
UNIT 3 CURRICULUM DEVELOPMENT

Structure

- 3.1 Introduction
- 3.2 Objectives
- 3.3 Approaches to Curriculum Development
 - 3.3.1 Major Categories of Curriculum Approach
 - 3.3.2 Issues Related to Curriculum Approaches
 - 3.3.3 Models of Curriculum Development
- 3.4 Process of Curriculum Development
 - 3.4.1 Assessment of Educational Needs
 - 3.4.2 Formulating Educational Objectives
 - 3.4.3 Criteria for Content Selection
 - 3.4.4 Organising the Content
 - 3.4.5 Selecting Learning Experiences
 - 3.4.6 Evaluating the Curriculum
 - 3.4.7 Development Try-out
- 3.5 Role of Teachers in Curriculum Development
- 3.6 Some Issues in Curriculum Development
 - 3.6.1 Irrelevant Curriculum
 - 3.6.2 Emerging Curriculum
- 3.7 Let Us Sum Up
- 3.8 Unit-end Exercises
- 3.9 Answers to Check Your Progress
- 3.10 Suggested Readings

3.1 INTRODUCTION

In Unit 1 of this Block, you have studied the meaning, bases of and major approaches to curriculum. You have also studied the role of curriculum in effective teaching and learning. In Unit 2 you have studied various factors that need to be considered while planning a curriculum for a particular target group. You (now) have a fair idea of the recent trends in curriculum planning.

In this unit we shall discuss the process of curriculum development in detail. However, you have already studied the stages involved in the process of curriculum planning and development. You will recall that we presented a brief overview of curriculum process and its stages in Unit 1. The purpose of the discussion in Unit 1 was to clarify the concept of curriculum. In this Unit we shall discuss the entire process of curriculum development in detail. Prior to the process of curriculum development, we present a discussion on the approaches to curriculum planning and development.

Curriculum development is a specialised area of work which expects a teacher to have a deep understanding of the underlying concept of curriculum and also the skill to systematically design learning experiences to achieve the socially desired goals set by the society we live in. Curriculum development involves various stages/steps to be followed by those engaged in designing and developing curriculum. As a teacher you are an important agent involved in the transaction of learning experiences to students. You should have a thorough knowledge of the process of curriculum development. With this understanding you will be able to transact the curriculum more intelligently, with full knowledge of its theoretical background. Moreover, who knows one day you may be one of the team members involved in reviewing, updating and redesigning the curriculum of your school or the State. We hope that because of these reasons you will find the discussion in this unit interesting and useful.

3.2 OBJECTIVES

The discussion in this unit in particular and in this Block in general is aimed at developing necessary competence and skills in you, as a teacher, so that you can take well thoughtout

decisions and make suitable suggestions regarding curriculum development. After going through the unit, you should be able to :

- explain various approaches to curriculum development;
- discuss the models of curriculum planning and categorise them into technical and non-technical models;
- identify the constraints related to curriculum development;
- elucidate the criteria for selection of aims, objectives and learning experiences;
- state the criteria for selection, organisation and integration of content;
- discuss the importance of evaluation in the process of curriculum development; and
- identify major issues and trends in curriculum.

3.3 APPROACHES TO CURRICULUM DEVELOPMENT

In the preceding units, you have studied the factors and forces that should be considered in curriculum planning. You should now be ready to utilise these factors and forces in actually planning and developing the curriculum.

You will agree that the school activities should be planned and organised on the basis of some principles and norms set by society. There are some planned procedures for meeting the educational goals through teaching and learning activities. It is essential that these activities (i.e. learning experiences) be selected, planned and executed carefully so that these learning experiences contribute to the welfare of the people. Similarly we follow a systematic approach in curriculum development. The approach is known as the curriculum approach.

We can define the curriculum approach as a design or pattern of organisation used in making decisions about the various aspects of curriculum development and transaction. The curriculum approach is thus a plan that the teachers follow in providing learning activities (or experiences) to the students in school. The pattern or design of the curriculum, to a large extent, determines the nature of the outcomes that will be achieved after transacting the curriculum.

3.3.1 Major Categories of Curriculum Approach

There are several approaches through which curriculum can be designed and organised. These approaches are generally grouped into the following four categories:

- Subject-centred approach
- Broadfields approach
- Social problems approach
- Learner-centred approach

The choice of a particular approach to the curriculum design indicates

- the bases of decisions about the types of experiences to be included in the educational programme.
- the role of teachers, students and other agencies in the process of curriculum planning.
- the choice of method for determining the selection and organisation of learning experiences provided by the school.
- the factors influencing the selection of objectives.
- the use of subject matter or content.

Let us now discuss each of the approaches to curriculum development in the order given above.

- i) **Subject-centred approach:** The subject-centred approach is one of the most widely used methods for organising educational experiences. In this approach the subject matter becomes the basis around which learning experiences are organised and the mastery of subject matter becomes the basis for attainment of educational objectives.

In subject-centred curriculum, the chief responsibility of the curriculum planners is to determine the subjects to be offered by the school and the body of knowledge to be covered within each subject. For example, the subjects or the programme of studies may be divided into areas like English, Hindi, Science, Social Studies, Mathematics and so on.

Another concern of curriculum planners engaged in this activity is to devise ways of evaluating a student's mastery over the subject matter through formal tests, problem-solving situations, etc.

- ii) **Broadfields approach:** A modification of the traditional subject-design, the broadfield approach seeks to bring together into a broad organisation of the subject matter, the knowledge and understandings pertinent to a whole area of study. Under broadfields approach efforts are made to integrate the subject matter of closely related disciplines. For example, a course developed in Biology represents an effort to bring together into one instructional unit, the knowledge, concepts and principles from the disciplines of Zoology, Botany, Physiology, Anatomy, Bacteriology and similar closely related fields of study.

The broadfields approach, in the strict sense of the term, is a subject approach, but one in which the basis of selecting and organising subject matter is different from that in the traditional subjects. Attempts are made here to correlate and integrate various areas of knowledge.

