CHAPTER I
INTRODUCTION
1.1 CURRICULUM: THE CONCEPT

Curriculum is said to be the heart of an educational process. The quality of education, irrespective of the system under which it is provided, depends ultimately upon the teacher and the extent to which the curriculum is effectively transacted in educational institutions. The direction to the curriculum is provided by its educational objectives from which it derives its shapes as well as identity.

All resources available at school in terms of its infrastructure namely: school building, equipment, and varieties of instructional materials including books in the library exist for just one purpose for supporting effective implementation of curriculum. The entire set of classroom activities, the co-curricular programme as well as the entire evaluation schedule flow from the school curriculum.

Curriculum is the total learning activities or educative experiences offered by an institution through its total institutional programme designed to achieve the prescribed objectives. It may also mean a systematic group of courses or an over all plan of the content of instruction required for completion of any stage of education.

Curriculum is an institutional plan designed to operationalise national goals and educational objectives into behavioural propositions. It provides guidelines for action to educational administrators, teachers, teacher educators and research workers. To educational practitioners, it tells what institutional facilities to provide to implement the curriculum; and to teachers, it prescribes the criteria which are to be kept in view for designing and assessing the instructional effectiveness. It also provides guidelines for different instructional acts. A curriculum, infact, is a combination of a large number of experiences that the school provides to the child in order to achieve the goal of total development of his personality. It consists of both formal learning experiences provided
through teaching of different subjects and non-formal learning experiences provided in the form of a variety of activities carried out outside the classroom. It is unfortunate that the latter type of experiences are given secondary importance in education today. The truth of the matter is that it is these latter type of experiences which help in the overall mental, physical, social, emotional, moral and aesthetic development of the child. Curriculum is the base on which the subjects, activities and experiences of the students are planned. It is more than the text book, more than the subject matter or course of studies. It is the totality of all the learning to which students are exposed during their study in the school, in the classroom, in the laboratory, in the library and in the playground. Syllabus is just a part of the curriculum. It is generally concerned with the subject matter of various subjects. It is divided term-wise, month-wise or week-wise. It indicates the specific tasks pertaining to the content of various subjects, the portion to be taught during a particular period and the activities related to the subject matter.

The word "Curriculum" has been used in many ways. It usually stands for a school's written courses of study and other curriculum materials, the subject content taught to the students, the courses offered in a school, and the totality of planned learning experiences offered to students in a school.

Some use the term 'curriculum' in a very limited and specific content while others attach very broad and general meanings. According to Smith (1957) curriculum is a sequence of potential experiences set up in the school for the purpose of disciplining children and youth in ways of thinking and acting. Good (1959) puts it as a general over all plan of the content or specific materials of instruction that the school should offer the student by way of qualifying him for gradation or certification or for entrance into a professional or vocational field. Tanner and Tanner (1975) have described curriculum as the
planned and guided learning experiences and intended learning outcomes, formulated through the systematic reconstruction of knowledge and experience, under the auspices of the school, for the learner's continuous and willful growth in personal-social competence. Taba (1962) defines curriculum as a plan for learning. According to Westbury and Steimer (1971) curriculum is a methodological inquiry exploring the range of ways in which elements of teacher, student, subject and milieu can be seen. David Pratt (1980) describes curriculum as an organised set of formal educational and training intentions. From the perusal of all these definitions, it is evident that a curriculum comprises of all experiences that individual learners have in a programme of education, whose purpose is to achieve broad goals and related specific objectives, which is planned in terms of a framework of theory and research or past and present professional practices. In other words, curriculum is a blueprint of experiences that have been planned for the students. Secondary Education Commission is of the view that curriculum "does not mean only the academic subjects traditionally taught in the school but it includes the totality of experiences that pupil receives through the manifold activities that go on in the school, in the classroom, library, laboratory, workshop, playgrounds and in the numerous informal contacts between teachers and pupils. In this sense, the whole life of the school becomes the curriculum which can touch the life of the students at all points and help in the evolution of balanced personality."

