

Block

2

CURRICULUM DEVELOPMENT

UNIT 1

Towards Curriculum Development	7
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UNIT 2

Curriculum Planning	31
----------------------------	-----------

UNIT 3

Curriculum Designing	52
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UNIT 4

Curriculum Implementation and Evaluation	69
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MDE-416 : CURRICULUM DEVELOPMENT FOR DISTANCE EDUCATION

Course Outline

Block 1 : The Field of Curriculum

- Unit 1 : Curriculum: The Concept
- Unit 2 : Foundations of Curriculum
- Unit 3 : Curriculum: Issues and Trends in Distance Education

Block 2 : Curriculum Development

- Unit 1 : Towards Curriculum Development
- Unit 2 : Curriculum Planning
- Unit 3 : Curriculum Designing
- Unit 4 : Curriculum Implementation and Evaluation

Block 3 : Curriculum Transactions

- Unit 1 : Instructional System
- Unit 2 : Instructional Techniques and Materials
- Unit 3 : Learner Support Systems
- Unit 4 : Role of Distance Teachers in Distance Education

Block 4 : Curriculum Evaluation

- Unit 1 : Concept of Curriculum Evaluation
- Unit 2 : Techniques and Tools of Evaluation
- Unit 3 : Construction of Evaluation Tools
- Unit 4 : Evaluation of Distance Education Sub-systems

Block 5 : Curriculum Development Experiences

- Unit 1 : Tertiary Education
 - Unit 2 : School Education
 - Unit 3 : Technical and Vocational Education
 - Unit 4 : Non-formal and Continuing Education
 - Unit 5 : Materials Production
 - Unit 6 : Media and ICT in Teaching Learning: IGNOU Experiences
-

LET US BEGIN HERE

The course on the theme of ‘Curriculum Development for Distance Education’ is divided into five Blocks. This is the first one. It comprises three units in all. A schematic representation of the design of the unit is given below to facilitate your access to the content presented here.

UNIT X

X.0 Objectives

X.1 Introduction

X.2 Section 1 (Main Theme)

x.2.1 Sub-Section 1 of Section 1

x.2.2 Sub-Section 2 of Section 1

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Check Your Progress

X.3 Section 2 (Main Theme)

x.3.1 Sub-Section 1 of Section 2

x.3.2 Sub-Section 2 of

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Check Your Progress

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Answers to Check Your Progress

X.n Let Us Sum Up

* ‘X’ stands for the serial number of the unit required.

The **Objectives** in each Unit articulate briefly:

- what we have presented in the Unit, and
- what we expect from you once you complete working on the Unit.

The Units are divided into sections for easy reading and better comprehension. Each section is indicated distinctly by **BOLD CAPITALS** and each sub-section by **relatively smaller but bold** typeface. The significant divisions within sub-sections are in **still smaller bold** typeface so as to make it easier for you to see their place within sub-sections; and the items which need to be highlighted are numbered [i.e., (i), (ii), etc.]. For purposes of uniformity we have employed the same scheme of ‘partitioning’ in every Unit throughout the course. In the last section of each Unit, under the heading ‘Let Us Sum Up’, we summarise the whole Unit for purposes of recapitulation and ready reference.

Besides, self-check exercise under the captions ‘Check Your Progress’ and ‘Exercise’ have been provided at four-five places in each Unit which invariably ends with model/sample answers to the questions set in these exercises.

What, perhaps, you should do is to go through the Units and jot down important points as you read. This will help you keep track of and assimilate what you have been reading in a Unit and answer the ‘self-check exercises’. These exercises are not meant to be submitted to us for correction and evaluation. The exercises are meant to function as study tools to help you keep on the right track as you read the units. The points you have jotted down will help you in answering the questions. Or, you may as well take a quick look through the relevant pages to locate the answers.

We would like you to work out the answers in the blank space(s) provided in this booklet. The purpose of giving self-check exercises will be served satisfactorily if you compare your answers with the model ones given at the end of each Unit, after having written your answers in the blank space. **You may be tempted to have a furtive glance at the model answers(s),** as soon as you come across an exercise. But we do hope that you will overcome the temptation, and turn to model answers (which are not the best answers necessarily) **only after you write yours.** Each Block will normally have one assignment which should be sent to us for evaluation. In all, you may have to work on one assignment for a Course.

The following norms have to be practiced while you are working through the assignments.

- The answers should be precise and well-documented.
- Before you put down anything in words, assimilate what you have read, integrate it with what you have gathered from your experience and feed it into your answer.
- Make the best use of the Block and additional reading materials for diligently working through the assignment.
- Write your roll number legibly indicated in the “Participants’ Programme Guide”.

BLOCK INTRODUCTION

In the 1960s a good deal of activity occurred with regard to theories of instruction and the relationship between curriculum and instruction. Curriculum and instruction were defined as separate entities by Jerome Bruner, who developed a theory of instruction that focused on four factors: (1) facilitating learning, (2) structuring knowledge, (3) sequencing learning experiences, and (4) pacing rewards and punishments in the process of learning and teaching. In this context, curriculum and instruction were considered as separate disciplines of education and both were seen as having equal weight. Curriculum is defined as the “plans for action”, instruction as “putting plans into action” (similar to Tyler), teaching as the “behavior of the teacher” (similar to Taba), and learning as “the desired responses” of the learner (similar to both Tyler and Taba). Finally Harry Brondy spoke of curriculum as a total system.

This block consists of four units which deal with these aspects in this order:

Unit 1: Towards curriculum development

Unit 2: Curriculum planning

Unit 3: Curriculum designing

Unit 4: Curriculum implementation and evaluation

Mail us

At the end of this block, we have provided a feedback questionnaire. Please fill it after completion of this block and send it to us. Your feedback shall be highly useful for future revision and maintenance of the course. Also please take note of the time you devote in studying this block. May be you complete this block after 4-5 sittings. But for every sitting, kindly note the time separately so that you can categorically say how much time you took to read this block. You can send the feedback questionnaire by post or you can e-mail the same to: stride@ignou.ac.in. In the e-mail, please mark in the subject areas – FOR COURSE COORDINATOR-MDE-416. You may also contact us for any difficulties related to the programme in general and MDE-416 in particular.

UNIT 1 TOWARDS CURRICULUM DEVELOPMENT

Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Curriculum Paradigms
 - 1.2.1 The Practical Paradigm
 - 1.2.2 The Emancipatory Paradigm
 - 1.2.3 The Empirical Paradigm
- 1.3 Essentials of a Curriculum
 - 1.3.1 Setting Educational Purposes
 - 1.3.2 Deciding Learning Experiences
 - 1.3.3 Organising the Content
 - 1.3.4 Deciding Evaluation Schemes
- 1.4 Let Us Sum Up
- 1.5 Answers to Check Your Progress

1.0 OBJECTIVES

After completing this unit, you should be able to:

- state the educational purposes which are relevant for framing a curriculum;
- select appropriate learning experiences to suit a given set of educational purposes, with a provided task;
- organise learning experiences for effective instruction;
- evaluate the effectiveness of learning experiences, in a given situation;
- analyse your own educational situation in terms of curriculum- frame, i.e. purpose, learning experiences, organisation and evaluation, and to say where it leads.

Let us take up for discussion the theme of the Unit under consideration.

1.1 INTRODUCTION

In Unit 1 (Block 1 of this Course) we expressed an interest in arriving at a conclusive definition of the concept of curriculum and traced the evolution of curriculum as a field of study. We then argued that curriculum theory is as scientific as any other scientific theory insofar as both happen to be plans of action. We placed curriculum as a field of study in its social, philosophical, psychological and historical context in (Block 1). That curriculum-frame should be flexible enough to incorporate social changes and corresponding social needs has been implied in the same Unit. We have dealt with this theme in some detail with reference to curriculum for adult education

Read this piece:

“The concept of curriculum design brings into focus the way, in which curricula are created, especially the actual arrangement of the parts in the curriculum plan.... The term curriculum design – sometimes called curriculum organization – refers to the arrangement of the elements of a curriculum into

a substantive entity. The parts, sometimes called components or elements, that are arranged in a curriculum design are: 1) aims, goals, and objectives 2) subject matter 3) learning experiences and 4) evaluation approaches.” (Ornstein and Hunkins, 1986).

Now look at the structure of this Unit. Can you link up what has been described in the above paragraph with the “structure” of this unit? You are right? This Unit consists of the ‘what’ and ‘how’ of the curriculum-frame, i.e., the relevant considerations needed for framing the curriculum. We intend to take up the dominant curriculum paradigm and discuss it briefly for illustrative purposes.

1.2 CURRICULUM PARADIGMS

In this Unit, we shall be talking about three paradigms of curriculum. They are:

- i) the practical paradigm;
- ii) the emancipatory paradigm; and
- iii) the empirical paradigm.

Of these, the last one, i.e., the empirical, also known as the perennial or analytic, is considered the dominant curriculum paradigm. Therefore we shall devote a complete section i.e., section 1.3 to discussing it. In this section, we shall discuss the others at reasonable length.

Paradigm Defined

Let us begin our discussion with an activity. Look up the meaning of paradigm in the dictionary. Now read what we mean by paradigm here and check whether the meaning you have found in the dictionary matches this. To us, a paradigm is a connected set of ideas, values, and rules that governs the conduct of an inquiry and, the ways in which data are analysed and interpreted. It suggests that in a paradigm, anomalies are bound to occur from time to time. In the physical sciences, for example, the interactions of matter and energy within the atom could not be explained sufficiently by Newtonian physics. Similarly, problems regarding the speed of light and the nature of time and space in the universe of astrophysics necessitated new forms of inquiry. Similarly we can refer to other revolutions and changes in paradigms in science and even to the gradual acceptance of a ‘round earth’ instead of a ‘flat one’.

By implication, we say that a paradigm cannot be static. It is dynamic as it incorporates changes from time to time. Nevertheless a paradigm is essential to guide an inquiry.

Having thus outlined what we mean by a paradigm, we shall now talk about it in the context of curriculum.

Let us consider the following two questions:

- i) **What** considerations are most relevant when we frame a curriculum?
- ii) **How** do we think about these considerations?

The first question or the ‘what’ question does not directly pertain to the ‘what’ that should be taught; instead, it centres on what considerations we should keep in mind when framing, analysing or developing a curriculum. And, the ‘how’ question refers to ‘how’ inquiry/research should be conducted. Obviously, these questions invoke the consideration of paradigms.

1.2.1 The Practical Paradigm

In the practical paradigm, curriculum is defined as between continuous interaction among teacher, learner, subject matter and environment. The definition of the practical paradigm admits the entire culture of the classroom as the curriculum. This includes everything that happens there, both subject matter and environment. Curriculum is, thus, anything that influences or shapes the thought, feeling, outlook and behaviour of learners.

In essence, practical curriculum work entails the conscious orchestration of these four factors to produce a desirable influence on the thoughts, feelings, outlook, and behaviour of learners. To conduct such orchestration, one must thoroughly be involved in the educational situation in question. Thus, the practical orientation sees curriculum as evolving from the educational situation rather than being a pre-designed and subsequently implemented organization that engages teachers, learners, and curriculum developers in ongoing deliberation about their influence on subject matter, socio-cultural milieu, and one another.

A common complaint has been that curriculum is dying due to its preoccupation with a theoretical paradigm in educational research. Schwab (1969) identified signs of crisis evident in the educational researchers' neglect of the phenomena that they claim to study i.e., actual educational situations. To change this situation, according to him, we required a paradigm shift from the theoretic to the practical, quasi-practical and eclectic. Obviously, his concern is not about what the curriculum should be like; on the contrary he emphasizes how curriculum inquiry should proceed. (This should not, however, narrow down our perspective to the view that practice always has an edge over theory). Schwab himself emphasised the need for practical researchers to have a broad, liberal background in as many bodies of theoretical literature as possible. If one has little theoretical background, one has little capacity to be eclectic. If one has a reasonably sound background of theories, it is necessary then to learn to use them in the resolution of practical problems. In essence, theory and practice should be looked at as complementary to each other.

Looking at the issue from the viewpoint of the classroom, Schwab regarded four features of the classroom as the essence of curriculum. These are teachers, learners, subject matter, and the socio-cultural milieu. The derivation of these features is integrally connected with the principles of practical paradigm. If you want to decide and act with greater understanding in a particular curriculum situation, you should develop insights by interacting with that situation. The insights thus gained should be reflected in the framing of the curriculum. By implication, the most important curriculum deliberation occurs at the local educational site. This has been reinforced by the four predominant assumptions of practical curriculum inquiry.

What are these assumptions?

The practical curriculum inquiry assumes that:

- i) the source of problems is found in the actual state of affairs, not in the hypotheses of researchers who have to find similarities among various situations that cannot be grouped together convincingly;
- ii) the subject matter sought in the process of practical curriculum inquiry is situational insight and is not generalistic;
- iii) the primary end of practical curriculum inquiry is to increase our capacity to act morally and effectively in pedagogical situations, and not to generate generalised knowledge; and

- iv) the method of practical curriculum inquiry is direct interaction with the state of affairs to be studied.

Does this mean that a classroom is the proper setting for practical curriculum inquiry to take place?

If this is the case, the vast array of curriculum decision making bodies that lie beyond the individual classroom will be rendered superfluous. They have a role to play, but perhaps a much reduced one when compared with the usual customary curriculum decision-making structure which works from the top downwards with typical committees devising curriculum purpose, content, organisation and evaluation. While such committees can undoubtedly serve a useful function in setting the tone and general direction of curriculum development, this is done away from the local site. When the local needs are sidelined, it is natural that deliberations cease to be practical. By implication, the institution/classroom itself should be the centre of practical inquiry. A “curriculum group” constituted by the head of an educational institution, representatives from the community, teachers and students can easily conduct the inquiry.

It is quite likely that the question of resources, finance, time and personal considerations would not permit such curriculum groups to come into being. In such a case, is there any alternative means of fostering practical inquiry?

Clearly, yes. The democratic classroom might provide an answer that prevents further cost. Classrooms already exist, and so would not need extra resources. Surely, students and teachers could enter into actual dialogue about what is worthwhile for them to do. This does not, however, imply that practical curriculum inquiry exists only in the classroom setting. It can exist anywhere provided the consequences of the problems studied are made to guide the framing of a curriculum.

From this discussion we can deduce that the practical paradigm offers an active role to learners in curriculum development. Despite possible limitations to engagement of students in practical deliberation, it is a policy that fosters personal responsibility rather than adherence to generalized, expert authority. No one is in a better position than the students to tell educators about their life situations, concerns and needs. We should, however, admit that rarely do children and adolescents express these interests. But then, such expressions of interest require translation into needs through dialogue with perceptive teachers. This dialogue is interaction or deliberation of the practical paradigm, a method by which students become better able to articulate their needs as they more consciously participate in the teacher’s work which is carried out by interaction. In a classroom situation, many of us may think that we independently arrive at the daily design of the learning process.

How tenable is this view? The design of the learning process is a product of interaction with students, subject matter, and milieu. Each of these factors continuously reshapes and mediates the teacher’s decisions.

Does practical inquiry appear to be a mere trial and error approach devoid of theoretical sophistication? Obviously, practical inquiry condemns the ‘theoretic’. However, it does not condemn theory or philosophy in general. We shall elaborate on this. The term ‘theoretic’ refers to research that claims to be useful to educational situation but takes its problems from abstract bits and pieces of many situations rather than from an actual state of affairs with all its contextual variables. The theoretic keeps the researcher detached from situations investigated and so the end-product is a law like generalization. The practical inquiry into curriculum thus condemns the misapplication of research

methodology rather than the use of theories. Having said this, let us now focus our attention on yet another paradigm. Before we do so, please work out the following exercise:

Check Your Progress 1

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this Unit.

List the basic assumptions of the practical paradigm of curriculum.

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1.2.2 The Emancipatory Paradigm

According to John Dewey (1916), education should reconstruct society. What does it suggest?

It may suggest that to understand the culture of one or more classrooms, we must probe deeply and broadly into the culture in which those classrooms have come into being. Obviously, then, we cannot be content to tinker with in-school problems in the hope of evolving a better society, when the roots of those problems lie deep within society itself.

Critical theorists who are concerned with education ask questions such as

- How is knowledge reproduced by schools?
- What are the sources of knowledge that students acquire in a classroom?
- How do students and teachers resist or contest that which is conveyed through lived experience in classrooms?
- What do students and teachers realize from their classroom experiences? In other words, what impact does the classroom have on their outlooks?
- Whose interests are served by the outlooks and skills fostered by schools?
- When served, do these interests move in the direction of emancipation, equity and social justice, or do they move in the opposite direction?
- How can students be empowered to attain greater liberation, equity and social justice through schooling alone?

Though the above questions pertain to the classroom set up, they also hold good for distance education situations. The questions posed here clearly imply that emancipatory curriculum assumes a state of severe oppression of individuals in their niche that emanates from ideological and socio-economic forces in the broader world. These oppressive forces inhibit educational growth. To those we follow Dewey's views on education, it is imperative to overcome these impeding forces. The term 'emancipation' in our context thus refers to an integration of the theoretical critique of society and action or practice that seeks to improve society and the individual through education. In other words, we shall say that 'emancipation' refers to a liberation of one's self to enable growth and development from the ideology of social conventions, beliefs, and modes of operation.

An emancipatory curriculum draws heavily from the practical assumption that knowledge or reality is inter-subjectively constructed and meanings created within historical, political and social contexts. If the ideology that propels a society is itself created rather than received, emancipatory curriculum paradigm follows that it can be recreated.

Let us pause for a minute here.

Check Your Progress 2

Notes: Check your answer with the one given at the end of this Unit.

Three statements are given below. If you agree to a statement or statements, tick mark the Yes-box, and if you disagree, tick the No-box.

Statements	Yes	No
i) Both practical and emancipatory paradigms condemn a generalistic type of curriculum.	☐	☐
ii) Emancipatory paradigm implies learner autonomy.	☐	☐
iii) Practical paradigm gives more importance to educational policy matters than to the learner.	☐	☐

Now, we shall discuss the major thrust of the Unit, i.e., the essential components of curriculum by taking up Tyler's (1949) curriculum paradigm.

1.2.3 The Empirical Paradigm

Over the decades Tyler's (1949) paradigm has been, and remains, a guiding factor in curriculum framing. This paradigm is popularly known as Tyler Rationale or Empirical/Analytic paradigm.

Tyler identified the following four questions that should provide the parameters for developing a particular curriculum:

- What educational purposes should curriculum aim for and try to attain?
- How can learning experiences be selected to meet the educational purposes identified?
- How should learning experiences be organised for effective instruction?
- How can the effectiveness of learning experiences be evaluated?

It is advisable not to elaborate on this paradigm here in this subsection, as the purpose of this section as a whole is to acquaint you with only a few curriculum paradigm models, besides which the empirical paradigm deserves a full section to itself. Accordingly, the following section will be devoted to this paradigm exclusively, though of course under a different heading altogether. You must try to see the relation of the "heading" to the thrust of the paradigm.

1.3 ESSENTIALS OF A CURRICULUM

Curriculum research has grown rapidly since the 1950s and much of it can be categorized within each of the key terms of Tyler's four questions – purposes, learning experiences, organisation and evaluation. And we call these items the essentials of curriculum. What Tyler advocated has become the paradigm – the governing rules – for the conduct of educational research and remains prominently dominant today. Here, we shall take up in detail each one of the Tylerian parameters for curriculum.

1.3.1 Setting Educational Purposes

In this subsection, we shall look at the different possible forms that ‘purposes’ may take, and also touch upon the criteria that may be used as a basis for selecting the corresponding learning experiences. However, let us be clear that form and substance exist in dynamic interplay; their separation, as visualized here, is only for our purposes of analysis and ease of presentation.

Educational purposes may be presented in four different forms. They are:

- i) Global;
- ii) Behavioural;
- iii) Evolving; and
- iv) Expressive

We shall touch upon each of them in the given order.

- i) **Global purposes:** These are broad based statements of the purposes of education. We frame curriculum depending on how we perceive the broad purposes of education. For example, Plato saw the virtuous life as the ultimate goal of education, and Aristotle thought “happiness” as the goal of education. The specifics that they advocated for educational practice were directed towards attaining these ends. Throughout the history of educational thought, the guiding power of some global conception of the good life exists in almost every proposal for curriculum and teaching. In recent years, the emphasis on universal education has forced the curriculum specialists to broaden their outlook regarding the ultimate purpose of education which had changed from aiming at the preparation of “cultured men” to best serving the public at large. Global purposes are designed to provide educators with general, prescriptive guidelines. In other words, these purposes are intended as open ended principles supporting the idea that professional educators should not be given curriculum recipes. They should be, however, expected to interpret global goals creatively to fit situational needs.
- ii) **Behavioural purposes:** We can define behavioural objectives as very specific statements of purpose for which an end result, or terminal behaviour is stated in observable terms. We may state that historically behavioural objectives were probably part of apprenticeship systems where apprentices were expected to master certain tasks. This was first advocated for the curriculum field by Franklin Bobbitt, and later Mager and others popularised this approach (Schubert, 1986).

Now we shall attempt to recall, by working out the following exercise, what we have studied so far in this unit.

Check Your Progress 3

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this Unit.

Explain whether or not the following statement can be considered a behavioural objective.

“The student will know how to use punctuation marks.”

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Our answer to the above exercise would clearly suggest that we should be able to state behavioural objectives pertaining to all that we teach in order that what we are doing be made clearer and more explicit. Further, we can communicate accurately to parents and students exactly what we intend to teach/do. Clearly, by stating objectives in behavioural terms, it is much easier to evaluate the curriculum as well as the performance of students.

In this connection, we may present the taxonomies of Bloom, Krathwohl and Harrow. (Schubert, 1986). Bloom (1956) developed a taxonomy of behavioural objectives in the cognitive domain that covers six phases from lesser to greater complexity. (Note that this will be tackled in greater detail in Unit 3 of this Block).

Recall
Comprehension
Application
Analysis
Synthesis
Evaluation

Similarly, Krathwohl (1956) and others developed a hierarchy of objectives in the affective domain, beginning with receiving a value complex (philosophy of life), and moving through response, evaluation, organization, characterisation in relation to it.

Anita Harrow (1972) developed a taxonomy of objectives in the psychomotor domain that covers also hierarchy through observation, imitation, practice and adaptation. (Remember that you will have a more detailed picture of this in Unit 3 of this Block.)

Most recently attention in the field of cognitive psychology has been given to the conceptualization of the cognitive functioning that underlies the taxonomy educational goals. An understanding has been arrived at the ways of formulating the content specialist's educational goals, so that account is taken of how students organise and use information (Greeno, 1989; Haertel 1983; Snow and Lohman, 1989).

However, some object to taxonomies with the contention that they inappropriately separate integrated aspects of human functioning. In other words, they may cause teachers and curriculum developers to perceive students as having separate cognitive, affective or psychomotor sides. A teacher, for example, may believe that a lesson is 'cognitive' and so ignore its 'affective' consequences and implications. Nevertheless, it should be clear to us that this was not the intent of Bloom, Krathwohl and Harrow. Instead these taxonomies have been developed as analytic tools to help researchers and practitioners look more clearly at the relationship between educational objectives and the complex processes of cognitive, affective and psychomotor functioning.

- iii) **Evolving purpose:** Evolving purposes suggest that objectives are not the pre-specifications of educational experience, but the outcomes of such experience. For example, students as human beings want to engage in learning experiences that satisfy their needs. In this context, we as teachers should discuss with them the probable consequences of these student-centred purposes. Together when we work out a process of problem solving, it enriches the students' experience by enabling them to reconstruct and reflect on their situation with greater understanding. For teachers and students, such purposes are not directives, documents

or curriculum guides; rather, they are a sense of direction that gives importance to growth.

‘Evolving purposes’ may sound good in principle, but there are constraints which make them too idealistic. Some of these constraints are as follows:

- The use of evolving purposes requires teachers who are able to engage in meaningful dialogue with students. It is a fact that most of us, unfortunately, have not been trained to do this.
- Reluctance to use this interactive method because of the extra effort and planning it requires.

- iv) **Expressive objectives:** Expressive objectives assume that it is sometimes desirable to provide activities for students without pre-specification or even a clear idea of what the outcomes will be. The rationale behind this argument is that students should not be constrained by pre-determined goals. Teachers and students should be able to discover what the experience has in store for them.

