acquire while in school.

Behaviourists explain motivation in terms of schedule of positive and negative reinforcement. Pleasant experiences cause human learners to make the desired connections between specific stimuli and the appropriate responses. For example, a student who receives verbal praise for correct answers (Positive reinforcement) is likely to learn those answers effectively. One who receives little or no positive feedback for the same answers (negative reinforcement) is less likely to learn them as effectively. Likewise, human learners tend to avoid responses that one associated with punishment such as poor grades or adverse feedback.

Behavioural learning theorists believe that learning has occurred when you can see changes in behaviour. Learning is the result of conditioning. This conditioning may by classical or operant. Classical conditioning refers to any stimulus provided will lead to a particular response and operant conditioning is learning in which voluntary behavior is strengthened and weakened by consequences or antecedents.

Reinforcement is the core of behavioural approach. Continuous reinforcement is useful when a behaviour is being introduced. Once a desired behaviour is established, intermittent reinforcement maintains the behaviour. The importance of regularly and consistently rewarding desired behaviour and not rewarding undesirable behaviour is crucial to the success of a behavioural approach to learning. Learning is broken into small steps so that a person can be successful. They advocate constant repetition of a task until a desired behaviour is adopted or changed.

Behaviourist teaching methods tend to rely on so called ‘Skill and drill’. Exercises are providedfor the consistent repetition necessary for effective reinforcement of response patterns. They use direct method to teaching. Other methods like, question (stimulus) and answer (response) frame works in which questions are of gradually increasing difficulty are also being used. These teaching methods have proven most successful in areas where there is a ‘correct’ response or easily memorized material.

Behaviourists assess the degree of learning using methods that measure observable behavior such as exam performance. The learning outcomes are evaluated as a change of behavior that indicates the measure of accomplishment.

Advantages: Behavioural approach is based on scientific methods and real-life applications. But, direct instruction plays a vital role in teaching. It is imperative that there is good communication with the class room. If the teacher does not effectively communicate with students, then there will be a lacking in student understanding and they in turn become disengaged and bored. Also, it is difficult to assess the various learning demands of students during direct instruction as each student learns in a different way to their peers.

Check Your Progress 2

1. What are the basic principles of behaviourism?
2. Identify three differences between subject-centered approach and behaviourist approach to curriculum development

4.1.4. Let us Summarise

- Curriculum approach refers to dealing with curriculum or thinking about curriculum.
- An approach to curriculum shows the viewpoints of curriculum development and design, the role of the learners and teachers, as well as the curriculum specialists in the planning of the curriculum.
- Curriculum development can be looked at from various approaches. Subject, learnere, behaviour etc are some of them.
- Subject centred approach is a traditional approach and focuses on learning content and hence on intellectual development.
- Behaviourist approach focuses on learning behaviours. It believes that a learner starts out with a clean slate and behaviour is shaped by positive and negative reinforcement. The approach suggests that all students will learn knowledge in the same way. It typifies the classic model of the student as a passive vessel.

4.1.5. Answers to Check Your Progress 1and 2

Check Your Progress 1

Refer Section 4.1.3.1 of Self-Learning material.

Check Your Progress 2

Refer Section 4.1.3.2 of Self-Learning material.

4.1.6. Unit-end Exercises

1. Select a curriculum that you are teaching and discuss the characteristics of that curriculum based on the above study.
2. Prepare a sample curriculum and modify it to suit the various approaches

4.1.7. References

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Block 4 : Curriculum Development (at School Level), Implementation

Unit 2 : Approaches to Curriculum Development - II Competency-Based Approach (Including Minimum Levels of Learning) to Curriculum Development

Unit Structure

4.2.1. Learning Objectives

After studying this unit student-teacher will be able to

- Explain the concept of Competency and competency-based education;
- Clarify the advantages and disadvantages of Competency based education;
- Discuss the principles involved in developing a competency-based curriculum;
- Participate constructively in developing a competency based curriculum;
- Critically analyse and evaluate a competency-based curriculum.

4.2.2. Introduction

We have been studying that education over the years is changing in its content and style of presentation depending on the needs of the individual and the society at large. Traditional content driven and time-based models of education are today considered as being too theoretical and are failing to meet the demands of practice. The newer ones based on skills and competencies are becoming popular and have proved themselves to be necessary. The focus is more on individuals need and the rapid changes in the economy, industry and social environment. Also educational institutions, especially at the higher education level are working to ensure that their students are the most employable, and competitive in the education market. As a result a new form of curriculum development has arisen, which has focused on finding the relationship between education and the competences needed by the graduates in their later careers, by defining exactly which competencies need to be included in the respective courses. This new competence-based approach nowadays has become one of the most important topics in curriculum development. In this Unit, we will study about competency-basededucation with a special reference to its approach to curriculum

4.2.3. Learning Points and Activities

4.2.3.1. Concept of Competency and Competency Based Education and Competency Based Learning

'Competence' or 'competency' is a commonly used word in the field of education. Quite often we say, 'she is very competent' or 'he is very competent'. What exactly we mean by this word? Like many popular words the word competence or competency does not have a fixed definition, but there are some common elements. The most important of these elements is that the learner must be engaged and active in all aspects of acquiring the knowledge, skills and professional behaviours needed to demonstrate practice in a specific discipline. In other words, competency-based education uses teaching and learning strategies that facilitate the development and demonstration of competency. Hence, it refers to knowledge, skills and attitudes necessary to be competitive in a particular activity at a particular level.

Competency: A general statement that describes the desired knowledge, skills, and behaviours of a student graduating from a program (or completing a course). Competencies commonly define the applied skills and knowledge that enable people to successfully perform in professional, educational, and other life contexts.

Competency-based learning refers to systems of instruction, assessment, grading, and academic reporting that are based on students demonstrating that they have learned the

knowledge and skills they are expected to learn as they progress through their education. The researchers in the field of competence have given various definitions for what competencies are which are as follows:

- permanent distinctive traits and characteristics which determine performance
- distinctive characteristics which differentiate the successful performer from the rest.

These include an ability to reach goals, inner personality traits that allow a person to cope better with a given task, role or situation; knowledge, skills, abilities and other characteristics demonstrated at work, etc. However, there is no set definition for the term competence.

Let us take the example of a person driving a car. The person has competency only when he can drive the car comfortably under all reasonable conditions. Mere knowledge about driving a car will not make him competent. An often-confused word with competency is competence. Competence is skill based, Competency is behaviour based, Competence tells what standard was attained and competency, the manner in which a standard was attained.

In basic terms, competency-based education means that, instead of focusing on grades and yearly curriculum schedules, the main focus is placed on how competent each student is in the subject. Competence-based education (CBE), refers to any approach aiming to enable students to develop particular competences.

Competency-based learning or competency-based education and training is more often used in learning concrete skills than abstract learning. It differs from other non-related approaches in that the unit of learning is extremely fine-grained. Unlike a course or a module, every individual skill or learning outcome (known as a competency) is one single unit. Learners work on one competency at a time, which is likely to be a small component of a larger learning goal. The student is evaluated on the individual competency and can only move on to other competencies after they have mastered the current skill being learned. After that, higher or more complex competencies are learned to a degree of mastery and are isolated from other topics. Another common component of competency-based learning is the ability to skip learning modules entirely if the learner can demonstrate mastery. This can be determined through prior learning assessment or formative testing.

At the Competency-Based Learning Summit, leaders in this field developed a working definition based on five principles:

- Students advance upon achieving mastery.

- Competencies include explicit, measurable, transferable learning objectives that empower students.
- Assessment is meaningful and a positive learning experience for students.
- Students receive timely, differentiated support based on their individual learning needs.
- Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.

Competency based education is an approach

- Centered on the learner
- Focused on mastery of competencies
- Assessed on the basis of learning outcomes.

Principles of competency-based education:

- Equity is set before everything else: Equity does not mean giving each student the same thing as everyone else. Instead, it means giving each student what they need to reach the same end goal. This is a main principle of competency-based education because it purposely seeks to understand and remove bias in school leadership. Students are taught and supported based on their personal strengths and weaknesses, giving each individual the same chances for success. Thus, the predictability of achievement based on culture, social class, household income, or language is completely removed. Competency based education also helps create an inclusive culture where all students feel safe and respected.
- Classes emphasize measurable competencies that help build skills for life: Competencies must be defined in advance and set as learning ojectives for each student. These competencies focus on the practical understanding that a student has of the subject. These competencies can be based on:

  - Understanding of key concepts
  - Ability to apply knowledge to meaningful problems
  - Mastery of relevant skills

In order to measure the results, competencies must be defined in advance by school leadership.

• Transparency helps students take ownership:What is the end goal for each student in a particular class shouldn't only be available to teachers. The learning objectives that are set for the class (and the school as a whole) should be clear to both students and parents. In a competency-based education system, students understand these three things when starting the class:

- What they need to learn
- How mastery is defined
- How they will be assessed

When each student has the end goal clear in mind, they'll take more responsibility for their own education. For example, a student understands that he needs to take his understanding of math and apply it by completing the project of designing a small garden. He needs to use math skills to measure the size of the area and determine how many plants will fit. Transparent goals and outcomes thus help students take responsibility for their learning path. This ownership, in turn, helps them become better learners now and into adulthood.

- Students get the support they need individually: Following our example above, let's say the student has a problem with his garden project and comes to the conclusion that he needs help. This is where teacher availability comes into the picture. In a competency-based education environment, students should have a framework to understand how long they should work on a problem before asking for help, and when in the class time they can approach the teacher. Competency based education works through bias and produces equity, as discussed above. So, as teachers work with students through their different weaknesses and help them draw on their strengths, each student is moved forward towards mastery on a unique (but equally effective) path. This personalized learning experience gives each student an equal opportunity for success. For this process to work smoothly, though, teachers must be available to help students, they can't just rely on students asking for help: teachers need to be fully aware of each student's progress.
- Teachers assess for growth and mastery: Assessments come in many shapes and sizes.

- Formative assessments: These assessments help teachers to determine where each student is in the learning process and adjust their teaching as necessary. Formative assessments give teachers the ability to adjust in real time by clearly identifying the key areas where students need to improve. For example, teachers may ask students to submit a video essay, or create a digital portfolio that can be shared online. These types of assessments allow students to demonstrate their understanding of the subject, which is the basis for competency-based learning. Then, the teacher can adjust the next lesson accordingly, or plan one-on-one time with students who showed less understanding of the subject.
- Authentic assessments: Getting students to take their knowledge and apply it to real world situations is another great way to demonstrate mastery. Plus, students get to develop skills that they'll need in the future. Authentic assessments might include using English knowledge to write a cover letter for a job application, or using an understanding of physics to design and build a stable tower out of toothpicks.
- Students move forward when they demonstrate mastery: By including regular assessments and data-based progress reporting, teachers understand where each individual student is in the learning process. When students demonstrate a clear understanding of the topic, prove their ability to apply that understanding, and show how they've developed important skills, it's time for them to move forward.

Following a competency-based education system has both advantages and disadvantages as listed below

Advantages

- Flexibility for all types of students, no matter their knowledge backgrounds or literacy levels
- Bias is removed, and equity is achieved
- Students are better prepared with the skills necessary to succeed as adults
- Students learn how to be better learners, and take responsibility for their education

Disadvantages

- Key competencies must be determined and defined for each class, which is difficult
- Assessments must be more meaningful and creative

- Teachers must be constantly aware of student progress, and thus be ready to jump in and help a student who doesn't understand or isn't on track to graduate at 18

All this being said, the disadvantages mentioned above can be overcome. By building a well-informed, research-based system, competency based education can succeed.

Check Your Progress 1

1) Discuss the meaning of the term competency. How is it different from competence?

2) List the principles of Competency based education

4.2.3.2. Competency Based Approach to Curriculum Development

Competency-based education can be pursued through various approaches to curricular design. Keating postulates that whatever the design, all curricula need to be evidence-based and outcome focused and all teaching strategies need to be matched to their specific learning domain like psychomotor, cognitive or affective.

