UNIT–8

CURRICULUM EVALUATION

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CONTENTS

INTRODUCTION

Evaluation of the curriculum of any specific course deals with all the educational outcomes related to it, whereas measurement deals specifically with those characteristics that can be easily quantified. In evaluation, such techniques may have to be evolved as may help the educators to analyse and assess the merits and shortcomings of any curriculum. Further, any problems involved in implementing a curriculum successfully have to be identified and resolved in order to achieve its educational objectives.

The procedures of curriculum evaluation involve certain steps, which should, however be flexible enough to be adjusted as per exigencies arising from time to time. These procedures are useful in guiding the thinking of those who are carrying out the evaluation. The steps, which have to be evolved by careful and intensive analysis of the types of the tasks- involved. While the strategy for curriculum evaluation should be adjusted according to the particular problems and situations under consideration, certain models that will be described in this Unit, can play a very important part in the process. Curriculum evaluation should not only be a means for judging educational effectiveness, but also if applied critically and intelligently, should lead to useful decisions that can serve as a powerful force to improve the educational process as well.

In this Unit, the nature, models and aims of curriculum evaluation, educational goals and curriculum objectives, curriculum models, designing evaluation studies, methods of curriculum evaluation, problems of research *design* in curriculum evaluation, and course improvement through evaluation have been discussed at length.

OBJECTIVES

After going through this Unit, you will be able to:
1. Mention the main purposes of curriculum evaluation and the extent to which an evaluation can be made.
2. Analyse the goals and objectives of educational programmes for relating them to the evaluation.
3. Design strategies and methods for the evaluation of specific educational programmes in accordance with the needs *of* the situations.
4. Suggest means of improving educational curricula and processes in the light of the evaluation of the progranrares.

1   THE NATURE AND MODELS OF CURRICULUM EVALUATION

The evaluation of curriculum material occupies an important place as on the provision of effective, meaningful, need-based and rational curricular material depends the growth of the learners. Good materials contribute to desirable changes in the learners. It has, therefore, to be assured that the curriculum materials are of good quality. At the same time, they should be acceptable both to the learners and the teachers; They should be of practical use and fit well in the existing educational setting. This can be assured by evaluation alone. Evaluations help in modifying the curriculum to adequately meet the growing challenges.

Curriculum evaluation has become one of the current catchwords in educational parlance. It primarily refers to observations and judgments made about what actually happens in the school though judgments about what students have achieved, and what else may also be included.

Curriculum evaluation determines the worth or value of curriculum, i.e. whether the curriculum is fulfilling its purposes for which it was formulated.

Curriculum evaluation is an important step because a wrong or defective curriculum may cause serious problems; for example it may not be suitable to the needs of the individual and society and it may put heavy load on the student.

Curriculum evaluation may be studied under two distinct points of view. According to one point of view, curriculum evaluation is concerned with the measurement of the achievement of objectives. The other point of view is that curriculum evaluation is the collection and use of information to make decisions about the educational programme.

(A) The first point of view stipulates curriculum evaluation as a means for quality control in education. Curriculum evaluation starts with the act of stating the objectives of a full course or a unit of the course. This is followed by the definition of these objectives in behavioural terms. The next, stage is the development of items which aim at finding out the extent to which the new materials have which developed such behaviours as will satisfy the purposes and the objectives the curriculum developers have *in* mind.

Achievement of objectives model is an American innovation. Tyler may be called the originator of this *model* and it got a concrete shape through the efforts of Benjamin S. Bloom. This model became very popular in the world and led to the technological heights in curriculum development in the form of Programmed Learning and Self-instructional schemes. This model has been criticised on two grounds. First, it is argued that it takes into account only intended or ore-specified outcomes and ignores unintended outcomes; second, it 'allows no scope for determining the relative merit of different sets of curriculum.

(B) The second point of view envisages 'illumination' role for curriculum evaluation. Its primary objective is to provide relevant information to the decision makers so as to enable them to arrive at decisions. This implies that there is more to evaluate in the curriculum programme than its stated objectives. It highlights 'service nature' of 'curriculum evaluation'. This approach may be termed as 'decision oriented inquiry' rather than 'conclusion oriented inquiry.