- iii) **Social problems approach:** The advocates of this approach believe that the learning experiences should be organised in terms of the major activities of the human being as he/she lives in his/her culture. This inculcates in the pupil, an awareness of the current social issues and problems and enables him/her to effectively resolve social problems. Through social-problems approach, courses may be developed in areas such as environmental problems, racism, population, communications, technology and so on.

In this approach to curriculum planning/development, learning objectives are framed after the social problem or issue has been analysed; the subject matter is drawn from any source pertinent to the problem.

- iv) **Learner-centred approach:** Learning is what we build into behaviour from experience. We learn best from those situations that help us solve our problem, satisfy our desire, fulfil our interest or meet our needs. This approach to curriculum development seeks to present through school experiences the methods which an effective citizen uses in solving problems, pursuing his interest or meeting his needs. The curriculum plan will thus focus on the emerging needs of the students in their present lives.

This approach prepares the student to face the present rather than the future. A student confronted with a problem utilises his intelligence and experiences based on his/her past knowledge to reach an intelligent decision. For this, the appropriate learning experiences need to be planned, which are psychologically most sound and purposeful to the student. The curriculum would consist of topics such as, an understanding of changes during puberty, peer-group interaction, developing personal values, etc. In other words, the issues should relate to the developmental stages of the student.

3.3.2 Issues Related to Curriculum Approaches

We have looked into the four major approaches to curriculum with examples. Now we shall look into some of the issues related to these approaches. We shall categorise the issues into the following groups :

- i) **Curriculum approach and instructional methods:** Curriculum planners deal with knowledge and content first and then with the teaching and learning experiences. Irrespective of their philosophical postures, they should not ignore these two elements of the curriculum. Many educators tend to strongly demarcate the traditional and progressive approaches. The traditionalists are in favour of the lecture method and advocate the subject approach. The progressives, who are the advocates of social problems or emerging-needs approach are proponents of methods like group discussions, etc. However, instead of adopting one stand rigidly, educators could choose an eclectic approach. For example, while lecturing on a short story, the teacher could at some stage initiate a group discussion on the characters of the story.
- ii) **Curriculum approach and various instructional organisations:** General education and the interdisciplinary approach are the two concepts gaining currency in the field of curriculum. The former is considered central to an educational programme and, therefore, is required to be opted by the students. The latter is formed by an integration of various subject areas like Maths, Science, Social Studies and so on. Unfortunately both groups have adhered strictly to their narrow definitions. The term general education should not prevent the teacher from developing skills related to social problems and needs. The

interdisciplinary approach need not always fuse various subject-areas into a social problems approach.

- iii) **Choice of curricular approach:** Each of the four curricular approaches (refer to Sub-section 3.2.1) serves a different and important purpose in any educational programme. Educators will rate one curricular approach better than the other. The real issue in considering curricular approaches is not which one is better but how it can be optimally used for designing a balanced curriculum.

Before we study some models of curriculum development, you should check your progress so far.

Check Your Progress 1

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

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

- i) What do you mean by the learner-centred approach to curriculum development?

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- ii) Briefly describe the basic principle of subject-centred approach in curriculum development.

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3.3.3 Models of Curriculum Development

Throughout our discussion so far, we have highlighted that a sound curriculum plan is crucial for the attainment of educational goals. The need to plan effective curricula is obvious; the difficulty, however, is that there are various ways of defining curriculum. However, we cannot construct a curriculum without deciding its goals, content, learning experiences and evaluation. The point of emphasis here is that there is more than one model to be followed in curriculum development.

Most models can be classified as either technical/scientific or non-technical/non-scientific.

We should clarify at this juncture that classifying an approach as non-technical or non-scientific does not mean that it is in any way inferior or sub-standard. Rather it is a way of contrasting the two concepts. The educators who believe in subject matter design usually advocate for the technical/scientific approach to curriculum development. Those who favour a learner-centred design frequently advocate for the non-technical/non-scientific approach. Let us elaborate each type of these models in detail.

- i) **Technical/scientific models:** The technical/scientific model enables us to understand curriculum from a macro or broad view and to see it as a complex unity of parts organised to serve a common function viz; the education of individuals. Technical/scientific models require the educators to use an intellectual and rational approach to accomplish their tasks. Advocates of technical/scientific models believe that it is possible to systematically outline the procedures that will facilitate the creation of curricula.

We have listed below a few models that follow the technical/scientific approach.

- The Tyler Model
- The Taba Model

- The Saylor and Alexander Model
- The Goodlad Model
- The Hunkins Model
- The Miller and Seller Model

Let us discuss each one of them briefly in the given order.

a) **Tyler's Model** : You might be familiar with Tyler's four basic components of curriculum. A reference to these principles is made here. Tyler mentioned that those involved in curriculum inquiry must try to define the :

- purpose(s) of the school
- educational experiences related to these purposes
- organisation of these experiences
- evaluation in terms of attainment of these purposes

A look at Figure 3.1 will give you an idea of the Tyler's curriculum development model.

