Module – 2

Unit – 4

Curriculum Evaluation

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CURRICULUM DEVELOPMENT AND EDUCATION

MANAGEMENT (COMPULSORY)

Module – 2

Unit – 4

CURRICULUM EVALUATION

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6.1.4.1 : INTRODUCTION

Curriculum evaluation, at the provincial level, involves making judgments about the effectiveness of provincially authorized curricula. It involves gathering information (the assessment phase) and making judgments or decisions based on the information collected (the evaluation phase), to determine how well the curriculum is performing. The principal reason for curriculum evaluation is to plan improvements to the curriculum. Such improvements might involve changes to the curriculum document and / or the provision of resources or in service to teachers. It is intended that curriculum evaluation be a shared, collaborative effort involving - all of the major education programme.

This Unit will give knowledge about these issues.

6.1.4.2 : OBJECTIVES

After completion of studying this Unit you will be able to

- Understand concept and approaches of evaluating curriculum.
- Study different models of curriculum evaluation.
- Develop understanding about curriculum evaluation.

6.1.4.3 : UNDERSTANDING CURRICULUM EVALUATION

Curriculum evaluation is performed for judging the effectiveness of a given curriculum. Curriculum evaluation is a systematic and hence technical decision-making process for various purposes. According to Sanders “Curriculum evaluation refers to the process of studying the merit of some aspects, or the whole of a curriculum. Depending on the way in which the term curriculum is defined, the focus or objects of curriculum design, instructional processes. Materials used in instruction, objectives for student outcomes, student progress through the curriculum, teacher effectiveness, the learning environment curriculum policy, resource allotment, and the outcomes of instruction”.

Thus, curriculum is a process for informing some ones who are concerned with the different aspects of curriculum for taking future decision about the worth or effectiveness of the curriculum. Posner, therefore, maintains, “Evaluation for the purpose of informing decisions about a curriculum is aptly termed ‘curriculum evaluation’. He also states that as the definition of curriculum varies the meaning of the term curriculum evaluation also varies. If curriculum refers to a document such as a content outline, scope, and sequence, or syllabus, then curriculum evaluation might mean a judgment regarding the value or worth of such a document. Is the document complete, internally consistent, well written and important directions are clearly articulated without any ambiguity ? Does the document represent a curriculum that has sufficient depth, and breadth and is well organized, rigorous, and up to date ? How can it be improved ?

If curriculum, on the other hand, refers to the experiences of the student, then curriculum evaluation might mean a judgment about the value of the educational experiences afforded to the students. Are the experiences educational challenging, and engaging ? Are the experiences appropriate, wholesome, and safe for children of this particular age ? Are students of different backgrounds treated equitably ? How can the educational experiences be improved ?

Further, for a definition of curriculum as learning objectives, curriculum evaluation might refer to the actual outcomes of educational process. For instance, what concepts, and skills do students learn in a particular course ? How do the outcomes of this curriculum compare with those of a different curriculum, perhaps this one’s predecessor ? How well this times by an evaluator hired by the national / state / university funding agents the project. The recommendations thus derived would help in future funding of the project.

These are only two approaches of curriculum evaluation. We shall learn them more details later on. Curriculum evaluation employs different methods. The methods may be use of questionnaire, interviews with teachers, content analyses of the materials. Comparisons of achievement test data for groups using different curricula, follow-up interviews of the passed out students and the case studies of classrooms, etc. Methods may also be norm-and the case studies of classrooms, etc. Methods may also be norm-and criterion-referenced test data, clinical interviews, and professional conferences to identify strengths, weakness, problems, and concerns, each of these deliver enormous data for decision making.

Information Sources

Curriculum evaluation is a systematic process. The first step of curriculum evaluation is to identify any evaluation data (e.g. test scores), suggestions (e.g., questions) or instruments (e.g., scales) which would generally serve as the starting point. Some of these may be searched from research literature. If one can find any data, suggestions, or instruments specially associated with the curriculum, he / she must try to determine the purposes and roles that evaluation information is intended to serve.

In searching for evaluation suggestions and instruments one must look beyond the obvious sources, such as end-of-unit and end-of year tests. Besides tests, observation checklists, criteria for evaluating reports, and projects are occasionally used. Home work assignments, student projects, writing assignments, class work contained in the curriculum materials can serve evaluation as well as instruction functions. Student's opinions, and parent's suggestions, or even employers and other stakeholder's suggestions also serve as valuable information sources.