Let us first understand what a competency-based curriculum is. It is a curriculum that emphasizes the complex outcomes of a learning process (i.e. knowledge, skills and attitudes to be applied by learners) rather than mainly focusing on what learners are expected to learn about in terms of traditionally-defined subject content. In principle such a curriculum is learner-centred and adaptive to the changing needs of students, teachers and society. It implies that learning activities and environments are chosen so that learners can acquire and apply the knowledge, skills and attitudes to situations they encounter in everyday life. Competency-based curricula are usually designed around a set of key competences/ competencies that can be cross-curricular and/or subject-bound. As competencies are constructs and are inferred from or expressed in behaviour in a certain context, competence-based curriculum is dependent on the context of the institution offering the curriculum.

The characteristics of a competency-based curriculum are as follows.

• **Flexible:** Competency based programs are very flexible as their structure depends on the individual learner. There is no rigid schedule in these programs, no set semesters and no classes. Instead, students guide their learning and control when and where they complete projects and assessments. Competency based education is also flexible in that it allows students to enter a program at any level where they are given credit for previous experience.

• **Self-paced:** The focus of CBE is on the final outcome and not the journey. This enables students to control their pacing because they are not confined by a set learning process. As soon as a student feels they can prove mastery, they can take an assessment, receive credit and start on the next material. Moving as slow or fast as they wish, students are able to complete a degree when they are ready.

• **Engaging:** One of the strongest outcomes of competency based education is increased student engagement. Students are more engaged in the material because they have ownership over their learning. They are empowered because they have control over when, where and how they learn. Competency based education also promotes individualized learning and accommodates a variety of learning styles, making it a truly personalized experience. This experience increases engagement because content is tailored to each student and more relevant.

• **Affordable:** The cost of competency-based programs varies by institution, program and student pace. Many institutions have created CBE programs precisely as a strategy to increase learning and to lower the cost of education. In many institutions, the tuition depends on how long it takes a student to complete a degree. The faster a learner progresses through the material, the less expensive the program is. Since many programs are offered online and leverage technology, operating costs are eliminated resulting in lower tuition fees.

• **Skills-based:** One of the key benefits of CBE is that learning centres on real-world skills and competency development. Programs are designed around competencies that are needed for a particular career ensuring that the material is relevant. The outcome is that students are workplace ready and have expertise in their chosen fields. For many students, CBE is a direct path to a successful career.

To approach teaching and learning based on competences means going beyond knowledge; it means acquiring both the necessary knowledge and the ability to use that knowledge in a specific context. The goal of competence-based curriculum design is to ensure that learners will be able to demonstrate their learned competences after they have acquired a necessary combination of knowledge, skills, and abilities. Students acquire these competences through learning activities. The learning activities must be related to the contents of the studies undertaken. In short, the learning references are the competences and their behavioural descriptors that must be attained through learning activities carried out during the study period. Those activities deal with the knowledge resources, which is the raw material of learning. Hence, the core of the competence-based framework is a clear and applied definition of competences and their effective link to the learning activities. Delivering competences to learning objectives/outcomes starts with a catalogue of competences. The catalogue of competences contains the behavioural indicators which

can serve as assessment criteria as well. This is because every competence needs to be formulated in assessable terms by name, definition, behavioural indicators and levels. Attaining competences as learning outcomes is a challenge for students.

Based on our understanding of the characteristics of competency-based curriculum, following points can be considered while developing the competency-based curriculum

• **It should be based on constructivist approach: T**he main goal of constructivism is competence, not knowledge as in cognitivism, or achievement as in behaviourism." It is established that the quality of the acquired knowledge through active construction is better than passively gained knowledge. In CBE the role of the teacher is that of a "cognitiveguide." Teachers encourage students to engage in active inquiry and make explicit their tacit assumptions. "A constructivist teacher is more interested in uncovering meanings than in covering prescribed material."

• **Competency based curriculum should have learning environments focused on the development of competencies**. Disciplinary content is not the criterion for curriculum, but the competencies that should have been acquired and developed by the end of the education programme are the main focus. This may lead to designing and developing the curriculum "backwards , because the knowledge and skills are determined by the competencies that are needed by a competent professional and not by the disciplinary "body of knowledge .

• **Competency based curriculum should include the development of generic competencies: G**eneric competencies are integrated throughout the whole curriculum; CBE stimulates the transfer capacity; focus on innovations and problem solving and the explication (definition) of problems; self-reflection and

• **Self-assessment plays a fundamental role**. In CBE assessment focuses on competencies, rather than knowledge and skills. Assessment is both formative and summative and forms an integral part of the process of the development of competencies. In CBE curriculum development is based on the elaboration of profiles and identification of competencies.

Check Your Progress 2

1. What is competency-based curriculum? What are its features?
2. Discuss the factors to be considered while developing a competency-based curriculum?

4.2.3.3. Minimum Levels of Learning

As stated above competency-based education focuses on attaining competency or mastery over different activities. This is depicted in assessment based on learning outcomes. In addition, India is committed to provide quality education to all irrespective of any reasonable criteria. To ensure this, it has identified learning outcomes for education at different levels. The working Committee of the VIII five-year plan also suggested that "it should be our aim to bring about a substantial improvement in quality of education through improved infrastructure, improved teacher education, and substantial improvement in quality and quantity of learning materials. In terms of outcomes it shall have to be ensured that minimum levels of learning are laid down with reference to the conclusion of primary and upper primary stages and an appropriate evaluation system created to ensure achievement at least of the prescribed levels of learning. That is the minimum level of competence of a child in specific subjects the child is expected to be competent". This has resulted in laying down minimum levels of learning. It is an attempt to combine quality with equity. It lays down learning outcomes in the form of competencies or levels of learning for each stage of elementary education. It also prescribes the measures that will ensure achievement of these levels by children both in formal schools and non-formal education centres.

The Report of the Committee set up by the Ministry of Human Resource Development (Department of Education), Government of India on minimum levels of learning identifies the following as its basic features. (Reproduced from the report).

Specification of MLLs should meet the purpose of increasing learning attainments and serve as performance goals for the teacher and output indicators for the system. For this, the MLL must have, apart from relevance and functionality, the attributes of achievability, understandability and evaluability

• **Achievability**: A basic characteristic that MLLs must satisfy is that they should correspond to learning objectives that are achievable by all learners. This is so because of certain specific reasons:

- To serve as performance objectives and goals: It is generally observed that curriculum objectives are so remote from the life situation of the child and the actual levels of achievement in the class that very few teachers feel the assurance that they can help their pupils achieve the objectives. They tend, therefore, to implicitly formulate their own objectives, either going through the motions of textbook lessons or just rote memorization. It is felt that the teacher would teach to the prescribed curriculum objectives and accept them as goals only if he feels confident that he can actually achieve them. Such a situation must be

ensured in our educational institutions if the teachers have to use learning objectives as performance goals and output measures.

- To ensure learning up to mastery level by every child in the class: The present objectives, as achievement tests reveal, are mastered by very few children in a class. The majority learns them inadequately, or incompletely, and tend to easily forget them. The endeavour should, therefore, be to set MLLs closer to the realistic levels of attainability so that the class as a whole works towards mastery of these MLLs. In operational terms, 80 per cent or more of the children mastering at least 80 per cent of the prescribed learning levels should be the performance target for the teacher henceforth.
- In a country in which achievement levels vary widely with regions, districts, school conditions, socioeconomic profile and other diverse factors, setting realistic and achievable minimum levels necessarily demands a great deal of flexibility in implementation. For example, what is easily achievable as mastery level learning in municipal schools in Bombay may not be immediately feasible for panchayat schools in Mysore district in Karnataka. It is, therefore, expected that each region, preferably district, will examine the MLLs in relation to its own situation, and set intermediate targets which would permit within a reasonable expectation of improvement in school conditions and a specified time frame, mastery level attainment by almost all children in their schools. It is necessary that this exercise be preceded by a careful criterion-referenced assessment of the existing levels of achievement. These intermediate stages may be set as time-bound targets to convey a sense of urgency and serve as a reference against which indices of implementation and accomplishment can be compared. The expectation will be that by improving inputs into the system, the levels of achievement in each school or region are gradually raised till they reach the MLLs. Different regions, depending on their present levels of achievement will take varying periods of time to reach the standards indicated by the MLLs. The endeavour will be to direct greater resources where levels of learning are lower and to consciously accelerate the pace of development in the needy regions, thereby reducing disparities and equalizing standards over the entire country in the shortest possible time

• **Communicability**: It is not enough that MLLs are realistic and achievable. It is equally important to set them in a language and form that are easily understandable to all the teachers, many of whom located in remote rural areas work in isolation without any outside help or guidance. Apart from primary school teachers, the MLLs should also be

understandable to the NFE(Non Formal Education) instructor, the parent, and the community. Thus, in order to function as achievement targets, the MLLs must be spelt out simple enough terms so as to be understandable to all those concerned with the academic growth of the children. Accordingly, an attempt has been made to prepare the Report of the Committee in such a way that it places in the hands of the primary school teacher and the NFE instructor a document that will serve as a statement of expected competencies guiding their classroom teaching and evaluation procedures. This should also be equally useful to curriculum developers, textbook writers and educational administrators.

• **Evaluability** The statement of MLLs should be such that they serve as an effective blue print for continuous and comprehensive evaluation of learners and thereby streamline the processes involved. Students should have a well-defined goal of acquiring a mastery level, particularly in subjects which serve as the basic tools of learning. Parents seem to feel dissatisfied with the levels of learning being achieved in schools and would feel happier with a testing system introduced. Teachers too need to know more clearly about the expected outcomes; in the courses they teach. Educational administrators would have in the system of tests of learners, the instrumentality to appraise the performance of institutions and teachers.

• For MLLs to provide this well-defined goal of acquiring a mastery level it is necessary that they must give a clear-cut specification of expected learning outcomes, which would permit the construction of criterion-referenced tests by the teachers. Results of such tests based on the MLLs should be such that the teacher can identify which specific learning outcomes or competencies have not been mastered by the learner, help the learner to relearn the clusters of competencies representing specific unit, as well as prepare corrective for remedial instruction quite precisely. Thus MLLs stated in easily evaluable terms should help the learners achieve mastery levels as they move from one unit to the next. The attempt has thus been to set the MLLs in such a way as to make assessment of learner attainment easy for the teacher, whether it is done through written, oral or other types of tests.

• **Learning Continuum** The endeavour has been to set MLLs in as simple and comprehensible manner as possible, specifying the competencies to be mastered under each learning unit from Class I through Class V. Learning has been seen as a 'continuum', in which the units are sequenced hierarchically so that the clusters of competencies in one unit build as directly as possible on the competencies in the preceding unit. It is firmly believed that if the children progress systematically through this continuum, mastering the concerned sets or competencies in each unit before they move on to the next, learning each subsequent unit will be more enjoyable and meaningful, and the achievement of minimum levels of learning will be facilitated.

• **Comparable Learning in NFE**: Even though the MLLs are being specified in terms of five class wise stages, the underlying concept of 'learning continuum' makes this division only indicative and not rigid. In practice, the pace of learning of the child will decide how long it should take to reach the prescribed MLL, and age, earlier teaming experience, learning time within and outside school are some of the factors that will decide the pace. It is conceivable, therefore, to prescribe the same levels of learning for the NFE system, or any other alternative system for primary education. Indeed, this exercise of laying down a level, of learning that has regard not to the syllabus and contents of primary schools but specify expected learning outcomes in the form of functionally relevant skills and competencies should help in answering in a convincing manner the questions regarding comparability of learning standards between formal primary schools and alternative models. The question no longer remains one of NFE conforming or not to the primary school norms, but becomes one of the viability of different models and methodologies to attain prescribed levels of learning. From questioning the rationale of the NFE system, the concern shifts to issues regarding the duration, quality and teaching processes of the various models and hence, logically to the inputs required to ensure that the prescribed levels of learning are effectively reached by all learners.

