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National Open University
School of Education

BESC-133
Curriculum, Teaching-Learning And Assessment

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BESC-133: CURRICULUM, TEACHING – LEARNING AND ASSESSMENT

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Introduction to the Course

Developing and using curriculum is an essential part of education. Curriculum framework is a part of an outcome-based education. It is a framework for guiding teaching-learning and assessment. This Course 'Curriculum, Teaching-Learning and Assessment' introduces you to the basics of curriculum, teaching- learning process and assessment. In this Course, you will get a thorough understanding about the latest trends in curriculum development, transaction and assessment in the light of National Education Policy- 2020. At the same time, this Course maintains content and conceptual rigour, with an emphasis on fundamental principles of teaching-learning and assessment. Through this course, you will also recognize the coherence of curriculum, teaching-learning and assessment in the field of education. The course aims to achieve the following leaning outcomes:

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

❖ Explain the context, planning and development of curriculum;

❖ Develop a deeper understanding about teaching-learning process;

❖ Describe the key aspects of classroom and resource management;

❖ Realize the significance and need of holistic assessment;

❖ Identify the various tools and techniques of assessment; and

❖ Discuss on the emerging trends in assessment.

This course is organized under four major Blocks. The title of each Block establishes a context for the Units it includes.

Block 1 consists of four units which revolve around the theme '**Understanding Curriculum.**' In Unit 1, we explain the context of curriculum in historical, philosophical, sociological and psychological perspectives. Unit 2 deals with the meaning and types of curriculum. Unit 3 elaborates the planning and development of curriculum. Unit 4 is devoted to the pedagogical considerations in curriculum.

Block 2 comprises four units centered on the theme '**Teaching and Learning.**' Unit 5 discusses the concept of learning, its nature and how children learn. In Unit 6, we describe who is a teacher and how teaching is different from instruction. Unit 7 introduces the concept of learning environment, its types and how to create a positive learning environment. In Unit 8, we elaborate how to design learning experiences.

Block 3 consists of three units entitled as '**Classroom and Resource Management.**' Unit 9 moves on to discussion, illustrated with specific example of different approaches to classroom organization and management. Unit 10 presents information and examples related to types of teaching-learning resources. Unit 11 focuses on how to manage diversity in classroom.

Block 4 involves four units titled as **'Assessment and Evaluation.'** Unit 12 which is a prelude to other three units is related to the basics of assessment and evaluation. Unit 13 provides extensive information on the types of assessment and evaluation. Unit 14 is devoted to offering more information on a variety of cognitive and non-cognitive abilities and how to assess them. Unit 15 discusses the role of ICT in assessment. Finally, Unit 16 explores the trends in assessment and evaluation.

Block

1

UNDERSTANDING CURRICULUM

BLOCK 1   UNDERSTANDING CURRICULUM

Introduction to the Block

In the **first block**, we discuss the context, meaning and types of curriculum. All of us know that curriculum is the backbone of any discipline. Curriculum refers to the total list of selected and organized content and learning experiences that are meant for helping learners construct their own knowledge, skills and attitudes. Throughout the block you will also read about the planning and designing of curriculum. In this block, you will also come to know the relation between curriculum and pedagogy.

The first Block consists of four units.

In **Unit 1** we introduce you to the context of curriculum in terms of historical, philosophical, sociological and psychological perspectives. This Unit will help you to understand the needs of learner and society to form the basis for construction of curriculum. Developing curriculum at local, state, and national levels are also delineated in this Unit.

Unit 2 explains the concept of curriculum and curriculum framework. You will also understand how curriculum differs from syllabus and textbook. This Unit also provides the different types of curriculum which are practiced in educational system. This classification is done based on the philosophical, sociological and psychological principles.

In **Unit 3** you will learn about the principles and approaches to curriculum planning. You will understand the nature of curriculum at different stages i.e. pre-primary, primary, upper primary, secondary, higher secondary and higher education. You will also get information about the importance of curriculum designing, its procedure, and its impact on teaching-learning process. This Unit also deals with the various approaches to design a curriculum.

Unit 4 addresses questions such as how curriculum and pedagogy are interrelated? Why is pedagogy needed to be understood in relation to curriculum? How should pedagogy follow from the guiding principles of the curriculum? These questions are explored in the context of curriculum and pedagogy.

UNIT 1   CONTEXT OF CURRICULUM

Structure

1.1   INTRODUCTION

Education is the process of developing the competencies and skills of individuals by teaching or schooling. It is a systematic training and instruction, especially, of the youngsters with a view to preparing them for life by enabling them construct the required information, skills and attitudes. The tool that we generally used to achieve aims of education is curriculum. Curriculum refers to the total list of selected and organized content and learning experiences that are meant for helping learners construct their own knowledge, skills and attitudes. Curriculum is the specification of content for a course of study. Curriculum is not something that is constructed haphazardly without due study and consideration. It has its theoretical base which guides the selection of curricular aims, content, and methods. This theoretical base or foundation rests on disciplines such as philosophy, sociology, psychology as well as history of education. As students of

education, you are expected to know several aspects related to curriculum and its contexts. What has curriculum to do with knowledge, discipline and subjects? How are learners and societal needs connected with curriculum? How do disciplines like philosophy, sociology and psychology act as bases or foundations of education? What are the specificities of curricula at local, state and national levels? Let us now strive to find answers to such questions with respect to the contexts of curriculum.

1.2 OBJECTIVES

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

- define what knowledge is;
- explain the relationships existing among knowledge, discipline, and subjects;
- explain the meaning of curriculum;
- spell out the various aspects that curriculum involves;
- highlight the various criteria used for selecting content and learning experiences for curriculum;
- point out various needs of the society;
- bring out the role of philosophy in the construction of the curriculum;
- highlight the contribution of sociology to the construction of the curriculum;
- explain the role of psychology in the construction of the curriculum; and
- specify the various advantages and disadvantages of having curriculum at local, state and national levels.

1.3 KNOWLEDGE, DISCIPLINE AND SUBJECT

Nature of knowledge has been a matter of concern in philosophy from the earliest times. The word 'philosophy' is derived from Greek words "philo" which means "love" and "sophos" which means "wisdom" (www. vocabulary.com/dictionary/). Therefore it means "love of knowledge or wisdom". The Greek word "episteme" means 'knowledge'. Epistemology is an important area in philosophy. It deals with the theory of knowledge. Its central questions include the origin of knowledge, the place of experience and reason in generating knowledge. The Greek philosophers like Plato defined knowledge as "true belief". It is a kind of belief that is supported either by facts or reason.

1.3.1 Knowledge

According to the most widely accepted definition, knowledge is "justified true belief". Knowledge is generally divided into three areas, namely, (i) cognitive domain, (ii) affective domain, and (iii) psychomotor domain. The

cognitive domain is concerned with what learners know and understand. Affective domain is concerned with development of attitudes and feelings. Psychomotor domain has to do with matters that help learners perform tasks. Although knowledge is a very common thing that we everyday deals with, many of us do not have a clear idea as to what really knowledge is. Often we fail to distinguish between knowledge and information. We often find them being used as synonyms. Information is nothing but data that are used in certain context with some relevance. Information becomes knowledge only when meaning is attached to it through the processes of collection, analysis, synthesis of data and their consolidation and integration into existing human cognitive structure (structure of knowledge in human mind). In other words, only when information is processed in the context of certain situation, it becomes meaningful and gets integrated into the existing human cognitive structure.

Knowledge is generally expressed in the form of statements or propositions. A meaningful statement that conveys truth is said to be a proposition. Any statement, to be a proposition, has to fulfil three requirements:

- It should be true.

- It must be believed by us to be true.

- It requires evidence or reason to believe that it is true.

Different Ways of Acquiring Knowledge

There are several ways through which individuals acquire knowledge. Some of these ways are as follows:

i) *Knowledge through Intuition*

Intuition refers to the idea that comes to our mind when we are confronted with certain situation. It is the idea that our insight produces. We believe it is true without any reason or proof.

ii) *Knowledge through Authority*

This refers to the understanding we gain as a result of our interaction with the members of our family, our neighbours, school, religious organizations, local self government organization, etc.

iii) *Knowledge through Tenacity*

This has to do with the belief that we come to possess as impact of our exposure to slogans of the various political parties or the repetitive propaganda carried out in newspapers or on T.V. through advertisements of various commercial products.

iv) *Knowledge through Reason*

Another way to attain knowledge is through inductive and deductive reasoning. Inductive reasoning involves observing certain phenomenon

over a number of times and coming out with a generalization about what was observed. For example, James Watt observed the movement of the lid of his steaming tea kettle over a number of times and concluded that steam has power. If harnessed, it can work for man. Deductive reasoning is just opposite of inductive reasoning. It takes up a general principle and then strives to find evidences. In the process, new knowledge is produced.

v) *Knowledge through Empiricism*

In this case, knowledge is produced as a result of the research or experiments carried out by scientists and scholars all over the world. This is the way through which much of the knowledge is being generated.

Apart from the above, there are several other ways though which knowledge is created. Through revelation and faith, knowledge is also generated. Depending on the ways knowledge is generated, it is put under three types:

i) *A Priori Knowledge*

In Latin the expression "a priori" means "before". A priori knowledge makes use of already known facts to decide what probable effects of something will be. For example, "They haven't eaten anything all day. So they must be hungry.

ii) *A Posteriori Knowlege*

In Latin "a posterior" means "after". A posteriori knowledge is knowledge gained after the conduct of experiments or observation or study etc.

iii) *Experiential Knowledge*

Experiential knowledge doesn't exist prior to experience. It is the knowledge gained as a result of research.

Categorization of Knowledge

According to the nature and functions of knowledge, it is categorized into three types:

i) *Propositional Knowledge:* It is the knowledge expressed in the form of statements or propositions.

ii) *Procedural Knowledge:* It is knowledge that explains the procedure of performing tasks.

iii) *Affective Knowledge ;* This type of knowledge deals with attitudes and feelings.

1.3.2 Discipline

As we have noted above, knowledge is the sum total of all understandings we have so far acquired and recorded. It is very vast and complex. So scholars have tried to categorize knowledge into different areas for convenience. They believed that human knowledge can be differentiated into a number of logically distinct forms each having its own distinctive logical structure. Each of them, they believed, has its own criteria for truth in terms of propositions and modalities for testing them. They also believed that each of them has its own particular techniques and skills for production of propositions. Taking the above characteristics as clue, they created a number of substantial bodies of knowledge which have the same form. The bodies of knowledge having the same form and characteristics constituted a discipline.

The term discipline is derived from the Latin words "discipulus "(which means pupil) and "disciplina" (which means teaching). A discipline is seen as an organized body of knowledge with a logical structure. It has a network of concepts and generalizations which explain the relationships among the body of facts. Each discipline is characterized by its structure which includes its domain, methods and history.

Forms of Disciplines

Disciplines depending on their contents, structure, functions are classified into the following categories:

i) *Basic Disciplines:* Disciplines having their own networks of concepts that are distinctive and unique in nature are called basic disciplines. They have their own ways of arranging content logically. Sciences, Social Sciences, Mathematics and Languages belong to this category.

ii) *Applied Disciplines:* Applied disciplines are those disciplines that emerge as a result of applying knowledge of basic disciplines in applied areas. Bio-engineering, Biotechnology, Applied Physics are some of the examples of applied disciplines.

iii) *Multi and Interdisciplinary Areas:* Recent approaches to designing curriculum for schools are multi or interdisciplinary by nature. In this case, knowledge of two or more disciplines contributes to designing of curriculum of a discipline new disciplines. For example, we can take the discipline of Economics. The curriculum of this discipline is formed on the basis of knowledge drawn out of different branches of Social Science like history, political science, geography, and sociology. In this case, the discipline of Economics serves as the principal organizer while related disciplines supplement to it. The discipline of Social Science is another example of multidiscipline. The curriculum of Social Science is drawn on such disciplines as history, economics, political science, sociology, anthropology, psychology, and geography. In this case, the discipline of Social Science serves as the principal organizer while related disciplines supplement to it.

1.3.3   Subjects

We have so far discussed what knowledge is and how it is created. We have also seen what disciplines are and how they are formed. Now let's have some deliberations on school subjects. Traditionally school subjects are mostly found out to be drawn out of core disciplines of language, science, social science and mathematics. As the focus was mainly on intellectual development, other important areas like life skills, education, and development of affective aspects like attitudes and feelings were totally neglected. If we just have a glance through the subjects taught at school stages, we can easily understand this reality.

As we have already noted, the school subjects are mostly drawn out of the core disciplines. Once the societal and individual needs are identified, what the curriculum developers did was to draw out relevant knowledge and skills from core disciplines taking into account the objectives laid down and the readiness levels of the learners in question. Once the list of objectives and the content matters required for fulfilling those objectives were ready for each subject, the same was handed over to the textbook makers for preparing textbooks.

At elementary and secondary stages (Std.1 to 10), general education is imparted with a view to enabling learners to function effectively in the society they live in. Very simple things are taught in Std 1. As learners move from Std 1 to Std. VIII, they are taught more contents that are progressively complex. So what learners follow as they move ahead is a spiral curriculum that becomes more complex. In Std. 1 to V, learners are taught Languages, Environmental Studies and Mathematics. Students of Std. VI to VIII are taught subjects such as Languages (Mother-tongue, Hindi, and English), Social Sciences (History, Political Science, and Geography), Science (Physics and Natural Science) and Mathematics. At secondary stage (Std. IX and X), learners learn Language (L_1, L2 and Hindi), Social Sciences (History, Political Science, Geography and Economics), Science (Physics and Natural Science) and Mathematics.

At +2 stage, apart from L1 & L2, (Mother-tongue, English, Hindi), the subjects that learners are expected to learn are put under three streams of studies, namely, (i) Arts and Humanities stream, (ii) Science stream and (iii) Commerce stream. The Table 1.1 presents the three streams and the subjects that fall under them.

Table 1.1: Core Subjects at +2 stages

Arts and Humanities Stream	Science Stream	Commerce Stream
History Geography Economics Political science Sociology Psychology Language	Physics Chemistry Mathematics Botany Zoology, etc	Accounting Business Studies Marketing Finance, etc

The +2 stage is stage at which learners are initiated into specialization. At this stage, learners can take up any stream and choose their subjects as per their aptitudes and likings.

As we have already noted above, educationists of the past generally thought that the main function of education was intellectual development. However, recently educationists realize that education doesn't imply intellectual development alone but in fact, it visualizes development of the complete human being. This realization has led to the inclusion of some of the areas such as Art and Craft Education, Life Skills Education, Sports and Physical Education, Value Education, etc that were written off as unimportant. Although some of these subjects are found in the school time-table, they are not given the importance they deserve. They are considered as co- curricular areas of study instead of integrating them as parts of the curriculum.

It is encouraging to notice that our schools are currently integrating some of these specific areas of knowledge in school curriculum. The NCERT textbooks have already integrated some of these areas. The State boards are also taking steps to integrate some of these areas into their curriculum. All these innovations make schooling system effective.

Check Your Progress

Notes: a)   Write your answers in the space provided after each item.

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

1)   Define the following in a sentence each:

   i)   Knowledge

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   ii)   Discipline

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2)   How does information differ from knowledge?

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3) Differentiate between "a priori" and "a posteriori" knowledge?

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1.4 LEARNER AND SOCIETAL NEEDS

One of the main aims of education is to bring about the learners' mental or intellectual development. Curriculum is the tool with the help of which we accomplish this task. Curriculum contains selected and organized content and learning experiences for fulfilling the pre-specified goals and objectives. These content and learning experiences are selected, not haphazardly, but after careful study and examination.

1.4.1 Learner Needs

The contents selected for curriculum, are based on the goals and objectives laid down but also on the readiness of the learners for learning. If learning of the children is to be effective and efficient, the contents used for learning must fulfil certain criteria. Some of these criteria are as follows:

1) The contents selected for teaching should be strictly in accordance with the readiness of the learners for learning. When children attain the stage of adolescence, i.e. tentatively 12 years of age and above, they will be in a position to think logically, perceive and understand abstract matters. So both the content we teach and the language we use for curriculum transaction should be within the learnability of the learners.

2) The content taught should be interesting to the learners. It should suit their personality, attitude and interest.

3) It should be relevant. It should be of use for their future life. If they realize this fact they would take it seriously and learn better.

4) The matters taught should have validity. It should be authentic and factual.

5) It should have significance. What is taught should, in some way or other, contribute to the development of their personality.

6) It should lead to self-sufficiency. What they learn should help them to be independent.

7) It should have feasibility. It should be feasible in terms of time, resources, costs and suited to the existing socio-political climate.

8) It should be capable of inculcating the philosophical, cultural and ethical values cherished by the nation.

9) It should be such that it is capable of opening up possibilities of the economic development and employability of the people.

In short, whatever learners are taught should not be only for the inculcation of values and principles cherished by the nation but also should cater to their personal and economic development.

1.4.2 Societal Needs

Education is for society. So, in order to meet societal needs, curriculum has to be based on the needs and aspirations of the people. Sociology helps a lot for identifying the needs of the society. The needs and aspirations of the people can be spelt out in terms of three categories of objectives namely, (i) content objectives (ii) life skills objectives, and (iii) methodological skills objectives. As these are important constituents of curriculum, they need to be discussed briefly:

i) *Content Objectives*

Education, to be practicable, needs to be based on the needs of the people. It is based on the societal needs that experts select and accordingly decide about learning experiences that equip learners with the required knowledge, skills, and attitudes. The content objectives aim at helping learners acquire knowledge and skills in various basic areas such as languages, computation, etc. One of the important needs of learners is effective ways of communication. So they are taught languages. They also need to acquire computational skills. Hence, they are taught mathematics. They also need to know a bit about various sciences. So they are taught chemistry, physics and biology. Learners also need to be familiar with history, geography, economics, civics, etc. All these fall under the content objectives, especially at the school stage, as they provide general awareness that learners generally need. Once learners complete secondary schooling (Std.X), they begin to specialize subject areas as per their aptitudes and interests.

ii) *Life Skills Objectives*

Apart from acquiring knowledge and skills in the general fields of study that we have discussed earlier, another important area of skills that students need to learn is life skills. Life skills are skills that can boost learners' capabilities to face problems of life with ease and confidence. These are problem-solving behaviours that help learners a lot in their life. These are abilities that enable them to deal effectively with the demands and challenges of their everyday life.