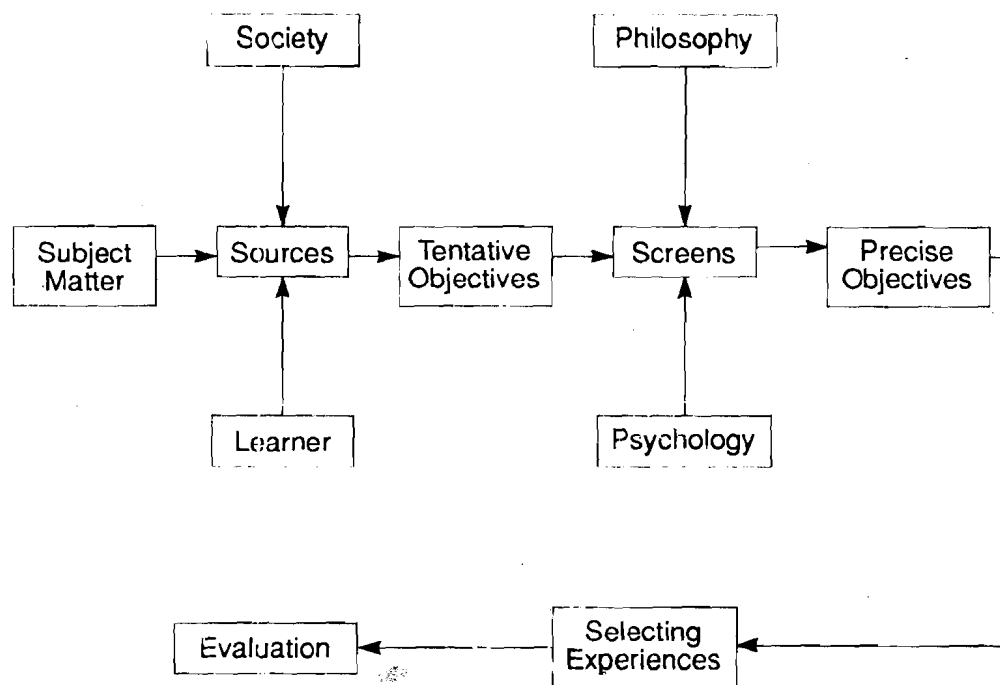


Fig. 3.1 : Tyler's Curriculum Development Model

The components of the Tyler's model shown in Figure 3.1 indicate that in order to identify the purposes we need to gather information from three sources, namely, society, students and subject matter. As the purposes derived from these sources will be general in nature, we need to translate them into precise instructional objectives. Once the objectives are identified and stated in precise terms, we take up the task of selecting appropriate learning experiences which suit the objectives. Tyler's last principle of evaluation gives us feedback about whether or not the intended goals have been achieved.

b) **Taba's Model** : Hilda Taba maintains that curriculum users should design the curriculum. According to her, the teachers should create teaching learning materials for their students, by adopting an inductive approach starting with specifics and building up general design, as opposed to the traditional deductive approach.

Taba listed seven steps in her grassroots model of curriculum development in which teachers have to provide major inputs. The steps are:

- Diagnosis of needs
- Formulation of objectives
- Selection of content
- Organisation of content

- Selection of learning experiences
- Organisation of learning experiences
- Evaluation

Though Taba's model has many merits, some critics maintain that its primary weaknesses are as follows:

- it applies the concept of participatory democracy as a highly technical and specialised process, and
- it assumes that teachers have the expertise and time to engage in such curricular activities.

This model has made it clear that a broad-based involvement of the users of the curriculum is essential for effective decision making related to curriculum.

- c) **Saylor and Alexander's Model** : Saylor and Alexander have presented a systematic approach to curriculum development. The model is illustrated in Figure 3.2.

The components of the model are suggestive of the stages involved in curriculum planning. The figure is self-explanatory.

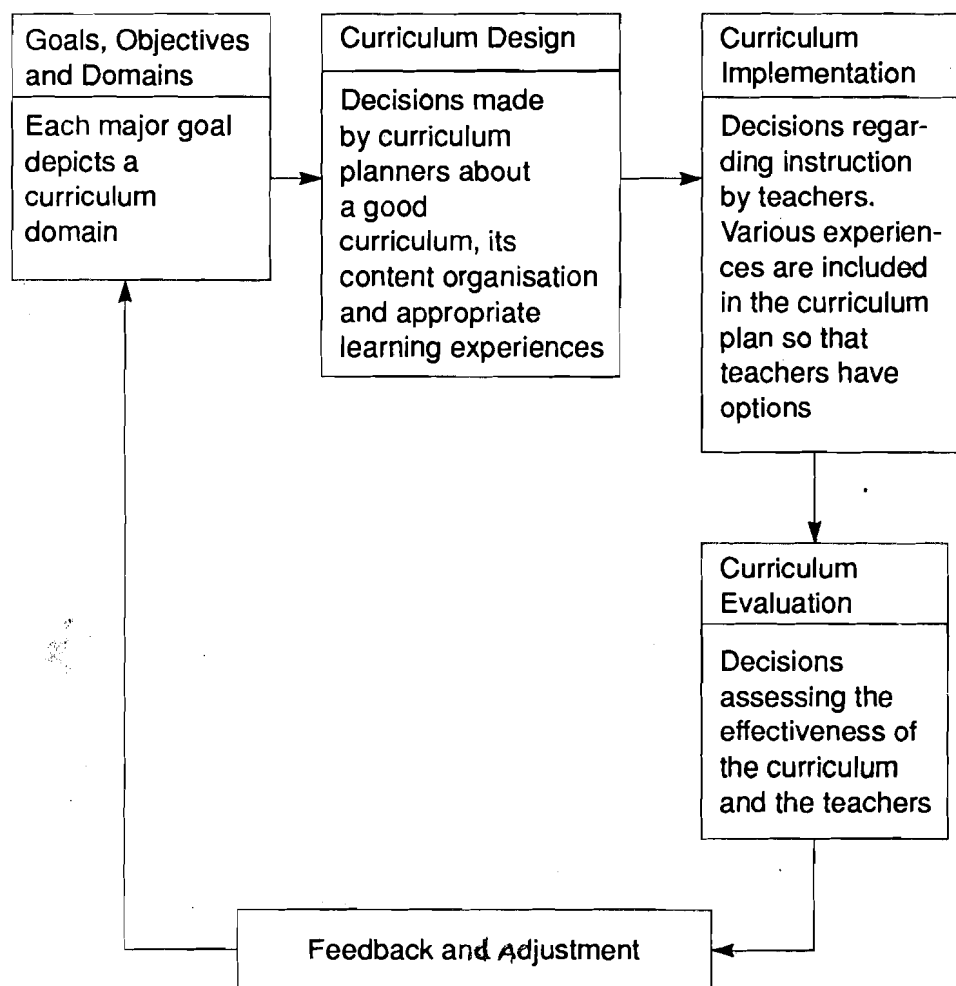


Fig. 3.2 : Saylor and Alexander Model

- d) **Goodlad's Model** : In this model the educational aims are drawn from the analysis of the values of the existing culture. The educational aims are then translated into educational objectives stated in behavioural terms. These objectives suggest the learning opportunities, which could involve study of particular courses or readings. From these general objectives and learning opportunities, educational planners deduce specific educational objectives, which in turn help in organising specific learning opportunities for identifiable students or for a student.
- e) **Hunkins' Model** : The Hunkins' model allows those working with the model to continually adjust their decision-making about curricular actions, depending on the situation. The model ensures that one's philosophical orientation should guide ones

curriculum planning activities. The curriculum maintenance stage includes various means of managing curriculum systems that are necessary for the continuation of the programme.