• **Cognitive and Non-Cognitive Areas of Learning** According to the terms of reference of the committee, the present exercise of delineating MLLs is confined to the curricular areas of - Language - Mathematics - Environmental Studies (including Social Studies and Science). While these are very crucial subjects for primary education, subjects such as Physical Education, Work Experience and Music & Art Education should not be excluded from the total curriculum plan. Similarly, the non-cognitive aspects of the curriculum are as important, if not more, as cognitive areas. Not only that the non-cognitive learning outcomes cut across different subjects of the curriculum mentioned above, but they also call for a variety of cocurricular activities organized within and outside the school. In view of the limited scope of this committee's work and limitations of time, the committee has just briefly mentioned in this report certain key personal and social qualities that load to character building. In brief, further work will be needed to develop specifications of MLL with respect to those subjects that have not been included in the report.

• (Today MLL has been devised for both cognitive and non-cognitive aspects and assessment of students is considered in both areas).

Check Your Progress 3

You are aware that the government of Karnataka has provided the minimum levels to be achieved in schools in each subject according to grades. You have been working according to these MLL. Contemplate on your experiences with MLL. Identify the merits and limitations and prepare a write up

Check Your Progress 3

Share your observations and have a debate during staff meeting and suggest the required modifications.

4.2.4. Let us Summarise

- Competence means the ability to apply knowledge, skills and personal, social and methodological skills in the workplace or during learning, as well as in personal and professional development.
- UNESCO has recognised the importance of competency based education and , in its report entitled "Learning: The Treasure Within emphasized "learning throughout life" and identified "four pillars" of education : learning to know, learning to do, learning to live together and learning to be. In the context of learning to do, and has discussed a shift from "skill" to "competence"
- Competence-based education (CBE), refers to any approach aiming to enable students to develop particular competences. All competence-based approaches differentiate themselves from content- or discipline-based approaches, focusing instead on what students learn to *do* with knowledge rather than on the knowledge itself.
- Competency based education follows certain principles
- Competency based curriculum is a curriculum that emphasizes the complex outcomes of a learning process (i.e. knowledge, skills and attitudes to be applied by learners) rather than mainly focusing on what learners are expected to learn about in terms of traditionally-defined subject content.
- Competency based curriculum is flexible, self paced engaging, affordable and skill based.
- Competency based curriculum should be oriented to the professional practice
- It should be based on a constructivist approach:
- Competency based curriculum should have learning environments focused on the development of competencies
- Competency based curriculum should include the development of generic competencies
- Self-assessment plays a fundamental role
- Minimum level of learning is an attempt to combine quality with equity. It lays down learning outcomes in the form of competencies or levels of learning for

each stage of elementary education. It also prescribes the measures that will ensure achievement of these levels by children both in formal schools and non-formal education centres.

4.2.5. Answers to Check Your Progress 1, 2 and 3

Check Your Progress 1

Refer Section 4.3.1.1 of Self-Learning Material.

Check Your Progress 2

Refer Section 4.3.1.2 of Self-Learning Material.

Check Your Progress 3

Refer Section 4.3.1.3 of Self-Learning Material.

4.2.6. Unit end Exercises

Make a list of the learning outcomes in your subject and for children of your class and evauate it. Interpret the quality of learning of your students

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Block 4 : Curriculum Development (at School Level), Implementation

Unit 3 : Approaches to Curriculum Development III : Learner-Centred and Constructivist

Unit Structure

4.3.1. Learning Objectives

After studying this unit, student-teachers will be able to

- Explain the principles of learner-centred/constructivist approach to curriculum development;
- Explain the implications ofthis approach to curriculum development;
- Appreciate the comparative advantages learner centred/constructivist approaches; and
- Suggest a suitable curriculum approach to a set of learners under study.

4.3.2. Introduction

In the previous two units, we have already understood the meaning of the different approaches to curriculum development and specifically studied three specific approaches namely subject-centred, behaviourist and competency approach to curriculum development. We have also seen that learner has assumed a great position in the education system. This

position has attained a greater significance today than anytime of the past. Hence all elements of the education system are focusing on the needs of the learner. Curriculum is no exception to it and is developed with learner as the central point. In addition, great educationists like Piaget and Kelly have also given their idea about approach to curriculum. They belong to the school of constructivists and their approach is also significant in curriculum development. In this unit, we will study in detail the development of curriculum based on learner centred approach.

4.3.1. Learning Points and Activities

4.3.1.1. Learner-Centred Approach

One of the major paradigm shifts in the field of education today is the shift from teacher-centred to learner-centred education. Learners and their critical role are seen in their own learning background, and throughout their lives. The critical shift is that "Learners are seen and known as wondrous, curious individuals with vast capabilities and limitless potential. This paradigm recognizes that learning is a lifelong pursuit and that our natural excitement and eagerness to discover and learn should be fostered throughout our lives, particularly in our earliest years." Katle Martin observes that "When we focus on learners, connect to their interests, needs, and goals, we can create experiences that ignite curiosity, develop passion, and unleash genius. There are common characteristics that always surface when people share powerful learning experiences. They often share experiences that are: personal, allow learners to exert agency, have goals and accountability, they are inquiry-based, collaborative, authentic, allow for productive struggle, provide and use models, ensure time for critique and revision as well as reflection."

Also, based on the analysis of the subject-centred approach to curriculum development, many enthusiastic individuals came out with an alternate approach. From amongst them was Nunan D who stated in his famous book "Syllabus Design" that learner centred approach to curriculum is an alternative approach which indicates a closer relationship between curriculum, planning goals, learning objectives and implementation of the learner centred approach.

Learner-centred approach is popularised by John Dewey. He describes that the curriculum of the individual child is related to the role of the school within society. According to him, the social experiences of the learner are the starting point for developing a curriculum and are at least as important as organised disciplines of knowledge. Learner-centred curriculum focuses on the individuals as well as the individual's dreams, goals, and interests. The foundation stone of a learner-centred curriculum is individual growth and development. The teacher's role is to facilitate growth by utilizing the interests and needs of the students as a guiding measure for meaningful instructions.

This learner-centred approach is based on constructivist learning theory that put emphasis on learner's role in constructing meaning from new information and prior experiences. In this approach, the focus is on the learner. The aim is to develop the independence of the learner by making learner active in his learning path. Stress is laid on skills that enable lifelong learning and independent problem-solving. Students choose what they will learn, how they will learn and how they will assess their own learning. Students take a more active role. It calls for students to be active, responsible participants in their own learning and with their own pace of learning. Here the teacher acts as a facilitator of learning for individuals rather than for the class as a whole.

Learner-centred approach, as the name itself suggests focuses on certain aspects of the learner. It may explore learner's own life, family history or local environment. As it is anchored on the needs of the child, the learner is not considered as a passive individual but is one who engages with his/her environment. Learner learns by doing. Thus, the school environment is left open and free. Learners are empowered to shape their own learning from the different opportunities provided by the teacher. They are identified as experts in knowing what they need to know. The development of self is the ultimate objective of learning. It stresses on the whole person and the integration of thinking, feeling and doing. It considers the cognitive, affective and psychomotor domains to be interconnected and must be addressed in the curriculum. It also focuses on positive self-concept and development of interpersonal skills.

Hence, learner-centred approach considers the following aspects

- Respect for the child
- Freedom of action
- Activities divided into units of work
- Recognition of the need for using and exploring many media for self-discovery and self-direction is embraced.

The learner centred approach has many similarities to the traditional subject-centred approach like the teacher being the agent of curriculum development. The difference occurs when the responsibility if the learning process is shared between the teachers and the students.

Other similarities between the two approaches is that the principles and procedures of planning, implementing and evaluating should be included along with the following key elements.

- Initial and ongoing learner's need analysis
- Content selection and setting priorities including goals

- Methodology including the selection and gradation of learning activities and materials
- Monitoring, assessment and evaluation.

Based on these elements, the teachers role can be described in terms of the following.

- Initial need analysis of learners
- Setting goals and selecting contents
- Selecting learning activities and materials

Weimer defines learner-centred approach by contrasting with teacher-centred approach through five key elements as follows.

• **The goal of Student Activity**: In teacher directed approach, learners work to meet the objectives set by the teacher. In contrast, in a learner-centred approach, students work to provide a response to a central question.

• **The Role of the Teacher**: In a teacher-centred approach, the teacher sets the learning objectives, and then plans a set of activities designed to help learners meet these objectives. In contrast, in a learner-centred approach, the teacher presents the central question and then works as a facilitator as students determine the nature of response they will develop, and then formulate and carry out a process to develop the response.

• **Learners' Motivational Orientation**: Teacher-oriented approaches often depend, at least, in part on extrinsic motivators, such as grades, degrees or other rewards to motivate learners' motivation to learn. In learner-oriented approach, teacher attempts to present a question that is interesting enough to motivate students to take ownership f the process of developing a response. As a result, learners' actions are driven by the goals they have set for themselves rather than external rewards promised by a teacher or an institution.

• **Assessment:** Teachers use objective assessments to determine grades in a teacher – oriented approach which in turn are used to motivate students and provide parents with information about their children's progress. However, in a learner-centred instruction, the assessment is open ended that are designated to involve learners in examining their own learning, focussing their attention on their learning needs and changing understanding rather than a grade or a reward.

• **Learner Interaction**: In a teacher-oriented approach, the interaction is frequently under teacher control; teacher determines group membership, the nature of interactions between the members, and even the role of each member in the group. Teachers intervene in the group process when there are difficulties and hold the group accountable for individual

learning. Instead in a learner centred approach, which assumes a great deal of student interaction focuses on collaborative learning. Collaborative learning emphasises learners self-governance of their interactions, allowing them to make decisions about with whom they work and how they work. As learners negotiate their relationship with each other, they must articulate their ideas, and engage in a disciplined social process of inquiry

But ultimately curriculum development is a combined effort of the learner and the teacher.

Advantages:

- It recognises the social and cultural context of the learner
- Learners have the freedom to choose the curriculum
- Students needs are reflected in the classroom and in what they study.
- It creates a direct link between class work and the learner's needs.
- Learners can easily learn and practice new skills in day to day activities.

Disadvantages:

- Learning depends on the teacher's ability to provide the necessary resources.
- It requires more skill on the part of the teacher as well as their time and resources.
- It is often difficult for teachers to make an acceptable balance among competing needs and interests of students.
- It is both time consuming and expensive

The different elements of learner-centred approach can be tabulated as follows

Emphasis	• Focus on the individual • Personal growth and development • Learner's interest • Focus on effect
Teaching	• Teacher as facilitator
Learning	• Incidental education

Environment	• Nurturing creativity • Stimulating • Playful atmosphere • Freedom of movement • Atmosphere of trust
Assessment	• Learner initiated • Growth oriented • Formative emphasis • Anecdotal explanation • Non-competitive

Check Your Progress 1

1. Who proposed the learner-centered theory?
2. Mention any two advantages and disadvantages of learner centered theory.

4.3.3.2. Constructivist Approach

As the name suggests, this approach is based on the principles of constructivism. Constructivism is based on the developmental work of Piaget (1977) and Kelly (1991). Rather than behaviours or skills as the goal of instruction, cognitive development and deep understanding are the foci; rather than stages being the result of maturation, they are understood as constructions of active learner reorganization. Rather than viewing learning as a linear process, it is understood to be complex and fundamentally non-linear in nature. The cornerstone of constructivism is the notion that "reality" is determined by the experiences of the knower.

Twomey Fosnot (1989) defines constructivism by realizing the ideal four principles of learning.

- Learning is determined by what we already know.
- New ideas occur as we adapt and change our old ideas.
- Learning designed to invent something new such as ideas rather than mechanically accumulating facts.
- Meaningful learning occurs through rethinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas.

Based on the concept of constructivism defined by different experts in the field, the basic characteristics of constructivist approach are listed as follows.