Life skills are several in numbers. However, we need to master only a few of those that are considered to be core life-skills. Some of this like self-esteem, self-awareness, coping with stress and emotions help us understand and manage ourselves better. Some other life-skills such as effective communication, interpersonal relationship, etc. help us get

along amicably with others. Life-skills like problem solving, critical and creative thinking, problem solving, etc. help us handle life's problems. In short, these life-skills empower us in a way to effectively deal with problems in our lives.

iii) Methodological Skills Objectives

In addition to content objectives and life skills objectives, another category of skills that learners need to acquire is methodological skills. Much of childhood socialization is informal. However, some aspects of it beyond childhood require formal training. This aspect of education which sociologists call as enculturation means acquisition of new skills and knowledge in adulthood. As we know, the continuous existence of the society depends on the availability of various professionals and individuals with expertise. The society needs doctors, engineers, teachers, police and others to manage the various social institutions. Such professionals and experts require desired knowledge and skills to carry out their duties in the way it is expected by the society. The society has to select personnel looking into their aptitudes, interests and qualifications and give them the required training. Methodological skills objectives are linked with training of such persons. Sociology highlights what skills and knowledge such people require and what types of training they need to be given.

Check Your Progress 2

Notes: (a) Write your answers in the space given after each item.

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

1) Define the following terms in a sentence.

i) Learning readiness

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ii) Enculturation

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iii) Life-skills

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2) Give any three criteria to be kept in mind while selecting learning experiences for curriculum.

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3) What do content objectives mean?

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4) What is the importance of the methodological skills objective?

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1.5 CONTEXT OF CURRICULUM

If learners are left to themselves to learn on their own, it would take a very long time for them to acquire all those knowledge and skilling. Hence, society has established a structured societal sub-system which equips learners with knowledge and skills derived by it. This sub-system of the society is known as education system and the tool with which the education system transmits societal knowledge and skills is curriculum. While developing curriculum, various relevant elements from various disciplines such as philosophy, sociology and psychology form the bases of curriculum. As these disciplines are contexts or bases of curriculum, they are called foundations of education. Let us now briefly look at these disciplines and examine what contributions they have made towards the development of the curriculum.

1.5.1 Historical Context of Curriculum

During the reign of the British in India, they set up here schools and colleges following the models that they had used in English. When we attained independence from them, we tentatively followed the models of curriculum that they had introduced here.

Since you are students of education, it is quite imperative for you to reflect on the curricula that your predecessors had developed. Studying the history of curriculum development will make you much wiser. It will not only help you avoid the mistakes of the past but also to come out with curricula that are quite effective and efficient. History of curriculum development will also help you a lot in developing and interpreting new concepts. In addition, it will also help you integrate curriculum, instruction and teaching more effectively. This will also help us locate topics and methods of instruction that have become irrelevant or out-dated and make either necessary alterations or replace them with suitable content and methods of teaching.

Curriculum is also futuristic by nature. What we teach learners today is not meant for the present. It is intended for the future when the learners come off age and take up responsibilities. So when we decide objectives and select contents for curriculum, we need to visualize what knowledge and skills learners require after 10 or 15 years from now. We also need to keep in mind this aspect while planning our curriculum. In short, having an understanding of the history of curriculum development will assist us a lot not only in helping us move in rhythm with the changing needs of the changing times, but also help in developing curricula that are at once practicable and ideal.

Together with studying the curricula of the past, it is also beneficial for the teachers to be familiar with the history of the specific subject or discipline they teach in schools. This will give them a deeper insight into the content and structure of the subject which, in turn, assist them a lot in transacting the curriculum with better ease and efficiency.

1.5.2 Philosophical Context of Curriculum

Philosophy generally involves a system of ideologies, principles and beliefs. These are mostly concerned with values, beliefs and assumptions about children, teaching and knowledge that try to explain the meaning of life, and give rules as to how to behave. Philosophy was once the general term used for all knowledge or world views. It contains beliefs and ideologies that serve as logical justification for the country's patterns of behaviour, attitudes, goals and general life situations. People generally have the tendency to accept elements of ideology as truths rather than tentative theoretical formations. Scholars generally categorize these ideologies as two types, namely, (i) empirical beliefs and (ii) philosophical beliefs.

i)   **Empirical Beliefs**

Empirical beliefs are beliefs that we have arrived at as a result of experiments or research. These beliefs are principles that are confirmed from data. Empirical beliefs have close relations to sensory experience. They imply practical relevance as against bookish scholasticism or groundless speculation. They are related to what is confirmed by empirical observation. In short, empiricists claim that all elements of

factual knowledge is derived from experience and not from logically deduced inferences.

ii) Philosophical Beliefs

Philosophical beliefs, on the other hand, are based on rational decision-making. Scholars belonging to the rationalist group believe that truth can be arrived at through formal demonstration of logic and mathematics. They have constructed critically the total of human knowledge by the employment of pure reasoning.

Both these beliefs, be they empirical or philosophical,have helped in deciding not only the goals and aims of education, but also in directing the content, curriculum and methods to be employed. In fact, there is no aspect of education that is not touched by philosophy.

1.5.3 Sociological Context of Curriculum

Sociology is the science that deals with organization and functions of groups and institutions. Sociology of education is mostly concerned with the application of sociological theories, perspectives, and research methods to educational processes and practices. Education, as we know, is for the society. If education is to be effective, it has to be based on the needs and aspirations of the people. As time passes, the aims and objectives of education keep changing. Explosion of knowledge and its application have brought about drastic and pervasive changes in the society. People today, as compared with those of the past, lead a sophisticated type of life. Today they use sophisticated machines and gadgets both in their workplaces and at home. So, our society today requires nothing sort of a sophisticated type of education. At present, it requires technological competence, communicative competence, global perspectives and higher order skills such as analysis, synthesis, and evaluation.

Education today has to change in terms of the changing needs of the changing times. It has to provide individuals and groups with the required knowledge, skills and attitudes. Sociology decides what language they require for communication. As per the requirement of the society, mathematics, various sciences, history, geography, economics, civics, etc. are taught. In short, it is sociology that decides what knowledge, skills and attitudes the people require to live effectively and efficiently in the society.

Apart from these general awareness and skills, what other things the society needs are decided by sociology. Helping learners pick up life skills is another important thing that the society wants. People require mastery over a number of life skills such as critical thinking, creative thinking, problem solving, etc. if they are to live their lives meaningfully and effectively. Similarly, sociology points out what professionals and experts are to be developed for the continued existence of the society. Sociology also decides what knowledge, skills and attitudes such personnel need if they are to perform

their responsibilities effectively and efficiently. In short, it is sociology that determines the goals and objectives of the society and what knowledge, skills and attitudes are to be developed through education.

1.5.4　Psychological Context of Curriculum

Psychology is generally seen as a science that deals with behaviour and mental processes. Behaviour is actions that can be observed in an objective manner. It is a number of traits and habits that make up our character and personality. Any manifestation of life is seen as an activity. Behaviour is a collective name for all these activities. Behaviour includes all motor and conative activities like walking, dancing, etc and cognitive activities like thinking, reasoning etc. Educational psychology is the application of psychological findings in the field of education. It deals with the problems, processes and products of education.

Educational psychology helps us study human behaviour, and understand, predict and direct it in such a way as to accomplish educational goals. It is centred on teaching and learning. It helps teachers teach better and learners to learn better. Educational psychology is concerned with the study of behaviour of learners in the educational environment. It helps a lot in improving the process and product of education. Psychology helps education in the following areas:

*   It helps in knowing learners and their characteristics.

*   It helps teachers to know themselves and their strengths and acquire essential teacher-like qualities.

*   It helps in selecting proper learning experiences that suit the individuality and developmental stages of learners.

*   It helps in the creation of suitable techniques and methods for realizing the desired learning outcomes.

Apart from the above, psychology helps education a lot by way of theory and practice. Some of these are as follows:

*   Psychology helps us understand the developmental characteristics of infancy, childhood and adolescence.

*   It helps us understand the individual differences.

*   It helps us find out effective ways of teaching and learning.

*   It helps us prepare the time table scientifically.

*   It helps us manage classrooms and maintain discipline in the classroom.

In short, there is no discipline that contributes to education as much as psychology. It contributes a lot not only to the process and product of education but also to its theory and practice.

As we have seen, by now, how education draws greatly both theoretical and practical understandings upon philosophy, sociology and psychology for

educational operations. Philosophy provides the ideologies, beliefs, values and principles on which our education system is built up. Sociology offers all the required insight into the needs and aspirations of individuals and groups. Psychology provides education with all the modalities and methods required for accomplishing the goals and objectives of education. In short, looking into the crucial roles these disciplines play in the scientific development of curriculum, there is nothing wrong in considering these disciplines as foundations of education. Curriculum is nothing but the product of the integration of relevant concepts, ideas and principles drawn upon these disciplines.

Check Your Progress 3

Notes: (a) Write your answers in the space provided after each item.

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

1) Note down any two instances of contribution of philosophy to the development of curriculum.

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2) What help does sociology extend to the making of the curriculum?

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3) What help does psychology extend to the making of the curriculum?

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4) Why do we consider philosophy, sociology and psychology as foundations of education?

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1.6 CURRICULUM AT VARIOUS LEVELS

As India is a federal republic, there is possibility for developing curriculum at different levels such as local, state, and national levels. As we have already noted, education is the process of preparing youngsters for life and curriculum is the tool that helps us carry out the process of education. Developing curriculum at local, state, and national levels has its own advantages as well as disadvantages.

1.6.1 Curriculum at the Local Level

There are a number of universities, colleges and other institutions in every state. These institutions are autonomous. Such autonomous institutions develop curriculum of their own. Although they are bound to follow certain conditions, they are free to frame their own curriculum keeping the local issues and problems in focus. As in the case of state and national level, at local level also, curriculum is made following the same steps such as finding the needs and aspirations of individuals and groups, stating the goals and objectives, selecting and organizing content and learning experiences, suggesting techniques and methods for curriculum transaction. Developing curriculum at the local level has certain advantages. Some of the advantages are as follows:

- It gives focus to the local issues and problems.
- It makes the curriculum development procedures comparatively easy.
- It makes curriculum transaction and evaluation simpler.
- It helps in conducting programmes as per schedule and avoid delay.
- It enables curriculum change at will with ease.
- It can easily update curriculum as per requirements.

In spite of the advantages mentioned above, preparation and use of curriculum at the local level are not without any disadvantages. One of the disadvantages is the differences in the curricular content and learning experiences between the state and the national levels. Since there are much disparities and differences among the various institutions at the state and national levels, there can be much confusion with respect to curricular outcomes.

1.6.2 Curriculum at the State level

Several universities, colleges and schools in each state follow the curriculum developed by the state. Since India is a vast country that is multi-lingual, multi-cultural and multi-religious, there is much difference in people's way of worshipping, dressing and eating habits. So to come out with a curriculum that is acceptable to all people in the nation is tedious and cumbersome. If it is made at the state level, finding the needs and aspirations of individuals and groups become comparatively easy. Similarly, if it is made at the state level,

the history of the state, its geography, its flora and fauna, its trade and commerce, its industry and other issues that are pertinent to the people of the state can be given focus. Moreover, the problems and issues that the state faces can also be brought to the fore and made familiar to the people of the state.

Despite the advantages mentioned above, the making of curriculum at the state level is not without any disadvantage. Unlike curriculum at the national level, it does not allow uniformity in content and learning experiences, and curriculum transaction and evaluation. So there can be much confusion with respect to the level of achievement.

1.6.3 Curriculum at the National Level

The curriculum at the national level refers to programmes of learning that applies to all learners in the nation. It is a curriculum that applies to all schools and universities that follow the national curriculum. Its commonality lies in the fact that all learners, irrespective of caste, creed or religion, have the same learning experiences and it covers the same topics in common. So it ensures that all learners share the common experiences of learning and evaluation at each stage of their education. Hence, the national curriculum has several advantages. Some of these are as follows:

* It gives all learners at the national level equal opportunity for growth and development without any distinction in the name of region, religion, caste, creed or status.

* It can easily propagate values, beliefs, and ideals cherished by the nation.

* It helps in maintaining normative order at every level of the society at the national level.

* It helps foster better national integration.

* It provides clarity with respect to the achievement of students at the national level.

Since India is a vast country, identification of the needs and aspirations of individuals and groups at the national level and developing a curriculum that is acceptable to all is a tedious and complex process. So also is the case with the processes of curriculum transaction and evaluation. As we have seen, there are advantages and disadvantages in developing curriculum at all levels. None of them is good or bad. So when need arises to prepare a curriculum, choose the level that suits the situation in question.

Check Your Progress 4

Notes: (a) Write your answers in the space provided.

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

1) Write down any three advantages of having curriculum at the local level.

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2) Note down any three limitations of having curriculum at the national level.

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3) How does the state benefit from having curriculum at the state level?

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1.7 LET US SUM UP

None of us is born with knowledge. We construct it as a result of interaction with the environment. If children are left to equip themselves with knowledge and skills on their own, it would take a long time to acquire all what they require. So a structured system known as school and college is set up to help learners acquire all what they require within a specific span of time. Curriculum is the tool with which the process of education is carried out. Curriculum is based on the needs and aspirations of the society. Since the knowledge and skills that the learners require are vast and varied, for convenience it is divided into different disciplines. While developing curriculum, relevant concepts, ideas and principles are drawn upon various disciplines such as philosophy, sociology and psychology. At present, curriculum is being developed at the national, state and local levels. Curriculum of each level, be it local, state or national, has its benefits as well as limitations. So these are neither good nor bad. Hence, when preparing curriculum, select the level that suits the situation in question.

1.8 UNIT- END EXERCISES

1) Define knowledge and explain its different domains with the help of relevant examples.

2) Define what knowledge is and briefly explain the different modalities used for generating knowledge.

3) Name and briefly explain the various criteria used for selecting the content and learning experiences for curriculum.

4) What are the disciplines that are considered as foundations of curriculum? Highlight some of the contributions they have made towards the development of curriculum?

5) What level of curriculum development (local, state or national) do you prefer? Give reasons for your answer.

6) Define disciplines and briefly explain their different forms.

1.9 REFERENCES AND SUGGESTED READINGS

- Bridges, D. (2006). The Disciplines and the Discipline of Educational Research. *Journal of Philosophy of Education,* Vol: 40 (2), pp.259-272.

- Dewey, John. (1916). *Democracy and Education.* New York: Mac Millan.

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

- Hospers, J. (1973). *An Introduction to Philosophical Analysis.* Prentice Hall Inc., Englewood Cliffs: N.J.

- IGNOU. (2005). *Education: Nature and Purposes (MES-012), Block 1 & 2,* Master of Education, New Delhi: IGNOU.

- Mitchell, Brendan. (2016). Understanding Curriculum. *Asian Journal of Humanities and Social Studies,* Vol.04 (4), pp.299-311.

1.10 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress (1)

1. (i) Knowledge is information that has been processed and integrated into the existing human cognitive structure.

(ii) Discipline is an organized body of knowledge with a logical structure that includes a domain, methods and history.

2. Information is data and becomes meaningful when interpreted in the context of certain situations. Then information becomes knowledge. Knowledge is justified as true belief.

3. A priori knowledge refers to facts that are already known. This knowledge is used for deciding what probably will be the effect of something. On the other hand, a posteriori knowledge is knowledge that is obtained after the conduct of a study or experiment. It is a knowledge that is obtained as a result of scientific study.

Check Your Progress (2)

1) (i) The expression 'learning readiness' means that learners should be given learning experiences within their level of comprehension and understanding. (ii) The term 'enculturation' refers to the process of teaching new knowledge and skills in adulthood to ensure the availability of various professionals and experts to manage the various institutions in the society. (iii) Life skills are skills that boost learners' capabilities and help them face life-problems with ease and confidence.

2) Some of the criteria that could be kept in mind while selecting content for curriculum are (i) it should be interesting, (ii) relevant, and (iii) valid (authentic).

3) The expression "content objectives" refers to the act of helping learners attain proficiency in various basic areas of knowledge and skills.

4) Imparting methodological skills is important as only through it the society can get professionals and experts like doctors and engineers who can manage the various institutions of the society and carry out their duties with ease and efficiency.

Check Your Progress (3)

1) Philosophy contributes to the creation of curriculum through ideologies, beliefs and principles that promote desirable behaviours and attitudes. It also helps curriculum in deciding not only the goals and objectives but also the selection of learning experiences.

2) Sociology helps in the development of curriculum not only in deciding the goals and objectives but also in the selection of learning experiences. It advocates the promotion of life skills and methodological skills also.

3) Psychology helps us understand students and their characteristics. It also helps us by providing various techniques and methods for accomplishing the goals and objectives of curriculum. It also helps in maintaining discipline and bringing about effective management of the classroom.

4) As philosophy, sociology and psychology play crucial roles in the development of the curriculum, these disciplines are considered as foundations of education. In fact, curriculum is nothing but integration of relevant ideas drawn upon these disciplines.

Check Your Progress (4)

1) Preparation of curriculum at local level can save a lot of time, energy and money. It can easily focus on local issues and problems and find solutions to them easily. It can easily work out curriculum change and update it at will with ease.

2) Preparation of curriculum at the national level is a complex and tedious process that consumes a lot of energy, time and money. India being a vast country which is multicultural, multi lingual and multi religious, to come out with a curriculum that is acceptable to all is very difficult. Similarly, to make timely changes in the curriculum and make it up- to-date is also very tedious and time consuming.

3) Developing curriculum at state level is comparatively easier. It also gives scope for knowing the history of the state, its geography, its flora and fauna, its trade, commerce and industry. Similarly, it can also raise problems and issues that are pertinent to the people of the state.

UNIT 2 MEANING AND TYPES OF CURRICULUM

Structure

2.1   INTRODUCTION

When you were in school, you were taught by your teachers about the curricular contents in different subject areas from syllabi prescribed by different school boards like Central Board of Secondary Education (CBSE) or State Boards of Secondary Education. Apart from going through academic contents in subjects like Languages, Mathematics, Sciences, Social Sciences etc., you were also engaged in several scholastic and co-scholastic activities. For example, there were specific periods earmarked in school calendar for sports, morning assembly, library work, lab work, visit to nearby community, etc. During these periods, you were engaged with various activities other than those pertaining to classroom learning. All these engagements provided you a lot of learning experiences which constitute substance of education. Curriculum is broadly understood as the totality of learning experiences a student acquires through his/her engagement in different types of scholastic and co-scholastic activities. In this unit you will study the detailed

explanation of curriculum, its framework, how curriculum is different from syllabus, textbooks and what are the different types of curriculum being implemented in the system of education.

2.2 OBJECTIVES

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

• explain the concept of curriculum and curriculum framework;

• distinguish the concept of curriculum and syllabus;

• differentiate between the concept of curriculum and textbook;

• describe various types of curriculum; and

• analyze the impact of various curriculum on different course of study.