- f) **Miller and Seller's Model** : This model is a generalised one. It emphasizes that all the models of curriculum development exhibit atleast the following three orientations towards the purpose of curriculum:
- **Transmission position** : Curriculum should transmit skills, facts and values to the students.
 - **Transaction position** : Transaction of curriculum can be viewed as a dialogic process (pedagogic interaction) between the students and the teacher.
 - **Transformation position** : Personal changes and social attitudes can be influenced through curriculum.

Diagrammatically the model can be represented as shown in Figure 3.3.

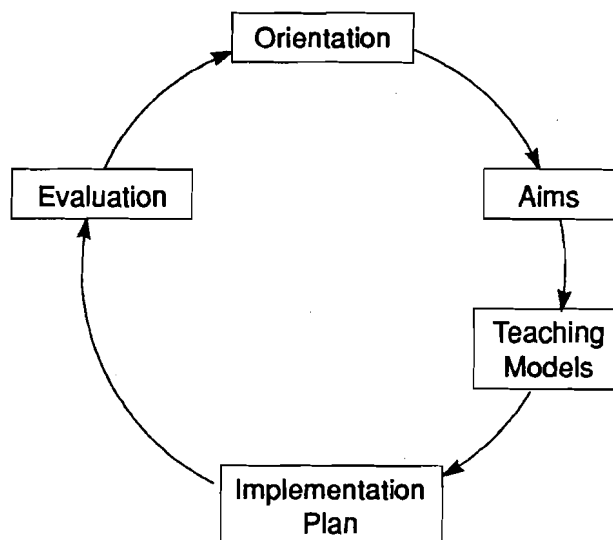


Fig. 3.3 : Miller and Seller's Model

Having discussed the technical models in brief we now move to the non-technical/non-scientific models of curriculum development.

- ii) **Non-technical/non-scientific model** : The proponents of this model of curriculum development stress on the students' perceptions of their needs and preferences. This is in contrast to the technical approach which relies more heavily on the view of experts and demands of subject matter for determining student's needs.

Let us discuss briefly the three important models under this category.

- a) **The Open classroom model** : The open classroom model is based on the activity curriculum in which the activities are often treated as ends in themselves. This model suggests that the students learn by doing and by actively participating in learning activities and not by passively listening to the teachers. This model places great faith in students and encourages student autonomy. In this model, as you have seen, the students take up the major responsibility for their learning. The curriculum according to this model should be based on the students' interests, needs and aptitudes. The learning experiences should facilitate student autonomy and freedom.
- b) **Wienstien and Fantini's model** : According to this model, the teachers can generate new content and techniques to assess the relevance of the existing curriculum, content and techniques. Thus the teachers can give new shape to the curriculum. The existing curriculum is reviewed to suit the requirements of the students. Thus the student is at the centre of the process of curriculum development.

The first step in the curriculum development activity is to identify the target group. The student concerns determine the contents, its organisation and teaching procedures to be employed.

Content could be gathered from various sources, such as

- Experiences of a growing person.

- Student's feelings about his or her own experiences – one's feelings about one's friends, sports, etc.
- Student's knowledge of his/her own social environment.

The content determines the skills to be instilled in the students. After the content has been selected, the teaching procedures are identified. The teaching procedures should essentially be related to the learning styles of the students.

- c) **Rogers' Model of interpersonal relations** : Though not a curriculum specialist, Carl Rogers has developed a model for changing human behaviour which can be used for curriculum development. Rogers emphasizes human experiences rather than content or learning activities.

Rogers' model is used for exploring group experiences, whereby people examine themselves and others in a group. The participants of the group communicate honestly with each other and explore each other's feelings. Hence this model is called the interpersonal relations model.

Check Your Progress 2

Notes : a) Write your answer in the space provided below.

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

What do the terms technical and non-technical mean in the context of curriculum development?

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Having discussed the approaches to and models of curriculum development. We shall now take up the major dimensions of curriculum and their corresponding components in order to identify some criteria that should guide any exercise in curriculum planning.

3.4 PROCESS OF CURRICULUM DEVELOPMENT

In Unit 1 of this Block you have been introduced to the process and stages of curriculum planning and development. Those aspects shall be extended in this section to enable you to understand the procedural steps involved in curriculum development. This discussion will help you develop the necessary skills to actually review, assess, update and/or develop a curriculum for your school.

Curriculum development is a specialised task which requires systematic thinking about the objectives to be achieved, learning experiences to be provided, evaluation of changes brought out by the curricular activities and so on. We need to follow the order in which decisions related to curriculum development are made and we have to make sure that all the relevant considerations are taken into account before taking any decision. To arrive at a thoughtfully planned and dynamically conceived curriculum we should follow the steps as follows:

- Assessment of educational needs
- Formulation of objectives
- Selection and organisation of content
- Selection and organisation of learning experiences
- Evaluation

Now we discuss each step in the following sub-sections.

3.4.1 Assessment of Educational Needs

Curricula are framed to enable students to learn socially desired behaviours. Because the background of students differ, it is essential to diagnose the gaps, deficiencies and variations in these backgrounds. Need assessment is an important first step in determining what the curriculum should be for a given population during a particular period of time. We should, therefore, identify the target students and prepare their profile.