Having acquainted ourselves with different forms of educational purposes, we should also look into substantive criteria for selecting these purposes.

How do we select purposes?

Tyler (1949) identified the following sources for selecting purposes:

- i) Study of learners;
- ii) Study of contemporary life outside the institution; and
- iii) Suggestions from subject specialists.

Hilda Taba perpetuated the study of learners, knowledge and society or culture as a foundational prerequisite for the process of curriculum planning (Taba, 1962).

For developing a curriculum, we should be able to identify the target audience and their needs. Of course, deciding on the needs of the potential target group will to a great extent be based on assumptions. As external factors, i.e., the socio-cultural milieu play a vital role in shaping learner-needs, it is imperative that these factors be studied in detail. Further, past experiences should also be considered.

1.3.2 Deciding Learning Experiences

We use the term “learning experience” in place of “content” in order that the former is clearly distinguished from the desirable notions of the latter.

Orientations to content

Content has long been considered a central curriculum concern. Many would go so far as to consider it the major component for curriculum developers to determine. Content does directly address the question: what shall be taught?

We should mention here that in the practice of curriculum development more often than not this ‘what’ question is often addressed without much attention to purpose, i.e., the ‘why’ question. Some argue, however that when content is determined, purposes are implied. It is unfortunate if we look at them synonymously.

The relation of purpose to content varies depending on how content is looked at. Let us elaborate on this point here. The following three widely divergent interpretations of 'content' have played central roles in curriculum thought and practice:

- i) emphasis on subject matter;
- ii) emphasis on learning activities; and
- iii) emphasis on learning experiences.

Let us take up and discuss each one of these interpretations in the order in which they are given.

- i) **Content as subject matter:** Traditionally content has been treated as knowledge to be acquired. The emphasis, however, is on knowledge to be disseminated from educators to learners. 'Content', in the course of time, came to be equated with the material covered in the text, and curriculum guides often list pages that are to be covered or mastered by different dates on the calendar. Lectures and text books remain dominant providers of contents as subject matter. Subsequently, a major market has emerged for publishers of text books. Besides text books, now a variety of integrated systems of worksheets and individual study materials, programmed materials, computer software and so on have been developed focusing in different ways on the same topics. Although major studies have been made from the days when the subject matter was conveyed exclusively by text and word of mouth, i.e., lectures, to the individualized learning materials, multimedia systems, use of computer, etc., the purpose is very much the same. It is to impart concepts, knowledge, principles and skills to learners. Thus, curricular content is that which is to be learned, namely, the subject matter derived from the disciplines of knowledge and rendered appropriate for different age groups and ability levels.

What does it suggest?

The emphasis on subject matter takes for granted that curriculum is a matter of pre-specification. This implies that experts know what is best for teachers to teach and learners to learn. Thus it is elitist in exerting control over the education of others without allowing them active participation in learning. Furthermore, emphasis on subject matter relegates content to disciplines alone. By implication, it presupposes that personal experiences and activities of learners have bearing upon what they learn. Thus, content has been, and still is viewed as a product to be received and not a process to be experienced.

- ii) **Content as learning activities:** The history of curriculum practice prior to the twentieth century was almost exclusively dominated by a subject matter approach to content.

At the beginning of the twentieth century there was a shift in this approach. The emphasis urged that curriculum should respond to the needs of contemporary society.

How shall we translate such needs into curriculum?

Bobbitt suggests that the needs of a society can be identified by observing the activities of the adult population. The needs have to be then translated into behavioural objectives and the objectives, in turn, into learning activities for the students. Obviously, more emphasis was placed on what students did than on what subject matter was bestowed upon them. (Schubert, 1986).

Today, we hear the term ‘learning activities’ used frequently. The use refers to what students should do as contrasted to that which they are presented with and expected to learn or know. (For example, instead of reading about or listening to how a law is made by introducing a Bill in the Parliament, the students may be engaged in the activity of simulating such processes). By implication, the approach to content emphasizes the observable. We can see an activity performed, but subject matter being assimilated or an experience being inculcated cannot be seen easily. Thus, besides involving students in activities, the activity approach to content serves the purpose of making what is to be done explicit and observable.

It is obvious that the subject-matter-emphasis assumes that learners are passive recipients, and such view clearly negates much that developmental and cognitive psychologists have made known to us. The learning activity approach focuses on behavioural outcomes. We cannot, however, consider behavioural outcomes the ultimate purpose of learning. Students who have had different life experiences prior to encountering a learning activity will invariably display different learning outcomes. In essence, it becomes a way of involving students in something that grasps their attention but need not necessarily attend to their basic needs. In practice the activity actually becomes an end in itself. Merely doing the activity emerges as the purpose rather than using the activity to fulfill a purpose/need.

Having studied two different approaches to content, let us now turn to the third one.

- iii) **Content as learning experiences:** Tyler (1949) seems to have intentionally used the term learning experiences to differentiate his own position from that of those who emphasized ‘subject matter’ and ‘activity’ as content. He expressed that the term ‘learning experience’ is not the same as the ‘content’ with which the course deals nor the ‘activities’ performed by teachers/learners. Instead, it refers to the interaction between the learner and the external conditions in the environment to which the learner can react.

Let us elaborate on this. In a teaching/learning process, learners and teachers engage in an academic dialogue. Teachers, usually, have broader experience in relation to the general purposes of curriculum. Learners have greater understanding of their own life experience. When they engage in a dialogue, then what is in the best interest of the learner to experience emerges naturally. For instance, in a classroom situation, a skilful teacher begins with the current, often superficial, interests of students and through discussion, helps develop a mutual realization of deeper interests which these surface interests may represent. The teacher then, draws upon an eclectic awareness of the disciplines of knowledge and relates existing knowledge to fundamental needs and interests of the learners.

A word of caution

Our stand is that the concept of content must move beyond what is externally imposed on the learner to that which is internally realized as valuable for growth. When content is conceived as learning experiences, it becomes a part of the learners’ being, real to his or her life, a springboard to self-realization and is governed by self-control as opposed to elitist control. Thus, the content in this sense is a psychological construct as contrasted to the idea of content as subject matter to be delivered or activity to become engaged in. Of course, we should say here that to conceive of content as experience in the minds of others, or what they realize as a result of experience is much too intangible. Obviously, we cannot get inside the minds of other persons to monitor how every environmental episode that they encounter affects their outlook.

However, if we cannot know how environment affects the outlook of the learner, we may not have any basis to suggest curriculum inputs. This position leaves too much of the learning process in the control of students. But then, at a lower level, due to immaturity, it is difficult for them to decide what is best for them to learn. In this situation, the onus is on the curriculum developers to interact meaningfully with the students and bring to the surface what is best for them to learn.

Check Your Progress 4

Notes: a) Space is given below for your answers.

b) Check your answers with the ones given at the end of this Unit.

We have studied three interpretations of 'content'. They are:

- i) Content as subject matter;
- ii) Content as learner activities; and
- iii) Content as learning experiences.

What is the major thrust of each of these interpretations?

- i) Content as subject matter emphasizes

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- ii) Content as learning activities gives emphasis to

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- iii) Content as learning experiences stresses on

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Among other things, our discussion of different interpretations of content clearly indicates that selection of content primarily depends on how we perceive it. However, irrespective of what our approach to content, there are a few common criteria for selecting content.

Let us look into them now.

Criteria for selecting content

Various influences, which include our interpretation of 'content', govern decisions about what content should be offered. For our immediate purposes, we shall consider the following eight criteria which influence the selection of content:

- i) **Social needs:** As curriculum is seen to perpetuate socio-economic values and structures that exist in a society, content as a part of curriculum should be selected to serve this purpose. A great deal of content selection depends on the nature of the needs that a society visualises for itself.

- ii) **Test of survival:** The duration of time can be considered an indicator of what should be taught. If any content has endured the changes of decades and centuries, it must be worthwhile. However, we should note here that all that persists may not be the result of conscious choice. Very often, it may obtain from tradition or even from mindless habit.
- iii) **Structure of the disciplines:** Here the suggestion is that each discipline has an inherent, deep structure of its own. Therefore, curricular content should be presented in a form that enables students to comprehend this structure.
- iv) **Utility:** Curricular content is selected because it is useful to the learner as an individual and the society as a whole. For example, in a rapidly changing world, it is necessary to develop coping strategies, or life skills. These might include critical thinking, problem solving and the kind of resourcefulness that allows one to find one's way around in new or difficult circumstances.
- v) **Publishers' decision:** Although it may not appear as altruistic as some of the other criteria for content selection, some argue that curriculum developers at the school level exert little impact on the content taught. Generally, the practice has been that they merely select which series of textbooks or instructional system to adopt. It is a fact that most of the publishers have greater expertise at their service than institutions have. For instance, they can hire noted scholars from different disciplines to develop content for their texts and put the materials in a form that appeals to students' interests and motivates them. Through marketing strategies, they can easily find out what educators want to buy and what appeals to and works well with students.
- vi) **Political pressure:** Those who are at the helms of affairs at educational institutions are forced to cater to public demands and to partisan politics. Such demands surface at many levels – from school to community, from state to nation, from interest group to international conflict – and influence the curriculum accordingly. A Third World nation may, for example, try to overcome colonial overtones and thus saturate its social studies curriculum with patriotic messages.
- vii) **Learner interest:** It is an important and very crucial criterion. We should be able to base curriculum content on the interests of the learners. The point is that learners should be allowed to study what they are interested in. Content should, therefore, be so selected that it satisfies the interests of the learners. Either these interests are seen as a motivating device by which to lead students to knowledge deemed relevant to them, or it is believed that students actually know what is best for them. Of course, many positions lie between these extremes. As far as the adults are concerned, they are in a better position to determine content, simply because of their experience and self-knowledge. Through dialogue, sensitive teachers can help academically immature students to discover the more fundamental interests that underlie their momentary whims.
- viii) **Democratic action:** Does the curriculum content foster democratic action? The assumption is that if we want to build a society that can live better together and make decisions more effectively through cooperative deliberation then it is essential that we should select such curricular content as to lead the students in this direction. However, to involve the young and immature students in democratic action is an inefficient, time-consuming and wasteful way to determine curricular content.

Now let us look at yet another essential curriculum-component, i.e., 'organization'.

1.3.3 Organizing the Content

Among the essential components of curriculum, 'organization' is the most multifaceted. It includes the issues about scope of curriculum offerings and those about sequence, i.e., how to order the content. We should reiterate here that irrespective of how content is interpreted, scope and sequence are crucial organisational decisions. In this subsection, we shall deal with alternative responses of the problem of scope, and investigate criteria used in determining sequence. Besides, we shall consider learning environment within the purview of curriculum organisation.

Scope

We must be aware of the fact that almost every year the expansion of knowledge yields new fields of inquiry. Considering the magnitude of knowledge explosion, it is only natural for us to raise the question: what kind of knowledge and how much of it should be provided to the students? Clearly, we should admit that there is not enough time to offer all existing areas of study. Thus, by the middle of the twentieth century, the following five approaches to scope had emerged.

- i) **Separate subjects:** According to this approach, disciplines represent discrete bodies of knowledge that should be studied separately and that some disciplines are more essential than others. The convention has been, therefore, that a few subjects are seen as most worthwhile, and we should offer those, and reject other areas of knowledge as less basic. For example, it is not uncommon to hold that one discipline, such as science, is highly useful and another, such as music or art is a frill added on to this 'real' knowledge.
- ii) **Broad fields:** This approach clearly negates the view expressed in item (i) above. It correlates subject areas and fuses them together in practice. For example, in a unit on World War-II, the student will be asked to read appropriate literature and write essays on the issues concerned. In doing so, they will study the historical, geographical, and socio-economic aspects of the issues for a unified purpose rather than consider them as individual subjects.
- iii) **Projects:** The projects approach involves students in an overreaching project and relates many subject areas to it. The project approach demonstrates to students that it requires a perspective based on many different disciplines to understand any single facet or problem of our culture, society, personal lives, or intellectual interest. The main criticism against this approach is that usually projects are artificial rather than genuine outgrowths of student interest.
- iv) **Core:** The core curriculum brings the disciplines together under the organising centre of social problems. For example, a social problem such as poverty, population, war, ecological issues etc., can be studied by engaging students in research that enables them to draw insights from many different disciplines as well as from practical experience.

The core demonstrates the use of knowledge by applying it as it is learnt. It motivates students by engaging them in the study of problems that are of broad, general interest. But then social problems are too abstract for most students. They fail to see a connection between them and their own lives. Also, 'core' has a totally different meaning today. It now refers to a basic set of required courses in a programme, following which students may select electives.

- v) **Integration:** This approach is based on the assumption that an individual student, or a group of individuals, is the organizing centre that defines the scope of curriculum. The idea is that together and/or as individuals, students sense direction in a process guided by the overall purpose of personal and social growth. The implication is that the students should be engaged in academic dialogue with resourceful teachers. They together develop a framework for students' growth drawing upon a wide range of personal and academic resources. At a certain stage, it is possible that a new direction emerges. Accordingly, what has been designed may undergo a revision. And this is an ongoing process. Besides updating the curricular content, this approach enables students to realise that they are authors of their own life and learning. However, we should accept that it is difficult to follow this approach in a situation when academically immature students are involved.

Having talked about scope, we shall now deal with sequence in curricular content. Both of them go hand in hand as two coordinates on a graph of curricular content.

Sequence

By 'sequence', we mean the order in which content is/should be taught. While developing a curriculum, if we are certain about the scope of the curricular content offered to the students, we should be able to say categorically in what order it should be presented.

Criteria for determining sequence

The following six criteria for determining sequence are widely used.

- i) **Textual presentation:** Teachers usually follow the sequence that is so common in textbooks. But the problem is that the sequence of content presented in the text may not cater to the needs/interests of individuals in learning situations. Moreover, those who design texts by and large assume the role of entrepreneurs providing what is desired and not necessarily what is desirable.
- ii) **Educator preference:** Generally, curriculum designers can operate on generalizations about populations to be served by texts, packages, units and other documents which they create. By implication, teachers must be treated as professionals who decide the extent to which these guide work in their situations. Depending on the situation they need to accept, reject, adopt and supplement what is given to them. However, experience shows that many teachers may not be able to do this.
- iii) **Structure of the disciplines:** Curriculum developers should rely on the expert interpretation of subject matter specialists who reveal the logical patterns that give shape to their disciplines and imply the order in which its elements should be learnt.

It should be mentioned here that the structure of an area changes shape as new discoveries are made. If we do accept the existence of structure, sequence still depends on other factors such as prior knowledge, learner intents, and perceived relevance. Recent investigations in cognitive psychology reveal that a large number of variables will have to be considered when making decisions about the sequence and not merely the structure of the disciplines.

- iv) **Learner interest:** Sequence should be based on the supposition that knowledge is most relevant when it fulfils learner needs. When knowledge is relevant, it is more readily learnt than when it is presented according to an outsider's conception of learner needs or logical order. However learner interests cannot always be relied on to develop a curriculum sequence since

learners do jump from one whim to another with little reflection. Students, therefore, need the controlling mechanism of adult guidance. Professional educators can study students carefully as a basis for developing sequence according to their needs, and not mere interests.

- v) **Learning hierarchies:** Learning should proceed from the simple to the complex. Neither learning theory nor research, which serves as its basis, points to conclusive evidence that supports the overall effectiveness of hierarchical modes of sequence. Some researchers suggest we should move from the particular to the general, while others advocate a move in the opposite direction. There may be bits of truth in all these positions; one may work well for some students and another for others. In general, we need to admit that there may not be any ideal hierarchical sequence suitable for all types of learners.
- vii) **Developmental appropriateness:** Curricular sequence should correlate content with the sequence of human development. Piaget's work on developmental psychology shows that learners move from sensorimotor to preparational, to concrete operational, to formal operational stages of cognitive development. However, we know little about translating the stages suggested by Piaget into curriculum sequences (Schubert, 1986).

Check Your Progress 5

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this Unit.

List the approaches to 'scope' and the criteria for determining 'sequence'.

Approaches to determining 'Scope'	Criteria for determining 'Sequence'
i)	
ii)	
iii)	
iv)	
v)	

So far, we have seen 'organisation' with regard to scope and sequence of curriculum content. When we look at 'organisation' from a broader perspective, it should include learning environments too and so we shall touch upon this aspect as well.

Environmental organisation

Here we are focusing on environmental features internal to specific teaching/ learning situations, not wider contexts such as community and socio-economic surroundings.

For our immediate purpose, we do not want to deal with the different types of learning environments. Instead, we shall touch upon various learning environments familiar to us. We can easily identify the following:

- i) Self-contained classroom
- ii) Departmentalisation
- iii) Non-gradedness

- iv) Open space
- v) Open education
- vi) Tutorial
- vii) Community-based curricula
- viii) Non-school education.

Though most of the ‘environments’ presented here are familiar to us and self-explanatory by themselves, we shall say a few words about each of them in the given order.

- i) **Self-contained classroom:** The most prevalent form of environmental organization at the school/university level still is the self-contained classroom, comprising a teacher and a group of students who remain together during the learning/teaching process which is usually obtained by means of prescribed texts, etc.
- ii) **Departmentalisation:** The characteristic organisational environment in the secondary and higher educational setup finds teachers placed in departments based on their subject specialisations.
- iii) **Non-gradedness:** Students should be enabled to progress through prescribed studies at their own pace. This can be done by establishing flexible mechanisms for students to engage in advisory dialogue with teachers, to become aware of their own sense of direction, to learn individually and in groups and to make use of a variety of personal and material resources for learning.
- iv) **Open space:** The suggestion is that teaching/learning should take place in the open. By and large, neither teachers nor curriculum leaders have favoured open space environments. While rare cases of successful adaptation exist, the usual reaction is one of negation.
- v) **Open education:** The philosophy of open education holds that students are active and learners learn best when they pursue their own life problems. (There is a detailed discussion on this theme in Course MDE-411, Block 2.
- vi) **Tutorials:** This old university tradition of learning through a process of one to one exchange is still maintained successfully at a few institutions. Recent research by Bloom (1984) and his students indicates that the tutorial may be the best setting for the achievement of mastery.
- vii) **Community based curricula:** It is on the basis of work-study programmes that engage students in academic study for half a day and then schedule them to work with a business or industry for the rest of the day. The purpose of such programmes is to acquaint the students with the world and at the same time ease their eventual transition into the job market. A considerably different image of community - based curricula was developed under the title “school without walls”. The underlying philosophy it proposed was that the community itself is a better learning environment than the classroom. Thus, students were involved in expeditions to all parts of the country to learn from the richness of experience it embodies.
- viii) **Non-school education:** It does not teach lessons based on a formalized curriculum. To illustrate this, we refer here to the implicit curricula and learning environments that saturate our culture through television, radio, pop music, church, scouting, movies, street gangs, homes, families, peer groups, jobs and the like. Each of these is a learning environment.

In Unit 1, Block 1, we talked about how ‘instruction’ has been viewed. Some use the term synonymously with curriculum and some treat the two as two different phenomena.

Should instruction be considered separate from or as part of curriculum?

Operating on the assumption that curriculum is affected by instructional transactions; we thought it reasonable to bring in some details about the types of instruction here.

Arrangements for instructional transactions

Before we look into the mainstream discussion, let us say that we have considered only the main arrangements. Obviously, a comprehensive treatment would probably be impossible because new forms are devised frequently, depending upon the needs of the moment.

The items we have taken up for our present purposes are:

- i) Instruction in large groups
- ii) Instruction in small groups
- iii) Individualized instruction
- iv) Team teaching

We shall discuss each one of them in the given order.

- i) **Instruction in larger groups:** Large group instruction is the mainstay of traditional education. In our context it ranges from large lecture hall to whole class presentations. The purpose of a course is to pass on a fairly large quantity of information, ideas, or affective inputs in a relatively short period of time to a large body of students. Our experience shows that the success of large group instruction depends upon the performance of the teacher and the willingness of learners to pay attention to what is being taught. We can cite the following as drawbacks of this system:
 - i) lack of personalization;
 - ii) ineffective performance of the teachers;
 - iii) lack of teachers who are able to motivate large groups, and
 - iv) lack of individual attention, i.e., it is unlikely that all learners in a large group would want or need to know the same things.

Some may argue, however, that the advent of the 'print' and electronic forms of communication may pre-empt the need for large group instruction.
- ii) **Instruction in small groups:** It ranges from discussion groups, seminars, workshops and practical tasks at laboratories to tutorials. Obviously, most small groups are established on some basis of homogeneity – interest in a topic, readiness for a particular level of study, or ability to perform. Thus, the intent in small groups is to provide for differences in need and/or interest that cannot be catered to by large-group instruction. The contention, however, is that students grouped homogeneously do not learn from experience what it means to live in a pluralistic culture. In addition, they experience academic disadvantages from association with only those who are most like themselves. There are logical criticisms as well. For example, when one teacher attempts to orchestrate learning activities for several groups simultaneously, some are necessarily neglected because it is possible to focus directly on only one group at a time.
- iii) **Individualized instruction:** Individualizing instruction generally implies that the intent is to cater to the needs of individuals. We could diagnose the needs of the students and design projects for and with them. This kind of individualization may vary on a continuum that ranges from extensive to little teacher involvement once the students begin to work out projects.

However, teachers would be monitoring the progress at convenient stages. One main criticism against individualization is that it centres on the point that is overly ideal, and that even at its best such an approach may not prove suitable when the number of students is large.

- iv) **Team teaching:** Generally team teaching refers to a wide variety of instructional arrangements in which more than one teacher works with a group of students. The purpose of team teaching is to allow the teachers to capitalize on their strengths. It emanates from the fact that most teachers do not do all aspects of teaching equally well. Besides, in team teaching different teachers can specialise in large-group, small group or individualized instruction; or they may specialize in subject matter areas; or affective, cognitive and psychomotor domains etc. However, the implications of team teaching make it appear quite alien to our situation. The implication is that we need to re-educate the teachers if team teaching is going to be meaningful in our context.

So far we have talked about instructional arrangements pertaining to a classroom set up. Let us now move away from such a set up.

- v) **Distance education:** As you are familiar with distance education, we think it is not advisable to go into great details about it. However, a few words about it are stated. Distance education is an educational process in which teaching/learning takes place at a distance through print, electronic media and limited human contact at counselling centres. Obviously, it is different from large group instruction arrangements and is somewhat closer to small group instruction. However, the role of the human element is relatively minimal in distance education. As distance education is a student centred approach, it is highly individualized. Further it is essentially a team teaching arrangement with the difference that in distance education we follow the principles of division of labour on a much larger scale and in a more organized manner.

Check Your Progress 6

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this Unit.

Sum up sub-section 1.3.3.

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1.3.4 Deciding Evaluation Schemes

In this subsection, we begin by examining the role played by evaluation in curriculum development. Besides, we have also touched upon the following contrasting paradigms of evaluation.

- The paradigm which concentrates on measuring the outcomes of the instructional system.
- The paradigm which pays more attention to what happens during the educational processes itself:

Finally we list the range of diagnostic techniques which are commonly used as part of an evaluation strategy. (We shall take up the review of these techniques and discuss the respective uses, strengths and weaknesses of each technique in detail in Unit 4).

Role of evaluation in the curriculum

The theory and practice of curriculum evaluation has passed through several stages in this century. It began with an emphasis on marking and grading, and proceeded to develop a specialized connection with systematic measurement. Later evaluation began to focus on the improvement of programmes rather than the assessment of students alone.

Usually, in a teaching/learning process the prime symbol of student is the mark grade. We rate performance in examinations, class participation, daily assignments, special projects, papers etc. according to the hierarchy of grades assigned to them. This is the approach to evaluation that has guided us so far, and it is still widespread today despite the emergence of many alternative concepts available today.

The purpose of judgement as a basis for grading and marking students implies a faith in wisdom that comes with experience. However, obviously personal prejudice plays too large a role in grading. We know that different teachers judge the same student's performance quite differently. By implication, the process of evaluation needs to be conducted more systematically and measurements carried out with the help of established criteria or norms.

For our present purposes we stop here, i.e., we are not going to discuss the issue under consideration any longer. The simple reason is that we have talked extensively in other courses of this programme of study, where we have dealt with the following four themes in four units respectively:

- i) Evaluation in educational programmes
- ii) Characteristics of a good test
- iii) Characteristics of a good item
- iv) Grading and question/Item banking.