2.3 CONCEPT OF CURRICULUM

All of us are familiar with the word 'curriculum'. It is a significant component of education system right from the kindergarten to higher level. It is the root of the entire educational process and without curriculum the stakeholders of education cannot achieve any educational goals. The term 'Curriculum' is derived from the Latin word 'currere' which means path. It is the path through which the learner has to move forward in order to achieve the goals set by an educational system. The term 'curriculum' is normally understood as a group of subjects approved for a study in a particular course/ programme. But the understanding of curriculum is not restricted to this narrow concept. The course of study lists the content to be learnt and indicates some of the major activities, which constitute only a part of the curriculum. Curriculum is considered as a broad term, which comprises all those learning experiences provided to a learner through a course of study. Thus, Curriculum for a course of study can be operationally defined as the totality of experiences a learner acquires through various teaching-learning activities organized inside and outside school while undergoing that course, with a view to achieving the desired educational goals. For serving its purpose, any curriculum which has been formulated must be based on sound foundations. The foundations of curriculum should be based on the philosophical, sociological and psychological perspectives of education and thereby the curriculum has to be developed accordingly. *Philosophical Foundation of Education* has a significant role in conceptualization of curriculum. Philosophy of a society determines the ultimate aims of its education. Philosophy considers fundamental issues such as place of human beings in the universe, the relationship between nature and society, the relationship between individual and society, etc. Various philosophies such as idealism, naturalism, pragmatism, realism, etc. have different views on these issues and the basic principles of these philosophies influence the respective educational systems including their curricula. *The Sociological*

Foundation of Education demands that we should bear in mind the needs, requirements and aspirations of the community for which an educational system is designed. This approach considers not only the needs of the society, but also the needs of the learner. It takes into consideration the needs of the learners at present times and their future needs as citizens and adult members of the society. For achieving this, the cultural heritage of the society should also be reflected by the curriculum. *Psychological Foundation of Education* is the most important element for fixing the concepts of the curriculum. The results of various research studies have shown that it has a great impact on the shaping of curriculum. Since the main emphasis of curriculum is on achievement of the learners' holistic development, it should be shaped in tune with the psychological needs of the learner.

2.3.1 Definition of Curriculum

Etymologically, the term 'curriculum' is derived from the Latin word "currere" which means run or run-way or a running course. Thus, curriculum means a course to be run for reaching a certain goal. The term curriculum has been defined by different scholars in different ways. Some of them defined it with a narrow scope, while others define it in a much broader sense. Bruce Joyce and Marsha Weil (1972) describe a curriculum as "an educational programme". According to Caswell & Campbell (1935), "Curriculum is composed of all of the experiences children have under the guidance of the teacher." Curriculum is now generally considered to be all of the experiences that learners have under the auspices of the School (Ronald Doll, 1996).

Curriculum embodies all the experiences which are utilized by the school to attain the aims of education'. Curriculum is a tool in the hands of an artist (teacher) to mould his materials (pupils) according to his ideals (objectives) in his studio (school)'. In short, curriculum is a means of achieving the goals of education. It includes all those experiences, activities and environmental influences which the students receive during their educational career, for the realization of a variety of desired goals. Hilda Taba (1962) defined Curriculum "as a plan for action, or a written document, which includes strategies for achieving desired goals or ends." Tanner and Tanner (2007) stated, "Curriculum is the reconstruction of knowledge and experiences systematically developed under the auspices of the school (or university) to enable the learner to increase his or her control of knowledge and experience."

The Secondary Education Commission (1952-54) states, "Curriculum includes totality of experiences pupil receives through the manifold activities that go on in the school, classroom, library, laboratory, workshop, play ground and in numerous informal contacts between teachers and pupils." In other words, the whole life of school is curriculum which can touch the life of students at all levels and help in evolution of a balanced personality. Curriculum is both a subject to be taught at colleges and universities and a field in which practitioners work. Curriculum is the formal and informal

content and process by which learners gain knowledge and understanding, develop skills and alter attitudes, appreciations and values under the auspices of that school.

Curriculum is intimately related with all aspects of education. Curriculum is the plan for guiding the educational process. Four important components of this plan are:

1) the objectives

2) the content or learning materials

3) teaching learning strategies and activities (transaction)

4) Evaluation.

2.3.2 Functions served by the Curriculum

The curriculum serves the following major functions:

1) *Synthesis between the subjects of study and life:* The major aim of the curriculum is to provide the students with the subjects of study which enable them to synthesize curricular knowledge obtained from the subjects of study with the life outside the school.

2) *Acquisition and strengthening of knowledge:* Acquisition of relevant knowledge from various subjects may be considered as the most fundamental requirement for making the above synthesis possible. Hence it should be considered as a primary function served by the curriculum. By providing and integrating knowledge in various subjects, the cognitive structure of knowledge in mind gets strengthened.

3) *Holistic Development:* The aim of education to achieve the holistic development- the physical, mental, social, moral, religious and spiritual development of the student- is realized through the curriculum.

4) *Development of democratic values:* Another important aspect of the curriculum is to develop the democratic values among the students. All democratic values like equity, liberty and fraternity along with values like tolerance, respect for others and cooperation are inculcated through various curricular disclosures. This development aims not only at creation of national outlook, but also fosters a spirit of internationalism.

5) *Specification of the students' needs:* A great variety of interests, skills, abilities, attitudes, aptitudes, etc are possessed by the students. The curriculum attempts to cater to multifarious needs and requirements of students.

6) *Realization of values:* The ultimate aim of education is the development of character and what is required for this is to help students internalize various desirable values. Hence one of the functions served by curriculum is to enable the students build up a desirable value system.

7) *Harmony between individual and society:* The effectiveness of a democracy depends on the harmonious relationship between the individual and the society. Hence creation of an environment which enables the individual to establish harmonious relationship between him/her and the society leading to the betterment of the society is another function served by the curriculum.

8) *Creation of conducive environment:* The conducive learning environment assists the students in achieving the maximum possible development of his/her intellect, emotions and skills. Hence creation of conducive learning environment for the holistic development of the students is an important function of the curriculum.

Activity 1

Write a diary / a journal describing your school experiences in and outside the classroom and evaluate how those experiences help you achieve your academic goals.

Check Your Progress 1

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

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

1) Indicate 'T' for True and 'F' for False regarding the concept of Curriculum for the given statement.

  a) Curriculum is the totality of all educational experiences.

  b) Curriculum is constructed on the basis of philosophical, sociological and psychological foundations.

  c) The term curriculum is derived from the English word 'Currere'.

  d) A Curriculum is a narrow term but syllabus is a broader term.

2) List any five functions served by a curriculum.

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3) Define curriculum and explain how it is related with different aspects of education.

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2.4   CURRICULUM FRAMEWORK

Curriculum for a course or a programme of study is derived from the curriculum framework framed by the government both at the central and state levels through certain apex agencies. For example, curriculum for school education in India is designed on the guidelines provided by the National Curriculum Framework for School Education prepared by National Council for Educational Research and Training (NCERT). Similarly, curriculum for B.Ed. and M.Ed. programmes are based on the National Curriculum Framework for Teacher Education (NCFTE) developed by National Council for Teacher Education (NCTE). At the State level, for example, the Government of Bihar had prepared Bihar Curriculum Framework (BCF) for School Education. Now, let us understand in detail what a Curriculum Framework is.

Curriculum framework is a plan that formulates educational aims, in relation to both individual and society, to arrive at an understanding of the kinds of learning experiences schools must provide to children. Curriculum Framework is one of the most important tools in ensuring consistency and quality in a 'curriculum system'.

2.4.1   Common Elements of Curriculum Framework

Curricular Framework describes the educational environment in which the important aspects of both scholastic and co-scholastic activities need to be planned and organized. All the important aspects of curriculum like content, learning experience, method of teaching and evaluation are specified in the curriculum framework. It provides guiding principles upon which the entire curriculum has to be organized. Usually curriculum framework is commonly developed at the national level; we can also see some international curriculum framework developed under the affiliated organizations of United Nations. A curriculum framework commonly contains the elements described in the Table: 2.1.

Table 2.1: Common Elements of a Curriculum Framework

Common Elements of a Curriculum Framework	
Element	**Function or Purpose**
1.Introduction: Current Context	Describes the social and economic environment which influences the making of educational policy and teaching and learning activities that need to be planned and organized.
2. Educational Policy Statements	Describes the government's goals for education, such as universal literacy and numeracy, the development of skills needed for economic prosperity and the creation of a stable and tolerant society.

3. Statement of Broad Learning Objectives and Outcomes / standards for each level / cycle	Describes what students should know and be able to do when they complete their school education. Outcomes should be expressed in a range of domains, including knowledge, understanding, skills, and competencies, values and attitudes.
4. Structure of the Education System	Describes the school system within which the curriculum framework is to be applied. It should specify: • Number of years of schooling, including compulsory schooling; • Stages (or cycles) of schooling and their durations; • Number of weeks in the school years, hours / teaching periods in the school week.
5. Structure of curriculum content, learning areas and subjects	Describes the organization of content within the framework and the extent to which schools and students can make choices. It might describe: • the pattern of Subjects or Learning Areas to be studied in each stage or cycle (such as core, elective and optional subjects); • a brief description of each Subject or Learning Area outlining the rationale for its inclusion in the curriculum and the contribution it makes to the achievement of the Learning Outcomes defined in Section 3; • the number of hours to be assigned to each subject or Learning Area in each stage or cycle.
6. Standards of resources required for implementation	Describes standards as they apply to: • Teachers – qualifications, teaching load (number of classes per week); • Students – number per class in each subject; • Materials – textbooks, computers, other equipment; • Facilities – classrooms, furniture, fittings.
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, and recommends or prescribes types of assessment strategies; • how achievement will be certified.

(*Source:* UNESCO-IBE Training Tools for Curriculum Development. A Resource Pack. Retrieved from ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Resource_Packs/TTCD/sitemap/Module_3/Module_3_1_concept.html.

As an example to understand the various aspects of this international curriculum framework, let us take an example from the latest curriculum framework made in India. The National Council for Educational Research and Training (NCERT) has developed National Curriculum Framework (NCF) in 2005. Earlier it framed National Curriculum Framework in 1975, 1988 and 2000. This document provides framework for making syllabi, textbooks and teaching learning resources for the school education programmes in India.

When we examine the various components of **table 2.1** with respect to NCF 2005, we find the first element was about the ***Introduction*** which specifies the context and current perspective describing about the social and economic environment which educational policy influenced in the making of teaching and learning activities that need to be planned and organized. As far as NCF 2005 is concerned, its main purpose is to "evolve a national system of education capable of responding to India's diversity of geographical and cultural milieus while ensuring a common core of values along with academic components. It is means of modernizing the system of education (NCF, 2005)."

The second element was about the ***Educational Policy Statements.*** In NCF, 2005 the following are the guiding principles for curriculum development:

1) Connecting knowledge to life outside school;

2) Ensuring that learning is shifted away from rote methods;

3) Enriching the curriculum to provide for overall development of children rather than to remain textbook centric;

4) Making examinations more flexible and integrated into classroom life;

5) Nurturing an over-riding identity informed by caring concerns within the democratic policy of the country;

6) Curriculum from the context of Universalization of Elementary Education; and

7) Taking care of the interests of the social diversity.

The third element was about the ***Statement of Broad Learning Objectives and Outcomes / Standards for Each Level / Cycle.*** Some of the concerns that lay the foundations of the NCF-2005 are:

1) Building a cohesive society based on pillars of relevance, equity and excellence.

2) Integrating indigenous knowledge and recognizing India's contribution to the world civilizations.

3) Universalizing elementary education and linking education with life skills.

4) Value development at all stages of school education.

5) Meeting the challenges of information and communication technology and globalization.

6) Reducing the curriculum load.

7) Using culture specific pedagogy.

8) Viewing child as a constructor of knowledge.

9) Recognizing the importance of cognition, emotion and action.

The fourth element is about the **Structure of the Education System.** Some of the highlights of NCF-2005 in this regard are:

1) The NCF encompasses all the stages of school education from the pre-primary to the higher secondary.

2) It emphasizes the implementation of semesterisation at the secondary and higher secondary stages.

3) It provides for flexibility and freedom in the choice of subjects among courses to be offered at the higher secondary stage.

4) It provides a strong vocational stream for enhancing employability and entrepreneurship at the higher secondary stage.

5) It reaffirms faith in the constitutional vision of India as a secular, egalitarian and pluralistic society focused on values of social justice and equality.

6) It addresses the challenges of quality in a system that seeks to reach every child the exclusive triangle of equality, quality and quantity.

The fifth element is about the **Structure of curriculum content, learning areas and subjects.** Some of the major recommendations made by NCF-2005 for the qualitative improvement at the different stages of school education are:

1) Integration of environmental education with languages, mathematics and other activities in the first two years of the primary stage.

2) Integration of art education, health and physical education and work education into the 'Art of Healthy and Productive Living' at the primary stage.

3) Education about religions and inherent values of all religions to be imparted at all the stages of school education; integration of science and technology up to secondary stage.

4) Bringing mathematics closer to life and setting up of mathematics corner in the existing science laboratory for practical mathematics up to the secondary stage.

5) Sticking to the basic policy of three language formula and emphasizing the teaching of Hindi as the official language of India and Sanskrit as the language of traditional wisdom and culture of the country.

The sixth element is about the **Standards of resources required for implementation.** The very important aspects mentioned in this regard in NCF 2005 are:

1) The national curriculum framework- 2005 addresses the need for plurality of materials, need for teacher autonomy and professional independence.

2) It emphasizes on the empowerment of teachers for curriculum development and implementation.

3) It recommends the coordinated decentralization for the process of curriculum development

4) Teaching should result in developing critical awareness among learners. So, it is necessary to facilitate collective decision making through open discussion and by encouraging and recognizing multiple views.

5) Learning should be contextualized. Make the boundary between the school and its natural and social environmental porous.

6) Make the experiences of the socio-cultural world as a part of the curriculum.

7) It discusses curriculum sites and learning resources including text books, libraries, education technology, tools and laboratories.

The Seventh element is about the **Teaching Methodology.** The very important aspects mentioned in this regard in NCF-2005 are:

1) In teaching- learning activities, primacy will be given to learners' experiences, their voices and their active participation.

2) Children will learn only in an atmosphere where they feel, they are valued.

3) In learning context, the children need to feel that each one of them, their homes, communities, languages and cultures are valuable resources for experience to be analyzed and enquired into at school.

4) Since children learn in a variety of ways- through experience, making and doing things, experimentation, reading, discussion, asking, listening, thinking and reflecting and expressing oneself in speech, movement or writing- both individually and with others, they require opportunities of all these kinds in the course of their development.

5) Teaching should be oriented towards construction of knowledge by learners. So schools must provide opportunities to question, enquire, debate, reflect and arrive at concepts or create new ideas.

6) Learning takes place through interactions with the environment around, nature, things and people, both through actions and through language. Therefore, arrange for interactions with teachers, peers as well as with others.

The eighth element is about the **Assessing and reporting student achievement.** The basic features on this aspect mentioned in this regard in NCF-2005 are:

1) Reducing the predominance of external examinations and removal of the pass and fail categories up to Class VIII.

2) Use of different methods of grading scholastic and co-scholastic areas of learning.

3) Use of alternative evaluation procedures for learners with special needs.

(**Source:** National Curriculum Framework (2005), NCERT)

Activity: 2

Select any one of your interesting subject which you have studied in high school and analyze the curricular and co-curricular activities used for the effective curriculum transaction of the subject. Examine to what extent the National Curriculum Framework (NCF 2005) has been adopted for its effective implementation.

Check Your Progress 2

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

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

1) What are the important elements of curricular framework?

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2) Illustrate your views and reflections on how curriculum framework will help achieve the national policy on education of our country.

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3) What are the basic features of the National Curriculum Framework (NCF-2005)?

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2.5 CURRICULUM AND SYLLABUS

Curriculum is a broad term which covers various aspects of the course of study. It is the totality of the educational experience associated with a programme of study. Although curricular, co- curricular and extracurricular aspects constituted the three major domains of the Curriculum, of late, all educational experiences irrespective of domains are termed as curricular. But syllabus is much more focusing on the details of the contents and their hierarchical order of presentation. In other words, Syllabus places more stress on specific learning materials to be internalized. On the other hand, the scope of curriculum is much broader and deeper. For it comprehends every aspects of students' life, seeks to satisfy all their requirements and aspires to develop every aspect of their personality. Hence the syllabus of any subject for a particular course of study can be considered as important aspect of the related curriculum, which states what materials are to be taught and in which order. Because of this limited scope of the syllabus, the two terms should not be treated as synonymous. In addition to what is prescribed in syllabus, the curriculum encompasses various kinds of curricular and co-curricular activities as well as the various types of social, natural and educational environments with reference to which the experiences are transacted. In short, it includes all learning experiences that would lead the learner towards the anticipated goals. In short, syllabus is focused towards a particular subject, but curriculum is related to the all-round development of a student. Syllabus is made available to the students by the institution either in hard or soft copy to bring their attention towards the subject in a deeper way. It acts as a guide to the teachers and the students. Syllabus helps the students explore the subject in detail and to evaluate the successes and failure of each of them. It contains the instructions, course objectives, detailed units and sub units, suggested books for essential and additional readings and the activities like assignments and projects.

In a theoretical sense, curriculum refers to what is offered by the school or college. However, practically, it has a wider scope which covers knowledge,

attitude, behavior, manner, performance and skills that are imparted or inculcated in students. It contains learning objectives, teaching methods, lessons, assignments, physical and mental exercises, activities, projects, study material, tutorials, presentations, assessments, test series, and so on. The school curriculum is well planned, guided and designed by the centralized agencies like NCERT at the national level or SCERT at the state level. At higher education level, curriculum is planned and designed by respective higher education institutions or Universities. It is aimed at all round development of a student.

Table 2.2: Key Difference between Syllabus and Curriculum

Basis for comparison	Syllabus	Curriculum
Meaning	Syllabus is the document that contains all the portion of the concepts covered in a subject.	Curriculum is the overall content, taught in an educational system or a course.
Origin	Syllabus is a Greek term.	Curriculum is a Latin term.
Set for	A subject	A course/ a programme
Nature	Descriptive	Prescriptive
Scope	Narrow	Wide
Set out by	Examination Board	Government or the administration of school, college or institute
Term	For a fixed term, normally a year	Till the course lasts
Uniformity	Varies from teacher to teacher	Same for all teachers

From the above Table 2.2, it can be concluded that syllabus is a part of a curriculum. The terms curriculum and syllabus differ in a sense that the former includes several aspects which are taken into consideration while planning an educational programme; whereas the latter covers the portion of what topics should be taught in a particular subject.