1.2 MANAGEMENT OF CURRICULUM

Curriculum management is not simply the preparation of syllabus or courses of study. There are different components of curriculum management, ranging from setting of goals and objectives to the actual
transaction. These different components of curriculum are built into the curriculum planning process through various steps.

Management of curriculum essentially involves four major steps related to: (i) determining the meaning and scope of curriculum and goals and objectives; (ii) identifying the curriculum content, guided by considerations of relevance in a broad sense; (iii) determining the curricular inputs, including the basis of selection and its arrangement in a specific order reflecting the gradation of emphasis on the learning outcomes desired, as well as on the transaction process; and (iv) planning the process of curriculum and the roles of the different agencies, including the teachers.

Curriculum management involves: (i) curriculum planning, (ii) curriculum development, (iii) curriculum transaction, and (iv) curriculum evaluation.

1.2.1 Curriculum Planning

Curriculum is a basic means available for achieving the goals of education. Curriculum planning is guided by several considerations. Most important among these are the nature of discipline, growth and development of the child, socio-economic background of the country, society or the school, environment around institution and teacher related considerations. The curriculum planner first needs to know the structure and nature of the discipline for which a curriculum is to be planned and developed. A curriculum is meant for a particular group of students. So their growth and development characteristics in terms of physical, emotional, social and intellectual development are taken into account by the curriculum planner who should be aware of the educational implications of the different stages of growth and development.
1.2.2 Curriculum Development

Curriculum development is a specialized area of work which expects a teacher to have a deep understanding of the underlying concept of curriculum and also the skill to systematically design learning experiences to achieve the socially desired goals set by the society we live in. Curriculum development involves various stages/steps to be followed by those engaged in designing and developing curriculum like, setting the scope and contents of instruction, writing the content outline, assigning relative weightage to the content keeping time allocation in view, the selection of teaching-learning strategies, development of instructional inputs and specifying of the evaluation procedures.

There are several approaches through which curriculum can be developed and organised. These include: subject-centred approach, broad fields approach, social problems approach and learner-centred approach. The choice of a particular approach to the curriculum design indicates: (i) the bases of decisions about the types of experiences to be included in the educational programme; (ii) the role of the teachers students and other agencies in the process of curriculum planning; (iii) the choice of method for determining the selection and organization of learning experiences provided by the school; (iv) the factors influencing the selection of objectives; and (v) the use of subject matter or content. Some issues related to these approaches can be categorized as instructional method, instructional approach and choice of curricular approach and the models of curriculum development.

The process of curriculum development requires thinking about the objectives to be achieved, learning experiences to be provided, evaluation of changes brought out by the curricular activities and so on. To arrive at a thoughtfully planned and dynamically conceived curriculum, it is necessary to: (i) assess educational needs of the
students; (ii) formulate broad and specific objectives; (iii) select and organize the content; and (iv) select and organise learning experience and their evaluation.

1.2.3 Curriculum Transaction

The process of curriculum transaction is the touchstone of success of any curriculum programme. A curriculum could fail to achieve its expectations if the process of transaction is faulty and ineffective. Instructional design is the heart of the process of planning learning experiences in particular, and educational programmes in general. The delivery mode or teaching mode must be squarely addressed by a curriculum planner and therefore, planning the processes of curriculum transaction becomes a major dimension of curriculum planning and management. Two basic consideration need to be borne in mind while planning transaction processes. One is the context in which transaction is carried out in terms of the physical and social characteristics of the setting. Second relates to teachers who actually are to transact the curriculum – their capabilities and attitudinal dispositions. Thus, adaptations by teachers to the changing demands of the physical and social settings where the curriculum is transacted, as well as their own proficiency in various methods of transaction becomes a prerequisite for making the process of curriculum transaction effective and meaningful.