Curricular programmes, in general, are evaluated by any one or a combination of the following:

(a)   Self-evaluation by the participants of the curricular programme, i.e., the learners;
(b)   Evaluation by the teachers;
(c)   Evaluation by outside evaluators, with specified terms of reference.
(d)   Follow up studies of those who have participated in the programme.

Evaluation is done at two levels: (i) Formative Level and (ii) Summative Level.
(i)   Formative evaluation is conducted in 'trial' schools. Consideration is given to what actually happens in practice as the course is being implemented. As the course proceeds, an on-going or formative evaluation is carried out using, inventories, questionnaires and observational and reporting techniques to establish the following:
(ii)   The formative level evaluation has two important characteristic. The curriculum developer or the writer of the curriculum himself carries but the task of material evaluation. The formative evaluation is used to improve the materials while they are prepared and developed.
(i)   How far the learning prescribed has been mastered?
(ii)   What are the attitudes of teachers and their pupils towards the course?

2.   Sometime type of curriculum evaluation is done by persons other than the writer or the developer of the curriculum material. It takes place after the completion of the curriculum material. At this stage, attempts are made to assess what has been achieved by the pupils at the end of the course. In the summative evaluation the tests used are related to what has been finally mastered and achieved as a result of the whole course. It also attempts to establish overall attitudes of teachers and pupils to the course.

Evaluation in practice is seldom purely formative or summative, since it has usually both the objectives. Any line of distinction between the two is rather thin and not distinct.

1.1   The Aims of Curriculum Evaluation
When curricular innovations are introduced, it is an important task of educators to determine their effectiveness. An assessment of any new programme has to be making to find out if the desired outcomes are being achieved; and to what extent, if at all, it results in

significantly better learning than the existing programme. The use of evaluation techniques should enable curriculum workers to make study progress in improving the curriculum.

The major aims of curriculum evaluation may thus be summarized as follows:

(a)   To determine the outcomes of a programme;
(b)   To help in deciding whether to accept or reject a programme;
(c)   To ascertain the need for the revision of the course content;
(d)   To help in further development of the curriculum materials for continuous improvement.

Careful evaluation should, therefore, demonstrate the strengths and weaknesses in the curriculum' so that necessary changes can be made in the instructional programme.

In testing and measurement, greater emphasis, is placed upon those characteristics that are easy to quantify and, thus important outcomes such as problem solving, creativity, critical thinking, work habits, and cultural appreciations tend to be neglected. Uncritical use of testing and heavy reliance on test results has caused a widespread spurious sense of certainty about educational accomplishments. Evaluation, however, is aimed at measuring all the educational outcomes, not just those that lend themselves easily to quantification.

The purposes of evaluation for curriculum innovations include the collection of information to be used as:

(a)   Feedback to the innovators for further revision of materials and methods:
(b)   Input for decision-making in the course;
(c)   Empirical data on behaviour changes under curriculum treatment.

Professional educators who implement the curricula should be held accountable for successful achievement of deviational outcomes. This involves

(a)   Developing improved, more comprehensive measurements of pupil performance,
(b)   Making, analysis of the contributions made to the pupils' performance by educators, administrators, planners, institutions and other agencies in the educational process.

Curriculum evaluation, which should assess all aspects of the programme, should give a clear picture of the educational processes and products that should not only have prognostic value as regards the success of the programme, but should also have a diagnostic value in adapting and improving the programme to the satisfaction of all concerned.

1.2   Educational Goals and Curriculum Objectives

Statement of goals and objectives of the curriculum have many valuable uses. The congruence between the intent of the curriculum and the actual educational outcomes has to be investigated. In addition to abilities, the importance of attitudes, values, interests and sentiments in the educational process has been increasingly recognized. The behavioural

approach to the statement of objectives has gained a new impetus because of its value in the educational process. Valid evaluation is facilitated by a statement of the aims and objectives of education, arranged in a hierarchy of national, regional, local, subject and course areas drawn to blocks and units and even to daily lesson.