Examples of curriculum and syllabus are described below based on the IX class science subject.

Syllabus of Class IX Science	Curriculum of Class IX Science
The syllabus of the NCERT Class IX text book involves the following chapters such as:- Chapter 1 Matter in Our Surroundings Chapter 2 Is Matter Around Us Pure? Chapter 3 Atoms and Molecules Chapter 4 Structure of the Atom Chapter 5 The Fundamental Unit Of Life Chapter 6 Tissues Chapter 7 Diversity in Living Organisms Chapter 8 Motion Chapter 9 Force and Laws of Motion Chapter 10 Gravitation Chapter 11 Work and Energy Chapter 12 Sound Chapter 13 Why Do We Fall Ill? Chapter 14 Natural Resources Chapter 15 Improvement in Food Resources	Along with the contents given in the syllabus of Class IX Science, the curriculum may contain co-curricular and extracurricular activities such as field visit, science exhibition, science tour, science day celebrations, industrial visit, science talk, class seminar and symposium, brainstorming, student portfolio, formative and summative assessment, term-end examination, feedback given to students, time allotted for the completion of each content, etc.

Activity 3:

Visit any elementary or secondary school in your vicinity and interact with the teachers and students with respect to the various activities, methods and techniques such as *debate, discussion, role play, storytelling, drama, skits, miming, narration, simulation, field visit, recitation and essay writing, small projects, etc.* for the effective transaction of curriculum and syllabus. Based on the field study, how you will distinguish your understanding of syllabus and curriculum.

2.6 CURRICULUM AND TEXTBOOK

The curriculum is the full set of subjects constituting a course of study / a programme of study in a school or in a college. Along with curricular subjects, it covers all scholastic and co-scholastic activities. Therefore, curriculum comprises the totality of all educational experiences associated with a programme of study.

A textbook is a book used in teaching contents in a specific subject; sometimes several textbooks may be needed to teach one subject as none of

the available textbooks include all the contents to be taught in that subject. Oxford English Dictionary defines a textbook as a book used as a standard work for the study of a particular subject, a manual of instructions in particular subjects of study. Textbook is a tool for both teachers and students. Good textbook acts as a source of knowledge and an instruction to students for interpreting the truths. Textbooks perform the following functions:

- Textbooks inculcates the habit of self study and activity among the students;

- Develop thinking and reasoning in the minds of the students;

- Help teachers in developing teaching efficiency in different areas;

- Help students develop proper comprehension of subjects;

- Develops good relationship between society and students;

- Give students an opportunity to understand subjects from inter and multidisciplinary perspectives;

- It is a tool for realizing the educational objectives of the subject;

- It is the foundation on which the course/ programme of study is built up; and

- It is a principal source of study materials for a given course.

Activity 4:

Select any subject of your interest which you have studied at senior secondary level and analyze the textbook in detail with regard to the various contents, learning experiences and assessment procedures. Observe the preliminary, the main text/body and the reference of the textbook and how the different contents/chapters are organized. Give your reasons/comments based on your content analysis of the textbook and how it will help in the attainment of the curricular goals.

Check Your Progress 3

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

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

1) Distinguish between syllabus and curriculum.

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2) How are text books developed and how do they contribute to learning?

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2.7 TYPES OF CURRICULUM

The curriculum is classified with respect to the philosophical, sociological and psychological principles. In *Traditional or subject-centred curriculum,* the greatest emphasis is on facts, principles and skills in the subject concerned. All stress is on cognitive attainment of the learners rather than on their personal and social development. In *Activity- centred curriculum* subject matter is translated in terms of activities and knowledge is gained as an outgrowth and product of those activities. Activity is used as the medium for imparting knowledge, attitudes as well as skills. In *Child-centered curriculum,* subjects should be chosen and taught keeping in view the social, emotional and intellectual needs of children as well as their capabilities and developmental status. In *Experience-centered curriculum the* stress is on the experience which learner is to get while participating in the process of learning. In this curriculum, experience of learner is the starting point of learning and not the subject matter or the interest of learner. *Undifferentiated or Integrated curriculum* does not emphasize on the specialized study of various subjects. Specialization comes at the higher secondary and college levels. At the primary and secondary stages, we have undifferentiated or integrated curriculum. At these stages, we do not offer any specialized subjects; instead learners are taught subjects from an integrated perspective. Development of all-round development of personality is possible only through integrated experiences.

Activity 5: Prepare a chart showing the nature of curriculum based on Idealist, Naturalist and Pragmatist philosophies of education which you have studied in Course BESC-131. Discuss and compare the strength and weakness of these philosophies of education in terms of curriculum.

2.7.1 Core Curriculum

Core is the minimum learning experiences that an individual needs for leading a satisfactory life in the society. It prepares him/her for living and not for making a living. It includes subject matter which may help him/her to find solutions to problems that may have to be faced by him/her as an adult. During the initial stages, the core learning experiences in the curriculum are emphasized and as the child reach higher stages, the importance of the core curriculum decreases. In the beginning, the curriculum is the same for all pupils and at a later stage differentiation takes place and students are allowed to opt for subjects they like best. Specialization is needed only at the plus two stage and above. In the early stage, the learner is required to become a human being first and at the later stage, s/he is required to become a technician, a scientist, an engineer, a doctor, an artist or an expert professional in any walk of life. The core curriculum tries to meet needs of every school child and helps to move towards advanced studies if s/he wants to continue education beyond this stage. Upto class VIII we have common languages and core

subjects such as Mathematics, General Sciences and Social Studies in the curriculum. The National Policy on Education (NPE), 1986 has made a strong plea to initiate curricular efforts for promotion of national integration and the cultivation of values as enshrined in our constitution. In this context, ten core contents have been identified. Inclusion of these core contents in the curricula followed in schools all over the country has been made obligatory. They are

i)   History of India's freedom movement

ii)   Constitutional obligations

iii)   Content essential to nurture national identity

iv)   India's common cultural heritage

v)   Egalitarianism, democracy and socialism

vi)   Equity of the sexes

vii)   Protection of environment

viii) Removal of social barriers

ix)   Observance of small family norm

x)   Inculcation of scientific temper

2.7.2   Null Curriculum

The concept of the null curriculum points out to the exact analysis of the curriculum that looked for what is left out or neglected, and concentrates on how the curriculum is conceptually designed and implemented. Generally speaking, a null curriculum proposes what is not taught. Eisner (1979) coined the term "Null Curriculum". It refers to the curriculum, which is not taught. For example, a curriculum of social sciences generally includes history, geography, economics, and political science, but not anthropology, sociology and psychology. But the latter subject areas are silently taught to the students through the social sciences curriculum. Hence, the latter subject areas comprise null curriculum.

2.7.3   Competency-based Curriculum

Competency based curriculum emphasizes on the learner-centered approach with its focus on the changing needs of students, teachers and society. The competencies like self efficacy, citizenship, digital literacy, communication and collaboration, learning to learn, imagination and creativity, critical thinking and problem solving competencies could be developed through competency based curriculum. It is not possible to develop these competencies with the conventional teacher centered curriculum. Competency based education (CBE) is not a new trend, but has received much attention over the past few years as more institutions develop programs like MOOCs, CBE which has gained popularity with learners due to its flexible structure and affordability. What is unique about CBE is that it

focuses on what students learn and not on the time spent in the classroom completing credits. In this approach, students work at their own pace to demonstrate mastery in the competencies necessary for their chosen field of study. The key benefits of CBE for students include flexibility, engagement, and affordability.

2.7.4 Hidden Curriculum

The term hidden curriculum refers to unofficial and informal instructional influences which may support the attainment of manifest goals. It is called because curricular inputs are not explicitly stated in the prescribed curriculum. But it forms part of the curriculum as it helps the learner achieve the educational goals envisaged. It can be a vehicle for moral growth. It can be a determining factor in national and emotional integration.

The hidden curriculum is all those things that we teach in schools that aren't written down in syllabus documents. According to **Boostrom (2010, p. 440)** hidden curriculum "refers to student learning that is not described by curriculum planners or teachers as an explicit aim of instruction even though it results from deliberate practices and organizational structures." According to **Alsubaie (2015, p. 125)** hidden curriculum "refers to the unspoken or implicit values, behaviors, procedures, and norms that exist in the educational setting".

Cubukcu (2012) argues that the explicit teaching of morals and values in lesson formats is not effective enough. Instead, we have to learn values through living them. This is, in effect, the 'learning by doing' argument. To live our values in schools, we need to celebrate national days that commemorate important events, expect positive social relationships as a norm, and participation in extracurricular activities that teach team work and character building. This argument is a more positive vision of the hidden curriculum that sees it as necessary for developing understandings of "good and evil behavior, decisions, group relations, human relations, organizational behavior, upper-lower relationships and so many other issues" (Cubukcu, 2012, p. 1532).

2.7.5 Happiness Curriculum

All children are born and raised in different situations. Many children grow up in the confines of multi-storied apartments with excessive exposure to unguided electronic media, unlimited screen time and little orientation to the natural world and society. Many others grow up in difficult circumstances with little nourishment for the body and the mind, some not even having seen a book or a toy until they go to school. In both cases, there is either an over stimulation or a deficit in these areas with our students leading to a psychological crisis that is spinning out of control.

Happiness Curriculum was introduced by the Government of NCT of Delhi in July 2018 for the schools run by it. Happiness Curriculum aims to develop

happiness in feeling and practice (Happiness Curriculum, 2018, p.3). Mittal (2019 b) raised multiple concerns related to pedagogical concerns in happiness curriculum. One of the key concerns was "what kind of happiness are we seeking in Happiness Curriculum where a child will learn to accept the situation or adjust in situation or challenge the situation or learn to find solution of it" (Mittal, 2019 b, p.17). Further, we need to understand whether Happiness Curriculum aims for 'a happy human being', 'a happy child', 'a happy student' or 'a happy individual'. Thus, these concerns give reasons to identify idea or ideas of Happiness in Happiness Curriculum. In today's fast paced world, we struggle hard to achieve the best of everything but the element of happiness remains missing. However, if one learns to be happy with oneself, stress levels reduce automatically and one develops a deeper insight not only of themselves, but also of others. Consequently, a happy being with deeper insight tends to have greater inclination for self-discovery and lower self-deception. The schools in India need to implement a curriculum which not only promotes development in cognition, language, literacy, numeracy and the arts but also addresses wellbeing and happiness of the students. Thus, a combination of building capabilities in scholastic areas of literacy, Maths, Science and other subjects with huge emphasis on co-scholastic skills of mindfulness, self-awareness, critical thinking, reflection & inner stability seem to be the need of the hour. Against this backdrop, it is the need to raise and prepare future citizens mindful, aware, awakened and empathetic.

The introduction of 'Happiness curriculum' gives a sense of positive development, a hope for moving towards new practices, a new culture in schools. It also raises multiple concerns such as the conceptualization of 'happiness' in happiness curriculum, appropriateness of the proposed teaching method, impact of happiness curriculum, its sustainability in the present school ethos, and its relevance with reference to the diversity of children's backgrounds. Other such questions that arise are about the appropriateness of the content selected to be taught in a class for happiness, how a teacher be sure that a learner has indeed become happy by engaging with the 'Happiness Curriculum', which aspects of human life are touched by the 'Happiness Curriculum' etc. The 'Happiness Curriculum' is indeed a positive step towards making the school a happier experience for learners but whether such a curriculum will remain limited to the happiness classes or if its implications will be seen in all aspects of the learners' lives need to be examined.

2.7.6 Entrepreneurship Curriculum Programme (ECP)

According to Gautam and Singh (2015), "entrepreneurship education is the study of source of opportunities and process of discovery, in which an individual endeavors his ability of creativity, risk taking and turn his ideas into action. Entrepreneurship is regarded by most countries to be the solution to unemployment and poverty reduction (Nani, 2016). The benefits of

Entrepreneurship Education (EE) have the potential of improving the socio-economic situation of participant communities and increasing self-employment. It helps the students to understand how and what it means and helps to own a business, create ideas towards the achievement of desired goals and objectives. Entrepreneurship education in the school curriculum at primary level allows learners to lay a solid foundation for creativity, nurturing and innovation of business ideas for use later in life (Nani, 2016). Entrepreneurship education in schools serves as one of the measures to reduce the unemployment problem in the country by transforming the education system from producing job seekers to producing job makers.

The Entrepreneurship Curriculum Programme (ECP) is a cost-effective investment in the development of entrepreneurial capacity of young people. ECP is inclusive since it reaches out to both girls and boys in rural and urban areas. It lays the ground for private sector development. Entrepreneurship is introduced as a subject in general secondary schools or technical and vocational schools on a nationwide basis. Universities and colleges serve as centres of excellence to support national efforts to promote entrepreneurship and technology absorbing capacities. Young people acquire personal qualities such as self-confidence, innovation and creativity, the ability to take initiatives, as well as the willingness to take calculated risks and to collaborate. They learn to save, invest and grow. These competencies help them select and shape their career path as employees or entrepreneurs. The curriculum is action-oriented; more than 50 per cent of the programme's time consists of practical research in identifying business opportunities, assessing resources for setting up and steering a business, and learning from successful entrepreneurs in their companies and in the classroom.

Check Your Progress 4

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

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

1) Briefly describe various types of curriculum and its scope in education.

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2) Narrate the most important curriculum which will be useful in the child centered activity oriented educational environment.

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3) Narrate your observation for improving the curricular process in the schools located in your immediate surroundings.

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4) What are the suggestions, implications and recommendations you can propose to increase the quality of national and state curriculum of our country?

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2.8   LET US SUM UP

Curriculum is the totality of educational experiences provided to students as part of the particular course or programme of study. The term is very broad in nature. The elements like textbooks, syllabus are the part or components of it. The curriculum includes curricular, cocurricular and extracurricular experiences associated with different programmes of the study. It includes both indoor and outdoor activities. It helps in achieving the aims and objectives of education in respective disciplines. For designing an effective curriculum, a curriculum framework is essential. A curriculum should cover cognitive, affective and skill dimension of the content. Experiential learning is the best method to transact the essence of the curriculum. Learning through experience helps the learner to generate interest and attitude and thereby higher order thinking skills such as creative and critical thinking which result in innovation and accuracy of the knowledge production. As the modern pedagogic practices are changing day by day, updated, improved and innovative curricular practices and praxis have to be incorporated in the educational scenario. So this unit has provided you with a conceptual overview of curriculum at an introductory level and helped you to understand various elements of curriculum.

2.9   UNIT- END EXCERCISES

1) Describe the Concept of Curriculum. How is it different from syllabus?

2) Rationalize the significance of curriculum framework for a programme of study.

3) Write a brief note on the National Curriculum Framework (NCF) 2005.

4) How do curricular objectives differ from learning objectives?

5) Explain the scope of happiness curriculum in the 21st century.

2.10 REFERENCES AND SUGGESTED READINGS

Alsubaie, M. A. (2015). Hidden Curriculum as One of Current Issue of Curriculum. *Journal of Education and Practice*, 6(33): 125 – 128. Retrieved from: https://files.eric.ed.gov/fulltext/EJ1083566.pdf

Armstrong, D.G. (1989): *Developing and Documenting the Curriculum.* Boston: Allyn & Bacon, Inc.

Beane, J. A., Toepfer, C. F., & Alessi, S. J. (1986). *Curriculum Planning and Development.* Boston: Allyn and Bacon.

Boostrom, R. (2010). HC. In: Kridel, C. (Ed.) *Encyclopaedia of Curriculum Studies,* 440 – 441. Los Angeles: SAGE.

Carter V. Good. (1 973): *Dictionary of Education.* New York: McGraw-Hill.

Caswell, H.L. & Campell, D.S. (1935). *Curriculum Development.* New York: American Book Company.

Cubukcu, Z. (2012). The Effect of Hidden Curriculum on Character Education Process of Primary School Students. *Educational Sciences: Theory & Practice*, 12(2), 1526-1534. Retrieved from: http://files.eric.ed.gov/fulltext/EJ987859.pdf.

Dewal, O.S. (2004): National Curriculum. In J.S. Rajput (Ed.). *Encyclopaedia of Education.* New Delhi: NCERT.

Doll, Ronald C. (1996): *Curriculum Improvements: Decision Making and Process.(*6th ed.). Boston: Allyn & Bacon.

Gautam, M. K., & Singh, S. K. (2015). Entrepreneurship Education: Concept, Characteristics and Implications for Teacher Education. Shaikshik Parisamvad (An International Journal of Education), 5(1), 21-35.

Joyce, Bruce & Weil, Marsha. (1972). *Models of Teaching.* Englewood Cliffs, N.J: Prentice-Hall.

Kelley, A. B. (1996). *The Curricular Theory and Practice.* U. S: Harper and Row.

Mittal, R. (2019). *From Learning Happiness to Happiness While Learning: Reflections on the Happiness Curriculum.* Retrieved from https://thenewleam.com/2019/03/from-learning-happiness-to-happiness-while-learning-reflectionson-the-happiness-curriculum/

Nani, G. V. (2016). Entrepreneurial Education in the School Curriculum: In Search of Positioning in Zimbabwe. *Problems and Perspectives in Management*, 14(3), 85-90.

NCERT. (2005): *National Curriculum Framework for School Education.* New Delhi: NCERT.

Noddings, N. (2003). *Happiness and Education*. UK: Cambridge University Press.

PTI. (2018). Delhi Government to Introduce Happiness Curriculum in its School. (February7,2018), Times of India. Retrieved from https://timesofindia.indiatimes.com/home/education/news/delhi-govtto-introduce-happiness curriculum-in-its-schools/articleshow/62823419.cms.

SCERT & Directorate of Education. (2019). *Happiness Curriculum Framework*. Retrieved from http:www.edudel.nic.in/welcome_folder/happiness/Happiness Curriculum Framework_2019.pdf.

Sharpes, D.K. (1988): *Curriculum Tradition and Practices*. London: Routledge.

Sivarajan, K. (2012). *Trends and Developments in Modern Educational Practices*. Calicut: Calicut University.

Taba, H. (1962). *Curriculum Development: Theory and Practice*. New York: Harcourt, Brace & World.

Tanner, D. & Tanner, L. (2007). *Curriculum Development: Theory into Practice*. New Jersy Columbus, Ohio: Pearson Merrill Prentice Hall.

Tyler, R.W. (1949). *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press.