Curriculum is an operational document translating educational objectives into practice propositions. The document arises out of a continuous process of development. The cycle represented can be conceived as curriculum development and curriculum transaction.
Curriculum development leads to curriculum transaction while curriculum transaction provides the feedback for further development of curriculum in the light of experiences with its transaction. It is considered desirable to operationalise curriculum transaction further to specify the role of this transactional activity. It is evident from the Fig. 1.2 that curriculum transaction is a complex phenomenon with several components and impinging factors conceived.

Figure 1.2
Curriculum Transaction with Several Components

EDUCATIONAL OBJECTIVES

CURRICULUM DEVELOPMENT

CURRICULUM TRANSACTION

Transaction Within Classroom

Transaction Outside the Classroom

Transaction Means

Media and Material

Teacher Behaviour

T_{B1} T_{B2} T_{B3} T_{B4}

Classroom Questioning Behaviour

Curriculum Transaction Environment
The curriculum transaction has been conceptionalized on two scenes: (i) outside the classroom; and (ii) inside the classroom.

Within the classroom, transaction means media and material comprising curriculum guide, textual material and a variety of instructional aids. The second component serving as means of curriculum transaction refers to teacher behaviour, the vital ingredient in the context of the country. A host of teacher behaviours are used to transact the curriculum (Gage 1963, Biddle 1973, Balzer 1973, Resenshine 1972, 1978, Jangira 1974, 1975, 1979).

Classroom questioning behaviour is one important set in this category (Jangira, 1980, 1981). What is the place of classroom questioning in curriculum transaction? Which objectives envisaged in the curriculum are the concern of classroom questioning? Does classroom questioning, as it is being practised in our institutions, respond to the curriculum objectives? If not, what can be done to make this transactional activity responsive to the curriculum needs?

It is a well known fact that one of the educational objectives refers to the development of thinking in children. It aims at the development of mental process involving different levels of thinking. This can be achieved through systematic designing of textual material providing for the development of higher levels of thinking process and transacting curriculum at these levels. It is usually believed that once the curriculum operationalises this objectives it is automatically translated into textual materials and classroom transaction.

1.2.4 Curriculum Evaluation

Curriculum evaluation deals precisely with the systematic process of determining and appraising the proficiency level of the learning experiences of a particular level of studies. It also helps in undertaking a systematic analysis of the course, its prerequisites and its
place in the total programme. The aim of curriculum evaluation is to judge the efficiency of a programme as a whole, by evaluating all its components. The purpose of curriculum evaluation is to give a direction to improve the existing programme and to examine the overall impact of a programme on student motivation and learning. It also helps in reorganising course content and the teaching learning strategies in a more effective manner. The overall validation of a programme and the collection of evidences by self-evaluation, are other ways to focus on the evaluation of a programme. Certain sources also identified like the students, the evaluator, the peer group and the professional evaluators for curriculum evaluation. The components identified for evaluation are goals and objectives, prerequisites like entry level knowledge, contents, processes, outputs, assessment procedures, references, etc. The techniques identified for obtaining evaluation information are subjective judgement, measuring student achievement, generating student opinion, etc. The information could be used in the best way for changing course content, improving teaching learning strategies and for ensuring the need for introducing new courses, etc. In view of this the curriculum evaluation process can be noted as a cyclic one.

1.3 CURRICULUM TRANSACTION PROCESSES

A more contemporary view of curriculum transaction is that it is a systematic process in which every component i.e. teacher, students, material and the learning environment, is crucial to successful learning. This perspective is usually referred to as the systems point of view, and the advocates of this perspective, typically, use the systems approach to design instruction. An attempt has been made to raise certain fundamental issues as to how to integrate the content inputs with teaching-learning processes.
Before starts teaching a course there are many questions that might occur to a teacher. What the teacher is going to teach? How much matter should he/she include in a particular course? What are the contents for each session of the course? Are the topics and sub-topics of the course to be arranged? Has the teacher allotted sufficient and definite time for each of these topics and sub-topics? Has the teacher followed a definite rule, procedure while transacting these topics, type of methods and media using for and what sort of instructional methods and evaluation teacher is going to adopt for all these contents? Has the teacher thought of any alternative strategies for presenting these topics. For all these questions understanding of certain concepts and applications are needed.