There are two means of needs assessment. First, we assess educational needs through specially mounted surveys. We go to the field (the target group) and study the areas where educational inputs are required. Besides educational needs, we also collect background information about the target group. The needs assessed through field studies are known as **felt needs**. The second means of needs assessment is the analysis of existing data, such as education commissions' reports, government policies (e.g. National Policy on Education, 1986), etc. The policy documents can provide useful guidelines for framing curriculum. Similarly, every institution has its objectives to be achieved. The priority areas can be identified from the **secondary sources**. The needs assessed through the secondary sources are known as **observed needs**. Considering the potential and limitations of the education system (i.e. what the education system can do to achieve/meet the needs of the target group), you can prepare a list of priority areas, known as **real needs**, after thorough analysis of the felt and observed needs. (See Figure 3.4.)

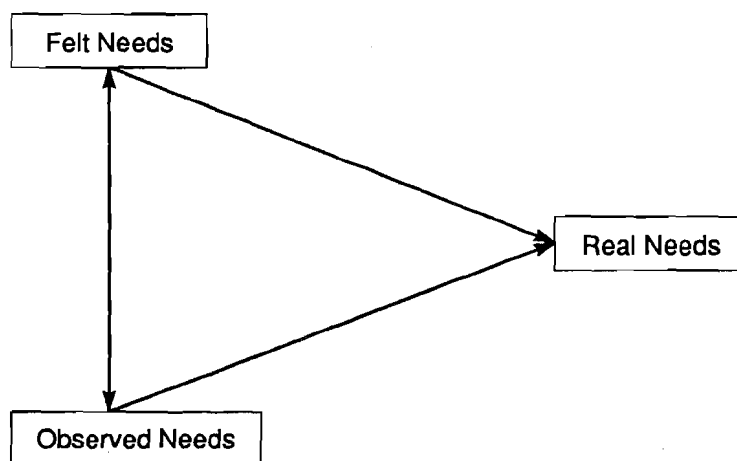


Fig. 3.4 : Needs Assessment

3.4.2 Formulating Educational Objectives

By now you have a comprehensive list of objectives, in the form of real educational needs, for developing the curriculum. You also have the background information on your target group. Now you have to transform the needs into aims and objectives. You are familiar with the terms 'goal', 'aim' and 'objective' (refer to Sub-sec. 1.4.1 of Unit 1 of Block 1). Instructional objectives will also be discussed in Unit 6, Block 2 of this course. The purpose of discussing objectives here is to highlight their role in curriculum development.

Since objectives specify expected outcomes, we need to give serious thought to the following points while formulating them:

- a) **Matching:** The objectives should be related to the broad goals of education from which they are derived. For example, the objective of understanding of certain scientific facts, should enable the student to apply the knowledge gained in practical problems. The point of emphasis here is that the attainment of the objectives should lead the students to attain the overall goal of education.
- b) **Worth:** Worth relates to whether attaining an objective has value in the life of the student in the present or future. Since our knowledge base is continually changing, the objective needs to be updated, modified or eliminated to improve the quality of education and of human life. The objectives should be useful, meaningful and relevant to the need of the students.
- c) **Wording:** The statements of the objectives should be worded properly, so that students can easily understand the intended outcomes.
- d) **Appropriateness:** All objectives should be derived from and cater to the needs and interests of the students. Any ambiguity in the statement of an objective may create

confusion in the mind of both the teacher and the students. In such a case the process of education will lose direction.

- e) **Logical grouping:** Some times the objectives lack proper organisational coherence, especially when the learning experiences and their evaluation procedures are decided. The objectives should be grouped according to some common idea or in terms of domains – cognitive, affective and psychomotor. Proper grouping of the objectives will help plan and develop a more meaningful curriculum in terms of its content and evaluation.
- f) **Revision:** The objectives require periodic revision because students' needs, realm of knowledge, instructional strategies, etc., change at a very fast pace these days. Revision of objectives will have a recurring impact on the curriculum and make it an on-going process. The curriculum should have the flexibility to accommodate changes in the society.

Check Your Progress 3

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

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

Suppose you are assigned the task of formulating objectives in your subject for the students of tenth grade. State the criteria you would follow.

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3.4.3 Criteria for Content Selection

In the previous sub-section we discussed that content and objectives are interdependent and constitute a major dimension of curriculum development. Generally content refers to subject matter or the compendium of facts, concepts, generalisations, principles and theories. By content we imply learning experiences, besides subject matter. The curriculum content should enable students to gain and apply knowledge in day-to-day life. The content selected should contribute to the students' knowledge or understanding of the reality of human life. The following diagram make this discussion clear.

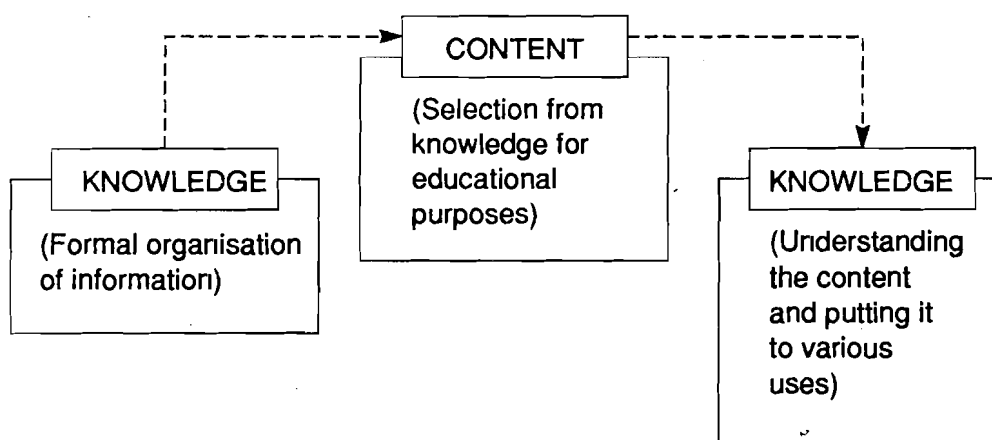


Fig. 3.5 : Content Selection

Let us talk about the criteria of content selection in detail. At the macro level the criteria for the selection of content should be based on the socio-political and educational philosophy of the society or the nation. At the micro level the criteria should suit the specific objectives set for meeting the student's needs. Some of the criteria for content selection are discussed as follows:

- i) **Self-sufficiency:** This criteria helps the students to attain maximum self-sufficiency and that too in the most economical manner i.e., economy of teaching efforts, students' efforts

and extent of generaliability of subject matter. In other words, we can say that the content should help the student become self-reliant and self-sufficient.