UNESCO-IBE. *Training Tools for Curriculum Development. A Resource Pack*. Retrieved from ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Resource_Packs/TTCD/sitemap/Module_3/Module_3_1_concept.html.

Wiles, Jon and Bondi, Joseph. (1989). *Curriculum Development*. Ohio: Merrill Publishing Company.

2.11 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

1) a. True , b. True, c. True, d. False

2) Synthesis of the subjects of study and life of students, Acquisition and strengthening of knowledge, Complete Development, Development of democratic values, satisfy the students' multiple needs, realization of values , harmony between individual and society and Creation of suitable learning environment.

3) 'Curriculum embodies all the experiences which are utilized by the school to attain the aims of education'.

   'Curriculum is made up of everything that surrounds the learner in all his/her working hours'.

   Curriculum is that which the pupil is taught. It involves more than the act of learning and quiet study. It involves occupations, productions, achievement, exercise and activity.

Curriculum considers four important components such as the objectives, the content or learning materials, teaching- learning strategies, and activities (transaction) and Evaluation.

Check Your Progress 2

1) Common Elements of a Curriculum Framework are:

   Introduction

   Educational Policy Statements

   Statement of Broad Learning Objectives and Outcomes / standards for each level / cycle

   Structure of the Education System

   Structure of curriculum content, learning areas and subjects

   Standards of resources required for implementation

   Teaching methodology

   Assessing and reporting student achievement

2) Curriculum Framework is a strong medium through which the various attributes listed in the national policy of education could be achieved. It helps in connecting knowledge to life outside school, ensuring that learning is shifted away from rote methods, enriching the curriculum to provide for overall development of children rather than remain textbook centric, making examinations more flexible and integrated into classroom life, nurturing an over-riding identity informed by caring concerns within the democratic policy of the country, curriculum from the context of Universalization of Elementary Education & taking care of the interests of the social diversity.

3) Basic features of the National Curriculum Framework (NCF-2005):

   ➢ Building a cohesive society based on pillars of relevance, equity and excellence.

   ➢ Integrating indigenous knowledge and recognizing India's contribution to the world civilizations.

   ➢ Universalizing elementary education and linking education with life skills.

   ➢ Value development at all stages of school education.

   ➢ Meeting the challenges of information and communication technology and globalization.

   ➢ Reducing the curriculum load.

   ➢ Using culture specific pedagogy.

   ➢ Viewing child as a constructor of knowledge.

   ➢ Recognizing the importance among cognition, emotion and action.

Check Your Progress 3

1) Syllabus is the document that contains all the portion of the concepts covered in a subject. Curriculum is the overall content, taught in an educational system or a course. Syllabus is descriptive, narrow, set out by board of exam where as the curriculum is prescriptive, wide and set out by government or administration or institution.

2) Text books are developed by the guidelines of National council of Educational Research and Training or State Council of Educational Research and Training. This governing body will constitute text book preparation committee which comprises curriculum specialists, subject experts and other related stakeholders and after a series of discussions and deliberations the books will be finalized. A good text book acts as a source of knowledge and an instruction to learners for interpreting the truths. Scope of text books is that textbooks extends the habit of self study and activity among the students, develop the thinking and reasoning in the minds of the pupils, help in developing teaching efficiency in different areas, helps to provide proper comprehension of subjects, develop good relationship between society and pupils, give an opportunity to refer inter and multidisciplinary aspects.

Check Your Progress 4

1) *Traditional or subject-centered curriculum:* All stress was on cognitive attainment of the learners rather than on their personal and social development.

   Activity- centered curriculum: Activity is used as the medium for imparting knowledge, attitudes as well as skills.

   Child-centered curriculum: This curriculum gives due regard to the social, emotional and intellectual needs, their capabilities and developmental status.

   Experience-centered curriculum: This curriculum focuses on the experience which the individual is to get while participating in the process of learning.

   Undifferentiated or Integrated curriculum: This curriculum which does not aim at the specialized study of various subjects but study through integrated experiences.

2) Happiness Curriculum could be considered as an example.

3) ECP is an attempt to improve the curricular process as it could make learners self-reliant by starting their own enterprises. Students who start small business activities are good examples.

4) Write your own observation.

UNIT 3   CURRICULUM DEVELOPMENT

Structure

3.1   INTRODUCTION

What is 'curriculum' and why is it required? How is it different from syllabus and curriculum framework? These are some of the questions and responses to these questions that have been discussed in the earlier unit. Developing a curriculum needs lot of effort and planning on the part of curriculum developers. Curriculum development means planning and designing curriculum, deciding about the process of its implementation and evaluation according to the needs of learners within the framework of policies and plans of education in any country. Curriculum cannot be once-for-all process of education. It changes from time to time at all the levels from pre-primary to higher education level. In this unit, you will learn about principles and approaches to curriculum planning. You will understand the nature of curriculum at different stages i.e. pre-primary, primary, upper-primary,

secondary, higher secondary and higher education. You will also get information about the importance of curriculum designing, its procedure, and its impact on teaching-learning process. You will get clarity on various approaches to designing the curriculum. Whether curriculum varies according to the age and maturation level of learners are also elaborated in this Unit.

3.2 OBJECTIVES

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

*   explain the meaning of curriculum planning;

*   identify the various aspects of curriculum planning and its approaches;

*   examine the focus of different approaches to plan the curriculum;

*   comprehend the different dimensions of curriculum design;

*   develop understanding about how the curriculum varies across the different stages of pre-primary, primary and upper-primary, secondary, higher secondary and higher education based on psychological and sociological needs of the learner; and

*   describe the steps in curriculum development.

3.3 CURRICULUM PLANNING

You know that curriculum is an important document which reflects the types of activities that a school/ institution organizes to achieve the holistic development of learners. The development of learners in terms of physical, social, emotional, intellectual and ethical aspects basically depends upon different types of activities the school organizes at regular intervals. The questions such as, 'What to teach? Whom to teach? How to teach? etc.' are discussed and deliberated during curricular planning and development. Similarly, the questions like what are the values and age specific competencies that need to be developed? What knowledge, beliefs and attitudes that need to be promoted among the students need to be discussed and deliberated while planning and designing the curriculum.

Education system can be very effective, if curriculum is planned in the light of national policies and social needs. In addition, the curriculum needs to be planned carefully keeping in view both psychological and sociological needs of the learners. The curriculum inputs determine the quality of education, and quality of education further contributes to quality of citizens in any country.

3.3.1 Meaning of Curriculum Planning

Curriculum planning is a series of activities carried out in the construction of the curriculum according to the goals and needs of a society or a country. It is a process, in which participants at different levels take decisions about the goals of learning, decide about the teaching-learning process by which these

may be achieved and determine whether the methods and means adopted are effective. There is a constant growth in the fields of knowledge and pedagogic research for better learning. There is a change in the social needs due to globalization as well as in the human resource requirements. Rapid changes in the environment demands new ways of preparing children for current and future life. The curriculum must respond to these concerns and there is a need for a change and improvement of curriculum from time to time. Fast changes in the world economy and changes in the lifestyles of the people; inter- transmission of culture and languages demand a new direction in preparing the children for their current and future life. The following are the pertinent questions that curriculum planners should keep in their mind:

- What are the goals and policies of education in a country?

- What are the educational needs of learners in personal, social and vocational areas?

- What should be the content, skills and dispositions and how they are to be learned?

- What are the needs of the society and the country?

- What are the values to be highlighted among the learners to sustain in a dynamic society?

- What are the vocational and professional skills which are needed to achieve success in life and career?

- What are the issues and challenges to keep in mind while planning and preparing the curriculum?

These are some of the important questions to be deliberated while planning and designing the curriculum. Now, let us understand the need for curriculum renewal at regular intervals. Let us go through the salient features of curriculum planning as explained by eminent curriculum experts.

Ralph W. Tyler (1949) laid down four fundamental questions that need to be deliberated while planning the curriculum for any stage and they are the following:

- What fundamental purposes an educational institution should seek to attain?

- What learning experiences can be provided in order to attain these purposes?

- How can these learning experiences organized effectively?

- How can we determine whether these purposes are being attained?

Hilda Taba (1962) argues for an inductive approach for curriculum development. The teacher should develop his/her own curriculum keeping in view psychological and sociological needs of learners. She asserted that curriculum shall not be decided by management of the school which is a top down approach. A group of real stakeholders i.e. teachers, principals,

academicians, curriculum supervisors and students shall deliberate and prepare the curriculum. It is a bottom up approach. Any curriculum development process involves selection of goals/ purposes and intended learning outcomes. However, the means to achieve these intended learning outcomes must be specified i.e. planning, selection, and organization of content and learning experiences inside and outside schools. The planning process must pay attention to systemic matters that enable teachers to implement the new curriculum. The learning resources such as libraries, reference books, science equipment, charts, maps, stationery and other equipment need to be planned and made available in the schools.

The NCF-2005 has laid down certain guiding principles that need to be followed while planning the curriculum and learning experiences. These are:

- connecting knowledge to life outside the school;

- ensuring that learning is shifted away from rote methods;

- enriching the curriculum to provide for overall development of children rather than to remain textbook centric;

- making examinations more flexible and integrated into classroom life; and

- nurturing an overriding identity informed by caring concerns within the democratic polity of the country.

The perspective of each of the guiding principles leads to plan and organize learning content and learning activities with a focus on child and his/her freedom.

3.3.2 Principles of Curriculum Planning

Curriculum forms the basis for the entire educational processes at all levels i.e. Foundational (pre - school and Class 1 and 2), Preparatory (Class 3-5), Middle (Class 6-8), Secondary (Class 9-12). Education is for life, through life and throughout life, according to Gandiji. The entire school activities are determined by the curriculum. The analysis of the existing curriculum and survey of learners' needs form the basis for planning the new curriculum. Vision, mission, goals and aims of education, teaching- learning strategies and assessment procedures need to be deliberated while planning the curriculum. The selection and organization of content, learning experiences and selection of appropriate assessment procedures are important aspects that need to be considered while planning the curriculum. Apart from these aspects, curriculum planners need to follow certain principles in order to make curriculum effective. The Figure 3.1 displays the principles of curriculum planning:
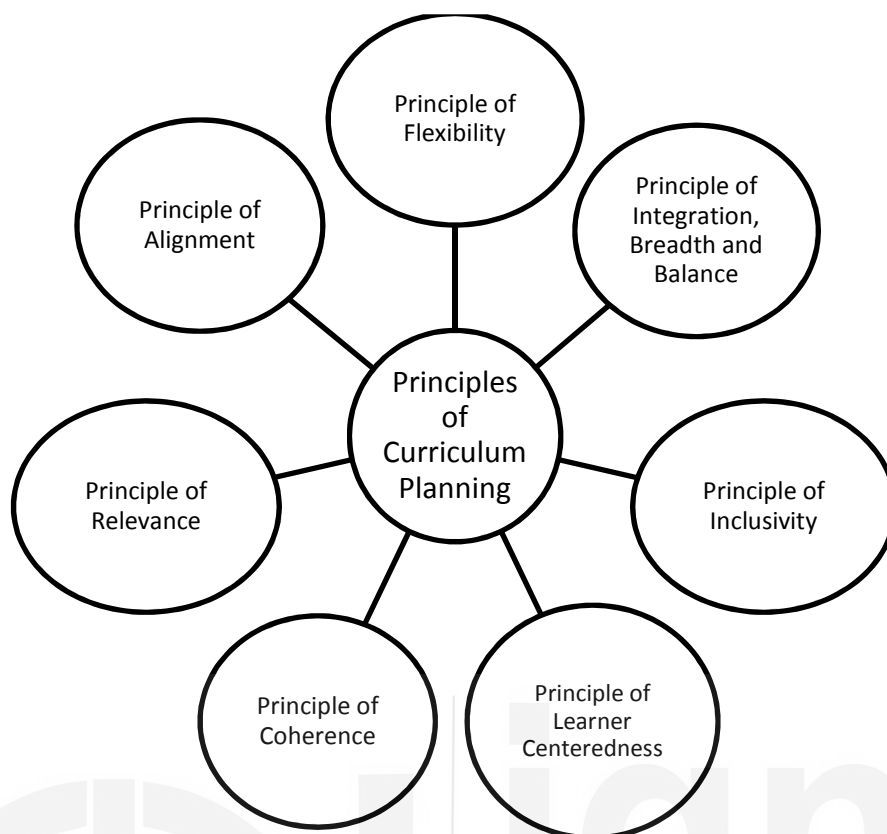
Fig. 3.1: Principles of Curriculum Planning

Let us discuss each principle in detail.

1) **Principle of Flexibility**: The curriculum planning must be adaptable to the particular needs of an educational institution. It must also be responsive to social and technological changes and meet learner's needs arising from that change process. In particular, it must encourage effective use of new technologies as tools of learning. While students must have a large amount of flexibility in choosing their individual curricula, certain subjects, skills, and capacities should be learned by all students to become good, successful, innovative, adaptable, and productive human beings in today's rapidly changing world (NEP,2020, p.15).

2) **Principle of Integration, Breadth and Balance:** Specific sets of skills and abilities across domains namely, cognitive, affective and psycho-motor will be identified for integration and incorporation at each stage of learning, from pre-school to higher education. A holistic curriculum aims to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner. Such curriculum balances the holistic development of learners with the 21st century skills.

3) **Principle of Inclusivity:** Inclusivity means providing all groups of learners, irrespective of educational settings, with access to a wide range of knowledge, skills and values. It is necessary to provide learners with

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opportunities to evaluate how concepts such as culture, gender, disability, race and class are constructed.

4) **Principle of Learner-Centeredness:** Curriculum planners should take into consideration their learners' needs, contexts, capacities, experiences, and interests. They also need to take into account the personal and interpersonal relationships, beliefs, and perceptions of learners that are encouraged by the whole educational system.

5) **Principle of Coherence:** A curriculum can be stated as coherent when learning is built on the previous knowledge of learners. Students learn at their own pace and in different ways, constructing new knowledge and understandings in ways which link their learning to their prior knowledge. There should be connection between and across learning areas.

6) **Principle of Relevance:** While planning a curriculum, it is essential to determine the relevance of it in terms of societal needs and vocational needs of learners. As the society is changing due to various influences in the digital age, the future citizens must be prepared to face the new challenges and issues through well-planned curriculum. For making a curriculum relevant, it is essential to review it continuously.

7) **Principle of Alignment:** Alignment is a process to evaluate whether a programme or course addressed the changing needs of students and the workplace. Educators may try to align the content and methodology of teaching with a given set of learning standards prescribed by state and national organizations.

Check Your Progress 1

Notes: a) Write your answers in the space provided after each item.

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

1) What are the principles of curriculum?

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3.4 APPROACHES TO CURRICULUM PLANNING

According to Webster dictionary, approach is a way of dealing with something or a course and a way of doing and thinking about something. There are various approaches or ways of planning the curriculum. The

curriculum planner needs to refer to various approaches, understand them, and follow the appropriate approach in order to achieve the goals and objectives of the curriculum s/he is planning. Now, let us discuss certain approaches which are prominent in curriculum planning and designing practices.

Broadly, there are five curricular approaches as given below:

i)   Behavioural approach

ii)   Managerial approach

iii) System approach

iv)   Humanistic approach

v)   Intellectual/ Academic approach

3.4.1   Behavioural Approach

In this approach, the goals, objectives, learning activities, etc. are specified well in advance and a blueprint is developed for its implementation in a systematic way. The learning outcomes are evaluated based on the goals and objectives which are predetermined. The curriculum planning starts with analysis of needs and stating goals, objectives and learning experiences. The achievement of expected behavioural changes of learners indicates the effectiveness of curriculum. This approach reflects the ideologies of both, Tyler and Hilda Taba. The objectives, academic standards, learning outcomes, outcome based education are given prominence in this approach. For example, the teacher assesses learners' performance, their new understandings, new attitudes and new skills learnt both during and at the end of the academic programme.

3.4.2   Managerial Approach

The manager of the school sets the direction for planning and implementation of the curriculum. The policies, priorities, and organization of learning activities are guided and managed by the manager of the school/ institution. In this approach, the school principal plays a key role as curriculum expert and leader. The curriculum is developed by the teachers in collaboration with parents and other academicians, keeping in view the needs of learners and community. Initially, this group develops the goals and objectives of curriculum based on which they plan and implement the teaching and learning activities. The school develops grade-wise and subject-wise curriculum guides and these guidelines provide a direction for effective implementation of the curriculum. The manager focuses on supervision of teaching- learning activities and supports the teachers. The learning materials based on the curricular requirements are arranged. The academic standards are developed and used to monitor effective implementation of curriculum.

The major focus in this approach is on supervision, administration of curricular activities and support to the teachers with proper direction for the

implementation of the curriculum and encouragement for innovation and change. For example, the school plans and organizes the curricular activities in a flexible manner under the direction of the principal or academic coordinator. The principal of the school monitors the implementation of curriculum with frequent reviews.

3.4.3 System Approach

A system comprises several parts or components which interact among themselves to achieve the goals and objectives of the system. In system approach, the focus is on the parts within the system, how these parts are related with each other and interact among themselves for its effective outcomes in terms of reaching expected goals. The following are the sub-systems of an educational system as described by **George Beauchamp (1961)**.

a) Curriculum

b) Instruction

c) Counselling

d) Administration

e) Evaluation

The sub-systems are viewed in relation to the education system as a whole. The curriculum plan focuses on curriculum components viz. goals and objectives, learning activities and their organization, implementation, evaluation as well as curriculum structure i.e. curricular subjects, resources, instructional plan, assessments, etc. There is strong interconnection among these components. Moreover, the interaction among human resources, physical resources and financial resources is crucial for the successful design and implementation of the curriculum.

3.4.4 Humanistic Approach

This approach is influenced by progressive philosophy and child-centred pedagogic movements. The major focus is on the nature of childhood i.e. child's interests, needs, abilities and competencies. The capabilities of the child are focused in a climate of freedom and liberty. The entire focus of the curriculum is on development of the whole child. The learner and learning are at the centre of the curriculum and its implementation.

The curriculum activities focus on the context of children and lessons/themes are developed based on their experiences. Field trips, projects, etc. are methods of organizing teaching-learning activities. The pedagogy focuses on active learning approaches with the engagement of learners through the activity- based learning activities. The primary focus of this approach is to develop critical thinking, problem solving, communication abilities of learners. There is a stress on community participation in the implementation

of curriculum. The curriculum intends to develop the whole child with the activities of arts and crafts, humanities, health and physical education, in addition to mathematics and sciences. Humanistic approach also emphasize on development of cognitive and affective abilities of learners.