(A) Development of Educational Goals

Philosophers and educationists' have for centuries been discussing the aims and objectives of education. How more than ever, the problem of educational goals is a top priority though still a largely unresolved problem. The main reason for this is that in spite of all our efforts, the goals produced are essentially non-functional, even when stated in behavioural terms.

The goals of education usually tend to be non-functional for the following reasons:

(ii)   In the statements of objectives, too much reliance is placed on 'continued development of values and character' or 'perfecting the intrinsic powers of ever citizen' While these sound enthusiastic, these lack clarity about the goal and hence the actual educational process that needs to be adopted for achieving these goals.

(iii)   There is a lack of public involvement with the educational experts and educators in the clarification of objectives. Sometimes public participation narrows down the goals, but ultimately the goals are to be controlled by them.

(iv)   The goals have too often been assumed as given and concentration has been directed to how to achieve the so called assumed or given goals. Changes in goals, that form a part of the educational process, have to be created by every generation.

(v)   Those at the helm of affairs tend to interpret the goals according to their perception, which makes them too hazy.

(B) Role of Educational Measurement in Defining Goals

Tests are related to the major concerns in the educational process and should provide help in the development of meaningful goals. Without proper measures of the outcomes, there would be no direction as to the goals. Without proper evaluation, would be hazy and narrowly defined. Along with the measurement of basic skills and mastery of academic subjects, academic honestly and a sense of self should be used in the discovery and development of educational goals.

(C) Consideration in Selecting Goals

The criteria for the goals of education should be developed in relation to:
(i)   The values of the society as a whole and of individual members;
(ii)   The historical background of the society.
(iii)   The potential urge of the society to move forward and progress.
(iv)   The present standards and abilities of the students: and the possibility of achieving the goals.

(v)   The educational philosophies of the institutions and the extent of teach-ability of the subject-matter under study.

(vi)   Different theories of learning

(vii)   The measurability of the goals, if and when achieved. A goal, the achievement of which is not measurable is a vague goal.

(D)   Educational Objectives and their Taxonomies

As you will recall from unit-6 objectives are more precise than goals. Broad goals are analysed and made more specific and useful as building blocks for instruction.

You will recall that the taxonomy developed by Bloom and others in USA was divided into three domains.

(i)   The Cognitive Domain: It deals with thinking, knowing and problem solving.

(ii)   The Affective Domain: It deals with attitudes, values, interests, appreciations and socio-emotional adjustment.

(iii)   The Psychomotor Domain: It deals with manual and motor skills i.e. the activities to be performed as a result of bodily movements.

(E)   The Cognitive Domain

The cognitive domain is divided into:

(i)   The acquisition of knowledge.

(ii)   The development of intellectual skills and abilities necessary to use knowledge.

More specifically, you may remember that Bloom's categories were as follows:

(i)   Knowledge, recalling facts, concepts, trends generalisations, principles, etc.

(ii)   Comprehension, understanding, translation, interpretation, and, extrapolation.

(iii)   Application, using abstractions in particular concrete situations.

(iv)   Analysis, breaking down for clarity of thinking of elements, relationships and organizational principles.

(v)   Synthesis, producing a unique, communication by recognizing and rearranging the facts.

(vi)   Evaluation, judging in terms of (i) internal evidence (logical) and (ii) external evidence (consistency of facts developed).

(F)   The Affective Domain

As you have already read in this unit as well as in unit-6, the affective domain is concerned with values, interests etc. This domain has the following categories.

(i)   Receiving (attending), awareness, willingness and selected attention.
(ii)   Responding, acquiescence, willingness and satisfaction in, response.
(iii)   Valuing acceptance of and preference for a value and commitment.
(iv)   Organization conceptualisation as a value and organization of a value system.
(v)   Characterization of a value or a value complex as a generalization.