1.3.1 Analysis of Curriculum Contents

In the analysis of curriculum contents in a more meaningful and logical way the three important components involved are: facts, concepts and generalisations.

1. **Facts**

‘Facts’ as the types of content which are singular in occurrence, which have occurred in the past or exist in the present, which have no predictive value, and which are acquired solely through the process of observation. Facts are possible to be gathered through the direct observation of event, such as an experiment in a laboratory, or through retrieval of information from reliable sources as from dictionaries, encyclopedias, etc.

2. **Concepts**

‘Concepts’ are the names given to the categories formed as a result of classifying factual data. Learners, irrespective of their age, form concepts and give them names in order to make sense to various
stimuli in the world. Concept attainment involves the process of defining concepts by attending to those attributes that are absolutely essential to the meaning, and by disregarding those attributes, which are absolutely not essential to the meaning. It also involves learning to discriminate between what is and what is not. Learners pay attention to likenesses, ignore differences, and place similar objects in the same category.

3. **Generalizations**

Statements, that generally link two or more concepts, are known as generalizations. Generalizations are always predictive in their nature and contain more than one element. They heavily depend on proof by providing different dimensions to a simple fact. Hence, one has to collect additional data to prove the accuracy of a generalization.

Since facts, concepts and generalizations make up a large part of an instructional content, the teacher must select the most effective combination of these in design process. He/she should ask himself/herself the following questions while selecting and organizing contents of instruction: (i) Which are the most important facts and which are the ones that seem most accurate and relevant? (ii) Which concepts are familiar to the students and which ones need to be explained, before the students begin to understand the content? (iii) How do students learn to infer and predict through forming generalization? and (iv) How do they learn to test the reliability of the data they acquire?

For this purpose, a need has been identified to analyse the curricular contents with special reference to its three important components i.e., **facts**, **concepts** and **generalizations**. When facts are linked with the direct observation of an event, it is concept which emerges due to the classification of factual data, and when these are expressed in terms of statements, they become generalizations. Since facts, concepts, generalizations form a larger part of the instructional
content, the teacher must select the important combinations in the curriculum designing process.

1.3.2 Aspects of Designing Units

Once the contents are decided, the next step is to design these in the form of manageable units. For this, one has to pay attention to the three essential aspects of the units i.e., (i) **Scope**: which refers to the breadth and range of contents to be covered, (ii) **Focus**, which lay emphasis on the contents, and (iii) **Sequence**, which refers to the order of arranging the content input.

1.3.3 Presentation Modes

Once the content structure has been designed, certain suitable modes of presentations are identified and tried. Before entering the classroom, the teacher puts these questions to himself/herself: ‘What is the best way to go about teaching this topic?’ ‘What method shall I use?’ ‘What teaching strategies are possible and also suitable?’ ‘How do I put together the plans for instruction?’ and then jott down a number of points to use in order to make the teaching-learning process an effective and interesting one.

Many other things can be added to this, called ‘teaching inputs’ or as ‘strategy’ in the narrower sense. In the classroom, these broadly constitutes the methods, procedures and techniques that the teacher uses to confront students with the subject content and to bring about an effective outcome.

1.3.4 Criteria for Selection of Instructional Strategies/Inputs

Some important criteria for developing or making selection of the instructional strategies are identified as:
1. **Instructional Objectives**

   Before entering the classroom certain instructional objectives are identified by the teacher which he/she intends to achieve in the teaching learning process and select suitable instructional strategies/inputs for the learning process.

2. **Subject Matter**

   The nature and structure of subject-matter, the teacher intends to handle in the classroom also decides the type of inputs to be selected.

3. **Students**

   An important consideration for selecting instructional inputs is their appropriateness to the characteristics of students. Teachers who underestimate the ability of their students and look down on them, or others who overestimate their aptitudes and talk over their heads, follow approaches that do not recognise the student as a source of strategy (Oliva, 1988). Therefore, the teacher must be careful that the conflicting situations do not arise while selecting inputs for the teaching strategies.