Relevant questions may be : What are the kinds of things you want to evaluate regarding the curriculum ? How would you know if the curriculum were a success ? What is supposed to occur in classroom, labs, or the fields when the curriculum is fully implemented and taught ? Searching for the answers to these questions leads us to understand two concepts regarding curriculum evaluation (A) Outcomes-Based Evaluation and (B) Intrinsic Evaluation.

A. Outcomes-Based Evaluation :

A curriculum has many aspects. When evaluation focuses on outcomes, it is called outcomes-based curriculum evaluation. This is sometimes called "bottom-line" or "pay-off" (Scriven). Generally most evaluations focus on only those outcomes that reflect the curriculum's goals, and objectives, which are called the "narrow" sense of outcomes-based evaluation. The typical question is : How well did the curriculum achieve what it intended to achieve ? However, outcomes-based evaluation taken in broad sense evaluation look beyond the official curriculum's goals and objectives, and it provides information on both main effects and side effects of the curriculum (Posner and Rudnitsky, 1994). "Main effects" are the major outcomes intended by the curriculum; while "side effects" are the by-products produced inadvertently by the curriculum. Side effects include biases or distortions produced, by an overemphasis on one content orientation, principle of organization, teaching method or evaluation approach.

Further, curriculum has both long-term and short-term outcomes. Short term outcomes include what students remember and can do during and immediately after taking a course, teacher satisfaction with a curriculum, and community support for a curriculum, among others. Long-term outcomes include, among other things, what students remember and can do with their knowledge well after the details of the course are forgotten, student attitude towards the subject matter, and general support for the school generated by the curriculum. Curricula that produce impressive short-term test score results but leave little residue are not worth the substantial resources needed to implement them. The fact is that long-term results are difficult to determine in a timely manner, nevertheless data on long term outcomes are important to consider.

B. Intrinsic Evaluation

The term "Intrinsic evaluation" is coined by Scriven (1967). He first introduced the term to characterize an approach to the evaluation of curriculum proposals and materials which focuses on their intrinsic nature, rather than their effects. He distinguishes between "payoff" and "intrinsic" evaluations. He uses a useful analogy: "If you want to evaluate a tool, say an axe, you might study the design of the bit, the weight distribution, the steel alloy used, the grade of the hickory in the handle, etc.; or you might just study the kind and speed of the cuts it makes in the hands of a good axman". This analogy reflects a conception of a curriculum as an instrument with features such as goals, content and teacher – training requirements that are distinct from the curriculum's effects on students teachers and the community.

Stake (1967) made a similar kind of distinction between outcome evaluation data and other kinds of data he called "antecedents" and 'transactions'. Data related to the characteristics of students and teachers, state mandates, community expectations and available resources are antecedents. Data on antecedents are particularly useful in determining whether certain claims made by the curriculum are empirically supported. For instance, a curriculum may claim that it is appropriate for students with a broad range of abilities. Evaluating such a claim requires data on student ability or aptitude levels, i.e., data on an antecedent, in addition to comparative outcomes data on student achievement.

Whenever a student interacts with a teacher, coach, mentor, other students, instructional materials, etc. "transaction" occurs. Classroom discussion, individual conferences, homework problems and class work are also four of many examples of transactions. Data on transactions are particularly important in curriculum evaluation to explain why certain outcomes did or did not occur. Time allocated to various classroom activities, type and number of questions asked and answered, and the extent to which students were engaged in the activities might be data relevant to determining whether the curriculum was ever even implemented as intended. This sort of determination would be necessary in both formative and summative evaluations.

Data on transactions also give the evaluator information on the way the curriculum has functioned, the variety of ways, it has been implemented, and the possible pitfalls a teacher might face in using it. Some relevant questions : What are the potential problems are rough spots in its operation ? What aspects have been crucial for its success ? How has the curriculum been implemented ? What have been tradeoffs ?

Perspectives of Curriculum Evaluation

Different evaluation criteria embrace different questions and methods. For example, whether students remember the major events in educational development in India after 1986 is quite a different question than whether students can interpret current events in context of SSA in West Bengal. Likewise methods for answering questions are very different. By identifying the evaluation questions and methods of each perspective on curriculum, we learn more about each perspective for use in curriculum analysis.