These themes should have given you a clear idea about the complexities and intricacies involved in student evaluation.

Though the terms 'assessment' and 'evaluation' are often used virtually synonymously in common parlance, here we shall define 'assessment' as those activities that are designed to measure student learning achieved as a result of a teaching/learning situation and 'evaluation' as a series of activities that are designed to measure the effectiveness of a teaching/ learning system as a whole. However, we should note here that the results of student assessment form part of the wider evaluation process.

Within the systematic approach to curriculum development, the role of on-going monitoring and evaluation of the system has been shown to be of vital importance to its development and evaluation. Due to the cyclical and interactive nature of the system, each cycle can benefit from the experiences and feedback obtained cycles. Whether it is a complete course, part of a course, a particular teaching session, a self-instructional programme or a teaching aid, i.e., film or video, we can never be satisfied with the first attempt or even with revised versions. If we agree that the system can always be improved, it is quite natural on-going evaluation will always be an integral part of the design process. However, the scope and depth of evaluation that is carried out in any particular case will vary according to the nature of the situation, as indeed will the evaluation methods used. Whatever the

circumstances, nevertheless, we cannot underestimate the importance of using appropriate evaluation procedures to monitor the instructional system and provide the basis for improvements. Obviously, then, feedback obtained from such evaluation should shed light on the appropriateness of the methods of course production, teaching methods used, the structure adopted, the implementation strategy, the student assessment methods etc .

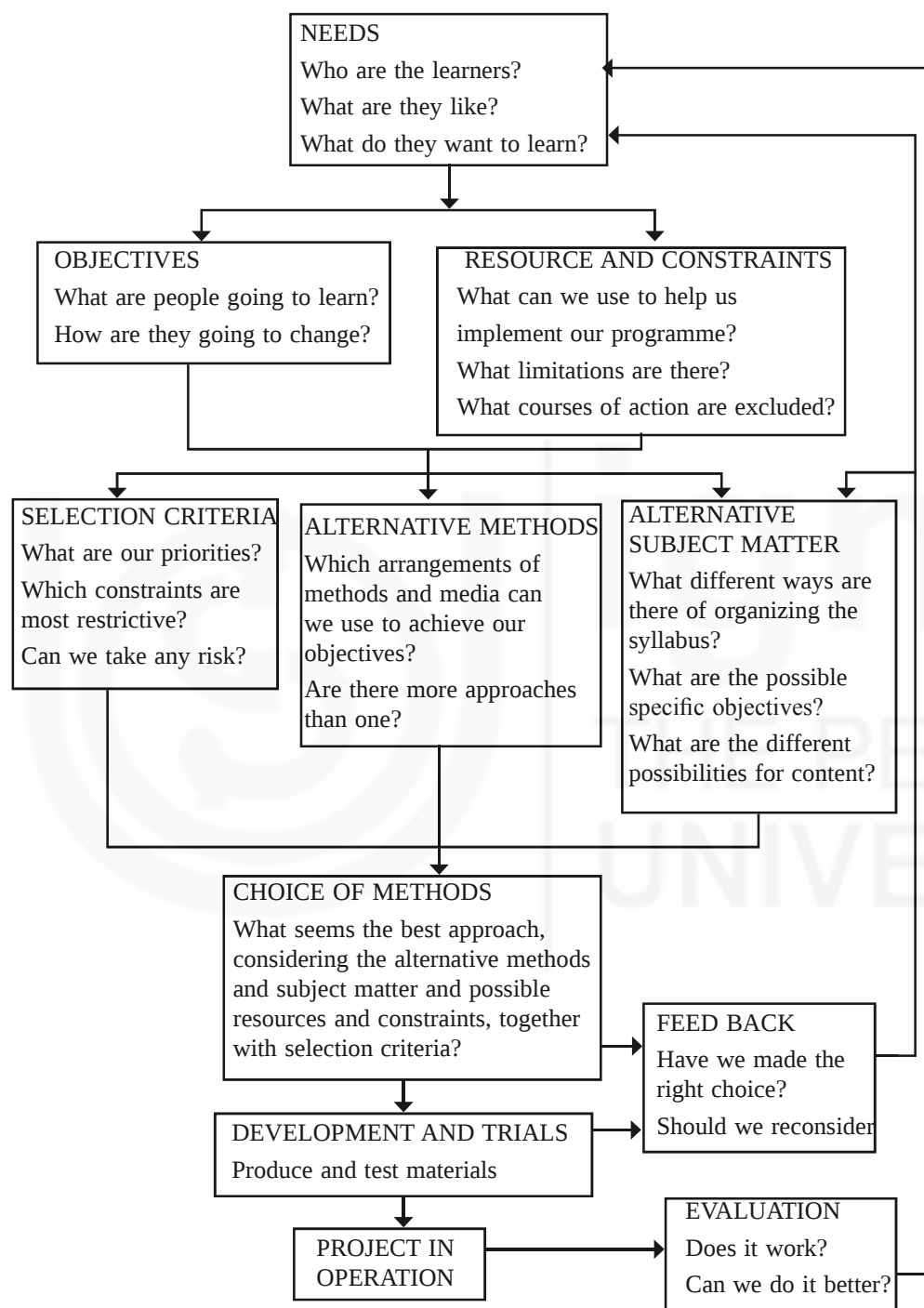


Fig. 1.1: Curriculum Development: System Approach

Having briefly talked about the role of evaluation in curriculum development, we shall look into the paradigms of evaluation.

A major area of debate in educational evaluation is concerned with the relative merits of the following two distinctly contrasting approaches:

- i) 'scientific' approach; and
- ii) 'illuminative' approach.

Let us elaborate on each of them in the given order.

- i) **Scientific approach:** This approach sets out to measure the extent to which a given instructional system has achieved certain specific goals in relation to the students' prior knowledge; to this extent, this approach measures 'output', 'input' and often treats the differences statistically. Other factors in the system, such as the learning environment, teaching personnel, course content and structure and teaching methods normally receive only incidental attention if they are considered at all. This general 'system approach' has been used when measuring the relative efficiency of different methods of teaching towards a common end, and also to measure the effectiveness of self-instructional programmes in achieving stated objectives. It has led to the use of systematic objectives - oriented evaluation procedures.
- ii) **Illuminative approach:** By comparison, this approach is more concerned with studying the on-going process of education. In general, the techniques used are far more subjective, and often involve personal value judgments of the results. The arguments in favour of this type of approach are that the variables involved in educational processes cannot be readily identified or controlled, and that 'inputs' and 'outputs' can be varied, complex, difficult to specify with certainty, and often virtually impossible to measure. In this approach, the evaluation process is generally not rigidly structured or constrained, and usually gives the evaluator enough scope to take up specific areas of interest as and when they become apparent.

Clearly, there must be a middle path between what, on the one hand, purports to be a purely objective approach, and largely subjective approach that is embodied in illuminative evaluation on the other. Where the correct balance lies, however, depends to a large extent on what is being evaluated and for what purpose.

Now let us list the techniques commonly in use for the purpose of evaluation.

Evaluation techniques

In view of the variety of information that one may be seeking during an evaluation programme, it is normally advisable to use a battery of evaluation techniques. Some of the possible information sources are listed below:

- i) results from student assessment;
- ii) student questionnaires and interviews;
- iii) observation of the instructional operation in progress;
- iv) feedback from teaching staff directly involved with the instructional operation and also with the system as a whole; and
- v) feedback from people who have an indirect link with the instructional system.

Each of these sources of feedback generally has an important part to play, regardless of whether the evaluation is of a course or unit of teaching that is still in the process of development (formative evaluation) or of a fully developed instructional system that is already in use (summative evaluation).

A word of caution

Many may insist that the four essentials of curriculum as propounded by Tyler (1949) in the form of four basic questions constitute a stepwise curriculum recipe. Many synoptic curriculum texts over the past four decades use Tyler

Rationale as a mechanistic formula for designing curriculum. However, Tyler himself emphasized that his categories of purposes, learning experiences, organization and evaluation are intended to be analytic topics, not necessarily prescriptive directives.

The process is basically cyclic (Wheeler, 1967) in nature with the following stages:

- i) the formulation of a clear set of objectives for the curriculum,
- ii) the selection of appropriate instructional methods for achieving these objectives within the context of the curriculum,
- iii) the implementation of the curriculum, and
- iv) the assessment and evaluation of students and the curriculum respectively.

However we should admit that it is possible to provide examples of overlap within all the three curriculum paradigms. For example, although Tyler is credited with the rationale for an empirical-analytic mode of study that serves technical interests, it is quite clear that much of Tyler's own consultation on curriculum and evaluation was practical in character. He was concerned with the process of enabling teachers, learners and curriculum developers to articulate sources of meaning and direction in their lives from their subjective experiences.

1.4 LET US SUM UP

In this Unit we have begun with a definition of the term 'paradigm'. Then we looked into three paradigms of curriculum. They are:

- i) paradigm of practical curriculum inquiry;
- ii) paradigm of critical praxis; and
- iii) paradigm of perennial analytic categories.

Of the three, we gave more emphasis to the last one, as it has been the dominant paradigm over the years. Tyler, who has authored the 'paradigm of perennial analytic categories', identified the following four elements which give shape to a curriculum:

- i) objectives;
- ii) learning experiences (materials);
- iii) implementation (methods); and
- iv) evaluation.

We said that these have been and still are considered components of curriculum. Then we extensively discussed each one of them in the given order. Towards the end, we have cautioned that Tyler's advocacy should not be taken as a curriculum recipe. It should be looked at as a practitioner's guide.

1.5 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

The basic assumptions of a paradigm of curriculum are

- i) the source of problem should be found in the field of activities and not in the hypotheses of researchers;

- ii) learning should be situational and not generalistic; and
- iii) instructional methods should suit the state of affairs.

Check Your Progress 2

- i) Yes
- ii) No
- iii) No

Check Your Progress 3

The given statement cannot be considered a behavioural objective because it does not convey any pre-specified observable, terminal behaviour. The statement of objective, therefore, should be modified as under:

The students will demonstrate knowledge of the rules of punctuation marks by stating them and correctly inserting them in sentences where they are omitted.

Check Your Progress 4

- i) Content as subject matter - knowledge to be disseminated from teachers to learners.
- ii) Content as learning experiences gives emphasis to what students should do to respond to the contemporary needs of the society as contrasted to what they are presented with and expected to know.
- iii) Content as learning experiences lays stress on the interaction between the learner and external conditions in the environment surrounding him/her.

Check Your Progress 5

Approaches to define Scope	Criteria for determining sequence
i) Separate subjects	i) Textual presentation
ii) Broad fields	ii) Educator preference
iii) Projects	iii) Structure of the disciplines
iv) Core	iv) Learner interest
v) Integration	v) Learning hierarchies
	vi) Developmental appropriateness

Check Your Progress 6

In sub-section 1.3.3 we have talked about:

- i) The issues pertaining to the 'scope' and 'sequence' of curriculum offerings by discussing the five approaches to defining 'scope' and the six criteria for determining 'sequence';
- ii) environmental organization by focusing on environmental features internal to specific teaching/learning situations.
- iii) the four main arrangements for instructional transactions such as large group instruction, small group instruction, individualized instruction and team teaching; and
- iv) distance teaching as the emerging arrangement for the instructional transaction.

UNIT 2 CURRICULUM PLANNING

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Curriculum Planning: A Definition
- 2.3 Issues in Curriculum Planning
 - 2.3.1 Curriculum Planning: Levels
 - 2.3.1 Curriculum Planning: Issues
- 2.4 Curriculum Approaches
- 2.5 Models of Curriculum Planning: An Overview
 - 2.5.1 Technical Models
 - 2.5.2 Non-Technical Models
- 2.6 Let Us Sum Up
- 2.7 Answers to Check Your Progress

2.0 OBJECTIVES

After completing the Unit, you should be able to:

- define what curriculum planning is;
- discuss the levels of curriculum planning;
- identify the issues pertaining to curriculum planning;
- explain about various curriculum planning approaches; and
- list the curriculum planning models and distinguish between ‘technical’ and ‘non-technical’ models.

2.1 INTRODUCTION

In Unit 1 of this Block, we have talked about the essentials of curriculum, i.e., objective-setting, learning experiences, learning activities and evaluation processes. Having studied the essentials, it is but natural that we should be acquainted with the selection procedures and the sequential organizational pattern of these procedures in the curriculum-making process. We have taken up this issue in this Unit. Though we have had a glimpse of the dominant paradigm in curriculum planning in these Units, it is necessary that we should acquaint you with the various models/approaches being practised in the domain of curriculum.

This Unit is designed to present a few models of curriculum planning. However, we would like to caution you that these are not the only models available in the field under consideration. Nevertheless, we have taken up only those that serve our immediate purposes and that are not incomplete in that they have incorporated all the aspects of the activities involved in curriculum planning.

Besides in this Unit, we have clarified what exactly we mean by curriculum planning. We have also discussed the levels and components of curriculum planning and the issues pertaining to it.

2.2 CURRICULUM PLANING: A DEFINITION

It is essential that we should acquaint ourselves with a few terms in the field of curriculum. A working knowledge of these terms is not only part of studying curriculum, but also essential for effective participation in curriculum planning activities. As our immediate concern is curriculum planning, at the outset we shall attempt to evolve a definition of this term.

What does curriculum planning involve?

Curriculum planning is a complex activity involving the interplay of ideas from the curriculum field and other related disciplines. However, the ultimate purpose of curriculum planning is to describe the learning opportunities available to students.

Thus curriculum planning is ultimately concerned with the experiences of learners.

In any teaching/learning situation, however, the concern is not only with what students ought to learn, but also with how they are going to learn it. Curriculum plans that define concepts or ideas without considering action, are incomplete since learning must eventually involve the application of what has been learned. In the same way, plans that merely describe action without considering purposes are also incomplete since otherwise, learning activity runs the risk of being aimless. This relationship of content and process accentuates the need to consider curriculum and instruction not as distinct entities, but rather as interdependent concepts in the planning process.

Therefore curriculum planning involves decisions about both content and process.

Further, within the areas of curriculum and instruction, there are many specific issues and topics that may be subject to curriculum planning. Such areas might include identifying curriculum approaches that might be used, carrying out a programme, evaluating it or deciding about the need for new programmes etc. Besides, it concerns itself with various teaching/learning situations. It should be noted that curriculum planning typically involves decisions about some combinations of areas and issues since it is difficult to consider any one of these in isolation.

Therefore curriculum planning involves decisions about a variety of issues/topics.

Popular thinking in the early 1900's was that curriculum planning was the prerogative of a few scholars and the teacher's role was to implement what has been planned. Due to advances in thinking, it is now considered that curriculum planning is not the sole responsibility or privilege of any one group. It is, in essence, a product of team-work.

Curriculum planning thus involves many groups of people and levels of operation and is a continuous process.

Now, if we put together what is presented in the above boxes, we shall arrive at a working definition of the term 'curriculum planning'. We can define the term 'curriculum planning' as a continuous process in which participants contribute at various levels towards making decisions about:

- the purposes of learning
- how that purpose might be carried out through teaching – learning situations

- whether the purpose identified and the means selected are both appropriate and effective.

Now, let us quickly touch upon a few other terms associated with curriculum planning. The terms ‘curriculum planning’ and ‘curriculum development’ are often used interchangeably. Some, however, believe that they represent two different stages of an educational activity. According to this new, curriculum planning is a blanket concept that may describe activity ranging from the identification of broad goals to the description of experiences for specific teaching/learning situations. Curriculum development is an activity concerned mainly with the design of actual teaching/learning situations. Based upon the broad goals, at the development stage ‘we identify ways to translate those goals into a coordinate’ and coherent programme of learning experiences.

Yet another term which we should familiarise ourselves with is ‘instruction’. It is developed from broad goals and curriculum plans and focuses on methodological questions such as teaching techniques and the implementation of activities, resources and measuring devices used in specific teaching/learning, situations. (We shall talk about this theme at length in Block 3).

Thus, curriculum planning is a generic concept that includes both curriculum development and instructional design, and instructional design denotes a highly specific activity focused on methods of teaching and learning.

2.3 ISSUES IN CURRICULUM PLANNING

In recent years, various trends and events have influenced curriculum. In Unit 2, Block 1, we have referred to some of the psycho-social changes that have influenced the field of curriculum and are likely to continue to do so in the near future. We have thus seen that there seems to be, more often than not, a one-to-one co-related between social changes and curriculum changes.

We shall be talking about curricular issues and emerging trends at length in Unit 4, Block 3. For our immediate purposes we shall touch upon the various levels in curriculum and some basic issues relating to the formulation of curriculum-components respectively in sub-sections 2.3.1 and 2.3.2.

2.3.1 Curriculum Planning: Levels

The planning of learning experiences is one of the most important professional activities in education. It is an important activity since it largely determines the day-to-day life of learners. There are seven situations that are involved in the planning of learning experiences. They represent curriculum planning activities at:

- the national level
- the state level
- the institution-system-wide level
- the building level
- the teacher team level
- the individual teacher level
- the classroom level with cooperative planning between students and teachers.

The purpose of discussing the seven situations is to give you a familiar context in which to consider the meaning of curriculum planning. Once we go through these situations, we can discuss the common patterns that run through them and that helps us further clarify what curriculum planning is.

National level: Curriculum planning at the national level involves scholars of some particular discipline from various institutions across the country. They discuss and decide to develop and disseminate a programme, the existing one being either obsolete or inadequate to meet the demands.

The stages involved in the planning process are:

- identifying important subject matter, facts, principles, concepts, etc.
- deciding on a sequence in which the subjects matter may be taught—from specific to general or from easy to difficult, etc.
- recommending activities through which students might best learn the subject matter, including experiments, discussions etc.
- listing supplementary materials for further studies in the particular subject area,
- suggesting tests that learners might take to check their progress.

These stages are then put together to form sets of teaching/learning materials for purposes of implementation.

The underlying assumption, you would have noticed, is that once developed, such curriculum projects or packages could be put in the hands of teachers and quality education would be assured. The materials, thus produced, are often branded ‘teacher proof’ since it is believed that teachers with less than desired skills or knowledge would be working from the plans of scholars/experts, and that the teachers themselves don’t have to contribute to the content.

Though we do not have immediate answers with empirical evidence, it is worth considering the following questions;

- Can national level curriculum projects account for the characteristics of learners in local institutions where the projects are supposed to be used?
- Are the subject-area scholars sufficiently knowledgeable about learner characteristics to prepare curriculum plans for use in all the institutions?
- Are subject-area scholars better equipped than teachers to develop curriculum plans in their area of specialization?
- How do national-level curriculum plans influence the professional role of teachers?
- Is it possible to develop curriculum plans that would be successful even when used by relatively unskilled teachers?

State level: In this scene, a group of educators (teachers, principles, curriculum coordinators, etc) form a committee under the State Education Department. The task of the Committee is to recommend what ought to constitute the overall programme across the State. It however depends upon the characteristics of the learners and the broad goals of education. A series of meetings of the group over a course of several months culminates in the production of a model to be sent to all the Institutions for implementation.

The issues pertaining to this level of curriculum planning are:

- Should the local authorities have the prerogative of setting up their own programmes based on local needs and preferences?
- Are statewide programmes and standards necessary to ensure the quality of education for learners across a state?
- Are State level personnel more qualified to develop curriculum plans than local teachers are?

- How do State level curriculum guides and mandates affect the role of the teachers at the local level?

Building level: This scene deals with a group of parents, teachers, administrators, counsellors and students from a particular institution. They are supposed to work together to evolve a new discipline policy for that institution.

The group works on the basis that a student's encounter with personal and social experiences is as important as with those experiences gathered from the academic activities. Therefore, these personal and social experiences form part of the curriculum. This situation represents a form of curriculum planning that result from the recognition that students learn a great deal from what is termed the 'hidden curriculum'. The hidden curriculum includes such institutional features as governance structure, grouping patterns, grading procedures, teacher expectations, etc. Since features like these do result in learning, whether they are planned or unplanned, they need to be considered in conscious efforts to plan the curriculum. That is to say, they must be planned in terms of purposes, activities, evaluation devices and so on.

Hence the issues are:

- Should students be included on a building-level curriculum council? If so, in what capacity, and how would student representatives be selected?
- To what extent should the aspects of hidden curriculum be considered to be sources of learning for students?

Teacher-team level: This scene deals with a group of teachers representing different subject areas who come together to develop a unit. This type of activity is known as inter-disciplinary curriculum planning since it involves contributions from various subjects or disciplines of knowledge.

The oft-repeated questions at this level of curriculum planning are:

- What might be the benefits of cooperative interdisciplinary planning?
- What are the factors that are believed to detract from the effectiveness of an interdisciplinary team?
- How might aspects of various subjects be correlated with one another?

Individual teacher level: In this case, a teacher tries to take a decision about learning objectives—what the teacher would like a group of students learn. In the area of subject matter or content, the teacher will have to take decisions about important facts, principles, concepts and learner outcomes that should be emphasized. The teacher must also plan different kinds of activities and resources and ways to measure how well learners have accomplished various objectives. At some stage, the teacher may search through various journals looking for ideas about activities, gather background information, or consult other teachers. In the end, the teacher decides on long-and short-term objectives as well as on the timing of various activities. The teacher must then develop a set of plans for use on a daily or weekly basis. In designing this kind of plan, a number of items must be considered, such as the characteristics of the learners, the sequencing of activities, the appropriateness of various learning materials, and the availability of resources.

We must recognize here that the planning orientations of prospective teachers are often limited to daily lesson planning. All too often, little attention is paid to how these relate to long term unit plans. As a result, many teachers may have difficulty in understanding the relationship between short and long term plans with a wide range, and, in addition, may not realize the need for the latter. The planning done by the individual teacher is probably the most critical in the range of curriculum planning forms.

As a teacher you might be interested in the following questions:

- In developing curriculum plans for your teaching, do you consider both long and short term learning objectives?
- What is the greatest problem you encounter in your curriculum planning?
- About how much time do you spend on curriculum planning? Is that time sufficient? If not, how much more do you require? How do you arrange for it?
- What format do you use for formulating curriculum plans? How does your format compare with that of other teachers?
- How often do you teach without having prepared curriculum plans?
- Do you feel the preparation of careful curriculum plans enhances your teaching?
- How often do you depart from your plans in teaching situations?

Cooperative curriculum planning level: This scene deals with a teacher and a group of learners. After discussions, the group draws up a formal set of the plans, summarizing all of its discussions about what might be done.

Here the teacher is guiding a group in formulating plans as to how they might study a particular topic. The teacher and learners work together to decide any combination of the 'what, how, who where, and when' questions regarding the unit they are working on.

Whether one believes its use or not, student-teacher planning does represent a level and form of curriculum planning. Its proximity to the actual group of learners and the possibilities for including learner interest in plans lead some of its proponents to conclude that it is the ultimate level of curriculum planning.

In this context let us consider the following issues:

- Can we involve learners in curriculum planning, if yes in what ways?
- What factors might inhibit learner participation in curriculum planning?
- What might be the benefits we gain from learner participation in curriculum planning?
- Should learners play a role in curriculum planning? If no, why not? If yes, what kind of role?

At each of these levels there might be various issues to be looked into in order that the curriculum planned will serve the set purpose. We have listed a few procedural issues pertaining to each of these levels. There are still some pedagogical issues that demand our attention which we have grouped into three categories for convenience and easy reference. In sub-section 2.3.2 we shall take them up for discussion.

2.3.2 Curriculum Planning: Issues

In Block 1, we have learnt that curriculum decisions mostly depend on one's philosophy of education. Irrespective of curriculum planning levels that we have looked into in sub-section 2.3.1, therefore, the curriculum composition depends on what one wants one's students to achieve. When a group of people comes together for evolving a curriculum, naturally there will be diverse views and opinions. For our purpose, we have categorised these issues as follows:

- i) subject centred versus learner centred curriculum;
- ii) who plans the curriculum; and

iii) the basics that constitute the curriculum.

Let us take each one of them in the given order for discussion.

i) **Subject centred vs. Learner centred curriculum**

The idea of focusing curriculum plans on separate subjects has a long tradition in education. The subject area approach to curriculum development is based on the idea that the various subjects contain essential knowledge, the mastery of which makes a person complete or 'educated'. Thus some feel that the most appropriate method of education is to explore various subject areas and 'learn' what is contained in them.