3.4.5 Intellectual/Academic Approach

In this approach, the focus is on three aspects i.e. the learner, the society and the subject matter. The theoretical knowledge about the nature of the learner, his/ her interests, capabilities, and needs are taken into consideration while planning the curriculum. The contemporary needs of the society and its aspirations are considered while designing the curriculum. The emphasis of this approach is on understanding cognitive theories of learning and their contribution to various methods of teaching. All the three factors i.e. the learner, society and subject matter are seen as a whole and not as isolated parts. Nel Noddings (2013) in his book, **'Education and Democracy in the 21stCentury'** opined that any 21st century education shall integrate the three domains of human life viz. home and personal life, occupational life and civic life.

Check Your Progress 2

Notes: a) Write your answers in the space provided after each item.

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

i)   How does behaviouristic approach differ from humanistic approach while planning a curriculum?

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3.5 DIMENSIONS OF CURRICULUM DESIGN

In earlier sections, we have discussed the concept of curriculum and ways and methods of its planning. Now let us focus on broader dimensions of curriculum design.

Curriculum gives a direction to educational practices in terms of its goals, contents, organization of learning areas and activities, curriculum transaction strategies and pupil assessment procedures. Therefore, all the dimensions of the curriculum need to be deliberated while designing curriculum at various levels. The following are the various dimensions of the curriculum that need to be deliberated and considered for the design of an effective curriculum.

- Curriculum goals and objectives

- Syllabus for each of the learning area

- Curricular standards and learning outcomes

- Textbooks

- Pedagogy-subject specific approaches and methods of teaching-learning

- Learning resources

- Technology and media –e-learning

- Assessment

- Systemic reforms

- Community participation

- Context- Local and Global dimensions

Further, the organization of content in various learning areas must reflect certain rationale as given here under:

- Scope

- Sequence

- Continuity

- Integration

- Balance

- **Scope:** This deals with breadth and depth of concepts being discussed in each subject area across grades. Breadth deals with the coverage of grade/class-wise units, topics and themes. Depth refers to the extent of each concept being discussed, i.e. depth of the concept in each grade.

- **Sequence:** Content should be arranged from simple to complex in a hierarchical manner .The nature of the subject, context and what content to precede before what needs to be considered in the design of the curriculum. The interrelationships between content units need to be looked into while planning and designing the content.

- **Continuity:** The arrangement of topics and concepts vertically and horizontally, i.e. topical approach or spiral approach need to be discussed

- **Integration:** This refers to interrelatedness of contents within and across the curricular subjects. For example, Health Economics is the discipline of economics applied to the topic of health care.

- **Balance:** Balance between curricular areas, learning experiences, and time available need to be ensured. Further, balance among three domains i.e. cognitive, affective and psychomotor need to be focused while planning the syllabus. Overloading of contents need to be avoided**.**

Activity 1

Select any subject at secondary level and find out the rationale for the organization of content in that subject.

3.6 CURRICULUM AT DIFFERENT STAGES

Before entering into the discussion of curriculum at various stages, we have to ask certain pertinent questions as follows:

- Why is there a variance of curriculum from pre-primary to higher education?

- What factors should be considered while planning the curriculum at different stages?

Curriculum varies across various stages i.e. from pre-primary to higher secondary and higher education. This depends upon the developmental stages, needs of children and nature of the subject matter. The following are the various stages for which the curriculum needs to be designed based on nature of the learner and nature of the subject.

3.6.1 Pre-primary

At this stage, children learn through play, observation of nature, listening to stories, art, craft, dance, song, etc. Children are very active and explore everything in their local environment. Pre-language and pre-mathematics skills, plays, stories, word games, art and craftwork are the areas of learning at this stage. This is the critical period for the development of the brain and for realization of the potential of the children. Therefore, activities for the development of cognitive, affective and psychomotor skills need to be planned carefully. Dull and monotonous classroom climate, home works, assessment tests etc. lead to stress and inactivity among the children and their motivation for learning decreases. The children lose the natural curiosity to explore and express with routine classroom teaching. The curriculum should encourage the children to explore the local environment and interact with it in an active manner. Drawing, colouring, visual arts, and such types of creative activities, must become part of the curricular activities at this stage. The children's physical and social contexts and natural environment shall become the focused areas of the curriculum.

3.6.2 Primary and Upper Primary (Elementary)

The curriculum at this stage usually focuses on literacy skills such as reading, writing, reading comprehension and on preparing children as independent readers. The curriculum should stress more on the processes of learning than on learning outcomes. Basics of arithmetic such as number concepts, shapes, spatial understanding, patterns, measurements etc., are focused. The pedagogy of classroom teaching must be through learning by doing,

exploring and through experiential learning. Education through work must be promoted. Learning from concrete to abstract as we go from class I to class VIII, need to be promoted. The children consolidate their knowledge on space and time, measurements, geometry, algebra etc. and also try to generalize their knowledge to their local contexts. The elementary stage is the foundation for the development of cognitive skills through promotion of critical thinking, problem solving, analysis, reasoning, imagination, etc. The elementary education stage is very significant for development of cognitive, affective and psychomotor abilities. The focus must be on language and expression. Primary education is the education of foundational literacy and numeracy. Children need to be sensitized to the care and protection of the environment.

3.6.3 Secondary

Children at this stage are adolescents. They are more energetic and explore their immediate physical and social environments. The curriculum focus is on various disciplines and their structures. The breadth and depth of the concepts are emphasized in the curriculum. Students apply concepts to their day-to-day life and make meaning of the curriculum. At this stage, much focus is given to the development of 21st century skills, such as critical thinking, problem solving, analysis, reasoning, imagination, collaborative work, digital literacy and application of concepts to life, etc. The assessment stresses on the development of 21st century skills and attributes in affective domain such as attitudes, interests etc. Since adolescence is the age of reasoning and logical thinking, appropriate pedagogy should be used to foster these mental abilities.

3.6.4 Higher Secondary

Higher Secondary is the stage where the breadth and depth of selected disciplines are focused. The curricular objective is on deep understanding of the concepts and making sense of disciplines. This stage is the foundation for professional and liberal arts courses. The structure of the discipline needs to be kept in mind for drafting the syllabus and suggesting the pedagogical strategies. The textbooks need to be planned carefully with a view to developing thought and expression among the children. The focus is on analysis of the concepts and their applications rather than their memorization, retention and reproduction in the examinations. Deep learning needs to be promoted through questioning, reasoning and through other scientific methods. As per NCF-2005, the textbooks themselves should be seen as opening of avenues for further enquiry and students should be encouraged to go beyond the textbooks. The contemporary concerns, like sustainable development goals, values, moral goodness, health and hygiene, etc. need to be focused at this stage.

3.6.5   University Level

The disciplinary specialization is focused at university level. In- depth study of disciplinary content areas and their applications are focused at this stage. The specializations are in terms of liberal arts, courses, science courses, professional courses like engineering, medical, pharmaceutical, commerce and accountancy, etc. The spirit of enquiry in different content areas is inculcated among learners at university level. Disciplinary studies in fundamental subjects and their applied areas are taught at university level.

Let us examine what National Education Policy (NEP), 2020 recommended about curriculum at various stages.

The National   Educational policy 2020 has recommended for restructuring the school curriculum and pedagogy in a new 5+3+3+4 design. The NEP 2020 has recommended for reconfiguration of exiting school curriculum to make it more relevant to the developmental needs of the learners at different age groups and different stages of child development and corresponding to the age groups of 3-8, 8-11, 11-14, and 14-18 years. These curricular stages are very much related to the cognitive developmental aspects of the child. The curricular frameworks for the school education will be guided by the proposed 5+3+3+4 design.. The new design consists of 5 years of foundational stage covering ages 3-8 , which consists of 3 years of pre school / anganwadi and 2 years in primary school in grades 1-2,and preparatory stage of grades 3-5 covering ages 8-11, Middle stage grades 6-8 covering ages11-14 and secondary stage grades 9-12 in two phases that is 9 and 10 in the first and 11and 12 in the second covering ages 14-18.In particular, students would continue to have the option to exit after Grade 10 and re-enter the next phase to pursue vocational or any other courses available in Grades 11- 12, including at a more specialized school, if so desired.

The undergraduate degree will be of either 3 or 4-year duration, with multiple exit options within this period, with appropriate certifications, e.g., a certificate after completing 1 year in a discipline or field including vocational and professional areas, or a diploma after 2 years of study, or a Bachelor's Degree after a 3-year programme. The 4-year multidisciplinary Bachelor's programme, however, shall be the preferred option since it allows the opportunity to experience the full range of holistic and multidisciplinary education in addition to a focus on the chosen major and minors as per the choices of the student. An Academic Bank of Credit (ABC) shall be established which would digitally store the academic credits earned from various recognized HEIs so that the degrees from an HEI can be awarded taking into account credits earned. The 4-year programme may also lead to a degree 'with Research' if the student completes a rigorous research project in their major area(s) of study as specified by the HEI.

Source: National Education Policy, 2020. Ministry of Human Resource Development. Government of India.

3.7 STEPS FOR CURRICULUM DEVELOPMENT

So far, we have discussed planning and designing the curriculum and also understood how curriculum varies across various stages of education. With this background, let us discuss the steps of curriculum development.

Hilda Taba presented seven major steps, as a linear model, for developing the curriculum. These are given below:

i) Diagnosis of learner needs

ii) Formulation of learning objectives

iii) Selection of learning content

iv) Organization of learning content

v) Selection of learning experiences

vi) Organization of learning activities

vii) Evaluation

Curriculum development is a comprehensive exercise and should be planned in a scientific way. This involves the following steps as discussed below.

i) Constituting curriculum development committee: A committee needs to be constituted with representatives from different stakeholders i.e. teachers, curricular experts, university faculty, teacher educators, educational supervisors, head teachers, and students.

ii) Determination of target audience: The levels for which curriculum will be developed must be decided before undertaking curriculum planning. The levels represent pre-primary, elementary, secondary, higher secondary, higher education, etc.

iii) Need analysis: The needs and aspirations of individual human beings and society are changing across time and space. Globalization impacts

the very nature of life and culture of the community across the globe. The work force requirement is changing in the global market. The environmental concerns are changing and it is time to focus on environmental degradation. Therefore, the revision of curriculum is required from time to time to address the human needs. Need analysis is to be taken up to understand what are the gaps in the existing curriculum and what new changes, as perceived by various stakeholders like teachers, students, educational supervisors, curriculum experts, teacher educators, parents etc. are required to be included in the new curriculum.

iv) **Development of curricular goals and objectives:** The purpose for which the curriculum is going to be implemented need to be discussed and deliberated. The goals and objectives need to be formulated.

v) **Development of curricular standards:** The curricular standards covering all the three domains i.e. cognitive, affective and psychomotor domains in each of the learning areas across grades need to be developed.

vi) **Selection of learning areas:** The learning areas in different subjects such as languages, humanities, art and craft, etc. need to be decided age appropriately.

vii) **Organization of learning experiences:** Development of syllabus and textbooks involves organization of learning experiences through appropriate methods and strategies so that achievement of learning and learning outcomes are ensured.

viii) **Identification of learning resources:** Appropriate learning resources for effective transaction of curriculum need to be identified and provided. The learning resources improve both teaching and learning.

ix) **Identification of instructional strategies:** Appropriate pedagogy for the delivery of the curriculum based on nature and developmental stages of children and nature of the subject keeping in view of curricular standards need to be identified.

x) **Evaluation and assessment procedures:** The main purpose of assessment is to improve the learning. 'Assessment for Learning' and 'Assessment as Learning' need to be focused. More focus on Formative Assessment (FA) can be given at elementary and secondary level. The Continuous and Comprehensive Evaluation (CCE) should be focused across all grades for effective feedback through formative assessment and for improving both teaching and learning. The purpose of formative assessment is to understand learning gaps and to provide feedback to learners and teachers for their improvement.

xi) **Systemic reforms:** The systemic reforms in terms of effective governance of schools/ institutions towards functional aspects and implementation of curriculum so as to ensure achieving expected learning outcomes must be discussed and deliberated to facilitate the

implementation of curriculum effectively. School inspection and teacher support mechanisms need to be focused.

xii) Curriculum implementation and its evaluation: Once the curriculum is developed, the focus shall be on its implementation and supervision. The new curriculum has to be evaluated for its effectiveness once it is implemented in the field.

Check Your Progress 4

Notes: a) Write your answers in the space provided after each item.

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

1) Why do you think that need analysis is an important step while preparing the curriculum?

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3.8 LET US SUM UP

In this Unit, we have discussed the concept of curriculum and it's planning and designing. Curriculum is an important document which reflects the nature of activities that a school/ an institution organizes to achieve the holistic development of its learners. Any curriculum development process involves selection of goals/ purposes and intended learning outcomes. However, the means to achieve these intended outcomes must be specified. Curriculum forms the basis for entire educational processes at all levels i.e. pre-primary, elementary, secondary, higher secondary and higher education. Education is for life, through life and throughout life. The entire school activities are directed by the curriculum. Curriculum Framework is a planned document that constitutes and interprets educational goals and objectives along with planning and organizing of various learning areas, discussing the systemic issues and assessment procedures. The various curricular approaches and steps for curriculum development are also discussed in this Unit.

3.9 UNIT -END EXERCISES

- What kind of curriculum approach do you suggest at primary level? Justify your answer.

- Analyze the NCF 2005 document and comment on the major areas it focused and their significance.

- What should be the nature of activities a curriculum should suggest at pre-primary level?

- Select one subject area and analyse the textbooks in that subject area from classes I to V or VI to X and comment on scope, sequence, integration and balance in that subject area.

3.10 REFERENCES AND SUGGESTED READINGS

- Arora, G.L. (1984): *Reflections on curriculum. New Delhi: NCERT.*

- Beauchamp, G.A. (1961). *Curriculum theory: Meaning*, development and use. Wilmette,II: The Kagg Press.

- Dewey, John (1966). *The Child and the curriculum*. Chicago: The University of Chicago Press.

- Government of India.(2020). *National Education Policy,* 2020. Retrieved from https://www.education.gov.in/sites/upload_ files/ mhrd/ files/ NEP_ Final_English_0.p

- National Council for Teacher Education. (2009). *National Curriculum Framework for Teacher Education-Towards Preparing Professional and Humane Teacher*. Retrieved from https://ncte.gov.in/website/PDF/NC.

- NCERT. (2005). *National Curriculum Framework (NCF)* 2005. New Delhi: National Council of Educational Research and Training.

- Noddings, N.(2013). *Education and democracy in the 21st century.* NewYork: Teachers College Press.

- Schmidt, W. H. (2005). Curriculum coherence: An examination of U.S. Mathematics and Science content standards from an international perspective. *Journal of Curriculum Studies,* 35(5), 528–529.

- State Council of Educational Research and Training, Telangana.(2011). *State Curriculum Framework.-2011*. Retrieved from https://scert. telangana.gov.in/DisplayImage.aspx?encry=tXmGys30tHST1+cNHAso +A.

- Taba, H. (1962). *Curriculum development: Theory and practice*. New York: Harcourt, Brace & World.

- Tyler, Ralp. W. (1974) *Basic principles of curriculum & instruction*. Chicago: The University of Chicago Press.

- Wiggins, G. (2005). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

3.11 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

1) Principle of flexibility, principle of integration, breadth and balance, principle of inclusivity, principle of learner-centric, principle of coherence, principle of relevance and principle of alignment.

Check Your Progress 2

1) In behavioural approach the focus is on the achievement of pre-determined learning outcomes. The goals and objectives, learning activities are specified well in advance. The achievement of expected behavioural change is the sign of successful implementation of the curriculum. In the case of humanistic approach, the curriculum focuses on the development of the whole child. The focus is on the nature of the learner and nature of the learning in a climate of freedom and encouragement.

Check Your Progress 3

1) The pre-primary curriculum focus is on the development of pre-language and pre-maths skills; it is the stage for the preparation for school readiness. The means of learning is plays, stories, word games, art, and craft works.etc. The focus is on exploring the natural environment and nurture natural curiosity among children to observe and express.

    The primary curriculum focus is on foundational skills of reading, writing and arithmetic. The classroom pedagogy is to reflect learning by doing, exploring and learning collaboratively.

Check Your Progress 4

1) Analysis of gaps in the existing curriculum in terms of its purpose, selection and organisation of learning areas and assessment procedure is very much necessary to design a new curriculum to equip children with required skills to face the future challenges in life.

UNIT 4   CURRICULUM AND PEDAGOGY

Structure

4.1   INTRODUCTION

Curricular debates have aroused much interest during contemporary period, particularly in the context of construction, transaction and outcomes of curriculums. At present, school and higher education curriculums are getting immense focus, as they form the parts of imparting quality education to children. With the understanding of the significance of curriculum contributing to quality education, many issues and new dimensions related to curriculum have come into focus. How are curriculum and pedagogy interrelated? Why is pedagogy needed to be understood in relation to curriculum? How should pedagogy follow from the guiding principles of the curriculum? What are the various issues and contemporary changes related to curriculum construction? These are some of the key questions in the context of curriculum and pedagogy which need to be discussed at length. This unit is an attempt to explain some key points related to curriculum and pedagogy.

4.2 OBJECTIVES

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

- recall the meaning of curriculum;

- relate the linkage between Curriculum and Pedagogy;

- explore various issues related to curriculum construction;

- realize the need of contextualized teaching-learning process;

- develop understanding about the concept of curriculum framework and its contemporary perspectives; and

- explain the Choice Based Credit System and its implications.

4.3 UNDERSTANDING THE MEANING OF CURRICULUM

Though you have already studied in detail about the definition of curriculum in Section 2.3.1, Unit 2 of this Block, let us recollect the meaning of the term 'curriculum'. The position paper on National Focus Group on Curriculum, Syllabus and Textbooks constituted in the context of NCF (2005) defines curriculum as follows:

'Curriculum is, perhaps, best thought of as that set of planned activities which are designed to implement a particular educational aim- a set of aims-in terms of the content of what is to be taught and knowledge, skills, and attitudes that are to be deliberately fostered, together with statements of criteria for selection of content, and choice in methods, materials, and evaluation'.(National Focus Group on Curriculum, Syllabus and Textbooks.(2006).NCERT, page no.v)

In the above definition, it is clear that curriculum and pedagogy are closely interrelated. Curriculum deals with what content to be taught, whereas pedagogy focuses on what methods and media to be used to teach the content. Content, methods and media form an integral part of curricular process. In the next section, we discuss how curriculum is related to pedagogy.