4. **Community**

   The desires of the parents, the community, tradition and convention, all play a part in determining classroom inputs. The members of the community and parents should be involved in the process of curriculum development. Learning about community needs, beliefs, values and more, may be necessary before the teachers can gain adequate support for using the techniques effectively.
5. Teacher

Any instructional strategy that teacher adopts in a classroom, must conform to (i) personal style of teaching, and (ii) the model or models of teaching to be followed by teacher. A teacher should analyse the particular style of teaching and the model that he/she finds most suitable for his/her particular style. A teacher should be much more open-minded and expand his/her efficiency by developing more than a single model of teaching.

Oliva (1988), has suggested some guidelines for evolving the teaching-learning strategies which include: (i) a strategy must be right for the learners. It must meet their needs and interests; (ii) a strategy must be right for the teacher, and must be suited to the capacity of the teacher; (iii) a strategy must be right for the subject-matter; (iv) a strategy must be right for the time available; (v) a strategy must be right for the resources available; (vi) reference material must be available; (vii) a strategy must be right for the facilities available; and (viii) a strategy must be right for the objectives. It should be chosen in such a way that it fulfills the instructional objectives.

6. Models of Teaching

A model of teaching is a generalized set of behaviour that emphasises a particular instructional input or a set of inputs. Bruce Joyce and Marsha Weil (1980) have defined that:

A model for teaching is a plan or pattern that can be used to shape curriculum (long-term courses of studies), to design instructional materials, and to guide instruction to the classroom and other settings. Each model consists of a rationale, a series of steps (action; behaviours) to be taken by the teacher and the learner, a description of necessary support systems, and a method for evaluating the learner's progress. Some models are designed to help students grow self-awareness or creativity, some foster the development of self-discipline or responsible participation in a group; some models stimulate inductive
reasoning or theory-building and other provide for mastery of subject matter (Ellis, 1979, as quoted from Oliva, 1988)

A number of teaching models in our day to day teaching experiences include: exposition teaching, group discussion, role playing, demonstration, simulation, discovery, learning laboratories, programme instruction, tutoring, problem solving and mediated instruction. Joyce and Weil (1986) identified twenty models of teaching and have grouped these under four broad categories (i) information-processing models, (ii) personal models, (iii) social models, and (iv) behavioural models. All models may not be equally effective for all types of instructional situations and purposes, and hence, it is important to know the potential and attributes of several models for selection and use so that the most effective one can be chosen as per the need of the context.

7. Selecting Media

The most important and challenging task which teachers generally face is the selection of the media or medium that is to use in the classroom. At the outset, this decision is highly dependent upon a thorough knowledge of (i) what is being taught? (ii) how it is to be taught? (iii) how it can be tested? and (iv) who our learners are? The decision regarding the selection of media sometimes is done at the beginning of the design process. The reason may be that one has to think in terms of availability of resources and personnel at the development stage itself. If this is accepted, then the prior decisions should be made on what type of media is to be used and for which type of learning activities.

A variety of teaching media, which are available, not only motivate the learners, but also make the process of teaching easier and more effective. These media are: portable equipment easy for
mobility), training devices, computers, programmed texts, interactive TV, motion pictures, slide/tape, TV cassettes, filmstrips, printed texts, training aids, audio, charts, overhead projection slides etc.

8. Interactions: Input-Process-Output

Every teaching-learning activity has its own objectives to be achieved through the curricular inputs. It is always necessary to transact input through certain definite processes, the end product of which is to achieve the desirable outcome. The interactions of the input-process-output, on which the whole transaction process heavily depends are discussed briefly as below.

(i) Input

Effective teaching-learning situations focus on a particular topic, theme, problem or issue. Once the central idea of these are clarified, the components of curriculum planning can be developed in relation to them.