- ii) **Significance:** The content to be learned should be significant in terms of its contributions to the basic ideas, concepts, etc., in particular learning abilities.
- iii) **Validity:** Validity relates to the authenticity of the content selected. The content selected should be valid to the extent that it flows from and supports the goals and objectives of the curriculum. The content should be usable in day-to-day life.
- iv) **Interest:** Another deciding factor for content selection is that the content should suit the personality (e.g. attitude, interest, etc.) and intellectual capabilities (e.g. mental level, aptitude, etc.) of the students. It is likely that the students' interest are transitory. The criterion should be weighed and adjusted to provide for student's maturity, prior knowledge, experience, etc.
- v) **Utility:** The utility criterion is concerned with the usefulness of the content. The usefulness can be interpreted in different ways. For example, the content learned by the student should be useful in his/her job situations.
- vi) **Learnability:** This criterion relates the optimal placement and appropriate organisation and sequencing of content. The selected content should not be out of the range of student's experiences, intellectual abilities, etc. In other words, the content should be such that it can be perceived, understood and assimilated by the learners for whom it is intended.
- vii) **Feasibility:** Feasibility as a criterion of content selection compels curriculum planners to analyse and examine the content in the light of the time and resources available to the student, costs involved, contemporary socio-political climate, etc. Despite the fact that there are several options available, the students do have limitations as far as the pace of their learning is concerned.

3.4.4 Organising the Content

Once the content is identified it needs to be appropriately organised. If the curriculum is a plan for learning as indeed it is, its content should be logically organised so that it facilitates the attainment of educational objectives. One of the most potent factors that determines the way learning takes place is the organisation of the curriculum. If a curriculum has not been systematically organised, it shall lack direction and it shall not help attain the objectives on which it was supposedly based.

Curriculum organisation is both a difficult and a complex task. It demands a thorough understanding of the teaching-learning process. The main problems of curriculum are lack of sequence, continuity and integration of the content included in curriculum.

Let us examine each of these above mentioned aspects briefly.

- i) **Sequencing :** Establishing a sequence in curriculum means putting the content and materials into some sort of order of succession. There are some general principles used in arranging the content in the most appropriate sequence. For this you have to follow certain teaching norms, such as moving from known to unknown, from simple to complex, from concrete to abstract, etc. The content can be arranged according to the period or historical development, such as the ancient period, the mediaval period, the modern period (that too pre-independence and post-independence), etc. Besides these norms or principles, it is the resourcefulness of the curriculum planners to arrange the content in such a way that it facilitates students' learning.
- ii) **Continuity :** The curriculum should provide for a progressively more demanding performance, more complex materials to deal with, a greater depth and breadth of ideas to understand, to relate, to apply and so on. Such cumulative learning can apply to thinking, attitudes and skills.

The students should be provided with experiences step by step, leading to the examination of more complex forms of criticism and analysis of ideas. For example, a student of grade II may learn the concept of interdependence among family members. He may encounter the same concept in a higher grade but with reference to interdependence of nations, political decisions, etc.

The content of curriculum should provide for continuity in learning and prevent loss through forgetting. You know that disjointed content does not lead the student to the destination i.e. the attainment of the objectives.

- iii) **Integration** : It is recognised that learning is more effective when facts and principles from one field can be related to another, especially when applying knowledge. Curriculum planners should attempt to integrate the curriculum by simultaneously establishing relationships between various subjects taught to the target learners. One method can combine related areas into one broad field; for example, combining geography and history into social studies. Correlating two subjects such as Maths and Science is another attempt to integrate content.

It should be clear from the preceding discussion that curriculum organisation should protect and preserve both the logic of the subject matter and the psychological sequence of the learning experiences. In the logical organisation, the planners organise content according to certain rules, to make it more manageable.

In Economics, for example, the concepts of supply and demand are central to the content. Without these, the concepts of capital, labour and market cannot be grouped.

The psychological organisation of the content helps one understand how an individual might actually learn it (i.e. content). Content should be organised in such a way so that the concrete content is experienced before the abstract content.

3.4.5 Selecting Learning Experiences

We shall begin this sub-section by clarifying the term **learning experiences**. However, this term has been used quite frequently in this and other units of this course. The term connotes learning activities which shape the learner's orientation to the content and ultimately their understanding of it. In essence, it refers to the teaching-learning process, the methods followed and the activities planned to facilitate the teaching-learning process. Various teaching methods are used by teachers such as, lecture, discussion, project, demonstration, etc. Similarly there are various learning activities, such as viewing films, conducting experiments, undertaking fieldtrips, taking notes, working on assignments, participating in discussions, etc. The teaching methods generate learning activities. Teaching methods and learning activities are two sides of the same coin. Some curriculum planners differentiate content from experience. They should remember that content and experiences do not exist independent of one another. On the contrary, both the content and learning experiences comprise the overall curriculum.

There are a few questions which should be addressed before we select learning experiences. They are listed below:

- Do the learning experiences function the way we wish them to in the light of the overall aims and the specific objectives of the curriculum?
- Will the student be able to apply the knowledge gained to practical situations?
- Is it feasible in terms of time, staff expertise, resources, etc., to learn the content of the curriculum in the specified time.
- Do the learning experiences enable students to develop thinking skills and rational powers?
- Do the learning experiences stimulate in students a greater understanding of their own existence as individuals and as members of a group/society?
- Do the learning experiences foster in students an openness to new experiences and a tolerance for diversity?
- Do the learning experiences allow students to address their needs and interests?
- Do the learning experiences cater to total development of students in cognitive, affective and psychomotor domains?

These questions will help you select appropriate learning experiences for a given set of objectives. Besides, we should be able to create proper environment: physical and psychological, for optimal learning. The experiencing of content cannot be divorced from the environment in which the experiences occur. Students who work in a creative environment are more likely to be stimulated and excited about their learning.