4.4 RELATIONSHIP BETWEEN CURRICULUM AND PEDAGOGY

Pedagogy is closely related to curriculum. The latter is concerned with what is being taught, while pedagogy refers to the method of teaching any concepts or propositions in classrooms. The word pedagogy derived from the Greek word *paidos* which means "boy or child" plus *agogos* which means "leader."It is often describes as 'the art of teaching children'. We can define pedagogy as "knowledge of teaching and learning and how the two influence each other in the pedagogic episodes that teacher create to offer

learners learning experiences that might inform their developing views of practice". Accounting for the intersection between knowledge about teaching and moments when something pedagogic is expected of the teacher, pedagogy is as much interactive as it is deliberative. Learners often learn as much from the experiences of teachers and from the contexts taught by them. Therefore, pedagogy can be understood as a complex interaction among the "how," "what," and "why" of teaching in the light of the curriculum.

In a pedagogical process, meaningful classroom interactions are needed between teacher and learners. The main aim of pedagogy should be to support learners in building new knowledge upon their prior learning and developing new skills and attitudes. For teachers, it help them to devise and present curriculum in a way that is relevant to learners, meeting with their needs. This facilitates the learners not only in getting in-depth learning of subject contents, but also in applying them to their daily life situations. Hence, a curriculum should be designed with an approach which facilitates teachers to work together with their learners to come up with the best suitable way for subject contents to be studied.

If a teacher has clear understanding of pedagogy and the curriculum, then s/he will be able to effectively interact with the learners, to know what their learning requirements are and how to meet them accordingly. And this can encourage a healthy dialogue between teacher and learners, as well as among learners themselves. Moreover, everyone shares ideas, questions, and knowledge with others to explore concepts and deepen their knowledge. As mentioned earlier, with good pedagogic understanding, a teacher can help learners share their ideas, and have a sound understanding of how curriculum will be transacted and what is expected of them. Learners will not only increase their knowledge base, but they will also understand about the utility of such knowledge in their life contexts. They can draw on their own cultural knowledge as well, to come up with unique and personalized thoughts and opinions. A curriculum transacted with appropriate pedagogy allows the learners to reflect on new concepts more objectively and meaningfully. If we consider the pedagogy and curriculum in consonance, then we can also learn about what approaches work best for teaching a particular concept. Through this, learners will have space to participate in very personalized teaching-learning processes, rather than becoming mere spectators in their classroom.

Along with the curriculum expectations, the pedagogy must consider such contexts in which learning takes place, and with whom. It is not just about the teaching-learning materials used, but the whole process and strategies implemented in the classroom for achieving meaningful learning. A well-planned pedagogy has great potential to improve the quality of teaching and the way learners learn, by helping them gain a deeper understanding of curriculum contents. The proper pedagogical approach assists learners in moving beyond simple processes of thinking (basic memorization and comprehension) to complex learning processes (analysis, evaluation, and

creation). In this condition, there is plenty space to adopt preferred learning styles with a teaching process that supports the way the learners like to learn.

However, the term "pedagogy" is also used as a substitute for method or technique. Unfortunately, this limited understanding leads to unpreparedness among teachers for conducting a holistic teaching to learners. Therefore, it is important to understand that we must not only focus on the observable dimensions of pedagogy, but also actively investigate into the personal, relational, and improvisational dimensions of pedagogy. Pedagogy, by definition, is a creative endeavour. Requiring knowledge about subject matter, learners, and self, pedagogy is shaped by deliberative and often times, immediate reasoning. Because pedagogic reasoning demands imagination, intuition, and expression, pedagogy can be considered as an art. Thus, pedagogy is more than method or technique. It is the constant production of an experience with learners.

According to the National Curriculum Framework (NCF-2005), engagement between teacher and student engagement is very crucial in the classroom because it has the power to describe whose knowledge will be accepted as part of school-related activities. We have to understand that the learners are not just young people for whom adults should prepare strategies. In place of that, they are critical observers of their own situations and needs. Therefore, they need to be aware that their experiences and perceptions are very important in developing their thought processes and reasoning. We should also acknowledge that children learn many things as their learning abilities, capacities, and knowledge base keep growing due to their exposure to new learning environments. Now, out-of-school children need to be brought into schools to enhance their learning abilities. This is very crucial for children belonging to underprivileged communities, especially girls.

Participatory learning needs to be given a definite and valued place in the classroom. Although, participatory learning in classroom processes is a powerful teaching-learning strategy, but it is losing its pedagogic edge due to its ritualistic use. True participation in the learning process begins with the use of experiences of both the learners and teachers. When both, children and teachers share and reflect on their personal and collective experiences without fear of judgement, it gives them opportunities to learn better about such things which may not be a part of their own social reality. This makes them to understand and relate to differences among them instead of fearing them.

If learners' social experiences are to be brought into the teaching-learning process, teacher must ensure that the issues of conflict are addressed. Conflict is an inescapable part of many children's lives in India. They constantly come across such situations that call for moral assessment and action, whether in relation to subjective experiences of conflict involving the self, family and society or issues of conflict in schools. To use conflict as a pedagogic tool is to enable children to deal with conflicts and facilitate

awareness of its nature and its role in their lives. This can be built by encouraging learners to comment, compare and think about elements that exist in their own environment. For this, various sources of knowledge existing in different mediums, such as radio, television, digital media, advertisements, songs, paintings, etc., need to be brought into the purview of classroom to create a rich interaction among learners themselves. A pedagogy which is sensitive to gender, class, caste and global inequalities is one that does not merely affirm different individual and collective experiences, but also locates these within larger social structures of power, and raises many questions, such as whose knowledge is more valuable? This requires evolving various strategies for different learners. For instance, motivating students for speaking up in classroom may be very important for someone, while for others it may be learning to listen to others.

As a pedagogue, the key role of teacher is to provide a safe space for the learners to express themselves, and simultaneously to freely interact among themselves. Teachers need to come out of the role of 'moral authority' and learn to listen with empathy and without judgement, and to enable children to listen to each other. While constructively stretching the limits of understanding, learners need to be conscious of how differences are expressed. A trustful environment would make the classroom a safe place where learners can freely share experiences, where issues related to conflict can be smoothly acknowledged and addressed. Especially, for girls and children from under-privileged communities, the space of schools and classrooms should be for discussing processes of decision-making, questioning, discussion etc.

Check Your Progress (1)

Notes: (a) Write your answers in the space provided after each item.

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

1) Is pedagogy related to curriculum? How?

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4.4.1 Pedagogical Considerations in Curriculum

There was a time when the teacher was considered to be the repository of all knowledge and one who could have distributed it among some, withholding it from many in the society. S/he was both, producer and custodian of knowledge with a large measure of control over its dissemination. With successive ideological transformations in the society accompanied in the more recent centuries, by important technological changes, the role and status

of teacher has been redefined again and again. His/her role in education apparently has diminished. S/he seems to be displaced from the centre of the process of education. The teacher, who was often considered a role model worthy of emulation or a crucial mediator between the learner and the world of knowledge is now treated as a professional. There is an explosion of knowledge that s/he is expected to transmit them to students and s/he contributes little to the creation of knowledge. Nor does s/he have a monopoly of information, with a variety of sources competing in the process of dissemination of information and knowledge to students.

A number of educationists favour a child-centred system of education with a reduced role for the teacher. Rousseau's stress on naturalism induced many thinkers later on to work out a different role for the teacher in relation to his/her pupils. Pestalozzi's pedagogy is emphatically child-centric. Froebel's kindergarten system also looks for a teacher who does not impose himself/herself rather works towards removal of hindrances to the self-development or 'self-activity' of the child. Montessori Method also emphasizes the child's need to escape from the domination of parent and teacher. In Indian context, Tagore, Gijubhai or Krishnamurthy have been strong supporters of child-centred education in their own ways.

Yet, in pedagogic principles propounded by all these educationists, there is an implicit expectation from the teacher, perhaps greater than that in the traditional system. The teacher must know the child more, has to be far more sensitive and perceptive and at the same time, will have to be trained up more systematically to play his/her new role more purposefully. Whatever be the suspicion about his/her potentially oppressive position (Paulo Freire (1970) thinks that a teacher may be equated with an oppressor, prescriber or manipulator of things), no viable alternative arrangement of education has yet been convincingly demonstrated which excludes the teacher or the instructor completely.

If curriculum is understood in the broad sense as an entire range of learning arrangements in a school, then the person most concerned with it and with the largest role to play to give it an actual concrete shape is the teacher himself/herself. No scheme of curricular reforms can succeed without his/her concurrence and support. S/he should have the freedom to improvise wherever needed, modify the modes of teaching-learning, experiment, innovate and finally to acquire teaching skills or maturity through trial and error. Unless s/he owns up the final responsibility of devising the right methods to make each one of his/her learners learn, by mere administrative instruction, quality of education cannot improve. Of course, adequate preparation will be needed to equip him/her for the task by helping her/him acquire necessary professional competence.

There is a paradigm shift that has occurred in the field of education, which teachers must start appreciating to change the nature of pedagogy. Taking a cue from NCF 2005, major shifts have been tabulated below for ready reference:

Table 4.1: Major Shifts in Pedagogy (NCF, 2005)

From	To
Teaching	Learning
Teacher-centric	Learner-centred
Teacher imparting knowledge	Learners active participation in learning
Stable design of curriculum	Flexible methods & curriculum
Teacher gives direction	Learners are autonomous and independent.
Learning from textbooks only	Learning from diverse possible sources
Learning inside classrooms	Learning in a wider context of society and nature
Learning by listening & reading	Learning by doing
Appraisal through few periodic Examinations	Continuous and comprehensive evaluation

Approach to teaching and learning of different subjects in the school will naturally depend on the nature of that particular subject, but a pertinent question is as to how ambitious we can be regarding child's progress in a subject. There are individual differences among children both in terms of her capacity to progress as well as comfort level in different subjects. Idea of child-centred is based on the premise of differences in the aptitudes and potential of children which need to be taken into consideration. Every child should have an opportunity to realize her own inherent potential as fully as possible. Different persons may have different kinds of intelligence that in turn influences their achievements and even their styles of learning. Howard Gardner in his theory of multiple intelligence has identified nine types of intelligence, namely, verbal-linguistic, logical-mathematical, existential, bodily-kinesthetic, musical, spatial-visual, naturalist, intrapersonal and interpersonal. You will study about multiple intelligence in detail in section 5.8 of Unit 5 of this Course. Although as per multiple intelligence theory, the learner should get diverse kinds of opportunities to learn, at the same time expectations from all children cannot be alike in all areas. A child with language ability and potential to grow into a poet should not be forced to become a mathematician or vice-versa.

Check Your Progress (2)

Notes: (a) Write your answers in the space provided after each item.

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

1) What are the major shifts in pedagogy according to NCF, 2005?

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4.5   VARIOUS ISSUES IN CURRICULUM

In the Unit 3, we have discussed about curriculum development and its steps. Curriculum development is a complex process which is influenced by various issues and factors such as-What should be the approach of developing a curriculum- National or local? Should schools have autonomy to make their own curriculum? Are we developing inclusive curriculum for every child? What is our groundwork before developing a curriculum? In this section, we would try to discuss about these issues in brief.

4.5.1   The National versus Local Curriculum

India is a vast country in terms of diverse population, geography, culture and social life. Therefore, while making a curriculum, because of several diversities in our country, we should always debate over whether we should have one National Curriculum or various local/state level curricula. The arguments in favour of National curriculum are centred on the basic philosophy of 'One Nation-One Curriculum' so that every citizen has the same shared knowledge which binds all together. However, the promoters of local curriculum argue that a single curriculum is not enough for a country like India having so much of diversity. For example, a child living in north-eastern part of India has very different experiences about its geographical surrounding than a child living in the northern plain. Therefore, the curriculum should be contextualized enough with local contents to connect with the experiences/regional context of the children.

In India, we have taken a middle path by suggesting a National Curriculum Framework at National level and giving autonomy to States for making their own curriculum keeping both National Framework as well as regional issues into consideration.The localization of the curriculum will involve the use of local materials both as the subject and object of instruction where local culture will be an integral part of the curriculum (Training Tools for Curriculum Development, UNESCO). However, we must not reduce the curriculum content to only local concepts and materials since this will limit learning of children. Therefore, a 'glocalized' kind of curriculum is needed where the global or national issues should be weaved in with the local materials, languages, issues and contexts. Therefore, the issue of diversity in curriculum needs to be addressed to give strength to the curriculum.

4.5.2   Contextualization of Curriculum

Many educationists have emphasised the significance of contextualising education. A simple meaning of the term is to situate learning in the context of the child's world, and of bridging the gap between the school and socio-cultural context of the learners. It is not just because the contextualization will provide child's own experiences as the best entry points, into the study of different subjects, but also because the main aim of knowledge *is to connect with the world*. Without this, any knowledge is reduced to the level

of mere information. Learners, during their entry in Class-I, already have a rich language base of small words, numbers and symbols. Yet, we hardly acknowledge this and rarely utilize it in classroom. We hardly ask the students to talk about or refer to the world outside the school during our teaching. Therefore, contextualization in teaching-learning process is one of the focuses of curriculum transaction in contemporary education. The Bihar Curriculum Framework-2008, which is a State level Curriculum Framework, has greatly showed this spirit by adding an exclusive chapter on rural education in the Framework.

The concept of contextualization is based on this idea that learners learn best when classroom experiences have meanings and relevance in their lives. The things which are associated with learners can better help them in learning. Here, learning by doing, applied learning, and manipulative learning will be very supporting in executing localization and contextualization in teaching. If learners are expressed to a real learning environment letting them to manipulate, relate, and adapt to various learning opportunities and resources available within the locality or community, profound learning will be assured and realized. This will help teachers and learners in comprehending concepts by relating and presenting lesson on various contextual issues. Through this, the classroom teaching can be well customized and appropriated by teachers. However, this demands a focus in teachers' preparation so that they can be capacitated in using contextualized lesson plans for teaching. Along with this, we can also understand many concepts in a better way by relating them to some distant ideas and examples not the immediate contexts. Therefore, contextualisation should not be imposed on all contents.

Contextualization of curriculum should be an inherent part of pedagogy. To contextualize curriculum, teacher uses local materials, activities, interests, issues and needs from learners' lives. A curriculum helps learners learn, practice and evaluate specific skills and competencies, and contextualized lessons are effective tools for accomplishing this. A contextualized curriculum creates room for learners to pose problems and issues and develop strategies together for addressing them. The process for contextualizing curriculum includes some key steps such as identification of learners' needs and issues; collecting contextual information and materials; preparing and teaching contextualized lessons; and encouraging the learners to use the learning in their real world; and reflecting and accessing the contextualized lesson. In contextualization of curriculum, the socio-cultural pedagogy helps a lot. This pedagogical method often relies on a student-centric approach to teaching, whereby teachers identify different socio-cultural strengths of learners, and nurture those to ensure that learners have a positive sense of self, and can achieve the expected learning.

4.5.3 Relating Curriculum Theory to Practice

A teacher expects their learners not only to learn theory and understand why theories are important but also to learn how to apply the theoretical

frameworks in practice. Too often we hear anecdotal accounts of student teachers in internships who are unable to make this transition from theory to practice with confidence and effectiveness. Perhaps the difficulty in making the transition from theory to practice arises, at least in part, from a failure of the curriculum developer or teacher itself to integrate both theory and practice into the same course in the curriculum in ways that are relevant and meaningful to the student. Such integration helps learners to more closely associate the practical value of learning theoretical concept. In constructivist approach, at present we generally do not see theory and practice as two separate and distant entities, rather we conceptualize them as two complementary aspects of a curriculum which is based on process model. This model is driven by simple principles and places emphasis on judgement and meaning making by integrating the theory and practice, which we say as 'Praxis'.

4.5.4 Integration of Information and Communication Technology in Curriculum

With great technological advancement in this century, integration of ICT in curriculum is one of the prime focuses at present. The ICT explosion has changed the nature of knowing from the ability to recall information to the ability to define problems, to retrieve information selectively and to solve problems flexibly. Therefore, the importance of ICT in curriculum planning has been widely recognised.ICT provides the children to present their own experiences through various multi-media modes with new opportunities to explore their own creative imagination. On this line, we have progressed from computer to various customised learning apps, interactive SMART Classes, virtual classes, etc. now. The impact of ICT on teaching-learning process is increasing day by day and therefore teachers need to learn enough about ICT to use it effectively in the classroom. This, therefore, changes the nature of learning from the need to master topics in class to the need to learn autonomously. Teachers and learners now need to learn how to learn in an ICT rich environment and the curriculum should also give proper space to such opportunities in its content.

4.5.5 Establishment of Standards for Curricular Research and Practice

Another issue is related to establishment of standards for curricular research and practice which is very crucial for improving the quality of a curriculum for the learners. Such kind of focussed researches are highly important to access the impact of curriculum and shape its implementation. In India, various government agencies such as NCERT, SCERT or universities, etc. have major role to play in conducting quality researches on curriculum issues. But still we lack sound standards for curriculum researches in our country. There is need to formulate basic guidelines for this and researchers should be encouraged and given opportunities to conduct quality studies

about curriculum. Field based researches on curriculum implementation should also be promoted.

Check Your Progress (3)

Notes: (a) Write your answers in the space provided after each item.

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

1) Mention the various issues in curriculum.

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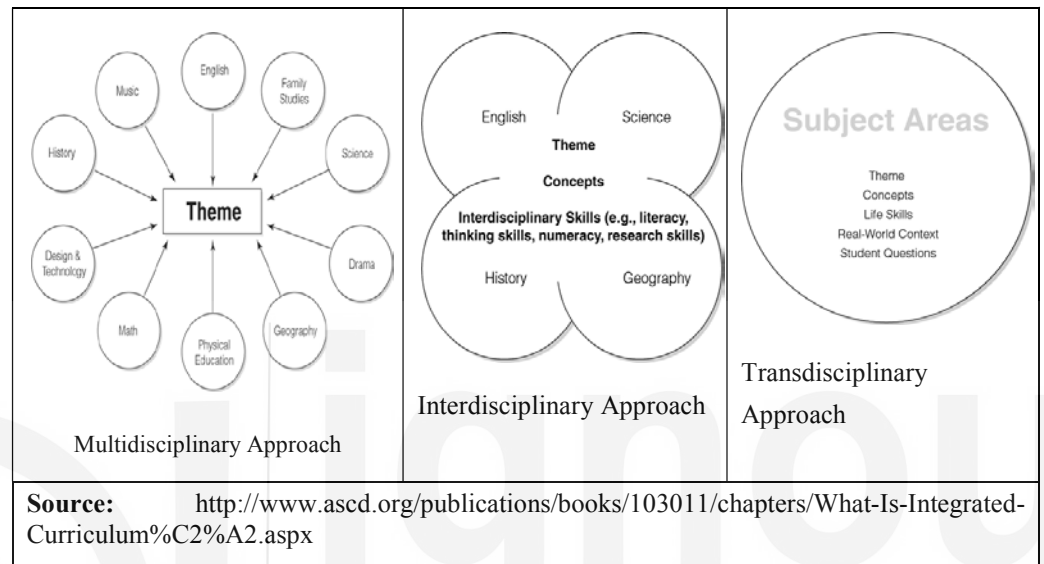

4.6   MAJOR CURRICULUM FRAMEWORKS

There are some basic principles relating to learning among children which find favour with many educationists today. Grounded in those principles, we have various kinds of curriculum frameworks. Here, we are discussing a very significant model of framework, i.e. Integrated Curriculum Framework along with the National Curriculum Framework 2005.