We may think of five perspectives for curriculum evaluations. These are : Traditional, Experiential, Behavioral, Structure of Discipline and Cognitive.

Traditional

A traditional curriculum, you know, emphasizes on recall of facts, mastery of basic skills, and inculcation of traditional values. The major evaluation questions, therefore, seek to measure whether the students have acquired the information, mastered the basic skills, and internalized the accepted values. Methods for answering the questions comprise comparison of standardized tests scores, answers given in classroom recitation, neatness and promptness in completing assignments, and ability and willingness to follow the teacher's directions. Evaluation is aimed at determining whether the accepted facts, skills and values have been effectively transmitted.

Experimental

The central purpose of experimental education, as said by Alkin (1942), is the continuing development of students through educative experiences. Evaluation questions seek to measure the broad range of both short- and long-term effects of experiential programmes on students. Besides, experiential educators are interested in the intrinsic quality of experienced students have. Methods used to evaluate experiential curricula and students in experiential programmes are found to vary widely. For example, the Eight-year study (Alkin, 1942) paved a new way for evaluation by providing a wide range of outcome measures embracing measures of both cognitive and affective outcomes as well as measures of personality traits. Further, Experience-based Career Education (EBCE) is probably the most comprehensive evaluated programme which was developed and field tested at the end of the seventies of the last century. Obviously, experiential curricula require both outcomes – based (effectiveness of programme) and intrinsic evaluation (quality of experience) approaches.

Behavioral

A behavioural curriculum considers performance of skills to be for bottom line. The major evaluation question is whether students have acquired the behaviors that the curriculum targeted. The method that objectively and quantitatively assesses behaviors is appropriate, including paper-pencil tests, observational checklists, and practical examinations. Criterion-referenced measures of student performance are preferred.

Structure of Discipline

A disciplinary perspective emphasizes the structure of academic disciplines. Evaluation seeks to measure the knowledge students acquire, the nature of inquiry in which students engage, and the conceptual structure of the content taught. Questions include whether students gain insight into the conceptual structure of the discipline and whether students engage in real inquiry. Methods

including giving students problems to solve, data to interpret, and experiments to design. Congruence of the curriculum with the real inquiry in the discipline is the bottom line.

Cognitive

A cognitive perspective emphasizes students' understanding of basic concepts and development of thinking skills. Evaluation questions seek to measure whether students acquire basic concepts meaningfully and learn to solve non-routine problems. Methods include clinical interviews, analysis of student problem-solving efforts, including analysis of mistakes, and concept-mapping exercises. Determining what and how the individual thinks and understands is the ultimate aim of evaluation from a cognitive perspective.

Genera Stages of Curriculum Evaluation

There are of late various models or framework for curriculum evaluation. In fact each model instead of focusing on curriculum in its totality, selects some aspects of it and plans evaluation of that aspect. This feature is natural to happen as the researches on curriculum are outputs of different curriculum movements. However, from the perspective of the science and techniques of evaluation, we may include specific steps of curriculum evaluation as an essential step of curriculum development, implementation and also for future modifications is needed. We are now learning the essential steps.

Stages of Curriculum Evaluation

Stage	Evaluation Process
1. Goal specification	* To identify the desired changes which are prepared to be brought about the level of achievement of behavior patterns, cultural values, social forces, etc. * To assess the feasibility of these in the programmes.
2. Planning	* To examine the adequacy of objectives, contents and teaching-learning strategies and their sequencing and of their reading and reference materials.
3. Validation	* To examine the appropriateness of the validation procedures adopted. * To assess the adequacy of the steps taken to collect evidence through observation, judgment

	and through ascertaining the views of the expert bodies, the fellow teachers and the students.
	* To examine if the information collected through these procedures is valid or not.
4. Field Testing	* By selecting the sample, collecting evidence about the programme under various conditions and such as linking it with other classrooms or institutions.
5. Regular Monitoring	* Techniques involved in its implementation.
	* Finding out reasons for changes in efficiency.
	* Suggesting remedies if needed.