Instructional objectives are always linked with the specific and immediate outcome of a particular teaching-learning situation. Therefore, selection of inputs in a programme is entirely based on the understanding and requirements of the instructional objectives along with the subject matter. These instructional objectives basically serve three major purposes. Firstly, they clarify to the teacher and the students, what is to be accomplished. Secondly, they serve as a guide for the design or selection of meaningful contents, activities, and resources. Thirdly, they provide the guidance for measuring learner progress.

(ii) Process

The dynamics of the various instructional inputs involved in the transaction of contents includes students' participation in the activities.
their interests, satisfaction, and the pattern of communication between them and the teachers. The overall nature of the process is directly linked to the teaching-learning strategies as simply as the techniques of teaching adopted by the teacher. It has rather been defined as a means to bring about changes in pupil behaviour through the use of certain structured process of instruction. Therefore, the teaching-learning strategies (processes) include the principles for structuring teacher activities and the corresponding pupil activities. The teaching-learning process does not take place in vacuum. The behavioural changes which bring about in the students have always been determined by the inputs. The content inputs plays a dominant role in deciding the process variables. Process always follows inputs. However, certain issues need to be remembered before deciding on the processes: (i) It is the economy of the strategy, in terms of time taken to carry out the learning process and the resources needed to back up this, (ii) one must see the feasibility of the strategies in real classroom situations. This is always linked to the constraints that exist in the institution in terms of time availability, physical facilities in the classroom, laboratories, workshops, equipment etc. (iii) One has to be much more realistic with the teacher-competencies to carry out the strategies for success.

(iii) Output

Output, generally, is linked to the outcome of an event. In other words, one has to find out whether learning has really taken place. This is a complex task. While, identifying measuring devices for specific teaching-learning situation, two things are kept in mind: (i) the measuring devices must be appropriate for the objectives that they are intended for and, (ii) a wide variety of measuring devices can be used in the process.
Various devices of evaluation are employed to assess the learning outcomes of the students in the form of outputs. These techniques may be classified as subjective, objective or projective, depending upon the elicited responses. Tests are important tools used for classification, gradation, promotion, guidance and research. Self-report is an acceptable method of studying the individuals' choices and preferences. Participatory and non-participatory observation and peer ratings provide good measures of the characteristics of individuals as noted and experienced by others. Severe maladjustments and behaviour disorders need to be studied through projective techniques which clinically examine the deep rooted motives, emotions and feelings as the causes of expressed behaviour using the semi or unstructured stimuli. The projective techniques are good tools to examine the secret of one's personality and provide clinical guidance.

Various tools of evaluation are employed to assess the performance, behaviour, expression, quality, personality and ability of a person. These include rating scales, intelligence and aptitude tests, inventories, anecdotal record, teacher made tools and standardized tests of achievement. Each tools and tests has its own special role, its own uses and limitations.

Rating scale is useful to classify opinions and judgements regarding situations, objects etc. Intelligence and aptitude tests on the other hand are used as tools to measure in numerical terms the potential performance and special ability of a person. Inventories are used to assess the expression of the inner feelings of individuals through questionnaires and personality inventories. Anecdotal records are used to assess the behaviour in the past of a person in a particular situation. The important events are recorded by the teacher. It helps to know the specific quality of a person. Teacher made and standardized
tools are used to measure in numerical terms the attainment of students in various school subjects (IGNOU. 2000, pp. 6-17).

In conclusion, curriculum is not merely a syllabus or a scheme of courses. It includes a variety of all learning experiences provided by means of various activities in the educational institutions, within and outside classrooms through curricular and co-curricular activities. Planning, development, transaction and evaluation are the four major components of a curriculum. However, the transaction of the curriculum through various strategies and processes is the backbone of any curriculum programme. A best curriculum programme may not give good results if its transaction processes are not effective and meaningful. The transaction processes includes the analysis of curriculum content, formulation of specific instructional objectives, selection of appropriate instructional method and techniques, selection and effective use of various media and evaluation of the learning outcomes through relevant techniques and devices.