4.6.1   Integrated Curriculum Framework

An integrated curriculum allows children to pursue learning in a holistic way, without the restrictions often imposed by subject boundaries. As benefit, the integrated teaching and learning processes enable children to acquire and use basic skills in all the content areas, and to develop positive attitudes for continued successful learning throughout the elementary grades. An integrated programme includes effective experiences to develop children's attitudes, skills, and knowledge and to help them make connections across the curriculum. Activities that provide for a range of abilities are beautifully designed in an integrated curriculum. In addition, the activities that are both teacher-initiated and directed and child-initiated and directed are very much celebrated in this kind of curriculum. Whole class, small group, and individual experiences, opportunities for critical and creative thinking, opportunities to experience learning in a meaningful manner are the focuses in the integrated curriculum framework. The framework also emphasises different forms of assessment such as teacher, peer, and self-assessment.

Integration can be simply understood as fusion or unification of different disciplines through various approaches such as multidisciplinary, interdisciplinary and transdisciplinary. In multidisciplinary approach, we generally organize relevant knowledge from the disciplines around a theme (see figure 4.1). There are different ways to develop multidisciplinary curriculum, and they differ in the level of intensity of the integration effort.

In this multidisciplinary approach, we can integrate skills, knowledge, or even attitudes into a curriculum. On the other way, in the interdisciplinary approach of integration, the curriculum is organised around common learning across disciplines. Here, the disciplines are identifiable, however they assume less importance than in the multidisciplinary. Along with these, the transdisciplinary approach of integration breaks all boundaries between the disciplines and directly focuses on core issue. This kind of approach promotes project work.

Source: http://www.ascd.org/publications/books/103011/chapters/What-Is-Integrated-Curriculum%C2%A2.aspx

Fig. 4.1: Multidisciplinary, Interdisciplinary and Transdisciplinary Approaches

The above-mentioned approaches will be very helpful in integrating the curriculum at any level. For example, if we are learning about Birds then it is not just limited to Biology, but an integrated curriculum demands to learn about other aspects of Birds such as their role in ecosystem, poems related to birds, their importance in our life, etc. Another approach of integrating curriculum is Project method. Projects involve the investigation of a topic but differ from traditional thematic units because they are fully integrated. In project planning, the disciplines can easily be combined at functional level. The goal is to learn about something, using all the available resources and incorporating the skills, knowledge, and dispositions needed to accomplish that goal. Another way in which teachers plan for integrated curriculum, is by allowing for independent and small group study based on a child's (or small group's) interest and curiosity about the world. The aim is to help children become independent learners. The child or a small group of children may initiate topics spontaneously. The teacher offers resources and teaches the skills and strategies needed individually or through class instruction. These are some key points about the integrated curriculum framework.

Check Your Progress (4)

Notes: (a) Write your answers in the space provided after each item.

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

1) What are the benefits of Integrated Curriculum Framework?

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4.6.2 National Curriculum Framework-2005

Some of these approaches to integration in curriculum have been emphatically articulated in the NCF 2005. The following three important ideas relating to learning are briefly summarized below:

a) *Primacy of child as an active and natural learner:* It is almost universally agreed now that every child has a natural urge and ability to learn, which is most readily demonstrated by the manner she learns language almost autonomously. The idea of child-centred pedagogy means giving primacy to children's experiences, their voices, and their active participation. In our traditional schools, children's experiences are not generally given importance because teachers are considered to be repositories of all knowledge that is worth knowing, and children's voices are not taken into account in the name of discipline and order turning them into passive learners. This scenario must change completely. Every child has a family and social background and learning has an inevitable social character. Every child, therefore, must be valued for what she is and what she comes with to the school. Schools should encourage active participation of children in the process of learning. To nurture their curiosity they should do things, ask questions and pursue investigations on their own.

b) *Learning as a process of construction of knowledge:* In the constructivist perspective adopted by NCF 2005, learning is a process of construction of knowledge. This leads to the idea that learners construct their own knowledge actively by joining new ideas to existing ideas on the basis of materials and activities presented to them. The structuring and restructuring of ideas are features of constructive learning. However, a social aspect is also involved in the sense that knowledge can be created in a group situation. Hence, there is scope for collaborative learning and social construction of meaning as well.

A good teacher actively supports and facilitates the process of knowledge construction in which a child may be engaged. Allowing

children to ask questions, encouraging them to answer in their own words and from their own experiences and engaging them in well-chosen challenging tasks and questions will help them to develop their understanding. On the other hand, restricting them to merely answer questions and that, too, in the words written in the books or said by the teacher and expecting them just to memorize and reproduce whatever is taught are sure ways to obstruct learning with proper understanding.

c) *Learning through interaction and dialogue leading to a critical pedagogy:* Learning happens through continuous interactions with the environment around us, i.e. nature, things and people, both through actions and through language. Our physical activities of moving, exploring and doing things by our own, with peers or in company of adults, and using language- to read, to articulate, to ask, to listen and to interact- are the main processes through which learning takes place. While dialogue, rather than one-way transmission from the teacher's side, will engage the child and induce her to think and reflect. NCF 2005 asserts that critical pedagogy gives many opportunities to reflect critically on any issues in terms of their political, social, economic and moral aspects. Critical pedagogy facilitates collective decision making through open discussion and by encouraging and recognising multiple views of learners.

The National Curriculum Framework 2005 has discussed the kinds of curriculum for different stages. According to it, for primary stage, a child should be engaged in joyful learning by giving them safe space to explore the world around. At this stage, the key objectives are to nurture the curiosity of the child about surrounding (natural environment, artefacts and people), to have hands-on activities with them for acquiring the basic cognitive and psychomotor skills through observation, classification, inference, etc.; and to develop basic language skills i.e. speaking, reading and writing. Similarly, Science and Social Science should be integrated as 'Environmental Studies' along with health and cleanliness as important components. At the primary stage, there should be no pressure of formal assessment and evaluation.

Moving towards the upper primary stage, the learner should be engaged in learning the principles of science through familiar experiences, hands on activities, and designing simple technological models (such as working model of a windmill to lift weights). The learners should also continue to learn more about the environment and health, including reproductive and sexual health, through activities and surveys. Group activities, discussions with peers and teachers, surveys, organisation of data and their display through exhibitions, etc. in schools and the neighbourhood should be promoted as important components of pedagogy at this stage. There should be continuous as well as periodic assessment in the form of unit tests, term-end tests.

At the secondary stage, there should be focus on learning Science as a composite discipline, in working with hands and tools to design more advanced technological models than the previous stage. The activities and analyses of issues concerning the environment and health, including reproductive and sexual health should also be taken as central content. The curriculum at this stage should promote systematic experimentation as a tool to discover and verify various theories, principles and concepts, and working on locally significant issues involving science and technology.

At the higher secondary stage, the framework advocates for introduction of science through its separate disciplines such as Physics, Chemistry, Botany, Zoology, etc. with emphasis on experiments/technology and problem solving. The current two streams, academic and vocational, being pursued as per NPE-1986, may require a fresh look in the present scenario of National Education Policy-2020. As the new policy is recommending that the learners may freely choose various subjects of their interest at secondary level without any restriction of streams. The issue related to the rationalization of curriculum load is also very significant for this stage so that learners will have more time to engage with diverse activities. During this stage, the core topics should be framed taking recent advances into account.

Check Your Progress (5)

Notes: (a) Write your answers in the space provided after each item.

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

1) Discuss the key ideas of the National Curriculum Framework 2005 in brief.

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4.7 NATIONAL EDUCATION POLICY- 2020 AND PEDAGOGY

In the previous unit, we have discussed about the different stages of education as recommended by NEP 2020. Now let us understand the thrust of NEP 2020 with regard to pedagogy at different stages of education. The curricular and pedagogical structure of school education will be reconfigured to make it responsive and relevant to the developmental needs and interests of learners at different stages of their development, especially to the age ranges of 3-8, 8-11, 11-14, and 14-18 years, respectively.

The Foundational Stage will emphasize on flexible, multilevel, play/activity-based learning and the curriculum and pedagogy of ECCE. The Preparatory Stage focuses on building the play, discovery, and activity-based pedagogical and curricular style of the Foundational Stage. This stage will also begin to incorporate some light text books as well as aspects of more formal but interactive classroom learning, in order to lay a solid groundwork across subjects, including reading, writing, speaking, physical education, art, languages, science, and mathematics. The Middle Stage emphasized on building the pedagogical and curricular style of the Preparatory Stage, but with the introduction of subject teachers for learning and discussion of the more abstract concepts in each subject that students will be ready for at this stage across the sciences, mathematics, arts, social sciences, and humanities. Experiential learning within each subject, and explorations of relations among different subjects, will be encouraged and emphasized despite the introduction of more specialized subjects and subject teachers. The focus of Secondary Stage is on multidisciplinary study, building on the subject-oriented pedagogical and curricular style of the Middle Stage, but with greater depth, greater critical thinking, greater attention to life aspirations, and greater flexibility and student choice of subjects.

The thrust of curriculum and pedagogy reform across all stages will not only be on cognitive development but for the holistic development of students equipped with 21st century skills. All curriculum and pedagogy, from the foundational stage onwards, will be redesigned to have root in the Indian and local context and ethos in terms of culture, traditions, heritage, customs, language, philosophy, geography, ancient and contemporary knowledge, societal and scientific needs, indigenous and traditional ways of learning etc. This is to ensure that education is maximally relatable, relevant, interesting, and effective for students. Stories, arts, games, sports, examples, problems, etc. will be chosen as much as possible to be rooted in the Indian and local geographic context. In particular, students at Grade 11-12 will have the opportunity to pursue vocational or any other courses including at a more specialized school, if so desired. It is noteworthy that these stages are purely curricular and pedagogical in nature, designed to optimize learning for students based on their cognitive development.

For Higher Education Institutions (HEIs), the NEP-2020 recommends that the curriculum and pedagogy will be designed by institutions and motivated faculty to ensure a stimulating and engaging learning experience for all students, and continuous formative assessment will be used to further the goals of each programme. The policy also stresses on implementing multi-disciplinary approach for teaching-learning process at Higher Education level. For effective learning, the Choice Based Credit System (CBCS) will be revised for instilling innovation and flexibility. HEIs shall move to a criterion-based grading system that assesses student achievement based on the learning goals for each programme, making the system fairer and

outcomes more comparable. HEIs shall also move away from high-stakes examinations towards more continuous and comprehensive evaluation.

(Source: National Education Policy,2020. Ministry of Human Resource Development. Government of India).

4.8   CHOICE BASED CREDIT SYSTEM (CBCS)

The current higher education curriculum in India does not enable learners to be employable. The traditional, annual method used teacher-centric approach. Independent thinking was not promoted in the annual system. Curricular flexibility, learners' mobility along with disciplinary approach has to be introduced in the emerging socio-economic milieu. CBCS introduces multi-disciplinary approach to undergraduate and post-graduate curriculums. Learners can select courses from a wide range of disciplines to gain mastery of a subject of their choice.

However, the Indian Education system is also facing many challenges in implementing CBCS. The basic elements of CBCS are Semester system, Credit system, Credit transfer, Comprehensive and Continuous Evaluation and Grading. Under Choice-based Credit System (CBCS), learners pursue three types of courses - Compulsory Foundation Courses (relating directly to the subject of study), Elective Courses (allowing for interdisciplinary studies) and Core subjects, where it is compulsory to pursue core subjects every semester and choose electives from a pool of subjects unrelated to their disciplines. This means a Science student can opt for any subject of Commerce or Arts discipline as an elective.

According to the UGC, the main objectives of CBCS are to:

*   bring reforms in higher education;

*   enhance learning opportunities;

*   match learners' scholastic needs and aspirations;

*   enable inter-university transferability of learners;

*   improve quality of education and excellence;

*   bring greater flexibility while completing the course; and

*   make educational programmes standardized and comparable across the country.

4.8.1   Conceptual Framework of CBCS

There is need to allow the flexibility in education system, so that learners depending upon their interests can choose inter-disciplinary, intra-disciplinary and skill-based courses. This is possible through Choice-Based Credit System (CBCS). The choice-based credit system not only offers opportunities and avenues to learn core subjects but also explore additional avenues of learning beyond the core subjects for holistic development of an

individual. There are many advantages of this system. Following are some of them:

- CBCS leads to shift in focus from the teacher-centric to student-centric education.

- Student may undertake as many credits as they can cope with (without repeating all courses in a given semester if they fail in one/more courses).

- CBCS allows learners to choose inter-disciplinary, intra-disciplinary courses, skill oriented papers (even from other disciplines according to their learning needs, interests and aptitude) and more flexibility for learners.

- CBCS makes education broad-based and at par with global standards. One can take credits by combining unique combinations. For example, Physics with Economics, Microbiology with Chemistry or Environment Science etc.

- CBCS offers learners flexibility to study at different times and at different institutions to complete one course (ease mobility of learners). Credits earned at one institution can be transferred to another institution.

CBCS will be operated on modular pattern based on module / units called 'credits' wherein 'credit' is defined as the quantum of contents/ syllabus prescribed for a course/ paper and determines the minimum number of teaching- learning hours required. CBCS, like the cafeteria system, enables the learners to take up the responsibility of choosing their own education. For implementing CBCS (UGC- Action Plan, 2009) the following steps are to be taken:

- Review of curricular contents including study papers, term papers, assignments, and experiments.

- All the curricular contents are to be divided into units and sub-units. Credits have to be given to these curricular contents.

- The faculty decides the core courses and electives.

- They evaluate the weightage of core and elective credits.

- The faculty decide the total credits to be earned for each academic programme.

- Core credits would be unique to the programme but elective-credits are likely to overlap with other programmes.

- Learners enrolled in a particular programme would be free to choose and earn elective-credits.

4.8.2 Meaning of the Key Concepts Used in CBCS (UGC)

1) **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.

2) **Course:** Usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.

3) **Choice Based Credit System (CBCS):** The CBCS provides learners choice to select from the prescribed courses. There are three types of courses in CBCS- i) Core course, ii) Elective Course and iii) Ability Enhancement Courses.

   i) *Core Course:*The course designed under this category aim to cover the basics that a student is expected to imbibe in that particular discipline. A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

   ii) *Elective Course:* Generally, a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.

   iii) *Ability Enhancement Courses (AEC):* The Ability Enhancement Courses (AEC) may be of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). "AECC" courses are the courses based upon the content that leads to Knowledge enhancement; i. Environmental Science and ii. English/Hindi/MIL Communication. These are mandatory for all disciplines. SEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

4) **Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be completed by the learners.

5) **Credit Point:** It is the product of grade point and number of credits for a course.

6) **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.

7) **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

8) **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.

9) **Letter Grade:** It is an index of the performance of learners in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P and F.

10) **Programme:** An educational programme leading to award of a Degree, diploma or certificate.

11) **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.

12) **Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June.

13) **Transcript or Grade Card or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered learners after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured) along with SGPA of that semester and CGPA earned till that semester.

Check Your Progress (6)

Notes: (a) Write your answers in the space provided after each item.

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

1) What is Choice Based Credit System (CBCS)? How is it contributing to making our education system better?

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4.9   LET US SUM UP

In this Unit, we have learnt the basics of curriculum framework, curriculum and syllabus. We have also understood the critical relation between curriculum and its pedagogical implications. How Pedagogy is very crucial for effective learning has also been explained in this unit. The unit has also explained about the key ideas of National Curriculum Framework 2005 and how it is important to create a holistic education system. The recommendation of NEP 2020 about curricular structuring is also discussed in this unit. The CBCS has been also discussed with its key ideas for transforming higher education in India.

4.10 UNIT- END ACTIVITIES

- Examine curriculum-syllabus document of secondary level of different school boards. Try to compare them in terms of structure, objectives, content presentation, assessment design etc.

- Talk to some children of elementary level and find their views about which kinds of methods of teaching they like very much and why?

- Take some interviews of school teachers and try to know about their challenges related to curriculum implementation and pedagogy.

4.11 REFERENCES AND SUGGESTED READINGS

- Freire, Paulo (1970). *Pedagogy of the Oppressed.* New York: The Continuum International Publishing Group Ltd.

- Government of India.(2020). *National Education Policy 2020*. Retrieved from https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.p

- NCERT (2006). *Position Paper on National Focus Group on Curriculum, Syllabus and Textbooks*. New Delhi: NCERT.

- NCERT. (2005). *National Curriculum Framework (NCF) 2005*. New Delhi: National Council of Educational Research and Training.

- SCERT (2008). *Bihar Curriculum Framework.* Patna: SCERT.

- Wyse, D., Hayward,L., & Pandya, J. (2016). *The Sage Handbook of Curriculum, Pedagogy and Assessment.* London; Sage Publications Ltd.

4.12 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress (1)

1) Pedagogy is deeply related to curriculum. The latter is concerned with what is being taught while pedagogy actually refers to the method of teaching any concept in classrooms.

Check Your Progress (2)

1) Refer table 4.1.

Check Your Progress (3)

1) National versus Local Curriculum, Contextualization of Curriculum, Relating curriculum theory to practice, Integration of ICT in curriculum, Establishment of Standards for Curricular Research and Practice etc.

Check Your Progress (4)

1) An integrated curriculum allows children to pursue learning in a holistic way, without the restrictions often imposed by subject boundaries.

Check Your Progress (5)

1) The key ideas of NCF 2005 are primacy of child as an active and natural learner; learning as a process of construction of knowledge; learning through interaction and dialogue leading to a critical pedagogy.

Check Your Progress (6)

1) The CBCS provides choice for learners to select from the prescribed courses (core, elective, and ability enhancement courses. This leads to more choices before the students to choose as per their interest. This will positively enhance our Higher Education in terms of generating new knowledge by interested learners.