The above stated five stages when executed in a single curriculum evaluation project by a team of evaluators, our evaluation leads to judge the effectiveness of a given curriculum as whole. But in practice, we very often go on to single aspects of the curriculum and consider any one of the five stages as appropriate for our task at hand. For, example, we can evaluate one aspect of the textbook such as its quality of illustrations, clarity of explanations, readability, sequencing of learning experiences or even adequacy of exercises. Therefore, before undertaking such an activity of the components has to be looked into its own purposes.

Need for Curriculum Evaluation

The needs for curriculum evaluation may be best understood if we ask curricular questions and seek their answers clearly. The questions may be linked to the following aspects.

1. Improving the existing curriculum and programme.
2. Examining the impact of the programme developed a curriculum development process.
3. Reorganizing the existing programme.
4. Overall validation of the programme.
5. Collecting evidence for self-evaluation by the teacher.

Who Should Evaluate Curriculum

There is no single appropriate person or group who should be assigned the responsibility of curriculum evaluation. Responsibility depends upon (a) the purposes to be served by curriculum evaluation, (b) the availability of professional curriculum evaluators, (c) the credibility of an individual or group to those who are to b served by a curriculum evaluation, (d) consideration of conflict of interest for the curriculum evaluator, and (e) the placement of the curriculum evaluator

within or outside the educational system. Curriculum evaluation should be responsive to the context of the curriculum evaluation.

If the purpose to be served by a curriculum evaluation is summative (i.e., a report to the public, a basis determining curriculum policy, or a basis for decision to discontinue a major part of the curriculum, or make major revision in the curriculum), the curriculum evaluator is best selected from candidates who are independent of, and unaffected by, the object of the evaluation. The persons involved are an external individual or a group.

On the other hand, if the purpose to be served by a curriculum evaluation is formative (i.e., to guide curriculum development, to identify weaknesses or needs in the curriculum or in students, to monitor curriculum processes so that adjustment can be guided), the curriculum evaluator is best selected from candidates who are close to the object of the evaluation is best selected from candidates who are close to the object of the evaluation and knowledgeable about the context in which it exists. This is often an individual or group that is internal to the educational system in which the evaluation is being done.

Payne (1974) suggests the following areas in which the curriculum evaluator should be competent.

1. Selecting information needs from programme planning for evaluation.
2. Developing a plan for evaluating a specified curriculum.
3. Locating, reading and integrating relevant research, measurement, and evaluation literature.
4. Specifying evaluation objectives and database requirements in appropriate form(s).
5. Critically evaluating a given evaluation design or study.
6. Relating input, transaction and outcome variables.
7. Demonstrating appropriate interpersonal relationship skills in working with evaluation team and programme.
8. Differentiating advantages and disadvantages of cross-sectional and longitudinal studies.
9. Conducting systems, functions and task analysis.
10. Designing an effective measurement-management process.
11. Compiling a master evaluation system from several systems.
12. Compiling a master evaluation system from several systems.
13. Describing evaluation design and analysis requirements for data processing.
14. Specifying the criteria for selection or development of evaluation instruments.
15. Applying appropriate data gathering procedures.
16. Applying appropriate data-analysis procedures.
17. Making a cost-benefit analysis of a given curriculum.
18. Using evaluation information to make decisions about curriculum.
19. Designing a programme planning budgeting system.

20. Administering the activities of an evaluation unit.
21. Designing a system of data presentation that describes format, responsibilities, procedures, recipients and schedule.
22. Redesigning and refining evaluation methods when appropriate.

Over and above the above list may be supplemented with the following suggestions given by Sanders (1979)

a) Describing the objects of evaluation-knowing what is being evaluated, what its limits are, what its important characteristics are, and being able to communicate the essence of objects to others.
b) Describing the context of evaluation-knowing what factors surrounding the evaluation are salient in the effect that have or can have on the object and on the evaluation.
c) Conceptualizing appropriate purposes for the evaluation-being able to state purposes clearly as a way of giving direction to the evaluation.
d) Determining the value or merit in the object of the evaluation-being able to identify and justify criteria that will be used to prepare judgment or value statement about the object of the evaluation and then systematically applying those criteria.
e) Maintaining ethical standards – demonstrating knowledge of proper professional behaviors.

Moreover a curriculum evaluator should have creditability. And also there shall be no conflict of interest on the part of the evaluator.

However, there are several sources where meaningful information can be collected regarding a given school curriculum. Major sources are : students, teachers, subject experts, curriculum experts, policy makers, community, drop-out sample, unemployers and entrepreneurs.