The Progressive Education Movement of the 1930s, however, introduced the concept of a learner centred curriculum. Here, the curriculum would be based not on separate subjects, but rather on the emerging world of the learner. The important issues that a curriculum plan should address itself to, according to the advocates of this movement, are the interests, needs, problems, and concerns of the learner. For example, curriculum plans for middle grade learners might focus on getting along with peers or on physical changes during this stage of development and so on and those for high school students might centre on questions of self-identity, global awareness, plans beyond high school, etc.

Thus, in designing curriculum plans curricularists are often confronted on the subject and the learner centred curriculum as questioning whether subject matter should be mastered or discarded. The fact is that subject matter always forms a part of the teaching/learning experience. John Dewey attempted to resolve the issue by arguing that the issue of subject versus subjects, i.e., learners is not an 'either or' question. The task, according to him, was to work with subject matter that was of use to the learner both in the immediate sense and in gradually expanding horizons of new realizations.

ii) **Who plans the curriculum?**

Many groups are involved in curriculum planning: scholars, teachers, administrators, learners, citizens, state education department personnel and so on. Yet, in reality, a debate continues over the question of balance and even whether some groups ought to participate at all.

It is decidedly logical that teachers ought to be involved. Yet some people believe that teachers ought to play the role of the implementers of plans while scholars and/or administrators ought to do the actual planning. Others believe that curriculum planning ought to involve professionals and exclude citizens and so on. In short, positions on this question range from including only one group to including all the groups in different degrees.

Of late, this issue has been compounded by the emergence of politics in curriculum planning. Various groups have sought power in that process, ranging from those representing national and religious movements to local groups interested in specific materials which they want to be used in teaching and learning. Within the profession, a new job-title, i.e., curriculum developer, has emerged. Although selected issues or topics may serve as the focus for these recent events, the fundamental issue is still who should plan the curriculum? We shall talk more about this in Unit 3 of this Block.

iii) **The basics that constitute learning**

Perhaps the most compelling educational issue we have faced since the 1970s revolves around the question of 'basics' in learning. Displeased over the alleged decline in reading, writing and mathematics test scores, many critics decry the emphasis on relevant learner centred curriculum plans

developed in the late 1960s, extending the cry for reform beyond basic skills to a renewed emphasis on traditional subject areas.

Some members of the public and of the profession respond to this movement by describing a broad definition of the basics. It includes not only those skills previously mentioned but also such areas as values, citizenship, problem solving and global awareness. The study of curriculum history seems to show that these issues arise almost every decade, and one or another view has gained the most favoured status at various times. It has become a cliché in education that, 'the pendulum is always swinging from one position to another'. For many educators, it is a question of maintaining a sense of balance between specific skills and broad concepts and between traditional subjects, emerging social issues and the personal needs of learners.

Before we proceed any further, let us work on the exercise given here.

Check Your Progress 1

Notes: a) Space is given below for your answer.

b) Compare your answer with the one given at the end of this Unit.

List curriculum planning levels and issues, identify which one of the curriculum planning levels is, by and large, adopted for distance education purposes.

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Having now studied what curriculum planning is, its levels and the issues pertaining to it, we shall take up the curriculum approaches in section 2.4.

2.4 CURRICULUM APPROACHES

Let us start this section with a definition of the term 'curriculum approach'. We may define curriculum approaches as a pattern of organisation used in taking decisions about the various aspects of a teaching/learning situation.

There is a wide range of approaches that are used. However, these generally fall into the following four major categories:

- i) Subject area approach
- ii) Broad fields approach
- iii) Social problems approach
- iv) Emerging needs approach

The selection of an approach reflects and influences the organising centre, i.e. the topic for the teaching/learning situation, the selection of objectives, and the use of subject matter or content.

Let us touch upon each of these approaches in the given order.

- i) **Subject area approach:** One way to organize curriculum plans is around separate subject areas or disciplines of knowledge. For example, the programme of studies might be divided into areas like English languages, arts, social studies, sciences, mathematics and so on. When this is done, learning objectives involve mastering subject matter and skills within a given subject. The subject areas approach is the most popular method of curriculum organization. As this approach defines important learning in terms of subject matter from existing disciplines of knowledge, it is particularly favoured by proponents of the philosophy of realism.
- ii) **Broad fields approach:** In this approach, organization of curriculum involves combining two or more subject areas into a broader field. For example, a unit may be developed in art and history and music may be combined to form a humanities programme; a unit on metrics may involve the simultaneous study of metric mathematics and its use in science etc. The broad fields approach recognizes and uses individual subject areas, but it also attempts to show learners the correlations between various areas of knowledge. Advocates of this approach cite the knowledge of such correlations as providing an advantage over the separate subject approach. The emphasis on broad ideas and concepts from subject fields makes this approach popular with those who favour the philosophy of idealism.
- iii) **Social problems approach:** Major problems in society dictate the organization of curriculum plans. For example, units may be developed with regard to environmental problems, technology, the future, racism, global interdependence and so on. In this approach, learning objectives involve analyzing the problem or issue, and the subject matter is drawn from any source pertinent to the problem. If the unit topic, for example, were to be 'Future', learners might turn to social studies for information about government or population growth, to science for trends in technology, or to language arts for ideas regarding communications. However, little if any, concern is shown for retaining the identity of separate subjects even when the subject matter is derived from them. In other words, complete emphasis is laid upon the problem under study.

The major purpose of using this approach is to help learners develop awareness of crucial social issues and the skills that they might need and use in the future to help solve them. For this reason, it is particularly popular among proponents of the re-constructionist philosophy of education.

- iv) **Emerging needs approach:** Learner needs is the focal point of this approach. Curriculum plan focuses on the personal and social needs that are emerging in learners' lives at the present time. Topics such as getting along with others, understanding physical changes associated with puberty, developing personal values, understanding peer status etc., will gain entry into curriculum. Thus, the issues will relate to the stages of the learners' development.

As in the social problems approach, here too, information may be drawn from various subject areas, but there is no attempt to recognize a distinct line between disciplines of knowledge. The major purpose of this approach to curriculum is to help learners come to grips with issues in their present lives so as to be prepared for the present rather than the future. While some topics or issues for study may be pre-planned by teachers, others may emerge spontaneously from discussions among teachers and students about pressing problems in learners' lives. It has the support of those who adhere to the pragmatic and existential philosophies of education.

We have looked into the four major approaches to curriculum with illustrations of each. Now we shall look into the issues relating to these approaches.

Issues relating to various ‘approaches’

We shall categorise the issues into the following three items:

- i) **Curricular approach and various instructional methods:** Many educators tend to stereotype various ideas and roles in curriculum. The most common stereotype is the distinction between traditional and progressive approaches. In this case, traditionalists are described as advocates of the subject approach and proponents of methods such as ‘lectures’. Progressives, on the other hand, are seen as advocates of the social problems or emerging needs approaches and associated methods such as ‘small-group discussions’. Educational stereotypes tend to be largely destructive and in this case erroneous. For example, we can easily imagine an English teacher developing a unit on short stories. During the session, it is possible for a resource person to visit the classroom to conduct a small-group discussion on the characters or personalities of a story. It is also possible in a different situation that a teacher studying peer pressure with a group of learners might present a lecture on the reasons as to why status is assigned to various individuals. In essence, the activities are independent of the approach. The other unfortunate result of stereotyping the approaches is the idea that the subject area and broadfields approaches involve hard work and ‘real’ learning while the social problems and needs approaches are simply fun and games or the “soft side” of the curriculum. Again, such a conception is erroneous and foolish. For instance, trying to understand ‘racial prejudice’ in our society involves just as much serious attention and hard work as learning about the elements in the periodic chart in Chemistry— though views may differ on this.
- ii) **Curricular approaches and various instructional organizations:** Two popular ideas gaining currency in the field of curriculum are general education and inter-disciplinary teaching. The former refers to that portion of the educational programme which is considered central and, is therefore, required of all students. The latter has gained attention through the formation of teaching teams involving various subject areas such as language, mathematics, social studies, science and so on.

Again, in both the cases, the problems of stereotyping and narrow definition have emerged. The definition of ‘general education’ excludes the idea that all learners might also develop knowledge and skills related to social problems and emerging needs. On the other hand, many inter-disciplinary team efforts have failed because teachers have been led to believe mistakenly that such teams must always fuse the various subject areas into a social problems approach. Such narrow minded positions exclude the idea that interdisciplinary teams can use all the curriculum plans.

- iii) **Choice of curricular approaches:** Very often, educators will propose that one particular approach is better than the rest. While it is certainly probable that individuals would favour or emphasize a particular approach, it is equally clear that all four have an appropriate place in any educational programme. Each serves a different and important purpose. Thus the real issue in considering curriculum approaches is not which one is better, but how can it be used optimally. By addressing the issue in this way, educators would confront the question of how to provide balance in the curriculum, which is in fact the real challenge.

Check Your Progress 2

Note : Check your answer with the one given at the end of this Unit.

Match the approaches to curriculum planning listed under 'A' with the school of thought listed under 'B'

A	B
1. Subject area approach	Existentialism
2. Broadfields approach	Reconstructionalism
3. Social problems approach	Realism
4. Emerging needs approach	Idealism

Now we shall look at a few models of curriculum planning.

2.5 MODELS OF CURRICULUM PLANNING: AN OVERVIEW

All through our discussion so far, we have been emphasizing the need for careful curriculum planning for successful education. Prior to creating or implementing a programme, we should therefore require a master plan. In Block 1 we have seen that one's conceptualization of a curriculum plan largely depends on one's inclination towards a particular educational philosophy. Furthermore, our awareness of and sensitivity to curricular issues, both present and anticipated, influence our plan. We have been reiterating that, we cannot construct a curriculum without giving some serious thought to goals, content, learning activities and evaluation. Obviously, the need for planning in curriculum is very crucial.

However, the problem seems to be that there are various ways to define curriculum planning, and rarely do any two persons agree on what it is or what it involves. We can attribute this kind of impasse to one's idea of which factor should receive attention in curriculum planning—subject matter, students or society.

Ideally, all those who are/or will have to be affected by a curriculum should be involved in the process of development. But, as with most aspects of education, there is some debate about what formula to follow in order to achieve particular educational goals. Although there are numerous models, from which to choose, most of them can be classified as either a 'technical model' or 'non-technical model'.

A word of caution

Before we proceed any further in discussing these two models, we should clarify here that we do not imply any prerogative sense when we use the terms 'technical' and 'non-technical'. We use them to mean two contrastive postures. For instance, persons who believe in some subject matter curriculum design usually advocate the technical approach to curriculum planning. Those who favour a learner-centred design prefer the non-technical approach. Problem-centred designs can fall within either approach.

Having said this, we shall take up the two models for detailed study.

2.5.1 Technical Models

Those who advocate the technical models look at curriculum planning as a plan for structuring the environment to coordinate in an orderly manner the elements of time, space, material, equipment and personnel. The implications are that

they do not regard the technical models as vehicles for dehumanizing education, but rather a means of planning curricula to optimize students learning and to allow them to increase their output, including their humanness. Thus, technical models enable us to comprehend curriculum from a macro viewpoint, i.e., a complex unity of parts organized to serve a common function—the education of individuals.

To elaborate on this theme we shall talk about the following models:

- i) The Tyler model
- ii) The Taba model
- iii) The Saylor and Alexander model
- iv) The Goodlad model
- v) The Hunkins model
- vi) The Miller and Seller model

Let us take up each one of them in the given order for our discussion.

i) **The Tyler Model**

If you recall Unit 1, Block 2, you will notice that this model is not unfamiliar to you. We have referred to Tyler's four basic principle/components of curriculum. However, a discussion is relevant as it will help us juxtapose it with the other models.

Tyler (1949) argues that those who are involved in curriculum inquiry should try to define the

- purposes of education
- educational experiences related to the purposes
- organization of experiences
- evaluation of the purposes

Fig. 2.1 gives us an idea of Tyler's curriculum development models.

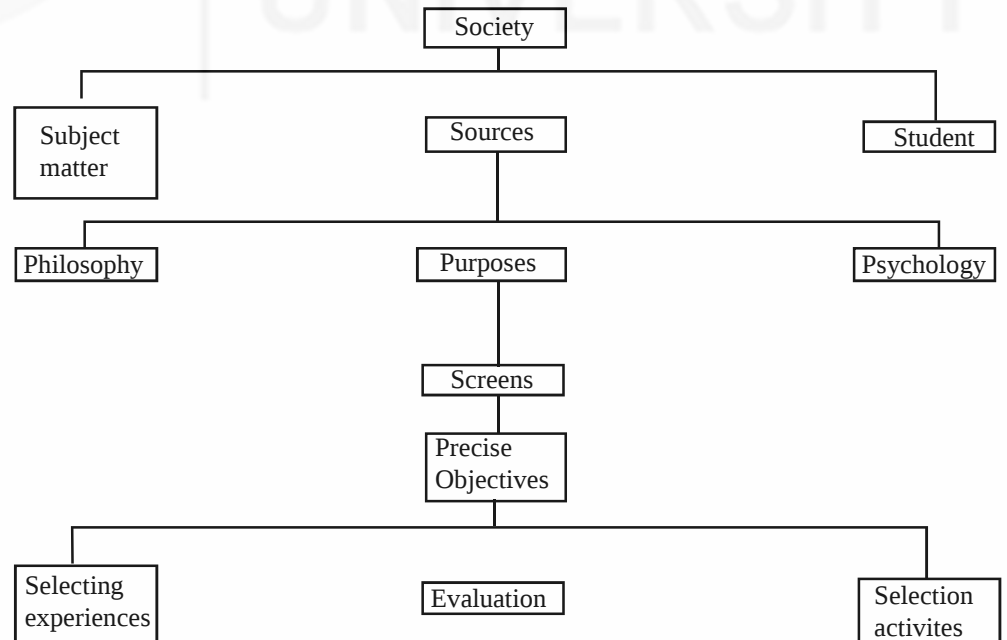


Fig. 2.1: The Tyler Model

A look at Fig. 2.1 should tell us that to identify the purposes we need to gather data from three sources, namely society, students and subject matter. As the purposes will be general in nature, we need to translate them into precise instructional objectives.

Tyler makes a provision for this purpose in his model on the bases of educational philosophy and the psychology of learning. By filtering the general purposes through these two screens as the figure suggests, we can refine them to specific instructional objectives. Once we have identified the objectives, we shall take up the task of selecting the requisite learning experiences, i.e. those which suit the objectives. The selection of learning experiences depends to a great extent on the previous experience and the perceptions that the learner brings to a situation. The identified content-mass has to be chiselled and tailored in such a way as to reach the intended target group in an organised and a sequential pattern in order to effect the required learning. Tyler's last principle deals with evaluating the effectiveness of planning and actions. It gives us feedback as to whether or not we have achieved the intended goals. As the figure suggests all the four basic principles are interdependent.

ii) **The Taba Model**

Hilda Taba's grassroots model (1962) is a reaction to how Tyler's model was put to use. Although Tyler does not suggest that all the elements in his model should only be employed by selected core personnel, it was taken for granted that it is a top-down model, as the curriculum user does not find a role to play in curriculum planning in this model.

Taba feels that curriculum should be designed by its users. Teachers, for instance, should begin the process by creating specific teaching-learning units for their students. She further advocates that teachers need to take an inductive approach to curriculum development—starting with specifics and building to a general design as opposed to the traditional deductive approach—starting with the general design and working toward the specifics.

Accordingly, she has noted the following seven steps to her grassroots model in which teachers would have major inputs to make.

- **Diagnosis of needs:** The teacher (the curriculum designer, in this context) start the process by identifying the needs of the students for whom the curriculum is to be planned.
- **Formulation of objects:** After the identification of the needs that require attention, the teacher specifies objectives to be accomplished.
- **Selection of content:** The objectives selected should suggest the subject matter to unit-lesson.
- (Taba points out that not only should objectives and content match, but the validity and significance of the content identified need to be determined as well).
- **Organization of content:** Having selected the content, we need to organize it in some sequential pattern. Organization of content depends on the cognitive maturity of the learners, their academic achievement and interest areas.
- **Selection of learner-activities:** Depending on the content selected and its sequence we should introduce appropriate instructional methodologies that will help the students involve themselves with the content.
- **Evaluation:** The purpose of evaluation is to determine how much of the objectives could be achieved. The evaluation procedures need to be considered by the students and teachers.

You might have noticed here that the elements in the grassroots model of Taba are identical with those of Tyler's. The emphasis however in the former is that curriculum framing should adopt participatory management rather than a top-down one.

Though Taba's model has much merit, some maintain that its primary weakness is that

- it applies the concept of participatory democracy to a highly technical and specialised process; and
- it assumes expertise such extensive curricular activity on the part of the teachers in.

However, we do need to recognize that the grassroots approach has made it abundantly clear that a broad base of involvement is essential for curriculum decision making.

iii) The Saylor and Alexander model

Saylor and Alexander have presented a systematic approach to curriculum development that has 4 distinct stages with a feedback loop. We can illustratively present it as shown in Fig. 2.2.

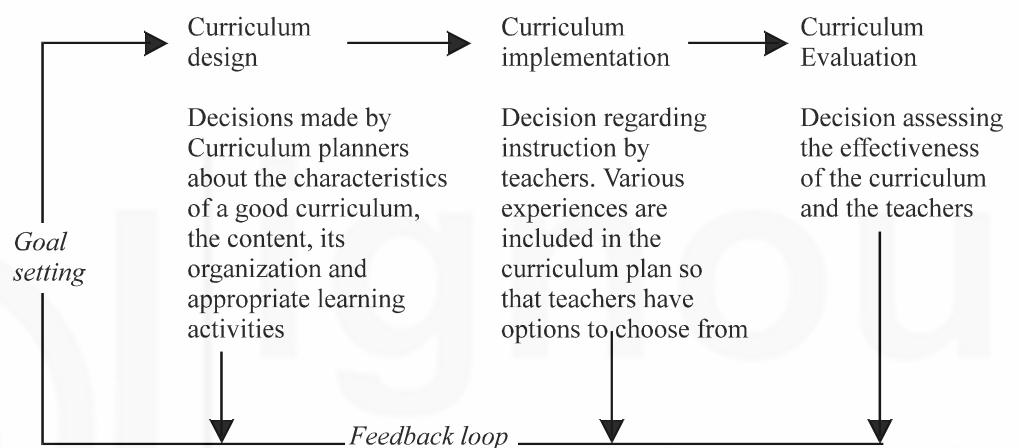


Fig. 2.2: The Saylor and Alexander Model

Though the figure by itself is suggestive of the stages involved in curriculum planning, a word about each of the stages is in place here.

Goal setting: There are four major curriculum domains that should receive attention: personal development, human relations, continued learning skills and specialization. Each of the goals identified should depict a curriculum domain.

Curriculum design: Here we have to take a decision on the content, its organisation and appropriate learning opportunities for the content selected. Moreover, at this stage we decide whether the curriculum be designed to emphasise the academic disciplines, the learner needs or the needs of the society.

Curriculum Implementation: Once we design the curriculum and develop it for implementation, the teachers.

Select various methods and materials to suit their learners. In a distance education context, mostly the learners themselves decide on the methods.

Curriculum evaluation: This is the final stage in the model. At this stage, the curriculum planners and teachers choose from the available evaluation techniques, those that will furnish an accurate picture of the value and success of the curriculum and its delivery. Evaluation should focus on the curriculum plan, the quality of the instruction and the learning behaviours of the students. Through such comprehensive evaluation we determine whether to retain a programme, modify it or discard it. (Please see the feedback loop in the figure).

iv) **The Goodlad model**

In this model, all educational aims are drawn from the analysis of the values of the existing culture. These educational aims are then translated into educational objectives stated in behavioural terms. Obviously, the objectives identified suggest learning opportunities. According to this model, curriculum planners deduce specific educational objectives from the general educational objectives identified and the learning opportunities suggested. Specific objectives help the planner in selecting organizing centres, i.e., specific learning opportunities set up for identifiable students or for a particular student.

v) **The Hunkins Model**

It has the following seven major stages:

- curriculum conceptualization and legitimization
- diagnosis
- content selection
- experience selection
- implementation
- evaluation
- maintenance

A diagrammatic representation of the model is given in Fig. 2.3.

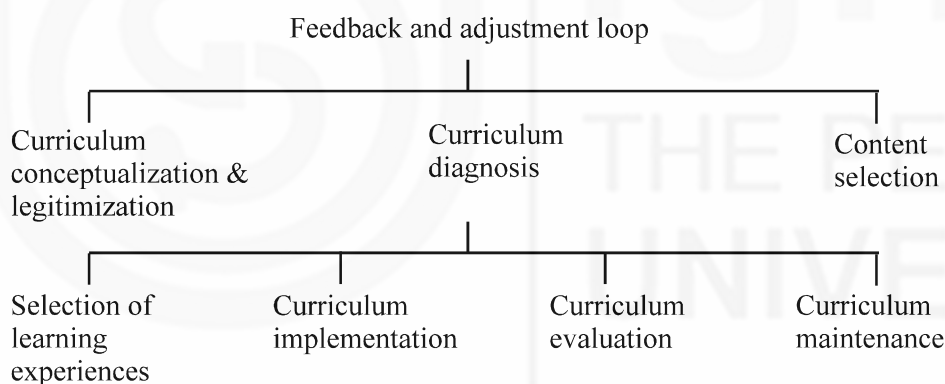


Fig. 2.3: The Hunkins Model

If you noticed, in this model there are a few elements which are missing in the other models.

What are they?

Except in Goodlad's model, the rest do not have the feedback and adjustment loop. And even in Goodlad's model the loop is of a primitive nature. But in this model it has gained importance. It allows those working with the model to continually adjust their decision making about curricular action, depending on the situation. For instance, supposing the designers are at the stage of content selection and find that there is a lack of resources, they can return to the curriculum diagnosis stage to modify the objectives selected. Or they can even go back to the beginning stage and rethink the curriculum in the light of the new information. It allows the process of curriculum decision-making to be 'spiral' rather than 'linear'.

And the other distinguishing feature of this model is the incorporation of the stage at which conceptualization and legitimization of curriculum takes place. It is possible that people engage in the curriculum

development process without considering what their philosophical orientations are. (At this juncture, it would be a good idea to refer back to Unit 2, Block 1). The first stage in the Hunkins model resolves this problem. It ensures that at the beginning itself one should be able to clearly articulate one's philosophical orientation. It guides the rest of the curriculum planning activities- In the other models; curriculum evaluation has been considered the final stage of curriculum planning activities. However, the Hunkins model has a unique stage after the evaluation stage. It is the curriculum maintenance stage. Generally, we tend to be self-complacent once we launch a programme or are satisfied with the data' collected from the feedback system. But then, curriculum programmes that are not consciously maintained usually dissipate and finally become parts of a patchwork of courses. The curriculum maintenance stage suggests various means of managing the curriculum system and the support systems necessary for the continuation of the programme.

The activities at the rest of the stages are by and large similar to those of the stages in the other models.

vi) **The Miller and Seller Model**

It introduces the notion that the various models of curriculum development exhibit at least the following (three orientations towards the purpose of curriculum:

- Orientation of transmission position: The curriculum can emphasise that the education should transmit facts, skills and values to students. The stress is on mastery of competencies and carrying on the culture.
- Orientation of transaction position: An individual should be perceived as a rational being and thought to be capable of intelligent action. We can therefore, view education as a dialogic process between the student and the curriculum.
- Orientation of transformation position: It centres on personal and social change. Here, as you may recall, there are those who have an inclination towards humanistic approach in curriculum planning, those who approve of personal attitudes, etc., and social changes influencing curriculum.

We shall present this model in a diagrammatic form as shown in Fig. 2.4.