The educational environment should address social needs as well as development of awareness, appreciation and empathy for others. It should stimulate purposeful student activity and allow for a range of activities that facilitate learning.

Let us now move on to another stage of curriculum development, i.e. evaluation.

3.4.6 Evaluating the Curriculum

Evaluation is meant to gauge the extent to which the objectives of the curriculum are achieved through implementation of curriculum. We can see the relationship between evaluation and objectives in Figure 3.6.

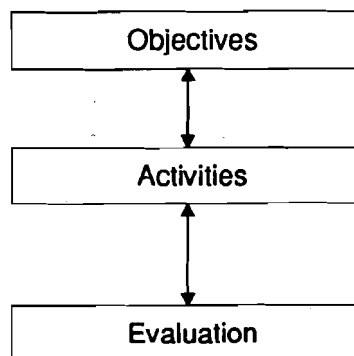


Fig. 3.6 : Relationship of Objectives with Evaluation

Fig. 3.6 suggests that as soon as the objectives of a curriculum are stated, the ways of evaluating the attainment of the objectives should be decided. The content and learning experiences are there in order to achieve the objectives and also with reference to the possible means of evaluation.

The effectiveness of any educational programme is judged by its potential to realise its goals and objectives. The extent to which the objectives are achieved can be assessed through appropriate evaluation procedures. The evaluation of any purposeful activity should have certain characteristics. The important characteristics are as follows:

- Consistency with the objectives of the curriculum
- Sufficient diagnostic value
- Comprehensiveness
- Validity
- Continuity

The aim of evaluation is to produce empirical evidence about the nature, direction and extent of behavioural changes which arise from educational endeavours. This evidence can then be used as a guide to modify any phase of the curriculum process. Evaluation is both qualitative and quantitative, i.e. it may be 'formative' (with the objective improving the process of development) and 'summative' (at the end of the total programme or each phase thereof to judge the effectiveness of the instructional design). Educational evaluation serves the dual function of guidance and assessment.

We need to employ a variety of appropriate techniques and tools to collect all kinds of evidence required at different stages of curriculum development and implementation. The techniques and tools to be used should be selected in relation to the nature of the objectives or the learning outcomes and the kinds of performance to be assessed or evidence to be collected. The evidence to ascertain the success or the failure of an educational programme can be collected through systematic feedback from the makers and users of curriculum.

From the discussion presented in this sub-section, you can infer that there are two types of evaluation; viz;

- Student evaluation, and
 - Curriculum evaluation
- i) **Student evaluation** : Student evaluation aims at assessing the changes in the student's behaviour. These changes in behaviour can be assessed through:
- oral, written or practical tests.
 - responses during interactive teaching-learning sessions, discussions in different kinds of situations, etc.
 - written products of different kinds, e.g. assignment responses, term papers, project report, etc.

Evaluation of the students requires sufficient experience and expertise to frame good questions for higher level objectives.

We can prepare observation schedules to validate student performance. These can be applicable to many tasks of the same kind or in the same area. Qualitative criteria can be assigned, so that judgements in the form of rating points (5,4,3,2,1 or corresponding A,B,C,D,E) can be made. The marks or grades awarded for total performance can be explained with a brief descriptive statement.

- ii) **Curriculum evaluation:** Student performance is a part of curriculum evaluation. This, however, does not imply that evaluation in education should cover only evaluation of learning, development or achievement of students. In fact evaluation comprises assessment of different aspects of the curriculum as planned, developed and implemented.

We shall touch upon curriculum evaluation briefly here as it has been discussed at length in Unit 4.

Curriculum evaluation refers to the evaluation of different components of curriculum: objectives, content, methods and evaluation procedures for student assessment to determine whether the curriculum caters to the needs and the educational purposes of the target group.

Curriculum components can not be scrutinised in isolation, since each component affects and influences the rest. Since these components are interdependent, each has to be evaluated in conjunction with the others. The overall curriculum evaluation is shown in Figure 3.7.

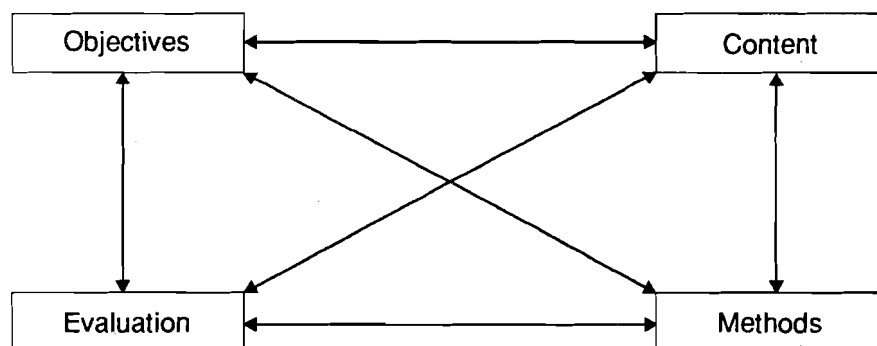


Fig. 3.7 : Interdependence of Curriculum Components

The purpose of curriculum evaluation is to collect and use feedback for improving the curriculum. None of us would dispute the importance of curriculum evaluation, yet we carry it out very rarely. There are two major reasons for this indifference:

- Evaluation results are frequently ignored, and
- Resistance to accept a new pattern despite its potential continues to exist.

Since evaluation data are crucial for the improvement of curriculum, it is essential that we should come to grips with the issues underlying it. These issues have been described in detail in Unit 4 of this Block.

3.4.7 Development Try-out

We have mentioned in the preceding sub-section that evaluation can be carried out during the process of curriculum development. This kind of evaluation is called 'formative' evaluation. Curriculum evaluation can be done at the end of development and implementation; this is called 'summative' evaluation.

Development try-out is a formative evaluation which is carried out at every stage of curriculum development. It aims at improving every component of the curriculum during its planning and development. Empirical data are collected so that decisions can be made to revise the curriculum while it is being developed. During the developmental stages of the curriculum, evaluation effort provides frequent, specific and detailed information to guide the persons who are working at the curriculum to take decisions at every stage. It can take place at a number of specified points during the curriculum development process. For example, during a curriculum's creation, the curriculum planners can check whether a particular content is

appropriate for the students to learn. Depending on the results, the content can either be modified, replaced or even dropped.