Importance of Curriculum Evaluation

The question is : Why do we need curriculum evaluation ? The answer may be formulated in the following manner.

- To develop new curriculum.
- To review a curriculum under implementation.
- To remove ‘dead-wood’ and update an existing curriculum.
- To find out the effectiveness of a curriculum.
- To field test curriculum under process of development.

Organization of Curriculum Evaluation

Organizing for evaluation of curriculum can be either internal or external. Generally the organization for internal curriculum evaluation may be carried out either on a centralized organized basis or on a decentralized organizational basis. The centralized form would require the formation of an evaluation unit or office or evaluation within the system that would serve curriculum evaluation requirements. While a decentralized form may be :

(i) Individuals within the system. Persons with evaluation and curriculum experts exist within the system and may be given reduced workloads so that they may take on evaluation responsibility. (ii) Ad hoc groups within the system, (iii) existing permanent groups within the system and (iii) new continuing groups within the system.

The organizations for external curriculum evaluation may include

(i) Individuals outside the system.

(j) Existing groups or agencies outside the system.

(k) A consortium of educational institutions.

Limitations of Curriculum Evaluation

Curriculum evaluation is a complex process. It depends on the cooperation of individuals within the learning environment and others within the given learning environment but is concerned with effectiveness of a curriculum for any reason. Without their cooperation in designing and implementing the evaluation, there can be little likelihood of success.

Curriculum evaluations could be limited by the, complexity of measuring or describing certain behaviors or events. For example, classroom process and instructional experiences have different meanings for different students.

Curriculum decisions are often based on factors or information that is not a part of a curriculum evaluation study and the utility of curriculum evaluation is questioned. Curriculum evaluator must be aware that they are one part of the decision-making process and that their roles in decision-making are limited.

Criteria for evaluation curricula or specific aspects of a curriculum depend on rationales and expectations. Rationales and expectations depend on theories. The multiplicity of curriculum theories, expectations and rationales that exist create problems for the curriculum evaluator. The evaluator needs to select certain criteria on which to base the evaluation, while at the same time receiving different signals from legitimate recipients of the evaluation's findings.

Curriculum Validation

The question of validating curriculum involves considerations of whether the educational programme provides what is stated intent indicates. It relates quite directly to conception of validity (construct, context, content, external, internal) as treated in evaluation and research design

literatures. Smith, et al (1957) identifies four procedures for curriculum developers to use in making such decisions : (a) judgment, (b) experimentation, (c) analysis, and axiological dimensions. For example, those writers suggest the following criteria for selection of curricular content : (a) significance to an organized body of knowledge; (b) connectivity of use or the "test of survival"; (c) utility; (d) interest of learners; and (e) contribution to the growth and development of democratic society.

Let Us Check Our Progress

1. Write a suitable definition of Curriculum Evaluation.

2. Write a curriculum evaluation question appropriate for cognitive perspective.

3. Indicate limitations of curriculum evaluation.

6.1.4.4 : APPROACHES TO CURRICULUM EVALUATION

Formative and Summative Approaches

Conceptually in assessment phase of curriculum evaluation, information will be gathered from students, teachers, and administrators. The information obtained from educators will indicate the degree to which the curriculum is being implemented, the strengths and weaknesses of the curriculum, and the problems encountered in teaching it. The information from students will indicate how well they are achieving the intended objectives and will provide indications about their attitudes toward the area of study. Student information will be gathered through the use of a variety of strategies.

Honer, M. Seriven (1967) coined the terms of summative and evaluative evaluation in context of curriculum evaluation.

Summative Approach to Curriculum Evaluation

According to A. J. Nikto (1983), "Summative evaluation describes judgments about the merits of an already completed programme, procedure or product".

Summative evaluations comes at the end of a curriculum, it is designed to determine the extent to which the objectives of a curriculum has been achieved and is used primarily for assigning course status for the intended learning outcomes.

In the views of Ebel, R. L. and Frisbie (1986), "Summative evaluation is conducted at the end of an instructional segment to determine if learning is sufficiently complete to warrant moving the learner to the next segment of instruction".

The definition is concerned with the learning outcome related to the transactional phase of the curriculum.