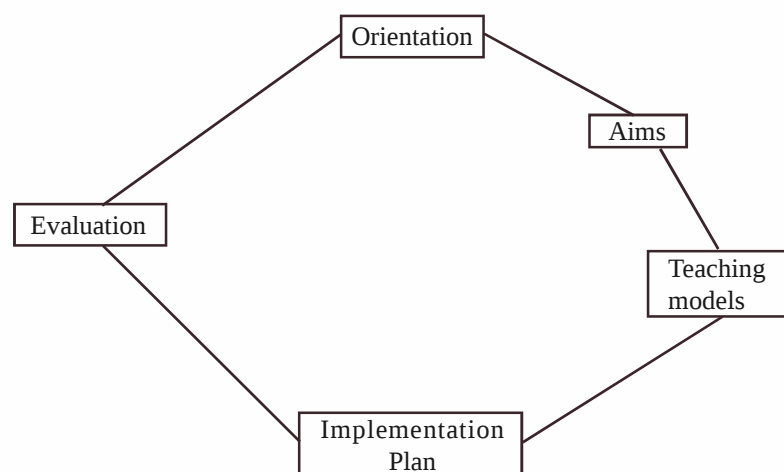


Fig. 2.4: The Miller and Seller Model

The figure clearly shows that it has all the features of the 'technical model' of curriculum planning, in spite of the fact that it advocates orientation to transformation.

The stages presented in the figure are rather self-evident. The orientation stage deals with considering one's philosophy and, one's view of society. From this orientation, we determine the aims, goals and objectives to be addressed. You may have noticed here that the content of the curriculum which normally follows the objective setting stage in the other models seems to have been ignored. Here, one goes from objectives to experiences and teaching methods. The implementation stage that follows refers to incorporating the curriculum into the teacher's repertoire of behaviour. At the evaluation stage, one assesses the effectiveness of the curriculum.

Note: It is not as though there are only these models are available under the technical models.

There are in fact a few more but all of them are incomplete by themselves. We should also understand that it is not possible for every model to show every detail and every nuance of the curriculum planning process. We should furthermore realize that even though the models that we have talked about are inclined to the subject-centred curriculum designs, they can, in fact, be employed to develop a curriculum for any and all of the curriculum designs. Having looked into the technical models, let us now take up the non-technical models in sub section 2.5.2.

2.5.2 Non-Technical Models

Let us start this subsection with a word of caution. Here, we are not suggesting that the non-technical models are unsystematic by comparison. Rather, these models take up issues with some of the key assumptions underlying the technical approach and questioning some of the consequences that result from utilizing this approach to curriculum development.

In this subsection, we shall be talking about the following three models in the given order:

- i) Open Classroom Model
- ii) Weinstein and Fantini Model
- iii) Interpersonal Relations Model
- i) **The Open classroom model**

Much discussion favouring a non-technical approach to curriculum appeared during the early 1970s in what has come to be known as the open-classroom or open-school movement.

It is based on an activity based curriculum in which the activities are treated as ends in themselves. To a certain degree, those who favour the activity curriculum are averse to making in advance any plan that might stifle the development and learning of the students. It, thus, suggests that students learn by participating in tasks and by actively moving around the room and not by passively listening to the teachers.

In essence, this model places great faith in students and encourages learner autonomy.

Although some persons believe in such non-planning of the curriculum, most of them advance some consistent ways of creating a programme. They present, for example, stages of actions that need to be considered systematically.

ii) **The Weinstein and Fantini model**

Through this model, teachers can generate new content and techniques to assess the relevance of the existing curriculum, content and techniques. Weinstein and Fantini note that it is a way of linking sociological factors with cognition so that the learners can cope with their concerns.

According to this model the first step in the curriculum planning activity is to identify the learner-group. By implication, this model gives importance to learner-concerns, that determine the:

- content and its organisation; and
- teaching procedures to be employed

Since concerns are deeper and more persistent than interests, they give the curriculum some consistency over a period of time. The nature of content organisation contributes in sustaining the motivation of the students. All content, in fact, is organized into the following three divisions:

- content gained from experiences one has as a growing person here the content addresses student identity, power, belonging and connection,
- content relating to the learners' feelings about his or her experiences for instance, one's feelings about one's friends, about sports and social activities need to find a place in the curriculum,
- content that the student gets/obtains from the social environment in which he or she lives.

The types of content selected obviously influence the types of skills selected as well. Identifying the teaching procedures is the next major stage in this model. The necessary procedures are those that will address the learning styles of individuals and that will also have the greatest impact on their affective dimensions. The message of this model, therefore, seems to be to foster self-control of one's educational experience.

iii) **Interpersonal relations model**

Carl Rogers is not a curriculum specialist, but he has developed a model for changing human behaviour, which can be used for curriculum development. His emphasis is on human experiences and not on content or learning activities. Rogers' model is used for exploring group experiences, whereby people examine themselves and others through peer group discussion etc. With the aid of a trained facilitator each participant in the group is encouraged to put aside his/her own defences, to communicate honestly and to explore his/her own feelings and those of others. So the model is called 'interpersonal' relations model.

Rogers' model can be used for improving the attitudes, behaviours and personal relations of students, parents, community member and so on. It can be used not only among peers, but also to effect relations between members of different status-roles such as a curriculum committee consisting of board members, community members, parents, administrators, teachers and students. In this manner, members of the curriculum committee can learn to understand themselves and others better, and to become more flexible and willing to work for constructive changes.

As we have mentioned earlier, the danger in noting that one set of approaches is systematic or rational is the implication that the other is systematic or non-rational. However, we do not intend any such non-implication here.

Before we complete our discussion on curriculum planning, we shall go through the exercise presented below.

Check Your Progress 3

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this unit.

Say in about 10 lines, what the terms 'technical' and 'non-technical' mean in our context.

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The technical approach to curriculum suggests that the process of curriculum development has a high degree of objectivity, universality and logic, and it works on an assumption that we can identify, understand and represent these elements in symbolic form. It states that the aims of education can be made known, stated precisely and addressed in a linear fashion.

In contrast, those who advocate the non-technical approach stress the subjective, the personal, the aesthetic, the heuristic and the transactional. In other words, this approach to curriculum focuses on individual's self-perceptions and personal preferences, their own assessments of self-needs, and their attempts at self-integration. They stress not only the outputs of the transaction but also the learner, especially through activity oriented approaches to teaching and learning. Those favouring this approach note that not all ends of education can be known, nor indeed, do they need to be known in all cases. In essence, this approach considers that the curriculum evolves rather than being planned precisely. This differs to some degree from the technical approach which relies more heavily on the view of the expectations and the demands of the subject matter and of society for determining student needs.

Those favouring this view place high priority on educational objectives that are personal and process-oriented and that allow individuals to grow as individuals and as members of a social order.

In this section we have looked into two contrasting approaches to curriculum planning without making value judgements about either of them. It may not be possible to follow any one approach strictly in the curriculum planning process. Learners are as important as the selection of content or teaching activities, etc., and vice versa. The point of departure however is as to what should be given more or less importance. Ideally, to evolve an effective and purposeful curriculum, we need to opt for an eclectic model.

2.6 LET US SUM UP

We shall now recapitulate what we have studied in this Unit.

We started with a definition of what we mean by curriculum planning. We said that it is a process in which participants at many levels make decisions about:

- what the purposes of learning ought to be;
- how those purposes might be carried out through teaching/learning situations; and
- whether or not the purposes and means are both appropriate and effective.

Having defined the term ‘curriculum planning’, we looked into the issues in planning a curriculum. In the process we also identified the levels of curriculum planning. Later, we took up the two major components of the Unit, i.e., approaches to and models of curriculum planning. Under ‘approaches’ we have touched upon:

- Subject area approach
- Broadfields approach
- Social problems approach and
- Emerging needs approach

Under models, we have in detail looked into the technical and non-technical models.

In doing so, we have emphasized that we are not favouring any one model. In fact we have suggested that an eclectic approach to curriculum planning might be more effective than focussing on any one model.

2.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

a) Curriculum planning levels

- National level
- State level
- Building level
- Teacher team level
- Individual teacher level
- Cooperative curriculum level

b) Curriculum planning issues

- Subject centred vs learner centred
- The question: who is to plan the curriculum?
- Basis that constitutes learning

For distance education purposes, more often than not, we adopt national level curriculum planning.

Check Your Progress 2

Curriculum Planning

A	B
1) Subject area approach	Realism
2) Broadfields approach	Idealism
3) Social problems approach	Reconstructionalism
4) Emerging needs approach	Existentialism

Check Your Progress 3

In our context, the term ‘technical’ implies the idea that aims of education and the curriculum that emerges out of them can be objectively stated. The term ‘non-technical’, however, stresses that an individual’s needs dictate the aims of education and thus influence curriculum planning.



UNIT 3 CURRICULUM DESIGNING

Structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Identifying the Purpose
 - 3.2.1 Defining Purpose Setting
 - 3.2.2 Substantive Criteria
 - 3.2.3 Procedural Criteria
- 3.3 Setting Educational Objectives
 - 3.3.1 Formulating Objectives: Guidelines
 - 3.3.2 Approaches to Curriculum Objectives
- 3.4 Selecting and Structuring the Content
 - 3.4.1 Criteria for Selection of Content
 - 3.4.2 Organisation of Content
- 3.5 Deciding Curriculum Experiences
 - 3.5.1 Selecting Experiences: A Checklist
 - 3.5.2 Criteria for Environment
- 3.6 Let Us Sum Up
- 3.7 Answers to Check Your Progress

3.0 OBJECTIVES

After completing this Unit, you should be able to:

- analyse the socio-academic considerations and criteria in purpose-setting in curriculum planning;
- identify and illustrate the different levels/ways of defining aims/goals/objectives;
- state the criteria for selecting and sequencing the content i.e., subject matter; and
- identify selection-criteria for curriculum experiences/ environments/settings

Let us begin our discussion now.

3.1 INTRODUCTION

In this Unit, we shall take up the major dimensions of curriculum and their corresponding components in order to identify some principles/criteria and other considerations that should guide any curriculum planning. In the process, we shall also examine the procedural steps that may be adopted at different levels, depending on their appropriateness and relevance.

In Unit 1, we have dealt with the issues relating to the four essential curriculum-constituents i.e. objectives, learning experiences, transactions and evaluation. At places, we have also touched upon the selection-criteria for each of these components. This Unit is a logical extension of Unit 1. It is possible, therefore, that on various occasions, you may come across familiar concepts reinforced and/or looked at from different perspectives to bring out the nuances and intricacies of the topic under consideration.

3.2 IDENTIFYING THE PURPOSE

Throughout Block 1, we have implied that education is a purposefully designed social good. Education, thus, has to fulfil the following two purposes:

- individual development; and
- social progress.

We have also said in Block 1 that curriculum is the overall means for achieving this two-pronged objective. To select and effectively plan the means i.e., curriculum, we need to therefore clearly define our purposes/broad goals and relatively specific objectives. In sub-sections, 3.2.2 and 3.2.3 we shall examine some basic principles, the criteria derived from them and other considerations that should guide the task of defining goals and objectives.

Before we look into these subsections, we shall first clarify what we mean by 'purpose' in curriculum planning.

3.2.1 Defining Purpose Setting

We are familiar with terms like 'purpose', 'goal', 'aim' and 'objective' and we use all of them almost synonymously. In educational literature, depending on the context, they are used either synonymously or to mean different things. However, in general, the term 'purpose' connotes very broad and global statements of educational intentions. The terms 'aim' and 'goal', though broad, are relatively limited in scope and 'objectives' refer to specific intentions of an educational process. However, this term can also occur in stage 1 in relatively broad terms on the one hand, and be later broken down into very specific ones with differing degrees of precision, on the other. (It will be a good idea if you can refer to Unit 2, of this Course in which we have differentiated 'aims' from 'objectives' with regard to course planning in distance education.

Let us elucidate these concepts with illustrations.

Purposes: They are generally global in nature. For example, the purpose of pre-primary education may be to prepare children for formal schooling, and that of school education is to provide students with adequate grounding in various subjects of general interest. It is common knowledge that higher education is meant to facilitate specialization in areas of special interest.

Goals/Aims: We may state goals/aims in the same fashion as 'purposes' but they are, relatively 'flexible', less global and more specific. For example, various committees on education and educational thinkers have specified that the aims of education are to:

- facilitate self-actualisation
- effect cognitive development
- help the students develop communication skills
- prepare the students for specified professions/vocations at certain defined levels;
- provide scope for specialisation in certain fields/branches at specified levels
- encourage liberal education for cultural upliftment, etc.

Goals/aims therefore cannot be considered either contradictory or alternative to

the purposes set out. They, thus, have to be seen as complementary in achieving the total purpose of education.

Objectives: We may broadly define educational objectives as purposes and/or aims. However, they are often defined in terms of *outcomes* of different kinds, classes, categories, and levels. Bloom and others (1956) analysed such educational objectives and grouped them into the following three broad areas:

- cognitive (relating to knowledge as product and knowing as process);
- affective (where feeling and attitude are central or crucial); and
- psychomotor (consisting in manipulative skills, involving muscular movements).

(At this juncture, perhaps, it is worthwhile referring block-1 of Course MDE-412 for additional information.)

What is implied here is that each of these terms gains specific connotations depending on the context in which it is used. However each of them, either holistically or in fragments, contributes towards setting educational intentions. For our immediate purposes, we can use them interchangeably without getting into any terminological tangles.

Having acquainted ourselves with the term ‘purpose’, let us now look into various criteria that have to be considered for purpose setting in the educational field. The criteria that used for this purpose can be grouped into the following:

- i) Substantive criteria; and
- ii) Procedural criteria.

We shall deal with them in Sub-sections 3.2.2 and 3.2.3 respectively.

3.2.2 Substantive Criteria

We have agreed that education is a purposeful endeavour. As we have seen in 3.2.1, it is concerned with outcomes that are usually expressed at several different levels. The most general level is reflected in statements of specific aims, in statements of objectives. But, whatever the degree of specificity, we need to use these statements to plan, develop, implement, maintain and evaluate our educational programmes. In essence, the total programme/curriculum for any level must adequately reflect the basic philosophy of education adopted by the society—either explicitly or by implication. It must be in tune with such a philosophy and must contribute to its realisation. However, because of the numerous educational-philosophical positions, there are different ways to conceptualise and deliver curricula.

Consider the following educational philosophies:

(We have studied these at length in Unit 2, Block 1)

- **Idealism:** stresses the aim of self-realization, the importance and value of ideas rather than of matter, and the acceptability and pursuit of absolute values.
- **Naturalism:** stands for harmony with nature, i.e., education designed in accordance with nature, especially the natural inclinations and abilities of the learner on the one hand and the features of nature on the other.
- **Pragmatism:** aims at social efficiency, experimentation and discovery.
- **Essentialism:** emphasizes preparation for adult life as the main function of education.
- **Reconstructionism:** stresses the role of education in bringing about significant social changes and therefore in reformation.

- **Existentialism:** accepts man as essentially worthy and good and sees self-actualization as the central purpose of education.

Don't you think all these ideologies sound sensible, good and educationally attractive?

Extreme emphasis on one or even some of these to the exclusion of others would make the curriculum very narrow and lopsided. Most of these have to find a reasonable place in a balanced picture, for they are complementary rather than contradictory.

We have to therefore enlarge and strengthen the underlying unity of these differing approaches. But at the same time, we cannot ignore the uniqueness and distinctive features of each. Essentially, therefore, we require an 'eclectic' approach that permits open-minded and meaningful selection and synthesis of goals in order to define the philosophy of education in any modern society. The broad purposes/goals of education that constitute the means, i.e., the curriculum must represent and adequately synthesize all the ideologies to suit heterogeneous learners. In other words, it must yield a harmonious blend rather than a crude mixture.

3.2.3 Procedural Criteria

Curriculum planning is generally meant as the process of preparing comprehensive curriculum for adoption by an institution or teachers. Curriculum development takes them to the next stage of their expansion, elaboration, preparation of curricular materials for actual implementation and use in particular situations. Procedures form part of the means for accomplishing something. For example, if we take the Indian context, we have to exercise different tasks pertaining to curriculum planning and development at different levels—progressively higher to lower levels and large to smaller areas of jurisdiction as Fig. 3.1 depicts:

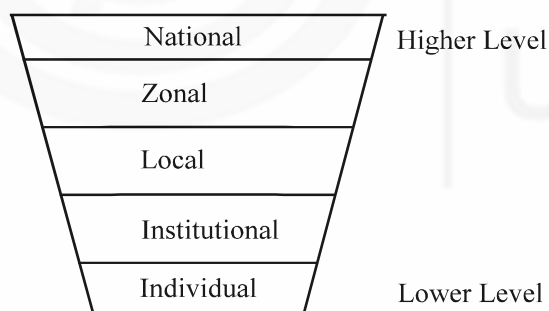


Fig. 3.1: Procedural pattern: An illustration

In India, curriculum planning in this sense is generally done only at one or more of the three higher levels i.e., global, regional, national and local. However, we can find exceptions as in the case of deemed universities, autonomous colleges and some other prestigious institutions functioning with a lot of independence. The other three levels i.e., local, institutional and individual, undertake detailed curriculum development, though in a systematic fashion. Obviously, lack of coordination at any one level tends to make things artificial, arbitrary and prescriptive.

To avoid this kind of strained outcome, the higher and lower levels of curricular planning should move in unison—starting with broader areas, focusing on basic and essential, central and optimum things at the national level; and moving towards progressive expansion, elaboration, local specificity and adaptation, meaningful addition and variations etc., at the lower levels. It would serve to ensure optimum standards; uniformity, and variety, while permitting reasonable freedom and flexibility, local relevance and suitability.

Further, the procedures adopted at the different levels must be such as to ensure to the maximum extent possible that:

- competent and representative teams or committees of educationists, psychologists, curriculum specialists, subject experts, experienced teachers at the relevant level—primary/ secondary/tertiary and representatives of other relevant interests like industries, employees etc. are formed for the purpose, especially at the higher levels;
- approach papers, policy statements and broad outlines are drafted, circulated for critical examination and refined by a team/committee;
- the basic philosophy of education adopted by the nation/society and that relating to the stage/sector concerned are clearly defined;
- the national interests, aspirations and priorities are identified and adequately represented;
- features of the emerging social order and its demands are identified and given due consideration;
- the special purpose and scope of education at the stage/sector concerned are clearly articulated;
- the total pattern is accordingly designed with its major components, linkages, balanced weight, time, planning etc.;
- the capabilities and learning that is possible at the entry point are identified and stated so as to be clearly assumed;
- the broad goals of the total curriculum and its major components are defined first and then broken down into more specific objectives;
- the objectives so selected are suitably classified and ordered or sequenced, indicating linkages between them; and
- the objectives so set forth are judged and accepted as appropriate, adequate and attainable.

It should be obvious here that only after such comprehensive and thorough purpose setting should we proceed to:

- identify specific courses and components therein;
- select and order their broad and specific objectives;
- develop content outlines which include analysing, sequencing and structuring the content;
- identify the best and alternative ways of educational transaction or treatment;
- suggest special projects, activities, and indicate appropriate resources/aids to be used.

By following certain norms of the kind described, we shall be able to meaningfully define the broad objectives of different courses/units. It should be mentioned here that the conventional educational systems, by and large, seem to have either ignored it or at best, taken it for granted. Even when occasional attempts are made to systematically provide for setting out purposes invariably they prove to be futile at the stage of implementation. Various reasons can be attributed to it. One main reason perhaps is the sense of self-complacency on the part of the educationists—that they have been dealing with education for years together. On the contrary, in the distance education context, we cannot take such risks because the system by its very nature is learner-centred. Our discussion on ‘systems approach’ in course MDE-413 should help us substantiate the claim.

3.3 SETTING EDUCATIONAL OBJECTIVES

As we have studied in Sub-section 3.2.1 goals can be written at several levels of generality. At one extreme, they can be written in such broad phrases that they are similar to aims and reflect a philosophical base. At the other extreme, they can be written rather specifically to indicate a concern about a particular achievement.

Within the context of educational aims and goals, it is necessary to formulate objectives that will indicate in more specific terms the outcomes of the curriculum or project being considered. Gronlund (1970) states that a meaningful objective is one that communicates effectively to the reader the instructional intent or behaviour as well as the specific learning outcomes of an educational transaction.

3.3.1 Formulating Objectives; Guidelines:

Since objectives indicate expected outcomes, we need to give careful thought to the creation of curriculum objectives.

We should, therefore, consider the following points when formulating objectives.

- i) **Matching:** Objectives should relate to the goals/aims from which they are derived. At times, it is possible that we prepare a well-defined set of objectives of students' 'understanding' of certain scientific facts, which may not have any correlation to the goals set. For example, an objective to the goal that students be able to apply the knowledge gained in practical situations.
- ii) **Worth:** It relates to whether attaining an objective will have value for the students at present and in the future. Indeed certain subject knowledge needs to be eliminated, modified or updated because our knowledge base is constantly changing.
- iii) **Clarity:** Statements of objectives will lose their importance if they do not enable the students to understand and see clearly the intended outcomes. However, how appropriately an objective is worded also depends on its level and scope.
- iv) **Appropriateness:** To determine appropriateness we should first consider the students and their needs. If we fail to do so, some objectives will demand of students' behaviour that they have already attained or are incapable of performing. Similarly, some objectives will not cater to the students' interests or be more suitable for students in a particular subject than for students interested in general orientation.
- v) **Logical grouping:** Statements of objectives should not lack organisational coherence. At times, objectives that address a general understanding of self—such as understanding the particular effects of lack of exercise on the body—are grouped with those that are more specific. This will result in a mismatch between the objectives set and demands made. Therefore, we need to group the objectives set forth and the demands made and to group objectives according to some common idea or classify them in terms of learning domains—cognitive, affective and psychomotor.
- vi) **Revision:** Revision of objectives is necessary because of periodical changes in student in profile, society, realm of knowledge, and instructional strategies. We need to therefore periodically analyse the worthiness/validity of the objectives.

We have pointed out that when making curricular decisions, especially when generating objectives, we should consider all the three domains of learning (Table 3.1).

The categories of three domains are arranged in a hierarchy in which the levels increase in complexity, from the simple to the more advanced. Each level progressively pertains to students' abilities to analyse an issue, to apply and comprehend information. For a student to express a value preference, he or she must be able to respond to situations and must be willing to receive information. That is, he/she needs to be skilled at the level of perceptual abilities, and must have mastered the relevant fundamental and reflex movements. The hierarchy in categories of the domains of learning shall guide us to formulate objectives, depending on the level of the students' abilities.

Table 3.1: Domain-wide categorisation of objectives

Categories in cognitive domain (Bloom 1956)	Categories in affective domain (Karthwohl 1964)	Categories in psychomotor domain (Harrow 1972)
Knowledge: Specific facts, terminology, etc. and universals, principles, generalizations, etc. Comprehension: Translation, interpretation, extrapolation of information, etc. Application: Transfer of information in particular situations Analysis: Breaking of a whole into parts and distinguishing elements, relationships and organizational principles, etc. Synthesis: Putting parts together into a new form Evaluation: Making judgements in terms of internal/external evidences	Receiving: Sensitivity to the existence of stimuli (e.g. awareness, selected attention, etc.) Responding: Active attention to stimuli (e.g. acquiescence, feelings and satisfaction) Valuing: Beliefs and attitudes of worth (e.g. acceptance, preference, commitments etc.) Organization: Internalisation of values, beliefs involving conceptualization of values and organization of a value system Characterization: Reflecting a generalised set of values, a philosophy of life.	Reflex movements: Segmented and inter segmented reflexes involving spiral segments Fundamental movements: Behaviour related to walking, running, jumping, pushing, pulling and manipulating Perceptual abilities: Endurance, flexibility, strength, ability, reaction-response time, and dexterity Skilled movements: Concerning with games, sports, dances and arts Non-discursive communication: Expressive, movements through postures, gestures, facial expressions and creative movements.

Check Your Progress 1

Notes: a) Space is given below for your answer.

b) A sample objective for each of the categories in each of the domains is given at the end of the Unit. Compare your answer with it.

Formulate one objective each from any one of the categories given under the three domains of learning in Table 3.1.

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3.3.2 Approaches to Curriculum Objectives

Generally we design objectives to communicate to the involved parties—students, teachers, etc. the intents of particular actions or the objectives behind them. There are a few approaches to the formulation of curriculum objectives. Obviously, the approaches basically are the manifestations of different educational thinking/philosophy. Here, we shall see a few important approaches to curriculum objectives:

- i) **Behavioural-rational approach:** It has its roots in the behaviourist learning theory and in the concept of ‘operationalism’ in sciences under which people relate a tangible or observable condition or disposition of a human being to a particular learning activity. For example, you may wish to indicate that a person appreciated a poem; however no one has ever seen an ‘appreciation’. What you need to do is to indicate those tangible or observable ways of behaviour that comprise and/or indicate ‘appreciation’.