- Learners construct their own knowledge beginning with what they already know, exploring what needs to be known next and determining the quality and effectiveness of their pursuit through authentic assessment and application.
- All learning begins in doubt about the validity of an idea. The goal of doubt is the restoration of belief. (Pierce, James).
- Learning takes place in the personal zone of cognitive development between what is already known, what is not known and what is desired to be known (Vygotsky).
- Learning is achieved best through a socially interactive process (Dewey,Vygotsky).
- Learning is best achieved when the undertaking is consistent with the stages of human development (Rousseau, Piaget).
- Learning is an experience-based process of inquiring, discovering, exploring, doing and undergoing (Dewey).
- The process of coming to know is neither random nor eclectic, it has structure (Bruner, Bloom).
- Learning proceeds in spiraling fashion including laddering, scaffolding, weaving, and dialogism (Bruner, Rogoff).
- Cognitive development occurs in a socio-cultural context – the social milieu of individual achievement and the interaction between the learner and adults as well as his/her peers in culturally valued activities. (Riordan – Karlsson,).
- The interactive process in coming to know needs to be guided by structured cognitive and affective taxonomies (Bloom, Krathwohl).
- In a constructivists approach, the focus is on cognitive development and deep understanding Learning in this approach is understood to be complex and fundamentally non-linear in nature.
- In learner centred approach, the focus is on the learner. The aim is to develop the independence of the learner by making learner active in his learning path.

A productive, constructivist classroom, then, consists of learner-centred, active instruction. In such a classroom, the teacher provides students with experiences that allow them to hypothesize, predict, manipulate objects, pose questions, research, investigate,

imagine, and invent. The teacher's role is to facilitate this process. Students are taught to use background knowledge and concepts to assist them in their acquisition of new information. On approaching such new information, the learner faces a loss of equilibrium with their previous understanding, and this demands a change in cognitive structure. This change effectively combines previous and the latest information to form an improved cognitive schema.

Constructivism analyses why students do not learn deeply by listening to a teacher, or reading from a textbook. To design effective curriculum, it believes one needs a good understanding of what children already know when they come into the classroom. The curriculum should be designed in a way that builds on the pupil's background knowledge and is allowed to develop with them.

Constructivism has many varieties such as active learning, discovery learning, and knowledge building, but all versions promote a student's free exploration within a given framework or structure. The framing of curriculum depends on the specific variety that suits the child. The teacher acts as a facilitator who encourages students to discover principles for themselves and to construct knowledge by working answering open-ended questions and solving real-world problems. To do this, a teacher should encourage curiosity and discussion among his/her students as well as promoting their autonomy. In scientific areas in the classroom, constructivist teachers provide raw data and physical materials for the students to work with and analyze.

Following guidelines suggested by Jacqueline Glennon Brooks and Martin Brooks help in the development of curriculum with a constructive approach

- Pose genuine problems that are or will be relevant to the students. Questions and activities, you develop with and for your students should be of relevance to their current schema and developmental abilities.
- Structure learning around essential concepts in the curriculum. Students understand and make meaning by breaking wholes into parts. For example, young story writers can approach the concept of telling a story through discovery activities. These might include creating a class library of illustrated storybooks, a visit by a storyteller, discussion of students' schemas addressing concepts and experiences of 'story' and so on. Depending on your students' prior learning, you might introduce narrative sequencing through visuals, provide students with opportunities to rearrange parts of a known story or even digitised video material they have referred to in the past.

- Be aware that students' points of view are windows into their reasoning. Learning through self-construction may feel threatening for some students, particularly if they have been schooled on a diet of direct instruction, and many students struggle to analyse and articulate that analysis in group discussions. Remember that it might take time for students to articulate their points of view, and that they need different kinds of opportunity to elaborate and explain. The construction of knowledge calls not only for time to reflect but also time to practise explaining. The many opportunities to explain what they're doing help them understand what they are learning.
- Adapt the curriculum to match your students' current schema and developmental abilities. Start your preparation by identifying the kinds of activities you predict will most likely be developmentally appropriate for them. Most highschool students, for example, would find the preparation of a film script or a legal brief more engaging and relevant than the report format they mastered in sixth grade. Role plays are also interesting ways for students to present information.
- Assess student learning in the context of your teaching. The key pedagogical shift is to understand that assessment does not simply measure your students' knowledge and skills, although good assessment certainly does that, but also identifies how much and what kind of help a student needs to be successful.

Advantages

• **Develops thinking skills:** Problem solving teaches students to consider multiple perspectives on a given situation or phenomenon. This develops flexibility in thinking and reasoning skills, as students compare and contrast various possibilities in order to draw their conclusions. Students tap into their prior knowledge and experience as they attempt to solve a problem. Thus, students continually integrate new knowledge into existing knowledge, thereby providing context and creating a personal "storage room" of resources that will be available for future problem-solving needs. Students also learn to make connections and associations by relating the subject matter to their own life experience. Students learn to support their conclusions with evidence and logical arguments. Students learn to synthesize several sources of information and references in order to draw conclusions and then evaluate these conclusions.

• **Develops communication and social skills.** Students must learn how to clearly articulate their ideas as well as to collaborate on tasks effectively by sharing the burden of group projects. Students must therefore exchange ideas and so must learn to "negotiate" with others and to evaluate their contributions in a socially acceptable manner. This is

essential to success in the real world, since they will always be exposed to a variety of experiences in which they will have to navigate among others' ideas. Students learn how to communicate their ideas and findings with others. This becomes a self-assessment activity, whereby the students gain more insight into how well or poorly they actually understand the concepts at hand.

• **Encourages alternative methods of assessment.**Traditional assessment is based on pen-and-paper tests whereby students demonstrate or reproduce knowledge in the form of short responses and multiple-choice selection, which often inspire little personal engagement. Constructivist assessment engages the students' initiative and personal investment through journals, research reports, physical models, and artistic representations. Engaging the creative instincts develops a student's ability to express knowledge through a variety of ways. The student is also more likely to retain and transfer the new knowledge to real life.

• **Helps students transfer skills to the real world.** Students adapt learning to the real world, gaining problem-solving skills and ability to do a critical analysis of a given set of data. These skills enable the student to adapt to a constantly changing real-world environment. Thus, classroom learning does not result in (only) acquisition of a canon of absolute "truth"; it also results in a resource of personal knowledge.

• **Promotes intrinsic motivation to learn.**Constructivism recognizes and validates the student's point of view, so that rather than being "wrong" or "right," the student reevaluates and readjusts his knowledge and understanding. Such an emphasis generates confidence and self esteem, which, in turn, motivate the student to tackle more complex problems and themes

Disadvantages:

- In view of the high cost, effort, complexity and time required to design the curriculum, the justifiability of the approach to a large scale remains to be answered..
- The evaluation of learning outcomes remains conceptually problematic.
- It is difficult to identify the knowledge level of each child to identify the starting point of curriculum
- Teachers have to spend time getting to know each student's strengths and limitations in order to provide material within their zone of proximal development
- Students are not the best judges of their own learning needs
- Discovery learning may require instructional tools that are not always available

Check Your Progress 2

1. What are the basic characteristics of constructivists approach to curriculum development?
2. Mention any two advantages and disadvantages of constructivists approach

4.3.4. Let us Summarise

- Learner-centred approach is popularised by John Dewey. He describes that the curriculum of the individual child is related to the role of the school within society
- Learner-centred curriculum focuses on the individuals as well as the individual's dreams, goals, and interests.
- Learner-centred approach considers the following aspects namely respect for the child, freedom of action, activities divided into units of work and recognition of the need for using and exploring many media for self-discovery and self-direction.
- Learners have the freedom to choose the curriculum and create a direct link between class work and learners needs. Learners can easily learn and practice new skills in day to day activities. But learning depends on the teacher's ability to provide the necessary resources.
- Constructivist approach is based on the principles of constructivism.
- Constructivism has many varieties such as active learning, discovery learning, and knowledge building, but all versions promote a student's free exploration within a given framework or structure.
- Constructivist approach develops thinking skills, helps students transfer skills to the real world, promotes intrinsic motivation to learn and encourages alternative methods of assessment.
- But it is difficult to identify the knowledge level of each child to identify the starting point of curriculum and teachers have to spend time getting to know each student's strengths and limitations in order to provide material within their zone of proximal development

4.3.5. Answers to 'Check Your Progress 1 and 2'

Check Your Progress - 1

Refer Section 4.3.3.1. of Self Instructional Material

Check Your Progress - 2

Refer Section 4.3.3.2. of Self Instructional Material

4.3.6. Unit end Exercises

Based on the different approaches to develop curriculum that you have studied so far, prepare a table, highlighting their merits and demerits. Which approach do you prefer for your student group taking into account the resources available at your disposal?

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Block 4 : Curriculum Development (at School Level) and Implementation

Unit 4 : Process of Curriculum Making; Teachers' Role and Support in Developing Curriculum, Transacting Curriculum, Researching Curriculum and in Generating Dynamic Curricular Experiences

Unit Structure

4.4.1. Learning Objectives

After going through this Unit, the student teachers will be able to

- Explain the principles of curriculum construction;
- Explain the models of curriculum development;
- Explain the role of teacher in development of curriculum;
- Clarify the role of teacher in the implementation of curriculum;
- Analyse the role of teacher in researching curriculum; and
- Explain the role of teacher in planning dynamic curricular experiences.

4.4.2. Introduction

We know that the curriculum is the totality of experiences planned by a school or an organization to reach the set goals. Then, how to plan these experiences? Or How to construct or design a curriculum? Who all should be involved in the process of curriculum construction is a significant question. Normally, in our set up, the curriculum framing committee consists of experts in curriculum construction, educationists, professors in university departments, but least representation is given for teachers in this process. But the most important person in the curriculum development and implementation process is the teacher. Better teachers support better learning because they are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom. They have the first hand knowledge of the situation and only they can judge the validity of experiences planned for students. Hence, in the present Unit, let us discuss how to construct a curriculum, the different roles to be played by teachers in relation to curriculum development, implementation and research. We are also going to concentrate on how a teacher can plan dynamic curricular experiences for students.

4.4.3. Learning Points and Learning Activities

It is metaphorically expressed by curriculum expert, Cunningham, that curriculum is a tool in the hands of an artist(teacher) to mold his material(students) in his studio(School). Curriculum construction is a process which systematically organizes what has to be taught and how should it be taught. Curriculum design and development has been defined as a planned, purposeful, progressive and systematic process to create positive improvements in the educational system.

The process of curriculum development is a crucial, responsible and meticulous job. In this process the designers have to follow a systematic process based on the model that they would like to adopt. Let us understand the development of curriculum construction by studying one of the most popular models in the field of curriculum development, suggested by Hilda Taba.

Before going through the model, it is important to understand the basic principles of curriculum construction. They are as follows:

1. Principle of Child Centeredness: As suggested by NCF 2005, we have accepted constructivism as the basic philosophy of education, and child centred pedagogy is our focus. Hence, our curriculum should consider the needs, interests, abilities, aptitude, age level and circumstances of the child as prime factors at every stage of curriculum. In fact, curriculum is meant to bring about the development of the child in the desired direction so that he is able to adjust well in life.

2. Principle of Community Centredness: Though the curriculum centres around the child, it is important to note that the child has to grow as a responsible member of the community in which he/she lives. Therefore, theirsocial behaviour is also has to be suitably developed. Both the individual development and the social development of the child deserve equal attention. He is to live in and for the society. Therefore, his needs and desires must be in conformity with the needs and desires of the society in which he is to live. The values, attitudes and skills that are prevailing in the community must be reflected in the curriculum. However, the society is not static. It is dynamic. Its needs and requirements are changing with the rapid developments taking place in all fields. While working for the development, this factor cannot be ignored.