(G)   The Psychomotor Domain

This domain includes the following:
(i)   Reflex movements: Functions at birth like stretching, stiffening, relaxing.
(ii)   Fundamental movements such as walking, running, jumping, pulling, pushing etc.
(iii)   Perceptual abilities visual and auditory discrimination, bending, bouncing, eating, writing etc.
(iv)   Physical abilities such as strenuous activity, moving quickly and precisely, touching toes, stopping and starting immediately etc.
(v)   Skilled movements. They include typing, skating, filing, juggling, playing musical instruments.
(vj)   Non-discursive, communication: It includes behaviour ranging from facial expressions to highly sophisticated communications.

(H)   Educational Objectives: a position Statement.

(i)   The objectives should be apparent to educators and learners.
(ii)   A sound educational system provides for occasional reassignment of immediate objectives to take advantage of special opportunities that occur.
(iii)   Global objectives provide little guidance to teaching and evaluation and specific objectives most often ignore vast concerns.

1.3   Curriculum Model

(A)   Stake's Countenance Model
Robert R.E. Stake, an American evaluator (1969) has attempted to explain curriculum evaluation in terms of 'antecedents' 'transactions' and 'outcomes'. The terms "antecedents' implies those aspects of the situation in which the curriculum is taught, such as aspects of the situation in which the curriculum is taught, such as the time available and the books and other sources provided. The terms 'Transactions' refers to what actually happens in lesions, including, what is done by both teachers and pupils. The term 'outcomes' connotes pupil's achievements, which are the effects of the curriculum on the attitudes of the subject, as well as teacher's feelings about teaching the curriculum. According to stake such an approach provides an opportunity to answer questions about 'why' the curriculum was effective or not effective in various circumstances.

This model is known as Countenance Model because different people look at the curriculum and appraise it.

Stake's evaluation model may be explained as under:

Terms	Kinds of Information	Methods
1. Antecedents	(a) Organisational background	Time Table
	(b) Resources.	Syllabus and Textbooks
	(c) Attitudes of administrators '	Interviews
	(d) Parents	
	(e) Examinations available	
	(f) Context in Curriculum	Interviews with staff
	(g) Knowledge and skills of Pupils	Planning Sessions
2.Transactions (In lessons)	*Teachers:*	
	(a) Roles adopted	Activity Records
	(b) Use of time and resource	
	(c) Contact with pupils	Observations of class
	Pupils:	
	(a) Cognitive processes	Self report by teachers
	(b) Interest and involvement	Self report by pupils
	(c) Use of time	
3. Outcomes	(a) Pupil's achievements	Test and written work
	(b) Pupil's attitudes interpretations	Questionnaires
	(c) Teacher's attitudes, Interpretations	Interviews
	(d) Effects on other parts of Institutions	

(B)   Hilda Taba Model

Taba's Social Studies Model emphasises the cause and effect relationship in the curriculum process. The evaluation process in based on the assumption of a cause and effect relationship between experimental control over the study material audits effects on the achievement of the student. A systematic-variation in the study material is also used. The researcher prepares the study material in different sets, each set having some variation from the other, Material is given to different groups of people and thereafter curriculum evaluation, is done. The outcomes of the evaluation will determine the principles for developing the new programme. The material, which produces the last results, will be advocated.

(C)   D.L. Stuffiebean's CIPP Model
        Stuffiebean's (1969, 1971) contribution to curriculum evaluation is often referred to as the CIPP Model, stressing the need for attention to Context, Input (f) Process (p) and Product (p). The first three of these terms help to characteristics formative evaluation, while product refers to summative evaluation. All the four elements of CIPP model are necessary backgrounds tor the processing of delineating, obtaining and providing useful information for judging decision alternatives. The CIPP attempts to answer the following Basic questions:
        (i)   What objectives of evaluation should be accomplished?
        (ii)   What procedures should be followed?
        (iii)   Whether procedures are working properly?
        (iv)   Whether objectives are being achieved?

        Four types of decisions are possible: decision on intended means (precedence designs), intended ends (goals), actual means (procedures) and actual ends (attainments).