A word of caution

We should accept that behavioural objectives can easily denote logical and rational thought, but they cannot easily describe creative and intuitive learning or internalised value systems. Some curriculum specialists feel that behavioural objectives do not seem to focus on higher order tasks and skills. Some, however, are concerned that the focus on precise objectives is likely to cause educators to ignore the ‘hidden curriculum’ (Please refer to Unit 1, Block 1).

- ii) **Intellectual-academic approach:** It identifies three fundamental factors - learner, society and organised subject matter, which we should attend to. It advocates that these three factors should be viewed as a whole, and not in isolation from one another. When we look at them as separate entities the inevitable happens—a mismatch between needs and what is available to fulfil those needs. Obviously, any formulation of objectives should have as its basis, the following three sources of the curriculum:

- i) studies of the learner;
 - ii) studies of contemporary life and its needs; and
 - iii) suggestions from subject experts.
- iii) **Systems-managerial approach:** It follows two major stages—problem identification and problem resolution. Under each of the stages, a few activities are grouped as is shown in Fig. 3.2.

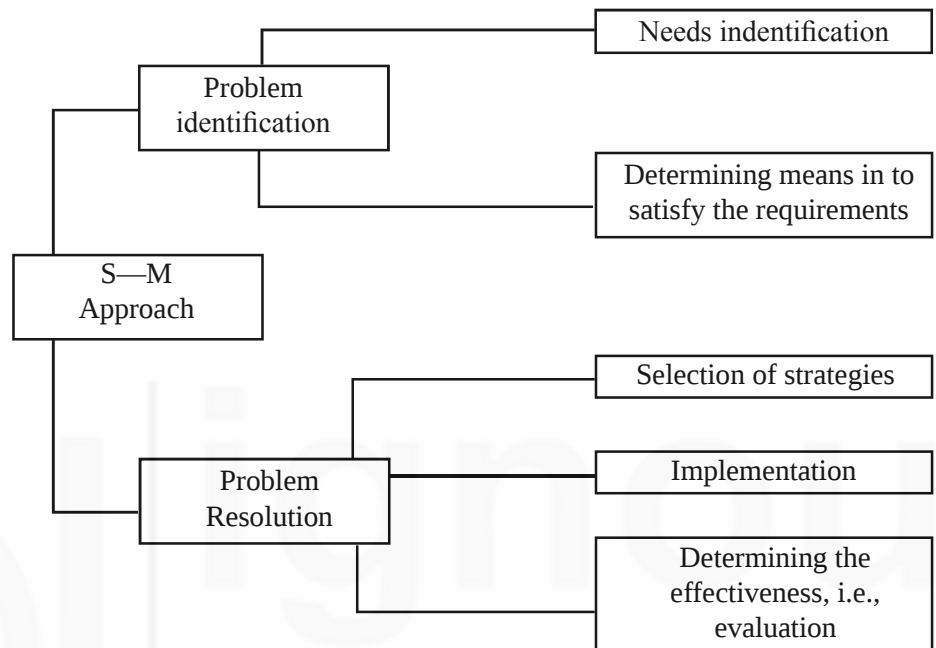


Fig. 3.2: Stages in systems-managerial approach

- iv) **Humanistic-aesthetic approach:** According to this approach, objectives should be formulated in such a way as to enable the students to gain an openness to experience, to view living as a process, and to trust his/her own experience. It, therefore, does not require objectives to be written down explicitly and precisely. In other words, objectives are evolved from the experiences of students.
- v) **Reconceptualist approach:** It has an affinity towards the humanistic-aesthetic approach. However, it is much more critical of education and views the educational arena from an existential and exponential framework. Obviously, therefore, the objectives under this approach will be open-ended in nature.

Note:

All of these approaches have shortcomings. The behavioural-rational approach might be viewed as too structured and trivial, the systems-managerial can be viewed as technocratic, the intellectual-academic approach can be viewed as ‘middle of the road’, the objectives of the humanistic approach could be branded as ‘vague’ and the re-conceptualists’ approach could also be criticised as not furnishing enough specific guidance about how to form objectives. In formulating objectives, therefore, mostly we will be guided by an eclectic approach instead of deciding on any one of these approaches. However, the intention here is to acquaint you with a few approaches to objective-formulation, so that your reactions to curricular issues pertaining to ‘objectives’ are balanced and well informed.

3.4 SELECTING AND STRUCTURING THE CONTENT

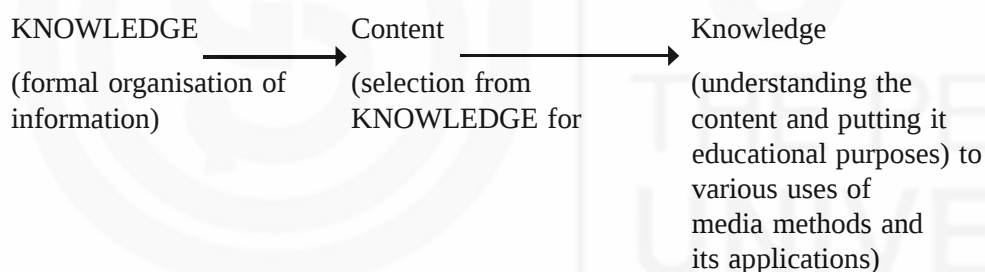
As we have seen in Unit 4, Block 1, content, like objectives, forms an essential and major dimension of curriculum. The implication is that like objectives, content has to be meaningfully selected, suitably sequenced and properly structured. We have emphasised in Section 3.3 that an adequate definition of instructional objectives will have an essential content-dimension. In essence, the two are interdependent and have to go together.

In Unit 4, Block 1, we have clarified. What we mean by ‘content’. Let us further elaborate on this. Generally it refers to ‘subject matter content’, the information or ‘knowledge’ it implies and promotes a whole gamut of learning:

- facts, observations, data, perceptions, discernments, sensibilities, designs and solutions reflecting man’s comprehension of the environment
- constructs like ideas, concepts, generalisations, principles, plans, solutions, etc.,
- skills, processes, values, etc.

It should be clear here that by content we imply learning experience besides subject matter.

Consider the following for further clarification:



For example, functionally, the content in language courses must be the ‘language content’ rather than the ‘textual or subject matter content’. The former consists of words, phrases, idioms and other expressions, sentence patterns and structural items, semantics and syntax, grammatical relationships and principles, forms of communication, apart from ‘sounds’ including pronunciation, accent, intonation, etc. They have to be comprehended, and used in expression and things of aesthetic value have to be appreciated. The content of non-language subjects can be analysed in terms of factual information, concepts and principles, other generalisations and interpretations, phenomena and problems, theories, etc. The content of a discipline as a whole and that in any course or unit therein can be systematically analysed to identify these structures. While these would constitute the essence of content in the discipline/course, we can further attempt a detailed analysis in terms of specific categories of content. But it is not enough if content is analysed merely in this fashion. The level of mastery or the form of dealing with each bit of content has to be specified. It will ensure and define the specific capabilities to be obtained, and learnings to be attempted.

Having thus detailed what we mean by content, we should also acquaint ourselves with criteria for content-selection.

3.4.1 Criteria for Selection of Content

It is obvious from our discussion of ‘content’ that selection of content for inclusion or emphasis at any stage or in any course has to be based on many considerations. At the macro level, it should be commensurate with the basic socio-political philosophy of the nation and the philosophy of education accepted by the particular society it is within. At the micro level, it should suit the specific objectives set for meeting the needs of students. In the main, content should be selected in such a way that it should establish its social relevance.

Let us consider some of the criteria which need to be used for purposes of content-selection:

- i) **Self-sufficiency:** The content selected should aim at helping the learners to attain self-sufficiency in the most economical manner—economy of teaching efforts and educational resources, economy of learning efforts and economy of the generalisability of the subject matter. Self-sufficiency of content helps students actualize their potential and crystallize their identities most efficiently and economically.
- ii) **Significance:** It pertains to how significant the content is in terms of its contribution to the basic ideas, concepts etc., in particular learning abilities etc. In other words, it can be measured in terms of:
 - what ‘knowledge’ i.e. KNOWLEDGE or ‘content’ or knowledge needs to be transmitted to students;
 - how it contributes to the experience of the students, which they might see as meaningful; and
 - how it responds to particular socio-academic and politico-economic issues.
- iv) **Validity:** It is essential to weigh whether or not the content selected is authentic and meets the demands of the goals and objectives set. However, ‘validity’ mostly depends on the philosophy of education to which we adhere. Nevertheless, the content we select should be valid to the extent that it agrees with the goals and objectives of the curriculum.
- iv) **Interest:** When we apply this criterion, students’ interest/aptitude becomes the deciding factor for selecting content. (There is a implication here. It is possible that students’ interests are transitory and at times accidental). The criterion of students’ interests should be weighed and adjusted to allow for students’ maturity, prior knowledge/experiences etc.
- v) **Utility:** Its concern is with the usefulness of the content. Again, how a person defines usefulness is influenced by his/her philosophical view. For example, whether the content is useful or otherwise can be interpreted in terms of:
 - how the content learned will enable students to use that knowledge in job situations and other activities,
 - how the content enables the individual to gain an accurate perception of his/her self-identity and to attain meaning in his/her life; and
 - its direct application to ongoing life and to social and political issues.
- vi) **Learning outcomes:** This criterion relates to the optimal placement and appropriate organisation and sequencing of content. Further, it addresses itself to the issues of appropriateness for the intended target group. While selecting content we should ensure that it is not out of the range of students’ experiences, intellectual abilities, physical abilities, development and stages and cultural orientation.

- vii) **Feasibility:** Although there exists an entire world of possible contents to choose from for our purposes, there are certain limitations too. The limitations may be in terms of time resources, nature of political climate, cost-involved etc. So when we select a particular content-input, we should also have in mind both the resources available amid possible constraints.

Thus you will observe that identifying appropriate content is only a part of the task. Appropriately organising the content identified is what completes the task.

3.4.2 Organisation of Content

In section 3.4, we have used the term ‘knowledge’ twice. The one in capital letters denotes all knowledge that has been organised by scholars for the advancement of understanding of particular disciplines/fields of study. For purposes of curriculum development or course preparation, we draw only a relevant quantum of knowledge borne by it. How we may decide on the relevance is what we have seen in 3.4.1. Having decided on the quantum of knowledge input, we should be able to present it in a logical fashion and a sequential order to facilitate easy consumption on the part of the learner for whom the content is intended.

Usually, two organizers are put to use in organizing content for curriculum. They are:

- i) **Logical organizers:** For example, in Economics, the concepts of supply and demand are major conceptual organizers. Without these concepts, the rest of the concepts like capital and labour or the market etc. cannot be grouped. However, we cannot decide here how an individual might actually learn Economics.
- ii) **Psychological organizers:** It helps develop an insight into how an individual might actually learn. Most educational thinkers assume that content should be organized by going from the students’ immediate environment to a more distant one. In other words, content should be organized in such a way as to make students move from what is tangible to what is abstract. This psychological factor is a key principle in content organisation.

What is implied all through is that selection and organisation of content primarily depends on the target group. Unless we are sure of the prior knowledge background experiences of the prospective learner we cannot identify the scope and relevance of the content. Further, knowledge about the target groups helps us decide on and organize the presentation of the content-input.

Check Your Progress 2

Notes: i) Space is given below for your answer.

ii) Check your answer with the one given at the end of this Unit.

Suppose that you are assigned the task of selecting content for a particular level of students. List the criteria you would put to use in order to make the content relevant to the students.

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Having talked about ‘content’ we should also discuss the learning activities that go with it because they do co-exist. For example, the subject-centred curriculum gives priority to content. Yet it stresses importance of its delivery. Similarly, in spite of its focus on the centrality of ten students and their experiences, learner-centred design has to consider content-input too. The simple logic is that if students are thinking, they are usually thinking about some content. If they are engaged in some experiences, such as reading a unit, they are obviously combining both the experience and the content.

3.5 DECIDING CURRICULUM EXPERIENCES

Let us start this section with a clarification.

The term denotes the learning activities that we design in order to orient the students to the content and ultimately help them to attain the set objectives. In essence, it refers to the teaching/learning process and the methods followed and activities planned to facilitate this process. There is a multitude of both kinds of teaching methods like inquiry strategies, lectures and discussions, problem solving techniques, demonstration, etc., and educational activities like viewing films, conducting experiments, undertaking field trips etc. However, the methods and media that we adopt depend also on the nature of content selected. (We shall talk about a few teaching/learning methodologies in Block 3.) For our immediate purposes, we shall look into the criteria used for selecting ‘experiences’.

3.5.1 Selecting Experiences: A Checklist

Depending on the characteristics of the target groups, the nature of the objectives set and the content selected, learning experiences have to be decided. However, there are a few common questions which need to be asked before we decide on the learning experiences. We shall list them here.

- i) Will the ‘experience’ do what we wish it to do in the light of the overall aims and specific objectives of the curriculum?
- ii) Does it have any application value? For example, whether or not the student will be able to apply the information gained in practical situations.
- iii) Is it feasible in terms of time, staff expertise, resources, etc.?
- iv) What is its optimal capacity in terms of students’ learning the content?
- v) Is it capable of allowing students to develop their thinking skills and rational powers?
- vi) Can it stimulate in students greater understanding of their own existence as individuals and as members of groups?
- vii) Will it foster in students openness to new experiences and a tolerance of diversity?
- viii) How capable is it of facilitating learning, and motivating students to continue their education’?
- ix) Will it at certain stages, help students identify and articulate their needs?
- x) Does it provide for the total development of students in cognitive, affective and psychomotor domains?

The list may not be exhaustive. However, questions with the implications of the type presented here should help us select appropriate ‘experiences’ for the teaching/learning purposes.

Besides, we should be able to create proper environment—physical and psycho-social which is conducive to learning.

3.5.2 Criteria for Environment

Educational environment should address social needs, as well as the development of inner awareness, appreciation and empathy for others. It should also stimulate purposeful student activity in order to facilitate learning.

At least the following four criteria should be kept in mind in designing educational environments (Castaldi, 1977):

- i) **Adequacy:** In a face-to-face teaching/learning situation, it refers to classroom space i.e., whether or not the space is sufficient enough to accommodate the students for whom the space is intended. It also refers to other physical conditions like proper ventilation, sufficient light, accurate infrastructure etc.
- ii) **Suitability:** It is closely related to ‘adequacy’. When dealing with the criterion of adequacy in a classroom set-up, we should also consider the relationships between spaces within the campus-how ‘spaces’ created, for example, for group discussion relate to spaces designed or for the group viewing of educational media, etc.
- iii) **Efficiency:** It involves ensuring those characteristics of educational space that are likely to improve its instructional effectiveness. For example, supposing the students are to listen to audio cassettes, we should decide where the equipment is to be kept as the process should not be disturbed by unnecessary noise, and/or by students engaged in other activities etc.
- iv) **Economy:** It essentially relates to actual savings, in terms of capital outlay that can be, achieved by the initial architectural design or by a modification of an existing environment for a particular aspect of the curriculum. It also relates to the economy of students’ and teachers’ efforts. In a classroom set up, for example, some times students spend a major part of their day just waiting for the teacher to teach them. Sometimes, teachers/students spend too much time going from one part of the institution to another to engage in different education activities. It can be avoided, if we properly plan the requirement/environment for the activity.

You would have noticed at many places we have referred to classroom situations for citing an example or two. Does it mean that the criteria may not hold good as far as the distance teaching system is concerned?

As you are aware, most of the time during the teaching/learning process, the student is away from the teacher in the distance education system. By implication, he/she has to decide on the place for his/her studies. In other words, the onus of planning the conducive environment is now on the distance learner. In the context of distance education too, however, there is an element of face-to-face student tutor interaction which takes place in a counselling session at appointed centres for studies. That is, the criteria talked about here can have some relevance to this situation too.

Besides the physical environment, we should also pay attention to the psycho-social environment. It has greater implications for all the three domains of learning and therefore establishes a substantial link with the content-selection process.

As we have said, content is selected in accordance with the educational objectives formulated, which in turn are influenced by the needs of the target group. In the main, content should be pitched at the right level so as to satisfy the educational demands of the students. Once it is carried out, motivation and sustenance of it will not pose problems. Besides, the activities selected for purposes of

dissemination of knowledge should be appealing and motivating to the students. In a classroom, we can create conducive academic climate, if imparting of information takes place not from the top down, but as an activity of experience-sharing. It is more so, in the case of distance education mainly because of the fact that a majority of the distance students are adults, who bring with them rich experiences. (At this juncture, you should go through the discussion on the characteristics of adult learners in Block 1 of Unit 3).

When we refer to learning experiences, we also imply teaching efforts/strategies. There are quite a number of instructional strategies available—right from lecturing in a classroom situation to techniques that promote self-learning. Considering the significance of the issue, we have devoted a whole Unit to discussing teaching/learning strategies, i.e., Unit 2 of Block 3. Obviously therefore we will not be discussing them in this section. However we have presented some teaching/learning models in Table 3.2 for purposes of immediate reference.

Table 2: Teaching-learning models and the corresponding thrust areas

Model	Thrust
Inductive teaching	to develop inductive processes and academic reasoning skills
Concept attainment	to develop inductive reasoning/ analysing and strengthening the process itself
Inquiry training/	to train in investigation/research
Scientific enquiry	relating to disciplines
Advance organiser	to raise efficiency of ‘reception learning’ and active information processing
Jurisprudential	to develop social awareness as a way of processing information and a way of looking at social issues
Group investigation	to develop democratic social/interpersonal skills and group processes in learning and inquiry
Social inquiry	to promote social problem-solving through academic enquiry and logical reasoning
Laboratory method	to develop interpersonal and group skills, personal awareness and flexibility
Non-directive teaching	to develop self-direction, and self- instruction
Classroom meeting	to develop self-understanding and socio-academic responsibility
Awareness training	to increase self and interpersonal awareness
Syntactics	to develop creativity and problem solving skills
Operant conditioning	to master well-analysed, selected sequenced, structured content/ behaviours, through active response and controlled feedback (or reinforcement)-programmed learning

3.6 LET US SUM UP

In this Unit, we have studied that curriculum planning at any level has to cover the major dimensions of global aims, specific objectives, materials, methods and evaluation.

In this regard we said that

- purpose-setting for any level has to be based on the philosophy of education adopted by a given society, the socio-cultural demands within it, the economic and man-power requirements, national concerns, aspirants and priorities, nature of the learner and the learning processes, etc.
- specific objectives have then to be formulated and sequenced in order that needs are met.
- content selection has to be based on relevance, importance, utility, availability of prerequisites and we delineated some criteria for this purpose.
- physical and psycho-social environment has to be created for effecting powerful learning transactions

3.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

The examples for categories in the three domains of learning are given below:

i) Cognitive domain:

- a) Knowledge: The student will name the highest mountain range in the world.
- b) Comprehension: Given a drawing of geometric forms, the student will be able to give various geometric concepts in verbal terms.
- c) Application: The student will be able to predict the effect of throwing cold water on a hot glass-pane.
- d) Analysis: When reading a document, the student will be able to distinguish facts from speculation.
- e) Synthesis: Given a situation, the student will be able to suggest ways of testing the validity of a question.
- f) Evaluation: The student will weigh the pros and cons of a particular argument?

ii) Affective domain:

- a) Receiving: Having been exposed to the various cultures of the West the student will be able to develop an awareness of Western habits.
- b) Responding: The student displays an interest in the topic of discussion by actively participating in a project-study.
- c) Valuing: The student will develop a viewpoint on advantages and disadvantages of nuclear physics.
- d) Organization: The student forms judgements about his/her responsibilities for conserving energy.

Curriculum Development

- e) Characterization: The student develops norms for his/her character based on ethical principles.
- iii) Psychomotor domain:
 - a) Reflex movements: After engaging in a spot-exercise the student will be able to contract a muscle.
 - b) Fundamental movements: The student will climb a rope and jump a hurdle
 - c) Perceptual abilities: The student will form categories in his/her mind by shaping a group of building blocks.
 - d) Physical abilities: The student will do at least fifty push-ups after having been in training for a week
 - e) Skilled movement: The student can correctly perform a series of somersaults while diving in to the swimming pool.
 - f) Non discursive communication: The student will be able to create his/her own movement sequence and perform it to recorded music.

Check Your Progress 2

The criteria which need to be used to make the content relevant, are:

- i) Self-sufficiency
- ii) significance
- iii) Validity
- iv) Interest
- v) Utility
- vi) Learnability
- vii) Feasibility

UNIT 4 CURRICULUM IMPLEMENTATION AND EVALUATION

Structure

4.0 Objectives

4.1 Introduction

4.2 Curriculum Implementation: Issues

4.2.1 Implementation: A Process of Change

4.2.2 Planning Implementation

4.3 Curriculum Implementation Models

4.3.1 The ORC Model

4.3.2 The LOC Model

4.3.3 The Linkage Model

4.3.4 The RCA Model

4.4 Curriculum Evaluation

4.4.1 Student Evaluation

4.4.2 Curriculum Evaluation

4.5 Curriculum Evaluation: Issues

4.5.1 Concept and Purpose

4.5.2 Methodological issues

4.6 Curriculum Evaluation Models

4.6.1 The Metfesset-Michael Model

4.6.2 The Congruence-Contingency Model

4.6.3 Ale Discrepancy Evaluation Model

4.6.4 The CIPP Model

4.6.5 The Connoisseurship model

4.7 Let Us Sum Up

4.8 Answers to Check Your Progress

4.0 OBJECTIVES

After completing this Unit, you should be able to:

- identify the issues in curriculum implementation and curriculum evaluation;
- explain how curriculum implementation is a process of change and how planning influences implementation and vice-versa;
- discuss the models of curriculum implementation and curriculum evaluation; and
- adopt a model, or a combination of models, of curriculum implementation/evaluation when the situation so warrants.

4.1 INTRODUCTION

In Unit 3, we have looked into a few basic issues relating to curriculum components and discussed in detail the approaches to and models of curriculum planning. We have cautioned that we may not be able to rate one model superior to the other and suggested that an eclectic model can be evolved to make curriculum purposeful and effective.

Neither at the stage of planning nor that of designing can we really examine the efficacy, or otherwise, of the curriculum. In essence, the curriculum has to be implemented in order that its relevance and relative merits can be assessed. Accordingly, at a later stage, it can be recast depending on the need. However, traditionally curriculum implementation has been, by and large, taken for granted. This kind of attitude towards a curriculum, however well designed, makes it unable to serve the purpose for which it is created. We should, therefore, categorically state here that successful implementation of a curriculum, regardless of its design, rests upon describing, at the outset, the developmental process and stages crucial for implementation.

Does curriculum activity come to an end with implementation? Many of us seem to believe so, if past experience is any indication. Implementation process should, on the contrary, be used as a means to assess the effectiveness of the curriculum. Evaluation is a very crucial activity for curriculum framing/planning. The feedback we collect from the evaluation process helps us further improve the curriculum. Keeping this in view, we have devoted a full Unit to the issues involved in curriculum evaluation. Here, we have pointed out that many of us are reluctant to carry out evaluation, despite the fact that we are aware of its importance. Besides, we have presented a few models of curriculum evaluation. You would notice while going through the models that they share some common characteristics. By implication, except orientation, the components of each of the models are identical. The orientation differs mainly due to the educational philosophy to which one holds. (Evaluation of student-performance is a part of curriculum evaluation and we talk about it extensively in a later part of this unit.)

4.2 CURRICULUM IMPLEMENTATION: ISSUES

A curriculum must be implemented if it is to make any desired impact on students and to attain its goals.

Unless curriculum is implemented, it cannot be evaluated for betterment.

In spite of careful planning and design, it is possible that a curriculum fails to meet the needs for which it is developed. In our experience, we would have also come across educational programmes that does nothing more than gather dust on shelves. Further, much that is planned and developed often does not get implemented.

Why is it so?