3. Principle of Activity Centredness: Constructivism demands the child to be active. Only when the child is active in a learning situation, it is possible to construct knowledge for him/her. The curriculum should centre round the multifarious activities of pupils. It should provide well selected activities according to the general interests and developmental stages of children. It should provide constructive, creative and project activities. For small children, play activities should also be provided. The purposeful activities both in the class-room and outside the class-room should be provided. It is through a network of activities that the desired experiences can be provided and consequently desirable behavioural changes can be brought about in children.

4. Principle of Variety: Some philosophers go to the extent of suggesting curriculum at individual level. That is not practical. But different activities suitable for different children to learn the same content can be planned. This variety will compensate the loss. The curriculum should be broad-based so as to accommodate the needs of varied categories of pupils, so that they are able to take up subjects and participate in activities according their capacities and interests. The needs of pupils also change from place to place. For example, the pupils in rural areas, urban areas, and hilly areas will have different needs. The needs of boys and girls are also different. So these considerations should be reflected in the curriculum.

5. Principle of Co-ordination and Integration: Inter disciplinary learning is the trend of the day. Experts in the field of academic disciplines feel that categorising subjects under water tight compartments is not natural since knowledge does not exist in bits. At the school level, at least attempts must be made to integrate the experiences in different subjects through activities and they must be integrated. Various subjects and activities have to serve the same ultimate purpose, the achievement of the aims of education.

6. Principles of Conservation: The main aim of education is to allow students to consume, transmit and enrich their culture. This is essential for human progress. Culture consists of traditions, customs, attitudes, skills, conduct, values and knowledge. The

curriculum framers must make scope for each of these components related to culture education.

7. Principle of Forward Looking: Education is not only for present but also for the future life of pupils. Curriculum designers should be able to foresee the needs of future society and societal demands, and prepare students in this direction. The curriculum should also include knowledge, skills, experiences, influences etc. which will develop in the child abilities and power to make effective adjustments in the later life.

8. Principle of Flexibility: In our age, rapid developments are taking place in various fields. Consequently, the needs of society are hanging. The content of curriculum cannot be same for all times to come. It should not be static. It must be dynamic and change with the changing times. It should reflect the latest trends in the field of education and psychology.

9. Principle of Balance: The curriculum must maintain a balance between subjects and activities, between direct and indirect experiences, between academic and vocational education, between compulsory and optional subjects, between formal and informal education, between individual and social aims of education etc.

10. Principle of Utility: The principle, "knowledge for knowledge sake" is not accepted today. Whatever is learnt, should be useful. Therefore, every learning experience should help the individual to gain something either related to further learning or for his/her personal life. Those experiences which are useful have more scope today than those which are earned as part of knowledge accumulation. Therefore, curriculum makers should ensure the utility of each experience provided through curriculum.

Models of Curriculum Development:

Model proposed by Hilda Taba:

According to Hilda Taba, the steps of curriculum construction are as follows:

1. Diagnosing needs
2. Formulating specific objectives
3. Selecting content
4. Organising Content
5. Selecting learning experiences
6. Organising learning experiences
7. Evaluating

Let us understand each step in detail.

Step 1: Diagnosing Needs: Before planning curriculum, diagnosis of needs is very important. This helps in general analysis of problems, conditions and difficulties. The purpose is to generate new ideas about the curriculum, by knowing thoroughly from various sources such as students' cumulative records, teacher recordings, parents' interviews, children's cases and their IQ achievement. This kind of analysis would lead to a come out with a new conception of curriculum. Diagnosis leads to understand the prime needs at different stages of curriculum.

Step 2: Formulating Specific Objectives: The objectives needs to be comprehensive in relation to the following: Concepts or ideas to be learnt, Attitudes, sensitivities and feelings to be developed, Ways of thinking to be reinforced, Strengthened or initiated, Habits and skills to be mastered.

Step 3: Selecting the Content: The objectives and needs provide a basic idea and guidance to select relevant content. While selecting content, the following points have to be followed meticulously:

- Selecting the topic
- Selecting the basic ideas
- Selecting the specific content

The first task is to select the relevant topics through which the objectives formulated can be achieved unit by unit; the topics have to be finalised. The different topics which can be covered under each subject, class and level should be decided. Then attention has to be paide to incorporate these into the broad content structure.

Step 4: Organising the Content

Once the content is finalised, the content has to be organised systematically by keeping in view the following:

- Sequential order
- Concrete to abstract
- Simple to complex
- Known to unknown
- Immediate to remote
- Easy to difficult

It should follow inductive logical arrangement of the content and a psychological sequence. There should be cohesion among ideas, facts and relationships.

Step 5: Selecting and Organising Learning Experiences:

With the content ready, it is easy to plan for learning experiences and activities. The criteria with which the content is drawn should provide/plan/visualise what students need to experience in order to acquire certain behavioural competencies and sequence of the experiences. Care must be taken to include a variety of learning experiences like reading, writing, observing, analysing, discussing, tabulating, painting etc.

Step 6. Evaluating: Evaluation is determining the objectives, diagnosis or establishment of baseline for learning and appraising progress and changes. There are varied approaches and methods of evaluation to know the progress of the child. Evaluation, is in a way continuous diagnosis along with comparison of results. Even several informal devices can also be used to evaluate the outcomes of the curriculum on the whole. Finally, whether the objectives of the curriculum are achieved needs to be evaluated.

Step 7: Checking for balance and sequence: After completing unit by unit, and the whole curriculum, it is necessary to check the overall consistency among its parts or individual aspects. Every aspect needs to be checked, like, whether the core ideas are reflected in the content, whether the overall achievement of objectives is planned for the overall progress of the topic.

The fundamental purpose of curriculum development is to ensure that students receive integrated, coherent learning experiences that contribute towards their personal, academic and professional learning and development.

Check Your Progress – 1

Explain the principles of curriculum construction

Describe the different stages of curriculum development as proposed by Hilda Taba.

4.4.3.2. The role of Teacher in Developing and Transacting Curriculum

The first task in the curricular process is the development of curriculum. The curriculum frame work will be normally designed at the national level and the states are expected to frame its curriculum based on the guidelines given at the national level. It is certain that teachers' involvement is crucial in curriculum development at any level, whether it is at the centre or state. With their knowledge, experiences and competencies, teachers are central to any curriculum development effort. The teachers occupy a central position in curriculum decision making and decide what aspects of the curriculum, newly developed or ongoing to implement in a specific class. They write curriculum daily through a lesson

plan, a unit plan or a yearly plan. The teachers address the goals, needs, interests of learners by creating experiences where the students learn better. The teacher as a curriculum maker designs, enriches and modifies the curriculum to suit the learner's characteristics. A teacher can gauge whether an activity will fit into a specified time frame and engage students. All teachers should be allowed to provide input during the creation stage. As teachers provide input, they will gain ownership in the product and feel more confident that the curriculum was created with their concerns, and the needs of the students in mind. The teacher is the professional person in practice, the one who has to implement the curriculum. Teachers are affected most by decisions taken about the curriculum. In this sense the teacher plays a significant role and his or her input should and can be very valuable. The significant role that the teacher should play is to take full responsibility of what the curriculum should look like to achieve certain goals and to reach out to the kind of learner envisaged, of what it should address and teachers' voices should be heard because they are the ones directly involved with learners.

The curriculum development role of teachers includes planning, designing or dissemination, implementation and evaluation. Teachers are expected to engage themselves in curriculum development processes where they have to align the curriculum according to the needs of learners. When a new curriculum is to be developed, identification of the mission and needs of stakeholders is a crucial step and important to understand the mission of the institution for which the curriculum is designed. Secondly the needs assessment of learners is to be carried out. It is also important to be aware of the learner's strengths and weaknesses. Thirdly curriculum goals and objectives are to be established since they determine the instructional philosophy and guide the selection of the most effective learning experiences. The teachers must not be mere implementers but development agents who are able to develop and apply the relevant curriculum dynamically and creatively, and within this phrase that is why teachers are regarded as mediators of knowledge. Teachers as key agents in curriculum change are to be seen as taking a lead to make sure that the implementation process becomes a success. Designing the curriculum is the most exciting and creative part of curriculum development, however, the ultimate goal is not to design the best and most ideal curriculum, but to put it into practice successfully.

Teachers as empowered people act as facilitators and make learners realise that they not only have a share in their own learning process but in the learning process of others as well.

The teacher should focus on the assessment of learning outcomes. It is essential that the initial evaluation as well as the formative and summative evaluation is thoroughly done. Pupil-orientated evaluation is mainly adapted to determining to what extent pupils

have made progress on the road to goal realisation. It is the role of the teacher to note that assessment forms an integral part of learning and it is continuous and therefore the teacher should have the clear functions of assessment that include to determine the success of instruction or the quality of the learning outcomes; to determine the suitability of the curriculum; to direct re-planning and adjustment; to determine whether grading and advancements are possible; to monitor progress; and to identify defects timeously and correct them.

Transacting Curriculum

The role of teachers in implementing or transacting curriculum can be viewed as follows:

Understand the Curriculum:

If a curriculum already prepared, is proposed by a higher authority of at a higher level, the teachers have to make an effort to know and understand it. The teachers need to understand the major and minor objectives, philosophy, procedures identified strategies suggested to reach the goal. The teachers need to understand the perspective with which the curriculum has been prepared.

Modify according to the needs of the locality and learners:

A teacher has to take different roles, starting from planning learning situations till giving feedback for further effective learning. Curriculum is basically prescriptive. Teachers' role is basically to execute it and strengthen the curricular aspects to reach the goals by compensating the missing items of the curriculum. Curriculum to a large extent is a framework and minor details cannot be and should not be added in the curriculum. The teacher has to adapt the curriculum to local situations.

A centralized curriculum cannot be implemented as it is in a local set up. It has to be altered according to the needs of the local community and the learners. Along with the objectives suggested by the centralized curriculum, the objectives at the local level needs to be identified. It should be ensured that the local needs are formulated in view of the objectives specified at state and national level. The teacher has to examine whether the strategies, methodologies suggested by the curriculum can be implemented at school level. The human and material resources available for achieving the goals should be examined. If it is found to be not adequate, the teacher has to make the required modifications according to the resources available in the school. Thus, the teacher has to restructure the curriculum proposed at the higher level according to the local needs. In this process the teacher has to take up the following tasks:

Scaffolding and Facilitating Learning:

Based on the cognitive level of students, available resources in the community and school, needs of the society and students, the teacher has to plan specific strategies to reach the goals. The teaching strategies also need to be identified at this stage. The major task of the teacher is 'scaffolding', where in the teacher relates the new knowledge with the previous knowledge of the students. The teacher has to facilitate learning at every stage of curricular implementation. This requires to know the cultural background of students. The teacher has to play a social role in this context. Only teachers can do this at their best, because they are the only persons who are aware of the previous knowledge of their students. The dissemination needs to be effective so that it ensures proper implementation. This depends on the communication ability of teachers. A teacher with good communication ability is capable of better implementation. With regard to implementation, it is evident that the role of the teacher is of utmost importance because of the fact that learners are looking at a teacher to guide, advise and educate them. Teacher is the one who should cover the standardized curriculum. The teacher is thus a learning mediator, interpreter and designer of learning programmes and materials. As Mediator of learning, the teacher needs to have an attitude of a mediator which is that of sober mindedness, furthermore the pastoral role, where the teacher needs to have an attitude of a shepherd where she/he is to shepherd the flock in such a way that no one goes astray. It is therefore imperative for teachers to have an attitude that will make it possible for learners to approach them for effective teaching and learning to be realised.

Evaluate students

Next, the teachers have to evaluate students, based on the curriculum and identify the extent to which the curriculum is relevant for their students. The merits and limitations of curriculum can be effectively observed and documented by teachers. This allows teachers to give feedback to the whole curriculum process and improve the same.