Formative evaluation uses the process of feedback and adjustments and thus keeps the curriculum development process on-going.

Check Your Progress 4

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

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

i) What is the purpose of curriculum evaluation? Write in brief.

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ii) List two major reasons for the indifference of educators towards curriculum evaluation.

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3.5 ROLE OF TEACHERS IN CURRICULUM DEVELOPMENT

The teacher is such a part of the curriculum that s/he cannot be denied participation in the process of changing or developing curriculum. A teacher should be directly involved with the curriculum planning and development because it is the teacher who implements it and translates instructional plans into action. Teaching is an act of implementing or transacting the curriculum. Teachers should be part of the overall development activity. This implies that

- teachers should ideally be involved at every stage of curriculum planning and development i.e. from the formation of aims to the evaluation and maintenance of the curriculum.
- their help should be sought for developing curriculum packages and conceptualizing resource designs.
- they can assist in designing supportive educational environment.
- they can communicate with the general public on new curricular projects and thereby make them more receptive to curriculum change.

3.6 SOME ISSUES IN CURRICULUM DEVELOPMENT

Various trends and events have influenced the task of curriculum planning in recent years and these are likely to continue their influence in the near future. There are some issues that often engage the attention of curriculum planners and teachers. In this section we shall briefly discuss two such issues. They are:

- Irrelevant curriculum
- Emerging curriculum

3.6.1 Irrelevant Curriculum

Very often we hear people criticising the school and its curriculum. When people say that the curriculum is irrelevant, they generally mean that it does not meet the needs of the society and

the student. As you have studied, curriculum planners should take the social and student-related factors into consideration while designing curriculum for a specific target group.

The educators consider the curriculum irrelevant if it is fixed or trivial. Let us examine what a fixed or trivial curriculum is.

Fixed curriculum: A relationship exists between changes in society and changes in curriculum. The scheme of a curriculum must take into account the intention of improving the life of the people so that the future could be better than the present and the past.

This idea suggests that cumulative knowledge and the total culture of society must be reflected in the curriculum. If schools are to maintain their health and vitality, the curriculum cannot remain fixed in a world full of change. The curriculum should have adequate flexibility to reflect and respond to social changes and developments.

Trivial curriculum: This implies that facts and figures in a curriculum are out-dated, meaningless and non-essential to students. Such a curriculum takes students nowhere as far as their growth and development is concerned. Implementation of a trivial curriculum will waste the academic time and energy of the students. For desired fruits the curriculum should include updated, relevant and meaningful facts and figures.

3.6.2 Emerging Curriculum

An emerging curriculum is one that constitutes new curriculum content and areas of study. It includes those aspects which are relevant for the emerging society. These innovative areas of study emerged from traditional subject matter and reflect socio-political changes in the society. Such a curriculum is both learner-oriented as well as value-oriented.

Several curriculum trends are emerging today which could be incorporated to constitute a balanced curriculum for secondary school education. Some of the emerging areas that can be included in the emerging curriculum are:

- Special education
- Multicultural education
- Sex education
- Drug abuse
- Population education
- Intercultural relations
- Pollution
- Vocational education
- Community health education

These are some of the numerous emerging areas of study that demand attention today and will continue to do so in the future as well.

3.7 LET US SUM UP

We shall now help you recapitulate what you have studied in this unit. We started our discussion with the definition of curriculum approach which is a plan to make decisions about teaching/learning situations. We discussed the major approaches to curriculum development, issues relating to the approaches and the models of curriculum planning and categorised them as technical and non-technical models.

We also discussed major dimensions of curriculum development, i.e. aims, objectives, materials, methods and evaluation. These are essential components of curriculum development.

In this unit an extended treatment was given to the process of curriculum development.

We concluded the unit with a note on contemporary issues that influence need-based curriculum. Under this we discussed in brief, irrelevant and emerging curriculum.

3.8 UNIT-END EXERCISES

1. Identify some emerging areas that could be included in school curriculum. Justify the rationale for their inclusion in school level education.
2. Usually school teachers are not involved in designing school curriculum. If this is the case, why should they study the concept and process of curriculum development? Give convincing arguments to support your point of view.

3.9 ANSWERS TO CHECK YOUR PROGRESS

1.
 - i) The learner-centred approach to curriculum development focuses on the emerging needs of the learners. It prepares the learners to face the present rather than the future problems in the society. The learning experiences provided through learner-centred curriculum are planned to help the teachers understand the issues relating to the growth and development of the students.
 - ii) In the subject-centred approach, the content/subject becomes the more important criteria of curriculum development. Learning experiences are organised around the content selected. In this approach, appropriate mechanism to assess the gain/acquisition of subject matter is devised by the curriculum planners.
2. In the context of curriculum development the term 'technical' connotes that the aims and objectives of curriculum that emerge out of the aim and objectives of education, can be stated objectively. The term 'non-technical' stresses that individual's needs dictate the aims and objectives of education and thus influence the decisions on curriculum development.
3. Since objectives are related to the outcomes, you should consider the following points while formulating them:
 - Matching
 - Worth
 - Wording
 - Appropriateness
 - Logical grouping
 - Revision
4.
 - i) The purpose of curriculum evaluation is to get feedback on various attributes of curriculum and to use the feedback to improve the curriculum.
 - ii) Though evaluation is very important in the process of curriculum development, it is not executed because of
 - a) non-utilisation of evaluation results
 - b) resistance to accept innovative patterns.

3.10 SUGGESTED READINGS

Cronback, J. Lee (1964) : *Evaluation for Course Improvement in New Curricula*, New York : Harper & Row.

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Ornstein, C. & Hunkins P. (1988) : *Curriculum, Foundations, Principles and Issues*, New Jersey, U.K.

D. Warwick (1975) : *Curriculum Structure & Design*, University of London Press.