There are a few issues involved in implementation. Let us try to identify them in the forthcoming sub-sections 4.2.1 and 4.2.2. Before we do so, we should be aware that one major factor is our attitude towards the implementation stage in the curriculum development process. The focus of those who are charged with the task of curriculum training has, hitherto, been on planning and design. As a result, curriculum implementation has never been considered a crucial stage. In fact, it has surprisingly been taken for granted. It has to be, on the contrary, treated as important as the other stages in the curriculum activity. This will ensure the success of a curriculum.

With this general observation in mind, we shall now look at various other issues of relevance to curriculum implementation. We have categorized the issues under two broad headings in sub-sections 4.2.1 and 4.2.2.

4.2.1 Implementation: A Process of Change

Although many curricularists agree that implementation is an essential aspect of curriculum development, it is only in the last fifteen years that implementation has become a major educational concern. Many assume that implementation is simply another step in the curriculum planning process.

They, therefore, expect to proceed from the planning and design stages to the actual implementation stage with relative ease.

How far is this assumption tenable?

Let us consider some observations made by a few thinkers in this regard. Fullan and Pomfret (1977) remark that “effective implementation of innovation requires time, personal interaction and contact, in-service training and other forms of people-based support”. There is, therefore, no substitute for the primacy of personal contact among implementers, and between implementers and planners/consultants, if the difficult process of unlearning old roles and learning new ones is to occur.

Leithwood (1982), like most other curricularists, considers implementation a process that attempts to reduce the difference between existing practices and the practices suggested by innovators or change agents. In other words, it occurs in stages and it takes time to win people over to a change.

Ornstein and Hunkins (1988) sum up these observations and view implementation as a separate component in curriculum action cycle. It is the logical step once a programme has been developed and piloted. However, they point out that implementation involves attempts to change individuals knowledge, actions and attitudes. Obviously, it takes time. They also suggest that implementation is an interaction process between those who have created the programme and those who are to deliver it and, we may add those who are to use it.

Thus the purpose of curriculum development, regardless of level, is to effect a change in order to enable the students to attain the society’s and perhaps more importantly the students’ own goals. Implementation, as an essential part of curriculum development brings into existence the anticipated changes. The changes can occur in several ways. The two most obvious ways are:

- i) slow change: For example, when we incorporate minor adjustments in the course schedule, when we add some books to the library or when we update the unit plan, etc.
- ii) rapid change: It is the result of new knowledge or social trends influencing the curriculum, such as computers being introduced in the curriculum, etc.

For curriculum change to be successfully implemented, whether slowly or rapidly, we need to consider the following guidelines:

- The changes designed to improve student achievement must be technically sound. It means that changes should reflect research about what works and what does not work as opposed to the bandwagon effect, under which we go along with whatever designs for improvement happen to be popular presently or in the future.
- There needs to be a change in the existing structure of allocation of responsibilities to students and teachers. One familiar context to us, for example, is that of the distance education system.
- The proposed changes have to be manageable and feasible. We should not attempt to incorporate ideas concerning critical thinking or problem solving when, for instance, students do not have basic language ability.
- The implementation of successful change efforts must be organic rather than bureaucratic. Strict adherence to rules and monitoring procedures, meant for the pre-change system, are not conducive for effecting change. We need to replace this bureaucratic approach with an organic or adaptive approach that permits a necessary deviation from the original plan and recognizes the problems at the grassroots level.

- It is essential to avoid the “do something, do anything syndrome”. We need to focus on building a definite curriculum, the content and activities of which are sound and rational.

The guidelines clearly indicate that they are systematically interrelated and that they apply equally well to all levels of education.

However, it is common knowledge that there has been resistance to change. It is more so in the case of education, and therefore, curriculum. There might be various reasons for the resistance to change. Here we shall take up a few factors that might have immediate relevance to us. They are as follows.

- i) The psycho-social barriers that people place between themselves and efforts at change: We have traditions that we cherish and therefore, we do not wish to change them.
- ii) The element of inertia among the staff, the administration and the community: Many, for example, are happy with the current institutional setup as a bureaucracy.
- iii) As a consequence of item (i) above, the belief that things do not need to be changed. For instance, some of us still feel that the present system of education caters adequately to the changing needs of the society and all that it requires is a ‘facelift’, i.e., that is to be maintained. As a corollary, we *may* feel that a change being suggested is unwise and will thus be unproductive.
- iv) By and large, the indifference of the teaching community and its lack of effort in staying abreast of the knowledge explosion which might require a change in role-domains: More often than not, it views new curricular programmes as requiring it to learn new skills in interpersonal relations, acquire new competencies in curriculum development etc.
- v) The rapidity of change: Many feel that if something is implemented one year, it will most likely be discarded when another innovation appears. As a result they become information and action shy.
- vi) Lack of knowledge: Some either do not know about the innovation at all or have little information about it.
- vii) Lack of incentive. Many seem to resist change because they feel they do not get incentives worth their efforts, i.e., financial/temporal support, etc.

Putting them together (i.e., items i-vii above), we can easily identify the following two cause-factors for the resistance to change:

- i) psycho-social attitudes; and
- ii) little reward for being an innovator in education.

Is the resistance to change an insurmountable problem?

It may sound as if it is.

However, we can overcome change-resistance, if we realize that human equation is of paramount importance. Let us consider the following for overcoming change-resistance:

- i) Curriculum activity must be a cooperative endeavour: It is essential to involve people who will, directly or indirectly, be affected by the curriculum change with the major aspects of curriculum development and implementation. When people participate in planning and implementing a programme, they gain insights into it and become committed to its goals and underlying philosophical basis.

- ii) Resistance to any new idea is natural: Curriculum producers should anticipate it and accordingly prepare procedures for dealing with it.
- iii) Innovations are subject to change: A new curriculum emanates as a response to a particular time and context. As time passes and contexts change, other modifications, sometimes even new programmes, will emerge. What is constant here is the change. Curriculum producers should realize that all programmes will undergo constant reviews for betterment.
- iv) Proper timing: It is a key to increasing the receptivity of an innovation. A survey needs to be undertaken to see whether or not there is a need for change in curriculum. If people are satisfied with the existing programme and there is little demand for change, then we should not attempt a major curriculum change. Also, if the staff have just completed a major revision or developed a major programme, it would be ideal not to involve the same people in another major curriculum development effort.

However, looking at it from a different angle, resistance to change is good, for it requires change-agents to think carefully about the innovations and to consider the human dynamics involved in implementing programmes. That the organization has to substantiate change by convincing people of the need for it protects it from bandwagon effect and becoming proponents of educational fads.

To effect change people normally adopt one or more of the following strategies.

- i) Planning: Those involved in the planned change process have equal power and function in a prescribed fashion. They identify and follow procedures precisely for dealing with the activity at hand.
- ii) Power/Coercion: It is characterised by one group determining the goals intentionally excluding others from participating. The group in control has the major power and works to maintain the unequal power balance.
- iii) Interaction: It is characterised by mutual goal setting and a fairly equal power distribution among groups.
- iv) Empirical-rationality: The empirical-rational strategies stress the importance of coming to grips with the need for change and having the competence to implement it.
- v) Normative re-education: These strategies are based on the rationality and intelligence of the society in general. Any society will change if we approach it rationally and make it see that it needs to modify its values, attitudes, understandings and skills.

Generally, we adjust or modify and implement curricula not as a result of careful analysis, but as a response to unanticipated events. For example, demands by legislatures or pressure groups that certain programmes be implemented. They often consist of received reactions.

What we have discussed in Sub-section 4.2.1 clearly tells us that planning is essential for the successful implementation of a curriculum. Let us take up this for discussion in Sub-section 4.2.2.

4.2.2 Planning Implementation

Apart from curriculum planning in general terms, it is essential that we plan the implementation of a curriculum. It will certainly help us to implement it successfully. Planning process addresses needs and changes necessary and requisite resource for carrying out intended actions. This implies that, implementation-planning should focus on the following factors:

- People(learners, educationists, policy makers, and the like);
- Programmes; and
- Processes.

Although these three factors are inseparable, usually we consider any one of them for implementation. For example, the opinion has been that to really facilitate the implementation of a major change, curriculum developers need to deal primarily with the people-factor. Some, however, consider that the primary focus should be the programme. The argument here seems to be that people will adapt, if we furnish them with different ways to meet the objectives of a programme. Still others think that attention should centre on the organisation, i.e., process, within which the people work. As one factor is connected to the other, we need to consider all the three factors together for successful implementation.

For our purposes, i.e., to impress on the ‘consumers’ of the need for implementing a new curriculum, communication plays a vital role. We shall therefore touch upon this aspect of implementation in some detail.

Communication

We know that communication deals with messages and message sending/receiving is not sufficient to ensure that communication will be effective or that messages sent will be accurate or of high quality. The curriculum specialists, therefore, must be sure that the communication network is comprehensive and that avenues for sending messages exist at all levels of the system.

Depending on the need, we may opt for different means for purposes of communicating the implementation of a curriculum. For instance, if we want to communicate some factual details about a new programme being launched, we can use such means as letters, memos, articles, books, bulletins, research reports or speeches. Supposing the new programme, is a major change from the existing one, we can communicate it effectively through workshops, conferences, demonstrations and the like.

Despite the various sophisticated and simple means available for communication, the key to communication is the individual. More often than not, the real barriers to communication are not technical, but originating from persons. Thus, it is essential that we should be able to create an atmosphere conducive to effective communication among all members of the educational staff and community. Further, we need to inform them that their views are welcome and that they all have a responsibility to participate in sending and processing messages of curriculum implementation activity.

Once effective communication is established, we can be sure of cooperation in implementing the curriculum. Without the cooperation of all those who will be ‘affected’ by the new curriculum, we cannot implement it successfully. For instance, teachers have traditionally not been included in the process of curriculum activity. This is so, despite the fact that research supports the practice of engaging teachers in curriculum activity that will find expression in their classrooms. For example, in many ways, teachers are the experts in the given context. Their commitment to the new curriculum, therefore, is especially of vital importance. Such commitment depends heavily on how active they have been in conceptualising and developing the new programme. If teachers actively participate in curriculum development, the likelihood of successful implementation is increased. In the context of distance education, the participation of the academic counsellors at the study centres would be

of reasonable help. This should help us understand that for change to be effective, the teachers must be committed to it and they must see that it has professional value to them. We are aware that even the best educational practice is unlikely to fulfil its promise in the hands of an inadequately trained or unmotivated teacher.

Besides, the students and the society in which they live also should be taken into confidence for ensuring successful implementation. If they are not properly oriented, the curriculum may fail to serve the purpose for which it is created.

Planning of implementation should also consider the constraints in terms of time and finance. With efficient time management and adequate financial support, the process of implementation can be made effective.

Having considered a few issues pertaining to curriculum implementation, let us now take up a few models of implementation for discussion.

Before doing so, please work on the following exercise.

Check Your Progress 1

Notes: a) Space is given below for your answer.
b) Check your answer with the one given at the end of this Unit.

We have studied that curriculum implementation is essentially a process of change and that there will always be some resistance to change.

Give five possible reasons for the resistance to change and at least four suggestions to overcome them.

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Now let us look at the curriculum implementation models.

4.3 CURRICULUM IMPLEMENTATION MODELS

We should start this section with a note. The models that we are going to talk about are not the *only* models available in the area of curriculum implementation. However, for our present purposes, we thought it reasonable to restrict ourselves to a few models which are either popular or widely practised.

4.3.1 The ORC Model

The letters 'ORC' here stands for 'Overcoming Resistance to Change'. This model rests on the assumption that the success or otherwise of curriculum implementation primarily depends on the impact the developer can make on the consumers, i.e., teachers, students and the society in general.

If we desire change, we must address people's misgivings, their misapprehensions, or other such related factors. We must point out to them that the curriculum incorporates, wherever possible and appropriate, their values, assumptions and beliefs. While addressing the persons within the system, we should remember that to get the desired result the subordinates should be motivated rather than ordered. Curriculum developers should, therefore, identify and deal with the concerns of the staff in various educational institutions. We can group the concerns into the following four broad developmental stages as given in Table 1:

When working with the ORC model, we must deal directly with the concerns at stages 2, 3 and 4 in order to serve the purpose for which the change is effected.

To achieve this purpose, we can meet the faculty members together. During this meeting, we can share our concerns and map strategies for dealing with those concerns.

Depending on the context and particular needs we can administer questionnaires to gather and share information on concerns to make such meetings successful.

Table 4.1: Developmental stages of concerns

Developmental stage	Developmental concerns
1.	<i>Unrelated Concerns:</i> At this stage, teachers do not perceive a relationship between themselves and the suggested changes. For example, if a new programme is being developed, a teacher at this stage may or may not be aware of this effort. If he/she is aware of it, he/she may not consider it something that concerns him/her. The teacher would not resist the change, because he/she really does not perceive the change as something that influences his/her own personal or professional domain.
2.	<i>Personal Concerns:</i> At this stage, the teacher will react to the innovation in relation to his/her personal situation. He/she is concerned with how the new programme compares to the one already in use. Therefore, when a new programme is being launched, he/she would involve himself/herself in the activity.
3.	<i>Task-related Concerns:</i> This stage relates to the actual use of the innovation. The teacher at this stage will be concerned with the time required for reaching the new programme, availability of materials, strategies to be adopted etc.
4.	<i>Impact-related Concerns:</i> The teacher at this stage will be concerned with how the innovation will influence others.

4.3.2 The LOC Model

'LOC' is the acronym for 'Leadership-Obstacle Course' model. This model treats staff resistance to change as problematic and proposes that we should collect data to determine the extent and nature of the resistance. We can do this by making sure that the following five conditions exist:

- i) the organisational members must have a clear understanding of the proposed innovation;
- ii) individuals within the organisation must be given relevant skills so that they possess the capabilities requisite for carrying out the innovation;

- iii) the necessary materials and equipment for the innovation must be furnished;
- iv) if need be, the organisational structure must be modified so that it is compatible with the innovation being suggested; and
- v) the participants in the innovation must be motivated to spend the required time and effort to make the innovation a success.

The LOC model extends the ORC model in several respects. While the ORC model conceptualises educational change as a two-stage process:

- i) initiation; and
- ii) incorporation (or the innovation as part of the ongoing processes of the organisation)

The LOC model considers educational change as a sequence of three stages:

- i) initiation;
- ii) attempted implementation; and
- iii) incorporation.

We should note here that implementation obstacles solved at one point of time using this model may arise again at another point. This model therefore has a feedback and monitoring mechanism to determine if problems once solved keep reappearing, etc.

4.3.3 The Linkage Model

The 'linkage' model recognises that there are innovators in research and development centres, universities, etc. Educators in the field, however, find some of their attempts at innovations that are inappropriate for solving the problems. What is therefore needed is a match between the problems and innovations—the establishment of linkages.

This model envisages two *systems*: user system and resource system. There has to be a link between these two systems. The resource system should have a clear picture of the curriculum user's problems, if it is to retrieve or create appropriate educational packages. A successful resource system must proceed through a cycle of diagnosis, search, retrieval, fabrication of solution, dissemination and evaluation in order to test out its product. Thus, in the linkage model, the basic process is the transfer of knowledge.

4.3.4 The RCA Model

The Rand Change Agent (RCA) model suggests that organisational dynamics seem to be the chief barriers to change.

As in ORD and LOC models it puts forward the following three stages in the change process:

- i) **Initiation:** At this stage, the curriculum developers work to secure the support for the anticipated change. To support a change, such as a new programme people must understand and agree that it is legitimate. Thus, curriculum implementation activity requires the personal backing of the individuals involved. For example, at this stage, we should inform the teachers about the need for change and how it might take place.
- ii) **Implementation:** At this stage, the proposed change, i.e. the new programme and the organisational structure are adjusted to operationalize the change.
- iii) **Incorporation:** During this stage, the changes implemented become part of the established programme.

The assumption behind this is that the success of the implementation is a function of:

- i) the characteristics of the proposed change;
- ii) the abilities of the academic and administrative staff;
- iii) the readiness of the local community; and
- iv) the organisational structure.

During the incorporation stage, the changes implemented become part of the established programme. At this stage, we outline the procedures in order to ensure that the programme implemented is provided with the necessary personnel and financial support. Which will in turn ensure that the programme continues to be delivered in the intended manner.

We have said that implementation serves as a means to evaluate the efficacy of the curriculum and its impact on the target clientele, i.e., students, teachers, the society, etc. By implication, we should not consider the implementation stage in the curriculum activity as an end in itself. Therefore we need to talk about curriculum evaluation too. In section 4.4, we shall take up the place of curriculum evaluation in the curriculum activity.

Before we take up the curriculum evaluation, please work on the following exercise.

Check Your Progress 2

Notes: a) Space is given below for your answer.

b) Check your answer with the one given at the end of this Unit.

By and large, all these models suggest that the educational change is a three-stage process. Say what these three stages are.

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Let us now move on to another important component of curriculum, i.e., evaluation. We have already referred to two types of evaluation i.e., evaluation in curriculum and evaluation of curriculum. The former deals with the evaluation of students' performance: and the latter with the performance of the curriculum in meeting the set objectives. We will be discussing the issues related to evaluation in detailed in the 4th block of this course. This following section, will serve the purpose of recapitulation as far as student evaluation is concerned and function as an advance organizer as far as curriculum evaluation is concerned.

4.4 CURRICULUM EVALUATION

Evaluation is essentially a process of finding the value of a programme - the quality of its processes and/or the quantum and quality of its products. The value of any programme, including educational programmes, lies in the realisation of its goals and objectives. So, like teaching or any other purposeful activity, evaluation has to be:

- objective-based;
- done mainly in terms of the desired process and the expected outcomes;
- comprehensive in that it covers the various kinds of objectives and levels of outcomes—defined as specifically as possible; and
- continuous so that the progress being made might be sensed and the achievements/outcomes assessed all through the on going programme.

As evaluation is both qualitative and quantitative, it may be ‘formative’ (during the process of development) or ‘summative’ (at the end of the total programme or each phase thereof). The purpose of educational evaluation therefore is to improve on what has already been available. In other words, it has the dual role of guidance and assessment. In fact, the latter should be instrumental to the former.

All these would require that we employ a variety of appropriate techniques and tools to collect all the different kinds of evidence required at the different stages. The techniques and tools to be used have to be selected in relation to the nature of the objectives outcomes (with their content) and the kinds of performance to be assessed or evidence to be collected.

4.4.1 Student Evaluation

The outcomes, i.e., the success or otherwise of an educational programme can be adjudged in terms of the achievements of the students. They can generally be assessed through oral, written or action performance tests which might provide us with evidence for our purpose: Further, responses during interactive teaching-learning sessions, volunteered statements and answers, participation in discussions in different kinds of situation, etc., would give us a lot of evidence of the range and quality of the students’ knowledge, cognitive capabilities, and some affective and psychomotor outcomes.

Written products of different kinds like assignment-responses, term papers, project reports etc. also provide evidence of specific learning capabilities and achievements. But the outcomes/capabilities to be assessed and the criteria thereof must be clear to both the teachers and the students. Besides specific content-related learning, the ability to collect, select and sequence, structure and organise, present verbally and/or non-verbally, analyse and synthesize, plan and design, etc., are also important.

Apart from essays and the like, objective type items and questions of different kinds—multiple choice (correct/best answer), multiple-response, multi-faceted, ‘matching’, ‘true-false’, completion and even simple recall items etc.,—would also serve the purposes of wide coverage/ representation, high specificity and extreme objectivity. All objectives, except perhaps those relating to the level of synthesis, can be tested fairly adequately with such items; but it requires training, experience and the resultant capability to frame good questions of these types for higher level objectives. Question banks can serve as ready sources of good items/questions.

To systematise and validate student performance, we can prepare observation-schedules in such a general way as to be applicable/relevant to many tasks of the same kind or falling within the same area. Supposing unique features and criteria are important, we can prepare task-specific schedules. Such observation schedules may represent sub-tasks and/or steps of procedure, and provide for recording assessments in respect of time or pace, sequence or order, technical qualities of the performance, accuracy, precision, etc. Supposing we give the qualitative criteria explicitly, judgements in the form of rating points ((5, 4, 3, 2, 1 or corresponding A, B, C, D, E) can be made on each. Besides, we can present

merits in order to explain and support an overall 'grade' or mark for the total performance.

4.4.2 Curriculum Evaluation

As we have said, evaluation in education should cover not only student evaluation or evaluation of learning, development and achievement, but also the assessment of different aspects of the curriculum as it is planned/developed and implemented.

On very many occasions, you must have come across this term. In its simplest form, it refers to a process of evaluating the curriculum components—objects, materials, methods and evaluation processes for student assessment in order to judge as to whether or not the curriculum caters to the needs of the target group and/or the set educational purposes for which it is intended. In the process of scrutinizing each of the constituents of the curriculum, we can see how a lapse in one of them affects and influences the others. Therefore, it is difficult to evaluate each of the curriculum-components in isolation. Each has to be evaluated in conjunction with the rest, as they are all interdependent. Let us consider the following figure (Fig. 4.1):

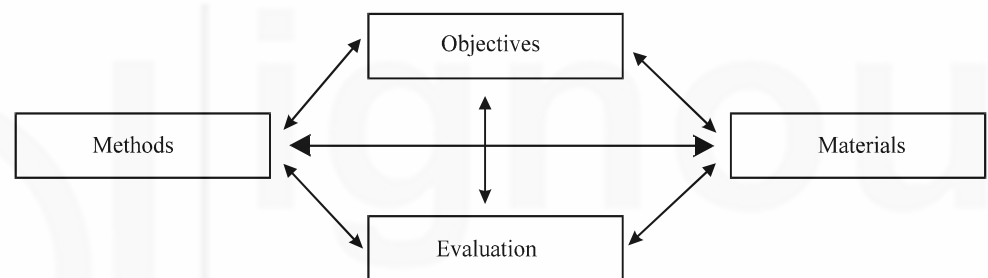


Fig. 4.1: Interdependence of curriculum components

The purpose of curriculum evaluation is therefore two-fold:

- to get feedback about a given curriculum; and
- to use the feedback for purposes of improving the curriculum

Though we are aware of the importance of curriculum evaluation, we carry it out very rarely. Of the many reasons for this indifference, the two major ones are:

- i) many have come to regard evaluation as non-productive behaviour because, more often than not, evaluation results, when carried out, are ignored; and
- ii) the resistance to accept a new pattern, despite its potential.

Both of them being manifestations of social attitudes, it takes time to break these biases. Therefore, it is essential for us to come to grips with the process involved in curriculum evaluation.

(Ornstein (1986) is of the view that the disillusionment with evaluation emerges from the misunderstanding about what it can and cannot do for the society/institution.)

4.5 CURRICULUM EVALUATION: ISSUES

Two factors have had a major impact on curriculum evaluation over the last two decades. They are:

- i) a growing mystique linking evaluation to high-powered mathematical methods, advanced statistical designs and computer analyses; and

- ii) a growing call for ‘accountability’ and its requirements for standardised tests, national norms, and comparative ratings.

More often than not, evaluation has come to be seen as a province of a specialist or a consultant. Further, it seems to have become a ritual or a special event to be endured periodically. By implication, it has distanced the teacher from the evaluation process.

Such thinking has relegated the critical role of evaluation to an undeserved subservience. However, in reality it has a role at every level of curricular decision-making. Whether the question is one of accountability, accreditation, policy-making, staff development programme-effectiveness, instructional activities, etc., the answer must primarily depend on evaluation. For this reason we should acquaint ourselves with the conceptual and methodological issues of evaluation in sub-sections 4.5.1 and 4.5.2 respectively.

4.5.1 Concept and Purpose

Before you start working on this sub-section, we suggest that you have a quick look at Units 1 and 2 in which we have touched upon curriculum evaluation. To do this would certainly provide us with a necessary base for discussing the issue under consideration here.

As we have stated, evaluation is a process or/and cluster of processes that people perform in order to gather data for decision-making, i.e., whether to accept a curriculum or change it in total or in part. In other words, curriculum evaluation focuses on discovering whether the curriculum is producing or can produce the desired results. It also serves to identify the strengths and weaknesses of the curriculum before implementation and the effectiveness of its delivery and its impact after implementation.

Different people approach evaluation differently, depending on their philosophical orientation. Essentially, however, our approach to evaluation depends on the kind of questions we pose. They can be categorised as questions of:

- intrinsic value;
- instrumental value;
- comparative value;
- idealisation (value); and
- decision value.