Check Your Progress – 2

Classify the tasks of teacher in relation to curriculum development(CD) and curriculum transaction(CT)

1. Take full responsibility of what the curriculum should look like to achieve certain goals
2. Includes planning, designing or dissemination, implementation and evaluation
3. Identification of the mission and needs of stakeholders is a crucial step
4. Should find ways for scaffolding

5. Should facilitate students' learning

6. Should understand the curriculum designed

4.4.3.3.The role of Teacher in Researching Curriculum and in Generating Dynamic Curricular Experiences

The Role of teacher in Researching Curriculum

Teachers can think of themselves as explorers, researchers, and ethnographers. Their workshop is the students themselves, their families and neighbourhoods, and the ever wider circles embracing larger and larger communities. When teachers come to the learning environment, they are engaging in research on an ongoing basis. This suggests that the classroom is a natural research site, as teachers regularly make detailed inquiries through observations, field notes, collected samples, and "interviews" with students in order to inform their decisions about curriculum implementation. Perceptions about the roles and identities of practicing teachers can be shifted from positioning teachers narrowly as educators within the classroom to a view of teachers as researchers. The perception shift is possible when everyday classroom-based practices of inquiry are considered within the context of more intentional or systematic research. By bringing together past and present personal and professional "stories of experience" teachers can foster a critical awareness of the value that their practice knowledge and inquiry holds in terms of research, and come to see themselves as "teacher-researchers."

Teachers are regarded as key agents because of the very significant role they play in the curriculum development process. Teachers should always remain students and active learners to grow to enable themselves to bring about the desired changes.

The teachers have two options in the process of research. One, possibility is to innovate options to resolve issues regarding objectives, organization of experiences, evaluation or the total curriculum effect that are right and the important problem is to use these options in the development of the curriculum. Second, is identifying the important areas of curriculum discussion, raise questions about them and motivate educators to solve the problems.

- Areas of research in curriculum development and implementation:
- Identification of objectives
- Identification of learning experiences according to the objectives
- Organization of learning experiences
- Evaluation of curriculum in terms of each of the above issues
- Implementation of curriculum

- Problems in scaffolding and facilitating.
- Innovative methods and strategies to execute the curriculum

Teachers role in generating dynamic curricular experiences:

The task of the teacher does not end up with the implementation of curriculum given by higher authorities. The teacher is a practitioner and should continuously validate the learning experiences suggested in the curriculum. The teacher should be capable of generating dynamic curricular experiences to reach the goals specified. The following aspects have to be considered in this regard.

- Understand the objectives of the total curriculum
- Dissect and identify the components of curriculum
- Identify the teaching and related activities and programme.
- List the activities to be planned according to the components
- Decide the priorities of activities based on goals to be reached and available time duration and finances available
- Identify the research data available to decide the validity of activities
- Conduct pilot studies wherever possible before applying ideas to a large group of students.
- Assess the relevance of activities based on the needs and capacities of students
- Execute the planned activities/learning experiences
- Use proper techniques to study the effect of learning experiences

Sources to generate dynamic curricular experiences

The teacher can approach different sources to plan curricular experiences. They are

- Referring to Previous literature
- Consultation with experts
- Teachers' meetings
- Referring to the previous documents of the school

Points to be considered while planning experiences

Some points have to be taken into consideration while planning experiences. The experiences should be planned according to the needs of students, community, culture of the place, national philosophy and global trends.

Nature of experiences to be planned

The experiences that a teacher plans need to have some characteristics. They are

- Keeps the students active in the process of learning
- Creates and maintains students' interest
- Allows to reach the immediate and remote goals of education
- Develops human values
- Easy for students to accommodate new learning
- Challenging for students
- Not beyond the budget of the school
- Develops intellectual faculties.

The authenticity of the curricular experiences should be checked frequently through action research or formative assessment techniques.

Check Your Progress 3

Consider yourself as a teacher researcher. You are already following a curriculum. Identify any two issues that you are attracted with and like to work further. List your observations about these aspects and identify the questions you have about these issues.

4.4.4. Let us Summarise

- There are specific principles of curriculum construction which need to be considered while constructing curriculum
- The construction of curriculum is a meticulous process of and demands to follow different steps.
- The teacher plays a pivotal role in the total process of curriculum development. The teacher as a curriculum maker designs, enriches and modifies the curriculum to suit the learner's characteristics. A teacher can gauge whether an activity will fit into a specified time frame and engage students.
- In the process of implementation of the curriculum the teacher needs to understand the given or designed curriculum, modify according to the local needs, plan scaffolding and facilitating strategies, execute the same and evaluate the whole process and give feedback for the present curriculum to improve the same.

- The teacher is also a researcher in the context of curriculum development. The teachers have two options in the process of research. One, possibility is to innovate options to resolve issues regarding objectives, organization of experiences evaluation or the total curriculum effect that are right and the important problem is to use these options in the development of the curriculum. Second, is identifying the important areas of curriculum discussion, raise questions about them and motivate educators to solve the problems.
- The task of the teacher does not end up with the implementation of curriculum given by higher authorities. The teacher is a practitioner and should continuously validate the learning experiences suggested in the curriculum. The teacher should be capable of generating dynamic curricular experiences to reach the goals specified.

4.4.5. Answers to Check Your Progress 1 and 2

Check Your Progress – 1

Refer Section 4.4.3.1 of Self Learning Material

Check Your Progress – 2

1,2 and 3-CD

4,5 and 6-CT

Check Your Progress – 3

Discuss and continue working on these two issues of curriculum. If you have questions to solve them, or if you have appreciation, think how you can still improve them. Share your thinking with your colleagues.

4.4.6. Unit end Exercises

1. Explain the role of teacher in the developing and transacting the curriculum
2. Explain the role of teacher as a researcher related to curricular issues
3. Explain how teacher can generate dynamic learning experiences for curriculum.

4.4.7. References

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Block 4 : Curriculum Development (at School Level), Implementation

Unit 5 : Selection and Development of Learning Resources

Unit Structure

4.5.1. Learning Objectives

After studying this unit student will be able to

- Clarify the meaning, characteristics and principles of learning resources;
- Explain the steps involved in the development of learning resources;
- Develop suitable resources required for teaching their subject.

4.5.2. Introduction

Identify learning resources is an important aspect in the development of a curriculum. The class room teaching is not enough for students to learn the content specified in the curriculum. Diverse experiences have to be planned in order to provide rich experience for students in order to reach the goals. This requires the curriculum designers to peruse through

the available learning resources that are apt for the curriculum in process. Teachers being the designers of curriculum need to have the knowledge of these learning resources. Hence, in this Unit, let us make attempts to learn more about different aspects of learning resources.

4.5.3. Learning Points and Learning Activities

4.5.3.1 Concept of Learning Resources

These resources may range from ordinary textbooks and workbooks to modern virtual classrooms. But selecting a right resource for the right occasion is a responsible job. This task has to be performed with great care and concern.

We will study the concept of learning resources under the following headings.

a. Concept of Learning Resources: Learning resources implies two words namely 'learning' and 'resources'. We have already learnt in detail about learning and its different aspects. A resource is a source or a tool from which a benefit is produced or has some utility. Hence learning resources are the sources or tools that helps teachers teach and students learn. UNESCO defines it as "any resource – including print and non-print materials and online/open-access resources – which supports and enhances, directly or indirectly, learning and teaching. Learning resource means educational content in general terms." A learning resource is information presented, accessible or stored in a variety of media and formats (texts, videos, software etc.), which assists an individuals' learning as defined by the learning outcomes and/or the overall learning objectives. They are devices and procedures that help to make teaching and learning more interesting, more stimulating, more reinforcing and more effective. Curriculum suggests the learning materials, and a knowledge of learning materials is imperative in the process of curriculum development. The school has to identify the learning resources to reach the goals through the curriculum designed by the school.

Let us now look at a few definitions given by experts

"The resources/materials which change the attitudes of students in classroom situation are called learning resources" **Ryburn**

The resources/materials used to give learning experiences through direction and guidance are called learning resources." **Marshel**

For the purposes of our understanding here, "Learning Resources" will refer to any person(s) or any material (whether acquired or locally produced) with instructional content or function that is used for formal or informal teaching/learning purposes. Learning resources may include, but are not limited to, print and non-print materials; audio, visual, electronic, and digital hardware/software resources; and human resources.

Exercise - I

The different stages of curriculum design are given below. Identify at what stage the curriculum designers should work on the selection of learning materials?

1. Diagnosis of Learners' Needs
2. Formulation of Learning Objectives
3. Selection of the Learning Content
4. Organization of Learning Content
5. Selection of Learning Experiences
6. Organization of Learning Activities
7. Determination of what to Evaluate

The task of identifying and selecting learning resources in the process of curriculum development falls between the 4th and the 5th stage. Observe the following figure.

After identifying learners' needs, deciding learning objectives, selecting learning content, organising learning content, curriculum designers have to select learning experiences. In order to decide the learning experiences, it is important to know what resources are available for effective learning the content decided, and lead towards the objectives formulated.

b. Types of Learning Resources:

Learning Resources are materials that are used for teaching a course. The following are some of the learning materials used to reach the goals in the process of curriculum development.

1. **Animation:** Successive drawings that create an illusion of movement when shown in sequence. The animations visually and dynamically presents concepts, models, processes, and/or phenomena in space or time. Users can control their pace and movement through the material typically, but they cannot determine and/or influence the initial conditions or their outcomes/results. Animations typically do not contain real people, places or things in movement.

2. **Assessment Tool:** Forms, templates, and technologies for measuring performance.

3. **Assignment:** Activities or lesson plans designed to enable students to learn skills and knowledge.

4. **Case Study:** A narrative resource describing a complex interaction of real-lifefactors to help illustrate the impact and/or interactions of concepts and factors in depth.

5. **Collection:** A meaningful organization of learning resources such as web sites, documents, apps, etc. that provides users an easier way to discover the materials.

6. **Development Tool:** Software development applications platforms for authoring technology-based resources (e.g. web sites, learning objects, apps.).

7. **Drill and Practice:** Requires users to respond repeatedly to questions or stimuli presented in a variety of sequences. Users practice on their own, at their own pace, to develop their ability to reliably perform and demonstrate the target knowledge and skills.

8. **portfolio:** A collection of electronic materials assembled and managed by a user. These may include text, electronic files, images, multimedia, blog entries, and links. E-portfolios are both demonstrations of the user's abilities and platforms for self-expression, and, if they are online, they can be maintained dynamically over time. An e-portfolio can be seen as a type of learning record that provides actual evidence of achievement.

9. **Hybrid/Blended Course:** The organization and presentation of course curriculum required to deliver a complete course that blends online and face-to-face teaching and learning activities.

10. **Illustration/Graphic:** Visual concepts, models, and/or processes (that are not photographic images) that visually present concepts, models, and/or processes that enable students to learn skills or knowledge. These can be diagrams, illustrations, graphics or infographics in any file format including Photoshop, Illustrator and other similar file types.

11. **Learning Object Repository:** A searchable database of at least 100 online resources that is available on the Internet and whose search result displays an ordered hit list of items with a minimum of title metadata. A webpage with a list of links is not a learning object repository.

12. **Online Course:** The organization and presentation of course curriculum required to deliver a complete course fully online.

13. **Online Course Module:** A component or section of a course curriculum that can be presented fully online and independent from the complete course.

14. **Open Journal – Article:** A journal or article in a journal that is free of cost from the end user and has a Creative Commons, public domain, or other acceptable use license agreement.

15. **Open Textbook:** An online textbook offered by its author(s) with Creative Commons, public domain, or other acceptable use license agreement allowing use of the ebook at no additional cost.

16. **Photographic Image – Instructional:** Photos or images of real people, places or things that visually presents concepts, processes and/or phenomena that enable students to learn skills or knowledge. These can be photographs, images, or stock photography.

17. **Presentation:** Teaching materials (text and multimedia) that are used to present curriculum and concepts to learners.

18. **Quiz/Test:** Any assessment device intended to evaluate the knowledge and/or skills of learners.

19. **Reference Material:** Material with no specific instructional objectives and similar to that found in the reference area of a library. Subject specific directories to other sites, texts, or general information are examples.

20. **Simulation:** Approximates a real or imaginary experience where users' actions affect the outcomes of tasks they have to complete. Users determine and input initial conditions that generate output that is different from and changed by the initial conditions.

