
UNIT 4 CURRICULUM IMPLEMENTATION AND EVALUATION

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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 synthesise, 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):

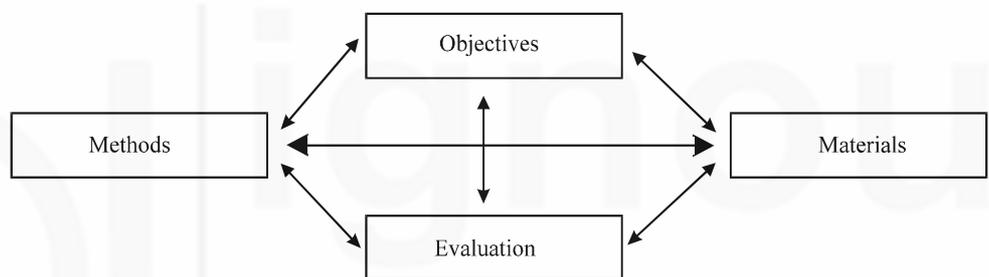


Fig. 4.1: Interdependence of curriculum components

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. It’s 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.

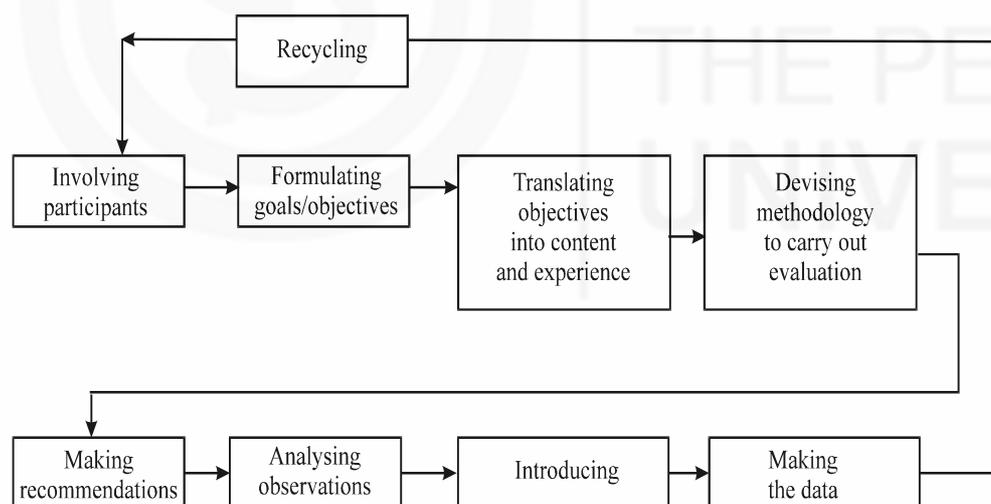


Fig. 4.2: Metfessel-Michael Evaluation Model

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):