(D)   Michael Seriven's goal Free Model
        Michael Seriven (1973) has argued that the evaluator should not look at only what is intended by the course developers since some of the important effects, pleasant or otherwise may come quite unplanned. In this model, no goals for achievement are set. It is primarily concerned with the actual effects of a programme. The checklist used in this model does not prescribe the minimum levels to be achieved by a programme. In this type of evaluation, teachers have only a limited role to play as simply they have to make the curriculum programme available for evaluation.

(E)   Tyler's Objectives Model devaluation
        R. Tyler propounded, the objectives Model of Evaluation in 'Basic' Principles of Curriculum' (1949). He visualised curriculum evaluation as the process of determining to what extent the programme of instruction is actually realizing the educational objectives. Curriculum evaluation is a means for 'quality control in education.

        In the objectives model of curriculum, curriculum is assessed against a set of specified objectives. The model got a concrete shape through the work of B.S. Bloom who produced a classification system of objectives that covered that area of pupil-learning. He put forward his ideas in Taxonomy of educational Objectives: The classification of educational Goals. (1956).

        Tyler's model involves the following steps:
        (i)   Formulating objectives.
        (ii)   Classifying the objectives.
        (iii)   Defining the objectives in terms of behavior.
        (v)   Selecting situations in which achievement of objectives will be shown.
        (vi)   Selecting and trying promising methods of evaluation.

(vi)   Developing more improved and objective methods of evaluation.

(viii)   Developing means of interpreting and using the results of various instruments.

Tyler's model emphasises instructional objectives. Important elements of this model are the specification of objectives and evaluation of student achievement in terms of these objectives. This model is likely to ignore the process of instruction. Taba's Social studies Model stresses the cause and effect relationship in the curriculum process. The key elements of this model are experimental control and systematic variation of the material to study. The curriculum, which gives better results, is advocated.

2- DESIGNING EVALUATION STUDIES

An evaluation study requires a lot of thinking as well as proper planning to get useful results. Generally, most attention has been placed on the evaluation of the content, the basic on which the curriculum development was approached. Recent trends towards more process concept of behavioural based programmes demand more adequate definition of evaluation, better related criteria for judging value and more sophisticated mechanisms for organising the procedures and made is for reporting. Every evaluation study, has peculiarities of its own but the design of the study has to be planned using relational procedures. Various strategies and models for designing evaluation studies have been tried and a summary statement of the procedures involved in some of them will now be attempted.

In organizing a curriculum evaluation, logically and intelligently, leading to decisions on the effectiveness of the programme and its possible improvement, one suggested strategy involves the following:
(a) Specification, refinement, or modification of programme goals and evaluation.,
(b) Planning for an approximate evaluation design.
(c) Selection or development of data-gathering methods.
(d) Collection of relevant data.
(e) Processing, summarizing and analysis of data.
(f) Contrasting of data and objectives.
(g) Reporting and feedback of results.

2.1 Steps in the Evaluation Process

The evaluation process should include the following steps.
(i) The involvement of all concerned in the study as facilitators of programme evaluation, such as:
   (a) Related groups, boards, parents,
   (b) Professional individuals, psychologists, teachers,
   (c) Student groups.
(ii) The formation of a cohesive model of broad goals and specific behavioural objectives, arranged in hierarchical order from general specific outcomes in respect of all the three domains of objectives.
(iii) The translation of specific objectives into a communicable form, applicable to facilitating learning; and the application of instructional strategies with content and process components.
(iv) The choice of instrumentation (test, observations, interviews, etc.) which will allow one to make inference about programme effectiveness.
(iv) Periodic observation of behaviours as valid and reliable indices.
(v) The analysis of data, given by measurers, by typical statistical methods.
(vi) The interpretation of data relevant to specific objectiveness of me programme and instructional strategies.
(viii) Recommendations culminating in further modifications and revisions of

broad goals and specific objectives to produce, substantial improvements in the programme.

2.2   Methods of Curriculum Evaluation

Some of the methods used to determine the effectiveness of an educational programme are outlined below:

(i)   The cosmetic method: It deals with the apparent activities and face value of the programme. Evidence about students learning is not collected.