21. **Social Networking Tool:** Websites and apps that allows users to communicate with others connected in a network of self-identified user groups for the purpose of sharing information, calls for actions, and reactions.

22. **Syllabus:** A document or website that outlines the requirements and expectations for completing a course of study. Course Outlines would also be included in this.

23. **Tutorial:** Users navigate through a set of scaffolded learning activities designed to meet stated learning objectives, structured to impart specific concepts or skills, and organized sequentially to integrate conceptual presentation, demonstration, practice and testing. Feedback on learner performance is an essential component of a tutorial.

24. **Video – Instructional:** A recording of moving visual images that show real people, places and things that enable students to learn skills or knowledge.

25. **Workshop and Training Material:** Materials best used in a workshop setting for the purpose of professional development.

c. Characteristics of Learning Resources: Jenny Valdez and Tomlinson, in the introduction of their book 'Materials Development in Language Teaching' have identified five essential characteristics for any learning resources. Important among them are as follows.

- **Materials should have impact on the audience**: Capturing the attention of the learners is essential. It can be either through an appealing appearance, the use of bright colours, inclusion of unique characters or variety in the presentation and type of activities and media used for the lessons. It is important to offer different sources of information that activate the curiosity of the learners to be engaged in the content.
- **What is being taught should be perceived by learners as relevant and useful**: Learners need to feel that the time and effort that they are putting into the learning proves it to be productive and that the information they are going through is relevant and useful to achieve and complete tasks that they might face in a real context
- **Materials should require and facilitate learners' self-investment**: Materials should facilitate the learning process only up to a point. They should also challenge the learner to make an effort by themselves to deduct, acquire and understand patterns and input that is not necessarily presented in an explicit way. This extra effort leads to better understanding and bigger profit for the learner.
- **Materials should help the learner to be at ease**: Making learners uncomfortable to the point of feeling of overexposed or embarrassed could be counterproductive for learning.
- **Materials should help learners to develop confidence**: It is important that materials have the appropriate level of difficulty. Too easy a material will make the student bored and too hard will make students get frustrated and discouraged.

d. Advantages of learning resources

They can be listed as follows and are self-explanatory

- Improves clarity
- Increases attention and interest
- Motivates learning
- Makes maximum use of senses
- Based on the maxims of teaching
- Saves time and effort
- Encourages participation
- Introduces novelty
- Develops scientific approach
- Meets individual differences

The other advantages include the following

- They supply a concrete basis for conceptual thinking and reduce meaningless work responses for pupils as it makes learning more permanent.
- Teaching and learning materials have a high degree of interest for the learner; for they offer a reality of experience, which stimulates self-activity on the part of pupils.
- Teaching and learning materials develop a continuity of thought, this is especially true of motion pictures, as they provide experiences not, easily obtained through other materials and contribute to the efficiency, department and variety of learning. Therefore, the use of teaching and learning materials in teaching/ learning process exposes the learner to primary experiences and this enriches learning.

Check Your Progress 1

1. What are learning resources? Discuss their different types
2. Select a learning resource that you or your student uses and list out its characteristics and advantages.

4.5.3.2. Selection of Learning Resources:

Who should make the selection? It is a local decision. But, ultimately, it is the responsibility of all professional staff at the Department, school management/district, and school levels

- to select resources that will enrich and support the curriculum, taking into consideration the diversity of interests and perspectives, and the variety of abilities, learning styles and maturity levels of the learners served;
- to select resources that will stimulate growth in factual knowledge, literary appreciation, aesthetic values, and knowledge of societal standards;
- to select resources that positively and accurately reflect diverse perspectives on controversial issues, ensuring that learners have an opportunity to develop, under guidance, the practice of critical analysis and the ability to make informed judgments in their daily lives;
- to select resources representative of gender, appearance, sexual orientation, ability/disability, belief system, family structure, race and ethnicity, and socio-economic status;
- to assure a comprehensive collection appropriate to the school community by considering the appropriateness of placing principle above personal opinion and reason above prejudice in the selection of specific resources.

A few Examples of Sources of Learning Resources:

a. The Centre for Learning Resources (CLR) : It is a non-profit, non-governmental organisation (NGO) located in Pune, India. Since 1984, it has been working in the fields of Early Childhood Care and Development, Early Childhood Education, Elementary Education and the Teaching of English in Maharashtra and other states in India. Their main goal is to improve the quality of early childhood care and development, early childhood and elementary education that rural and urban disadvantaged children receive in our country. As a technical support organisation, the CLR is committed to working in collaboration with all those government agencies and NGOs engaged in meeting this challenge. **Yuva English** – An English Course for Post-Secondary Youth from Socially and Economically Disadvantaged Backgrounds, **Development of Graded Reading Series in English** for Students in Regional Medium Schools, **Observation-Cum-Lab Centres** to Demonstrate Effective Early Childhood Education are some of their current projects.

b. NROER: Remember, while studying on NROER(Course 2), we have understood the different learning sources available in their repository for selection based on our needs.

Criteria for Selection of Learning Resources:

Once, the sources for selecting the resources are known, the curriculum designers need to have a set of criteria to select the sources. The essential characteristics of the resources and the needs of the learner are the basic criteria to select the resources. Specifically, the criteria can be grouped under the following headings.

- Content
- Instructional Design
- Technical Design
- Social Considerations

Criteria related to Content

- Content is current
- Content is accurate
- Content supports the intended curriculum
- Material has significant Regional content.
- The level of difficulty is appropriate for the intended audience.
- Content integrates "real-world" experiences.

Criteria related to Instructional Design

- Instructional goals and learner objectives are clearly stated.
- The resource is suitable for a wide range of learning/teaching styles.
- The resource promotes student engagement.
- The methodology promotes active learning.
- The methodology promotes development of communication skills.
- The resource encourages group interaction
- The resource allows/encourages student to work independently.
- The resource is suitable for its intended purpose.
- Materials are well organized and structured.

- Concepts are clearly introduced
- Non-technical vocabulary is appropriate
- Pedagogy is innovative
- Text relates to visuals

Criteria related to Technical design

- Appropriate support materials are provided.
- Visual design is interesting/effective
- Layout is logical and consistent
- Users can easily employ the resource

Criteria related to Social Considerations

Examining a resource to see how it handles social issues helps to identify potentially controversial or offensive elements that may exist in the content or presentation, and highlights where resources might support pro-social attitudes and promote diversity and human rights. The intent of the screening process is not to remove controversy, but rather to ensure that controversial views.

Check Your Progress 2

1. What are the factors to be considered while selecting a language learning resource? Make a list of them.
2. What are the factors you consider in selecting a learning resource with reference to its content?

4.5.3.3. Development of Learning Resources

In the previous section of this unit, we have seen that there are a vast number of learning resources that are available on all topics/subjects. Then, why should we develop one more. The answer is very simple. It is customised or tailor made to our own students. The advantages of developing learning resources for our own kids are the following.

- We know our students best. Their needs can be analysed systematically and scientifically and a first-hand information about them forms the basis of our resource development.
- The resources available at our disposal can be made use of
- Local touch which the developer knows will escalate the efficiency of learning.
- Teacher finds it comfortable to use the resource that he/she has developed.

Knowing the advantages let us understand the steps involved in developing learning resources. As in the development of any educational resource following steps may be involved

- Identify the target audience, study their needs and list out the objectives in terms of expected outcomes while using the resource.
- Check for the availability of a similar resource already developed and suits your requirement. If not, continue with developing a new one.
- Identify the content to suit the objectives
- Identify the methodology to present the content
- Check for the resources available to present the content in the proposed method. This may include material resources, human resources, financial resources etc.
- Discuss the proposed resource development with experts in the field.
- Develop the resource as per the plan
- Use the resource to the target audience and collect the feedback.
- Check the feedback and update the resource as required if any.

Once, the resource is developed, it can be improved or perfected with continuous interaction with experts in the field and the learners for whom it is intended.

Check Your Progress 3

1. What are the advantages of developing a learning resource by the teacher?
2. What steps do you consider while developing a learning resource for your students?

4.5.4. Let us Summarise

- "Learning Resources" refer to any material with instructional content or function that is used for formal or informal teaching/learning purposes.
- There are many types of learning resources available in the market today. In the Indian conditions, printed resources and a few multimedia resources are popular.
- A good learning resource caters to the needs of the learner and meets the learning objectives.
- It helps in improving clarity, increases attention and interest, motivates learning, makes maximum use of senses and is based on the maxims of teaching. It saves time and effort of both the teacher and the taught.
- Selection of resources has to be based on certain criteria. It should focus on four important aspects namely Content, Instructional Design, Technical Design and Social Considerations

- The principles of selecting learning resources are
  - Principle of learner centeredness
  - Principle of interest and motivation
  - Principle of educational value
  - Principle of realisation of objectives
  - Principle of simplicity
  - Principle of relevance and suitability
  - Principle of accuracy
  - Principle of size
- Development of learning resources should follow certain important steps right from reviewing the need for developing a particular resource to evaluating a developed resource

4.5.5. Answers to Check Your Progress 1, 2 and 3

Check Your Progress 1

Refer Section 4.3.3.1 of Self-Learning Material.

Check Your Progress 2

Refer Section 4.3.3.2 of Self-LearningMaterial.

Check Your Progress 3

Refer Section 4.3.3.3 of Self-LearningMaterial.

4.5.6. Unit end Exercises

1. Explain the concept, types and criteria for selection of learning resources.
2. Explain the steps in the design and development of learning resources

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Block 4 : Curriculum Development at school level] Implementation

Unit 6 : Process of Curriculum Evaluation and Revision

Unit Structure

4.6.1. Learning Objectives

After studying this Unit, the student teachers will be able to

- Explain the meaning, definitions, and characteristics of curriculum evaluation and revision;
- Discuss the different types, steps and strategies of curriculum evaluation and revision;
- Appreciate the significance and benefits of curriculum evaluation; and
- Suggest revision required in the curriculum dealt by him/her.

4.5.2. Introduction

In the previous unit, we have studied in detail the different aspects of curriculum. We have understood the basic principles in developing a curriculum, different approaches to curriculum as well as the role of various people in the development of curriculum. We are also clear that curriculum development is not an onetime activity. It is a continuous

process and needs constant evaluation and revision based on the needs of the society and the goals of education. Curriculum evaluation is an integral part of curriculum development, beginning with the concern about objective and ending with assessment of their attainment. This evaluation and revision has to follow certain principles and guidelines. In this unit we will study in detail about the process of evaluating and revising a curriculum.

4.5.3. Learning Points and Activities

4.5.3.1. Process of Curriculum Evaluation

Before moving on to study about curriculum evaluation, we will understand the concept of evaluation. Evaluation is a common term used in the field of education. We often say, the performance of a child has to be evaluated; an answer paper is to be evaluated etc. What exactly is this evaluation? In its broadest sense we can say it is a matching of the objectives and outcome of an activity. Evaluation, like all major terms in the curriculum field enjoys multiple definitions.

According to Madaus, Scriven and Stufflebeam (1983), curriculum evaluation is the process of determining to what extent the objectives are actually being realized.

Curriculum evaluation refers to the collection of information on which judgment might be made about the worth and the effectiveness of a particular curricular programme. It includes, making judgments that help in making decisions about the future of programme, whether to retain the programme as it stands, modify it or discard it.

According to experts there are four central features of evaluation. They are:

- Evaluation is appraisal in which we make judgment.
- Such judgments are made in the light of criteria.
- Criteria are based on particular contents.
- Such Criteria embody human resources, and evaluation model, therefore, inform decisions.