Let us take up each of these questions of ‘value’ in the given order for discussion.

- i) The question of intrinsic value: It addresses the appropriateness of a curriculum in a given context. It deals with the curriculum as planned and also with the finished curriculum as it is delivered.
- ii) The question of instrument value: It attempts to clarify
- what the curriculum is good for; and
 - who the intended audience/target group is.

It tries to find out whether what is planned in the curriculum will be attained, to what extent and by whom, i.e., to identify the target group. It clearly suggests that the audience which is to be evaluated should be identified at the beginning of the curriculum activity itself. We should be aware here that not all the curriculum inputs planned will be of equal value to all students.

The input-value differs, depending on the individual. Evaluation efforts should identify the types of students who are likely to benefit the most from the curriculum being planned.

- iii) The question of comparative value: Usually, we go in for new programmes when we feel the existing ones are either irrelevant or inadequate. Here, we should be wary of one important factor. Often, when dealing with the question of comparative value, we get caught up in making comparisons of two dissimilar programmes with different objectives/goals. We cannot ask, for example, whether or not a programme that stresses skill-training is better than one that stresses the value-structure of the world. Certainly, the two are different from each other. Therefore, a comparison will be of little help for purposes of evaluation. However, if identical programmes are available, we can always ask the question of comparative value. Here comparison of programmes includes that of ease of delivery, cost, student achievement, demand on resources, community-responsiveness or otherwise, etc.
- iv) The question of idealisation value: It is a kind of probing question to see whether there are alternative ways to make a programme better. It requires continued action throughout the delivery of the new programme. We should continuously ask ourselves how we might fine tune the programme's content materials, methods, evaluation systems, etc., so that the students can derive optimal benefits from going through it.
- v) The question of decision value: The main focus of this question is on decision making, i.e., whether to retain, modify, or discard the new programme. It is an ongoing question, because at every stage of curriculum development and delivery a decision has to be taken.

Put together, the questions (items i-v above) presented should help us suggest that evaluation is a process by which we can make decisions about a curriculum in terms of:

- i) course improvement;
- ii) individuals - teachers, students, etc.; and
- iii) administrative effectiveness.

When evaluation is focussed on course improvement, its direct purpose is to ascertain what effect the course has, how they match with the intended effects and what revisions are desirable. At times, it is possible to find that only certain types of students with particular learning styles are doing well with a new content. An evaluation will help us determine why this is so. When an evaluation is carried out on the administrative aspect of the curriculum activity, it can reveal to us the effectiveness of the implementation processes.

Evaluation being a methodological activity, it is not content specific. The procedures are identical, irrespective of whether it is an evaluation of curriculum-effectiveness or fuel-efficiency of a motor and so on. However, there exist a few methodological issues which we should address to for a better comprehension of curriculum evaluation. In sub section 4.5.2, we shall look into them.

4.5.2 Methodological Issues

A diversity of views characterizes discussions on what evaluation is and to what purposes it should be put. A common focus of evaluation, however, has been to determine the extent to which objectives have been achieved. Some curriculum specialists have noted that a statement of objectives should show the educational intent rather than indicate the realization of the intent. They maintain that

when we formulate objectives we should also consider why we want students to perform the actions embedded in the objectives.

There are a few methodologies through the application of which we can evaluate the achievement of the curriculum in relation to the set objectives. Let us present some of them here.

- **Intended outcomes vs. goal-free evaluation:** When we define the objectives of a programme, it is essential that we indicate the situations in which students are to be given the opportunity to accomplish the objectives. During the evaluation process, it will help us determine the worth of the curriculum or whether the curriculum allows students to attain the objectives stated. However, some advocate a 'goal-free' approach that examines the effects of an educational innovation and judges the quality of the effect produced. By implication an evaluator does not have to confine herself to the stated objectives of the programme. Instead, she can gather data to assess the outcomes, whatever they may be.
- **Norm-referenced and criterion-referenced measurement:** We have referred to these two basic approaches to testing in the context of student evaluation in MDE-412 which you have already studied. We have mentioned that, of the two, norm-referenced measurement is the most common, in which a student's performance on a particular test is compared with that of other students. Its value is, however, questionable in the context of curriculum evaluation, since it does not address the goals or content of a particular curriculum. The alternative to the norm-referenced test is the criterion-referenced one. It reports where a student stands with regard to some fixed criteria. It focuses on the specific tasks and competencies that have been stressed in a particular curriculum. In addition to showing the overall success of the curriculum, referenced tests can also reveal whether or not a student has mastered some particular material. Thus, it can be used for students' evaluation as well as curriculum evaluation.
- **Intrinsic and pay-off evaluation:** 'Intrinsic evaluation' is the one that studies the curriculum plan *per se*. By 'pay-off evaluation', we mean a study of the effects of the curriculum after it is delivered to the students. Obviously we need to engage in intrinsic evaluation, i.e., see how good the curriculum is. But, most often we skip this stage and try to determine how well the curriculum achieves its goals. The implication is that, unless we have some judgement about the worth of the goals and objectives, content etc., we cannot say whether attaining those goals is worth making the attempt. Therefore, it is essential that we start with 'intrinsic evaluation', before we consider the effects of the curriculum, i.e., pay-off evaluation. The two must go together.

In the context of curriculum evaluation, formative evaluation encompasses those activities undertaken to improve an existing programme. During the developmental and early piloting stages of a curriculum, the evaluation effort provides frequent, detailed and specific information to guide the developers. It takes place at a number of specified points during the curriculum development process. For example, during the curriculum development stage, we can check whether a particular content enables students to learn a particular concept or certain skills. Depending on the result, the content can either be retained or modified. Because curriculum development takes place over a period of time, formative evaluation especially well suited for guiding curriculum-framing. It allows us to determine not only what intended effects are occurring but also the presence of unintended effects. It uses the process of feedback and adjustments and thus keeps the curriculum development process open.

To illustrate this, further formative evaluation encompasses

- **System needs assessment:** it is associated with the pre-planning phase of a curriculum and is concerned with questions like the need for and type of a new curriculum, its possible reception, its relevance to the society etc.
- **Curriculum planning:** It is essentially concerned with the actual planning and designing of a curriculum.
- **Process evaluation:** It is concerned with the process of carrying out the curriculum and involves not only curricular activities, but also the way in which an organisation puts the curriculum into action. In other words, it evaluates curriculum-implementation.

Summative evaluation aims at getting the ‘total’ picture of the quality of the curriculum produced. As the term ‘summative’ suggests, it involves evaluating the ‘summed’ effects of various components of a curriculum. Although it is performed at the end, i.e., after the development and implementation of a curriculum, it should not be perceived as happening only once. In fact, comprehensive summative evaluation occurs only when evaluation is conducted at certain strategic ‘end points’ during the curriculum development process, such as at the end of the piloting stage, etc.

The following items come under summative evaluation:

- **Curriculum improvement:** The focus here is on the effects of the impact of the curriculum on the intended clientele; and
- **Curriculum certification:** In this category the focus is on curriculum comparison, compliance review, etc.

Before we proceed any further, let us work on the following exercise.

Check Your Progress 3

Notes: a) Space is given below for your answer.
b) Check your answer with the one given at the end of this Unit.

State the two possible reasons that omit teachers away from curriculum evaluation.

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Having looked into the curriculum evaluation issues, we shall now deal with a few models of curriculum evaluation.

4.6 CURRICULUM EVALUATION MODELS

The first major evaluation effort directed at curriculum was conducted under the direction of Ralph Tyler between 1933 and 1941. The study was concerned with the total process of curriculum development and evaluation was an integral part of that concern. Tyler through his efforts as Research Director of the study greatly influenced and still influences the planning of

evaluation studies. The following stages that Tyler recommended in 1942 for curriculum evaluation still hold good:

- i) establishing broad goals/objectives;
- ii) classifying objectives;
- iii) defining objectives in behavioural terms;
- iv) finding situations in which achievements of objectives can be shown;
- v) developing/selecting measurement techniques;
- vi) collecting student performance data; and
- vii) comparing data with behaviourally stated objectives.

He maintained that evaluation is a recurring process and that evaluation feedback should be used to reformulate or redefine objectives. In other words, information gathered can be ploughed into the system to modify the objectives and the programme which is being evaluated. This recycling process keeps the evaluation system dynamic.

We shall now touch upon a few evaluation models which have immediate relevance to our context.

4.6.1 The Metfessel-Michael Model

Metfessel and Michael (1967) present a model with eight major steps in the evaluation process. (In fact, one can see that it is a variation of what Tyler (1942) suggested.)

We can present the model diagrammatically as Shown in Fig. 4.2.

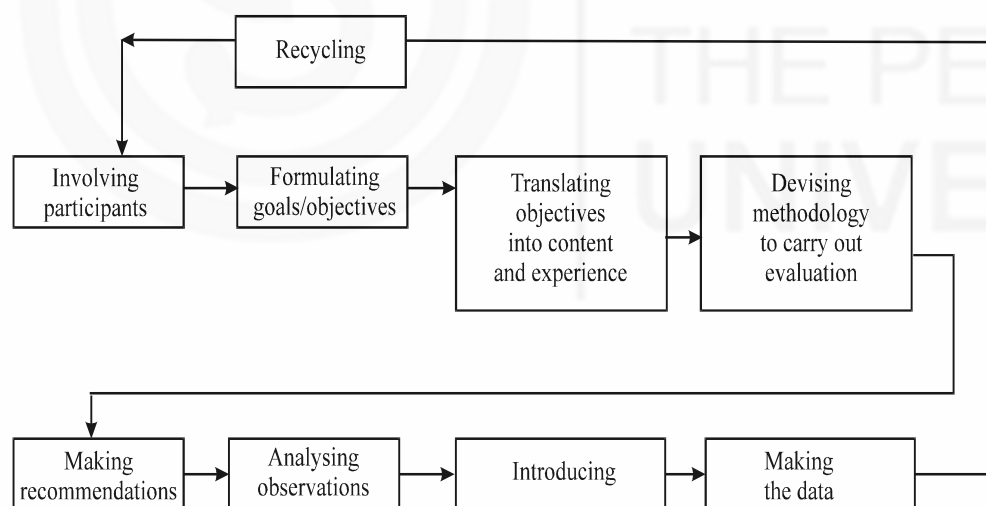


Fig. 4.2: Metfessel-Michael Evaluation Model

The model clearly suggests, among other things, that evaluators should involve all those who will be 'affected' by the curriculum, i.e., teachers, professional organisations, senior citizens, students, etc., besides experts and conduct periodic observations throughout the implementation and maintenance of the programme using rests, cases, etc.

4.6.2 The Congruence-Contingency Model

More often than not, curriculum evaluation depends on casual observation, implicit goals, intuitive norms, subject judgements, etc. However, Stake (1967) stresses the establishment of formal evaluation procedures. According to him, formal procedures will help increase objectivity in evaluation. As they aim at furnishing data, we can make descriptions and judgements of the curriculum being evaluated. Stake argues that for evaluation purposes, we

should not rely only on the statements of objectives/aims. We should allow all those 'affected' by the curriculum to extensively participate in judging the curriculum. He further maintains that the data can be collected under the following three bodies of information.

- i) *Antecedent*: This is any condition that exists prior to teaching and learning that may influence the outcomes. For example, prior knowledge, aptitudes, psychological profiles of students, etc., years of experience of teachers, teacher-behaviours, etc.
- ii) *Transactions*: Learning transactions that occur between and among teachers and students.
- iii) *Outcomes*: These are the consequences of education - immediate and long-range, cognitive and conative, personal and community-wide. For example, students' performance, achievements, etc. Stake, however, lays stress on even such outcomes as the impact of a new programme on teachers' perception of their competence.

Let us diagrammatically represent the model below (Fig. 4.3):

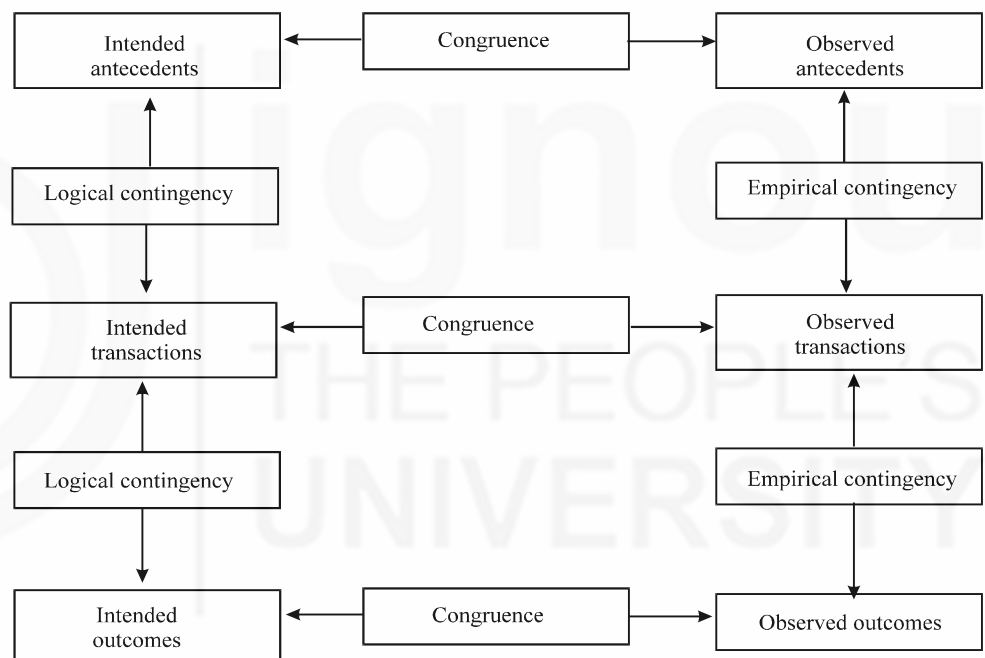


Fig. 4.3: The Congruence-Contingency Model

The term contingencies, here refers to the relationships among the variables in the three categories: antecedents, transactions and outcomes. Once the evaluator collects views on a curriculum from various sources like students, teachers, support staff, etc., he puts these views on a matrix to identify the congruences and contingencies among them. The model clearly shows that it provides an organizational framework that points to the data to be considered and contrasts what is planned and what has occurred.

4.6.3 Ale Discrepancy Evaluation Model

This model developed by Provus (1971) has the following four components:

- i) determining curriculum standards;
- ii) determining curriculum performance;
- iii) comparing curriculum with standards; and
- iv) determining whether any discrepancy exists between the standards set and curriculum.

If there is any discrepancy, it will be communicated to the decision makers, who, in turn, have to incorporate necessary modifications at every stage. This they can do by doing any one or more of the following:

- going to the subsequent stage;
- recycling to a previous stage;
- starting the curriculum over again;
- modifying the performance/standards; and
- terminating the curriculum.

A diagrammatic representation is given in Fig. 4.4.

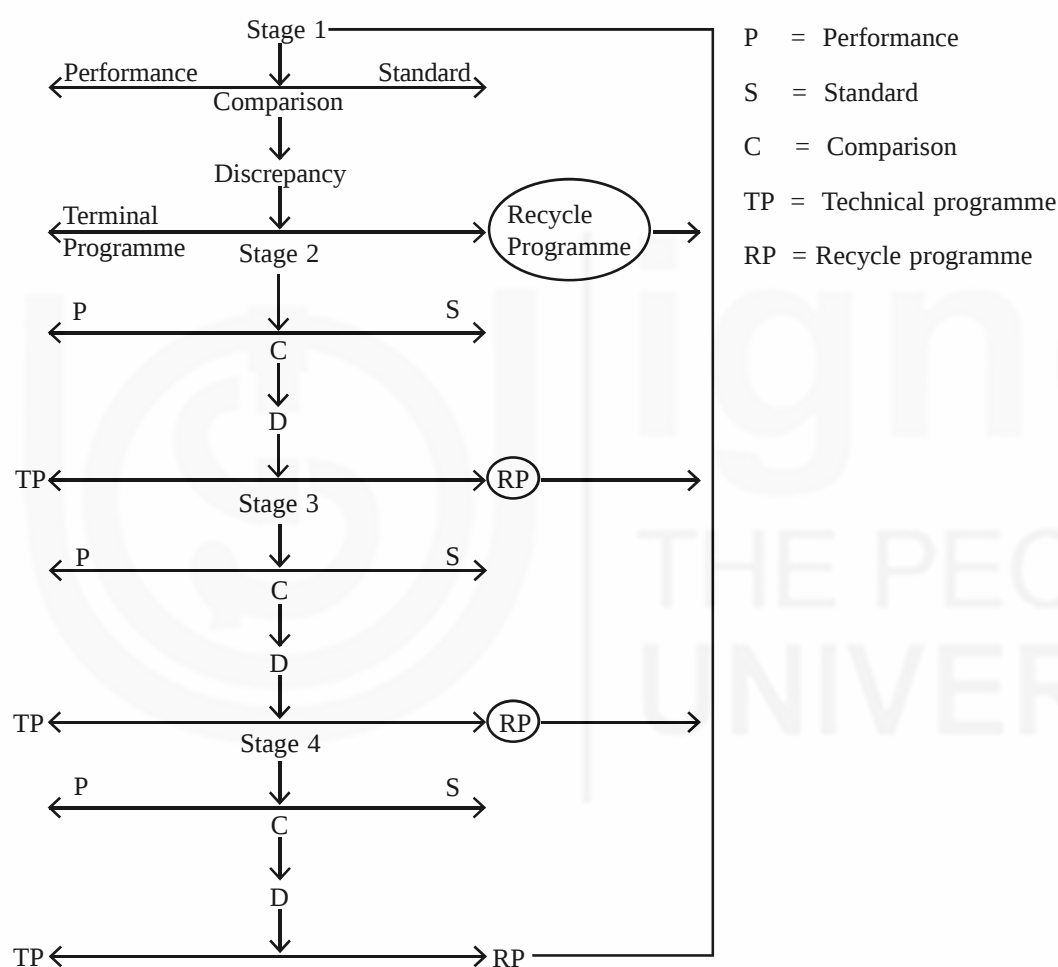


Fig. 4.4: Discrepancy Evaluation Model

4.6.4 The CIPP Model

‘CIPP’ here refers respectively to the first letters of

- Context;
- Input;
- Process; and
- Product

Stufflebeam (1971) considers evaluation a continuous process and suggests that four types of decisions are required in evaluation efforts. The four types are:

- Planning decisions;
- Structuring decisions;
- Implementing decisions; and
- Recycling decisions.

Corresponding to these decision types there are four types of evaluation: context, input, process and product. Fig.4.5 shows these types of evaluation in relation to the four decision types:

Intended		Actual
ENDS	Planning decisions to determine objectives attainments	Recycling decisions to judge and react to
MEANS	Structuring decisions to design procedures and refine procedures.	Implementing decisions to utilize, control

Fig.4.5: Types of Decisions and Evaluation

Let us now take up for discussion each of the four evaluation types.

Context evaluation: It involves studying the environment in which we run the curriculum. Stufflebeam maintains that context evaluation is the most basic type of activity that provides a rationale for determining objectives. It helps us

- define the relevant environment;
- portray the desired conditions pertaining to that environment;
- focus on unmet needs and missed opportunities; and
- diagnose the reason for unmet needs.

It should suggest that context evaluation is not a one-time activity. It continues to furnish baseline information regarding the operations and accomplishments of the total system.

Input evaluation: The purpose of this stage is to provide information for determining how to utilize resources to meet curriculum goals. At this stage we evaluate alternative designs in terms of how they will contribute to the attainment of objectives stated and in terms of their demands upon resources, time and budget. We should consider them in the light of their procedural feasibility. In contrast to context evaluation, input evaluation is ad hoc and microanalytic. It evaluates specific aspects or components of the curriculum plan.

Process evaluation: This stage addresses curriculum implementation decisions that control and manage the plan or curriculum. Through process evaluation, we can determine the level of congruency between the planned and actual activities. Stufflebeam presents the following three main strategies for process evaluation:

- to detect or predict defects in the procedural design or its implementation during the diffusion stages. In dealing with plan or curriculum defects, we should identify and monitor continually the potential sources for the failure of the curriculum. The sources may be logistical, financial, etc.;

- ii) to provide information for curriculum decisions. Here we should make decisions regarding test development prior to the actual implementation of the curriculum. Some decisions may require that certain in-service activities be planned and carried out before the actual implementation of the curriculum; and
- iii) to maintain a record of procedures as they occur. It addresses the main features of the project design, for example, the particular content selected, the instructional strategies planned or the time allotted in the plan for such activities.

As process evaluation occurs during the production stage of the curriculum, it helps us anticipate and overcome procedural difficulties and to make preprogrammed decisions.

Product evaluation: It helps us determine whether the final curriculum product in use accomplishes the intended goals. Depending on the data collected, we can decide whether to continue, terminate or modify a curriculum.

4.6.5 The Connoisseurship Model

This model recommends a process called educational criticism and connoisseurship. Thus it is markedly different from the other models which draw heavily on the quantitative technical posture of evaluation. Connoisseurship model, on the contrary, tries to furnish a qualitative description of educational life as a consequence of new programmes.

We should note here that Eisner (1985), the propounder of this model, draws heavily from the arts to strengthen his stance. He, states, for example, that if an individual is to be an illuminating critic of painting, film etc., she must be a connoisseur. In other words, he/she must possess a great deal of knowledge about and experience of the type of phenomenon he/she is to criticize. Further, the critic needs to have an awareness/and appreciation of the subtle qualities of the situation and write about the nuances of the situation in ways that help others to become more aware of the phenomenon under consideration. In essence, Eisner points out that educational connoisseurship is the art of appreciating what is educationally significant. But such appreciation is made public through criticism—the description, interpretation and assessment of the situation. In discussing his approach to evaluation, Eisner relies on the following two elements instead of scientific validity:

- i) referential adequacy: it requires the critic to check that critical observation and interpretations are empirically grounded. It allows the reader to experience the evaluated phenomenon in a new and better way; and
- ii) structural corroboration: it is a continuous inquiry about whether the various parts of the criticism fit together as a consistent whole.

Besides, he stresses the importance of analysing the works of students during the evaluation process by noting down what is said and done or rather what is not done. Eisner, thus, advocates to describe the ‘tone’ of the curriculum in action and the educational scene.

Before we close this Unit, please work out this exercise.

Check Your Progress 4

- Notes:** a) Space is given below for your answer.
b) Check your answer with the one given at the end of this Unit.

List two characteristics that distinguish the connoisseurship model from the other curriculum evaluation models.

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Let us now recapitulate what we have been studying so far in this Unit.

4.7 LET US SUM UP

In this Unit we have talked about:

- The issues of curriculum implementation by highlighting the fact that it is a process of change and every such process will have some resistance to offer initially.
- The ways and means to break the resistance and effect the change process.
- The significance of planning in implementation and a few models of implementation.
- The common bias as regards curriculum evaluation.
- How interpretations of curriculum evaluation differ, depending on what one wants to gain from it.
- A few models of curriculum evaluation, emphasising the fact that except the orientation, all of them share some common characteristics.

4.8 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

The following may be considered the possible reasons for resistance to change

- i) the psycho-social bias of people;
- ii) the element of inertia and indifference among the administration and the rapidity of change;
- iv) lack of knowledge; and
- v) lack of incentives.

And the following may help us overcome the resistance to change

- i) considering the curriculum activity as a cooperative endeavour;
- ii) anticipating some resistance to change, and planning to overcome it;
- iii) admitting that innovations are dynamic in nature; and
- iv) introducing the change at an appropriate time.

Check Your Progress 2

The models consider educational change as a three-stage process follows:

- i) initiating the change;
- ii) incorporating the change; and
- iii) implementing the change.

Check Your Progress 3

More often than not, practising teachers seem to have been distanced from the curriculum evaluation activity because of the unfounded notions that

- ii) evaluation is the domain of specialists; and
- ii) it requires standardised tests, statistical designs etc., which are alien to teachers.

Check Your Progress 4

The connoisseurship model can be distinguished from the other models on the basis of the following two characteristics

- i) it tries to provide a qualitative description of educational life as a consequence of a new curriculum; and
- ii) it relies more on aesthetical criticism of the adequacy of a curriculum than on its scientific validity.

REFERENCES

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