(ii)   The cardiac method: It involves an empirical approach. The effectiveness of the programme is shown through the collection of data.

(iii)   The colloquial method recommends the discussion of the finding on the programmes effectiveness by a group of people associated with it.

(iv)   The curricular method: It attempts to show how the new programme could fit into the old one for improvement.

(v)   The computational method: It uses the statistical analysis of the data on performance in the programme

It may be mentioned here that each of the above cited methods; has got it-own minus and plus points. It is not, therefore, advisable to recommend or adopt exclusively any one method at the cost of others for all situations and purposes. It should, therefore, mainly depend upon the relevant crucial factors, which should .help in determining the method of evaluation to be adopted.

2.3   Problems of Research Design in Curriculum Evaluation

Research projects on the effectiveness of the curriculum are carried on, generally, using a comparison between experimental and control groups. In the experimental group, the curriculum variable interacts with many other elements in the teaching process the methods of instruction; the training and indoctrination of teachers etc. A Control group is a group of subjects'(the students being included for the evaluation design) as similar as possible to the experimental group, the difference being "that they are not given the experimental treatment. A statistical comparison is then made between the achievements of the two groups to discover whether there is any significant difference between them.

As alternative to such an experimental approach to curriculum evaluation the following may be suggested:

(a)   An attempt might be made to isolate characteristics of a curriculum to vary them independently. For example, teachers attitudes vary and are not under control material might be used with teacher training.

(b)   Statistics could be used to suggest the process of learning as related to curriculum elements. The investigation could look for trends, ups-and-downs.

(c)   Clinical studies can be done on developmental psychology problems.

(d)   The curriculum variable could be redefined at the point of its effect, the interaction between the teachers and students. Observations of the process and interviews could be recorded for an assessment of teachers attitudes.

Comparison of parallel experimental and control groups may not be meaningful as this approach assumes that all the relevant variables (except the curriculum variable) have been constant. But in such complex situations, this may be difficult to achieve. Instead of taking the groups simultaneously, evaluation using longitudinal studies would consider the curriculum as a process, a succession of events changing systematically over time.

In evaluation, behavioural definitions of the objectives are demanded from the course designers. Evaluators tend to equate behavior with items in the cognitive process; however, achievement tests may be sufficient to assess the objectives of the curriculum. The study of such typical performance variables as attitudes, learning and teaching styles etc, or the development of instruments for measuring such variables are among the major technical problems of evaluation, studies. Also the new curricula are subject oriented and the evaluators"

The subject specialists often reject behaviour concept. However, the relation between the subject disciplines and the process of teaching has to be examined: and all those concerned with education should contribute not only to the improvement of a particular subject in particular circumstances but also the understanding of the process of teaching and learning.

The purpose of evaluation is to determine the success or failure of any program n achieving its objectives. In attempting to evaluate a programme a record has to be maintained for investigation regarding:

(i)   The objectives of the programme
(ii)   The environment provided
(iii)   The transactions between the teachers and students
(iv)   The students progress
(v)   The side-effects of other variables
(vi)   The merits and shortcomings seen from divergent viewpoints.

Depending on the interests/intents of evaluators in the concerned field, and considering the entity, standards and, anticipated decisions, some major antecedents variables, transactions between teachers and students and outcomes are listed below:
(i)   Antecedents
        Student characteristics
        Teacher characteristics
        Curricular content
        Curricular context
        Instructional materials
        Physical plant

School organization
Community context

(ii) Transactions
Communication flow
Time allocation
Sequence of events
Reinforcement schedule
Social climate

(ii) Outcomes
Student achievement
Student attitudes
Student motor skills
Effect on teachers
Institutional effects

Such a description as given above helps to identify the many characteristics programme to be evaluated. The evaluator must choose the variables to be described and judged according to his interest and talent. As for the sources of information they may be described as teachers, administrators, parents and so on. The evaluator has to choose the relevant variables by using:

(i) Intents
(ii) Observations
(iii) Standards
(iv) Judgments

To be more specific:

(i) The intents are indicated by the different goals of the people involved
(ii) The observations refer to the perceptions of what actually happens during the implementation of the programme.
(iii) The standards depend upon the opinions of experts as to what should happen.
(iv) The judgements reflect the feelings of the people about aspects of the situation.