Need for Curriculum Evaluation :

The fundamental concerns of curriculum evaluation relate to:

- Effectiveness and efficiency of translating government education policy into educational practice;
- Status of curriculum contents and practices in the contexts of global, national and local concerns;
- The achievement of the goals and aims of educational programmes

The need for curriculum evaluation is twofold. Firstly, it is to ensure whether implementing the selected curriculum meets the desired objectives. Secondly, to ascertain if it needs any improvement or revision. In addition,

- Parents are interested because they want to be assured that their children are being provided with a sound, effective education.
- Teachers are interested because they want to know that what they are teaching in the classroom will effectively help them cover the standards and achieve the results they know parents and administration are expecting.
- The general public is interested because they need to be sure that their local schools are doing their best to provide solid and effective educational programs for the children in the area.
- Administrators are interested because they need feedback on the effectiveness of their curricular decisions.
- Curriculum publishers are interested because they can use the data and feedback from a curriculum evaluation to drive changes and upgrades in the materials they provide.

The ultimate goal is always to make sure that students are being provided with the best education possible. It gains significance because the curriculum evaluation is a means of deciding whether or not the chosen curriculum is going to bring the school closer to that goal.

Objectives of Curriculum Evaluation

The intent of the evaluation phase is to determine the level of student success, and the impact of the course design on student performance. Evaluation occurs throughout the delivery of the course and includes student performance, internal lesson and assessment analysis, and feedback from students, Learning Coaches, and teachers. The required user feedback is obtained through messages, various feedback tools, and regular parent meetings. Specifically, the objectives include the following. To determine the outcomes of a programme.

- To help in deciding whether to accept or reject a programme.
- To ascertain the need for the revision of the course content.
- To help in future development of the curriculum material for continuous improvement.
- To improve methods of teaching and instructional techniques.

Types of Curriculum Evaluation

Scriven identifies the following three main types of curriculum evaluation

- **Formative Evaluation**. It occurs during the course of curriculum development. Its purpose is to contribute to the improvement of the educational programme. The merits

of a programme are evaluated during the process of its development. The evaluation results provide information to the programme developers and enable them to correct flaws detected in the programme.

- **Summative Evaluation**. In summative evaluation, the final effects of a curriculum are evaluated on the basis of its stated objectives. It takes place after the curriculum has been fully developed and put into operations.
- **Diagnostic Evaluation**. Diagnostic evaluation is directed towards two purposes either for placement of students properly at the outset of an instructional level (such as secondary school),or to discover the underlying cause of deviancies in student learning in any field of study.

Steps in Curriculum Evaluation: As seen above, curriculum evaluation is a systematic and organised process. Hence it involves a set of sequential steps.

- Focus on one particular component of curriculum (Eg. Content)
- Collect or gather information
- Organise the collected information
- Analyse the organised information
- Report the findings
- Recycle the findings for continuous feedback, modification and adjustment to be made in future

Tools and Techniques of Curriculum Evaluation

The important methods and techniques employed in curriculum evaluation include discussion, experiments, interviews (group and personal) opinion of various agencies stakeholders, observation – procedures, questionnaires, practical performance and official record.

One of the easiest methods is to make use of the checklists. Evaluation checklists are helpful to educational planners trying to gauge the success of their classroom curricular program. The checklist for the curricular program components chart is easy to administer and provides a quick assessment of program components. Evaluation tools such as the checklist do not have to be complicated. These instruments help determine whether key components are present in the classroom program. An example of a checklist for curriculum evaluation is given below.

Put a × if yes	**Curriculum program components**
	Does the curriculum provide evidence of administrative and school board support?
	Does the curriculum plan incorporate a mission statement? Does the curriculum plan establish a task force or advisory committee?
	Does the curriculum plan facilitate the involvement of parents and the community?
	Does the curriculum has scope for research and development?
	Does the curriculum plan utilize student learner outcomes as a measure?
	Does the curriculum plan have an evaluation tool that provides for the collection of qualitative data?

Several models have been developed for curriculum evaluation. Popular among them is the Tyler's Objectives-Centered Model; others being Stufflebeam's Context, Input, Process, Product Model, Bradley's Effectiveness Model, Scriven's Goal-Free Model etc. We will learn about one of these models, that is the popular Tyler's objectives model.

Tyler's Objectives-Centred Model: It is one of the earliest curriculum evaluation models, which continues to influence many assessment projects. It was proposed by Ralph Tyler (1950) in his monograph "Basic Principles of Curriculum and Instruction".

This model focuses on four main areas as follows.

- The purpose of the curriculum being evaluated (the objectives)
- The experiences that are provided to support that purpose (the strategies and content)
- How these experiences are organized (organization of the content)
- How the outcomes are evaluated (assessment)

The steps included in the model are:

- Begin with the behavioral objectives that have been previously determined. Those objectives should specify both the content of learning and the student behavior expected: "Demonstrate familiarity with dependable sources of information on questions relating to nutrition."
- Identify the situations that will give the student the opportunity to express the behavior embodied in the objective and that evoke or encourage this behavior.

Thus, if you wish to assess oral language use, identify situations that evoke oral language.

- Select, modify, or construct suitable evaluation instruments, and check the instruments for objectivity, reliability, and validity.
- Use the instruments to obtain summarized or appraised results.
- Compare the results obtained from several instruments before and after given periods in order to estimate the amount of change taking place.
- Analyze the results in order to determine strengths and weaknesses of the curriculum and to identify possible explanations about the reason for this particular pattern of strengths and weaknesses.
- Use the results to make the necessary modifications in the curriculum.

The Tyler model has several advantages: It is relatively easy to understand and apply. It is rational and systematic. It focuses attention on curricular strengths and weaknesses, rather than being concerned solely with the performance of individual students. It also emphasizes the importance of a continuing cycle of assessment, analysis, and improvement.

But, it has certain disadvantages. It does not suggest how the objectives themselves should be evaluated. It does not provide standards or suggest how standards should be developed. Its emphasis on the prior statement of objectives may restrict creativity in curriculum development, and it seems to place undue emphasis on the pre-assessment and post-assessment, ignoring completely the need for formative assessment.

Check Your Progress 1

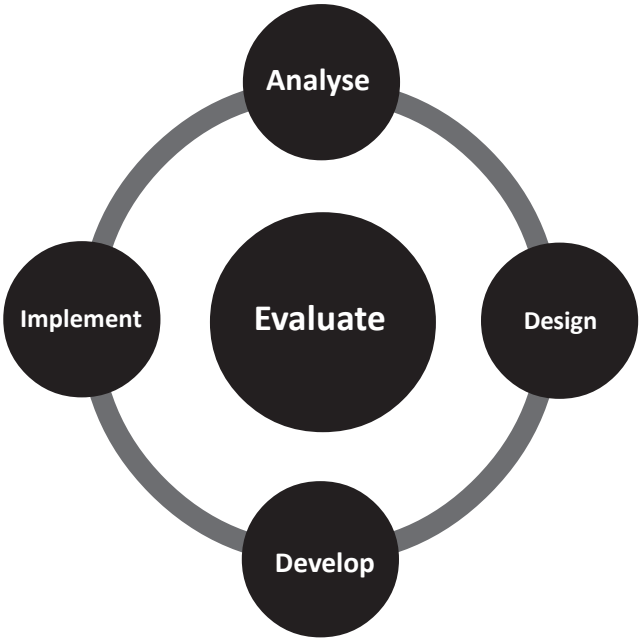
1. List any three benefits of curriculum evaluation.
2. Mention the different types of curriculum evaluation
3. Discuss the merits and demerits of Tyler's model of curriculum evaluation

4.5.3.2. Process of Curriculum Revision

In the earlier part of this unit, we have understood that curriculum evaluation is an integral part of curriculum development. Also, we have learnt that curriculum evaluation is not an end in itself. Based on the report of curriculum evaluation action has to be taken. This action is broadly called curriculum revision. The basis of any major curriculum change or revision is significantly to improve the existing curriculum. This helps in the assessment of future needs and to determine what needs to be changed. It also includes the selection of possible solutions to problems and the means by which the necessary changes are to be achieved. Hence, curriculum revision means to give it a new position or direction by

altering the philosophy by way of its aims and objectives, reviewing the content included, revising the methods and reinventing its effectiveness as the case may be.

The process of revision is a common activity involved in every stage of curriculum development. In some cases, it is explicitly shown while in some others it is implicit. This can be seen from the figure given below.



Revision represents an articulation of what students should know and be able to do and supports teachers in knowing how to achieve these goals. The taught curriculum was to be revised in order to match the newly integrated assessment model mandated by state. The basis for any major curriculum change/revision is significantly to improve the existing curriculum. The process of curriculum revision helps in the assessment of future needs of the existing curriculum along with a determination of what needs to be changed and the selection of possible solutions to problems and the means by which the necessary changes can be achieved.

Need for Curriculum Revision

Revision of curriculum is needed to restructure the curriculum according to the needs, interests or abilities of the learner. It is required to eliminate the unnecessary content and teaching methods and introduce latest methods of teaching and learning practices. It helps in a greater level of correlation is aimed at between the student's theoretical courses and learning practices.

Based on the evaluation of the curriculum and to implement the recommendations of the evaluation with due approval from the concerned changes need to be made resulting in revising the curriculum. Also, the pace of knowledge explosion and the need to keep pace with the changes in development in various related fields becomes the driving force for curriculum revision. Based on the evaluation, this revision helps in changing the objectives, content or methods as the case may be to suit the specific requirement.

Benefits of Curriculum Revision

Curriculum revision establishes a clear philosophy and set of overarching goals that guide the entire program and the decisions that affect each aspect of the program. It allows for flexibility and encourages experimentation and innovation with in a structure. Also, it encourages interdisciplinary approaches and the integration of curricula wherever appropriate. It promotes a means for its own ongoing revision and improvement and is linked to teacher evaluation goals and professional development.

Stages of Curriculum Revision: Following have been identified as the stages in curriculum revision.

- Curriculum Mapping: Mapping is used to identify current objectives and course content. Additional information is gathered during the mapping process regarding supporting materials, assessments and units of study currently used in the district to support the current curriculum.
- The 'Map' is then composed to grade level expectations, student achievement data, state frame works, standards and current research to determine if it meets these criteria.
- Based on the analysis of this comparison phase, revised curriculum is developed to reflect updated expectations.
- Completion of the revisions the proposed curriculum is field-tested by the teaching staff and resources are evaluated for adequacy and appropriateness. Based on staff input, specific units of study are examined and revised to reflect the new expectations.
- At the conclusion of these steps, a determination is made whether or not to pursue the adoption of a new textbook or resource to support the implementation of the new curriculum. At the conclusion of this process, curriculum documents are posted on district website. At the element level progress reports are revised to reflect the new curriculum. Additional information will also be shared with parents.

Check Your Progress 2

1. What is curriculum revision? Why is it necessary?
2. Discuss the different stages involved in curriculum revision

4.5.4. Let us Summarize

- Curriculum evaluation is the process of determining to what extent the objectives are actually being realized
- It refers to the collection of information on which judgment might be made about the worth and the effectiveness of a particular curricular programme.
- It helps to improve the effectiveness and efficiency of translating government education policy into educational practice;
- Formative, summative and diagnostic are the three types of curriculum evaluation
- The important methods and techniques employed in curriculum evaluation include discussion, experiments, interviews (group and personal) opinion of various agencies stakeholders, observation – procedures, questionnaires, practical performance and official record.
- There are many models evolved for curriculum evaluation. Tyler's model is the most popular among them.
- Curriculum evaluation is objective and systematic and follows specific steps.
- Curriculum revision represents an articulation of what students should know and be able to do and supports teachers in knowing how to achieve these goals.
- It is a stage following curriculum evaluation
- Curriculum revision establishes a clear philosophy and set of overarching goals that guide the entire program and the decisions that affect each aspect of the program.

4.6.5. Answers to Check Your Progress '1 and 2'

Check Your Progress 1

For answers refer Section 4.3.3.1 of study material.

Check Your Progress 2

For answers refer Section 4.3.3.2 of study material.

4.6.6. Unit end Exercises

1. Select a curriculum of your choice, evaluate it in suitable stages
2. List out the different stages in revising a curriculum indicating it through an example

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