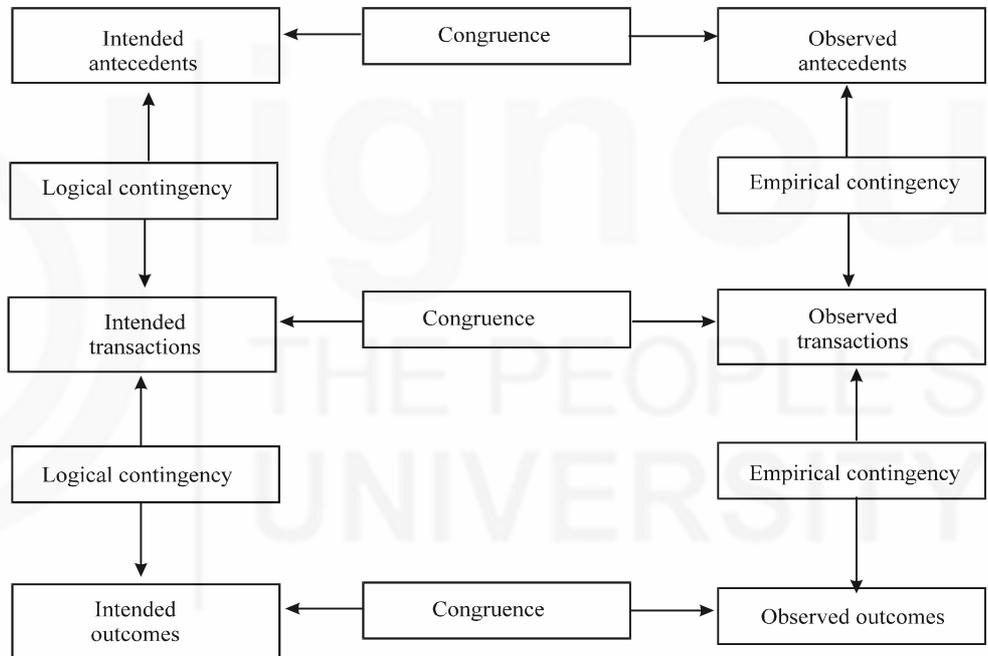


Fig. 4.3: The Congruence-Contingency Model

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.

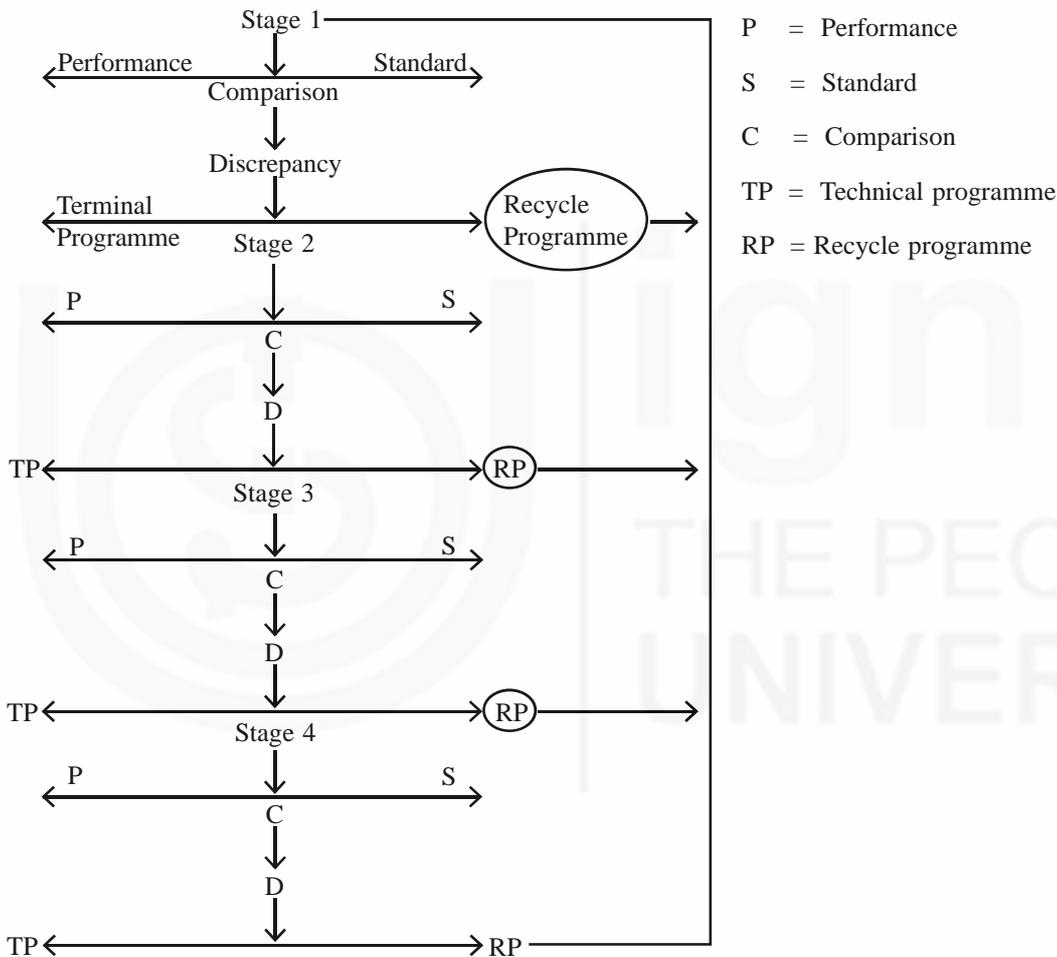


Fig. 4.4: Discrepancy Evaluation Model

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:

- i) 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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