2.4 Course Improvement through Evaluation

In order to find out ways of improving a course to enhance learning, its effectiveness must be assessed. Data collection should include information, which will help in evaluating the difficult area of the affective outcomes of the newly developed curriculum. The most useful evaluation information is that which allows for adjustment and modification in the developmental stages of the curriculum, rather than simply examining, the end products only. This, of course, would be a deviation from the traditional testing approach.

Any tests used, should fit into the contents of the curriculum and should produce reliable and valid-scores. Test results may seem be forgotten, however, instead of being

followed up for use. Remember that the purpose of evaluation is to study the changes in the pupils following the programme and to use this information to identify where improvements should made to facilitate improved learning.

Opinions about an education programme are often biased. The gathering of data using appropriate tests produces more objective results. The achievements of standards should be measured through the use of standardized tests of all relevant areas of proficiency, while attitudes can be accessed through interviews and questionnaires.

But systematic evaluation involves more than simply administering test's and analyzing the results. Apart from measuring proficiency and attitudes; approaches to evaluation can include, for example, process studies of classroom events and follow-up studies of the later careers of the subjects. And the results of evaluation studies of evaluation, studies should be implemented to produce improvements in the curriculum.

Conclusion

Old habits of thought and techniques are poor guides for course improvement. For this, more systematic evaluation is necessary. Such evaluation should produce a description of the outcomes of a programme on a broad scale, to ascertain the changes produced during a course and the revision needed.

Even the collection of appropriate data will make little contribution, if it leads only to approval or disapproval of a programme. Evaluation is a fundamental part of curriculum development, not just an appendage. It involves collecting facts that the course developer can and will use to do a better job.

3.   SUMMARY

Evaluation is concerned with making value judgements about all sorts of things in our lives. In education, evaluation usually refers to making judgments about student performance and behaviours and the use of that information to enhance both learning/teaching and the curriculum. In education, product evaluation (student performance) is distinguished from process evaluation (the learning situation).

Evaluation in curriculum is useful for providing feedback to learners, determining how well learners achieved the objectives, providing information to improve curricula, assisting learners with decision making clarifying the stated objectives, and assisting others in making decisions about students.

Evaluation can occur formatively (during the learning experience), summatively (at the end of the learning experience) or diagnose (to determine deficiencies). To make evaluative judgements, needs useful data gathered from assessment and measurement techniques. Assessment involves the interpretation of measurement data. It makes sense of the data collected on student performance. Assessment may be norm-referenced (related to other learners) or criterion/standards-referenced (related to predetermined criteria/standards).

Measurement is the collection of data, usually in quantitative terms of student performance. A range of- measurement devices is available. Useful techniques include standardised tests, teacher-made tests, oral tests, work samples, systematic observation interviews, questionnaires, checklists and rating scales, anecdotal records, sociograms and self-reports.

A curriculum evaluation algorithm involves seven stages, i.e. (1) evaluation presage, (2) task specification, (3) evaluation design, (4) data collection, (5) data analysis, (6) conclusions and recommendations, and (7) presentation of report. Curriculum materials may be evaluated by criteria such as: interest, authenticity, organization and balance, appropriateness and technical quality.

4. SELF-ASSESSMENT QUESTIONS

Q.1:   Compare the domains of measures at of educational achievement and evaluation of the curriculum.

Q. 2:   List the processes for which, information data are used in the evaluation of curriculum innovations?

Q. 3:   Explain the value of a systematic statement of objectives of an educational programme for valid evaluation?

Q. 4:   Develop a logical strategy for designing an evaluation of an educational programme?

Q. 5:   List the steps involved in the evaluation process?

Q. 6:   Explain the experimental research approach to finding out the effectiveness of a new curriculum?

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