Curriculum evaluation in summative approach can provide evidence that the programme is satisfactory and should be continued for next year's students or that student learning and learning altitudes are so negative that a new programme is needed.

Curriculum Evaluation in summative approach is done at the conclusion of the course and measures the extent to which students have attained the desired outcomes through the on going processes and other activities provided in the curriculum and stated objectives.

A perusal of the above discussion how that the summative evaluation has the following chief elements :

1. There should be some strategies before summative evaluation.
2. The summative curriculum evaluation should be based on for the attainment of some objectives, selected for curriculum evaluation.
3. Summative evaluation is done at the end or completion of a particular course whose duration may vary from a semester to whole year.
4. Summative evaluation should check whether there has been any error or not. If the answer is yes, then what is the quantity and quality of the learning in relation to pre determined objectives.
5. Summative learning provides feedback to the classroom teacher for the success or failure of the course or and of the student.

Chief Characteristics of Summative Evaluation in Curriculum Context :

1. It lends to the use of well-defined evaluation designs.

2. It focuses on analysis.

3. It provides descriptive analysis.

4. It tends to stress local effects.

5. It is unobtrusive and non-reactive as far as possible.

6. It is concerned with broad range of issues.

7. Its instrument should be reliable and valid.

Formative Approach to Curriculum Evaluation

In the words of A. J. Nitko (1983) "Formative evaluation is concerned with judgments made

during the design and or development of a programme which are directed towards modifying, forming or otherwise improving the programme before it is completed".

Following are the implications of the above definitions for the classroom teacher :

1. Formative evaluation is done during an instructional-programme.
2. The instructional programme should aim at the attainment of certain objectives during the implementation of the programme also.
3. Formative evaluation s done to monitor learning and modifying the programme if needed before its completion.
4. Formative evaluation is for current students.

Characteristics of Formative Evaluation in Curriculum Context :

1. It relatively focuses on molecular analysis.
2. It is cause seeking and for immediate feedback.
3. It is interested in the broader experiences of the programs users.
4. Its design is exploratory and flexible.
5. It tends to ignore the local effects of a particular programme.
6. It seeks to identify influential variables.
7. It requires analysis of curriculum material for mapping hierarchical structure of the learning tasks and actual teaching of the course for a certain period.

Differences between Summative and Formative Evaluation

In the beginning these terms applied for the evaluation of curricular work only. M. Seriven explains the difference between these terms as follows in his book. Evaluation Thesaurus (1980), "Formative evaluation is conducted during the development or improvement of a program or product (or person). It is an evaluation conducted for in-house staff and normally remains in-house but it may be done by an internal or an external evaluator or by a combination".

Gloria, Hitchok and others (1986) state the difference between the summative and formative evaluation in these words, "I is fairly straight forward to produce an 'ideal' type of either a summative or a formative profile. It is far more difficult to combine the two into one unified system. The underlying philosophies of the two appear difficult to reconcile".

These are, in brief the main differences between these two approaches to evaluation is curriculum context :

1. They differ in purpose, nature and timing.
2. Summative evaluation is the terminal assessment of performance at the end of instruction on the basis of a curriculum but formative evaluation in the assessment made during the instructional phase that curriculum field testing to inform the teacher about progress in learning

and what more is to be done.

3. The summative evaluation limits the use of profiles and record of achievement and other data but they are regularly used informative evaluation.
4. The main consideration in summative evaluation is the determination of the extent to which the examinee has mastered the knowledge and skills associated with a course. On the other hand, the main consideration in formative evaluation is to reveal the processes by which the examinee achieved these outcomes.

In brief it may be shown as :

Broad Differences between Formative and Summative Evaluation :

Characteristics	Formative	Summative
Purpose	To monitor progress of Curriculum by getting feed-back	To analysis final status of curriculum.
Content focus	Detailed Narrow scope	General
Methods	Regular, assignments, Observations	Broad Scope Tests Projects
Frequency	Regular	Weekly, quarterly etc.

Aitkin (1974) pointed out that a formative evaluation study uses a great variety of instruments which are either locally developed or standardized, it relies on observation and informal data collection devices, mostly locally chosen. In contrast, summative evaluation studies tend to use well defined evaluation designs, as unobtrusive and non-reactive as possible, they are comparative and concerned with a broad range of issues, for example, implications, politics, costs, competing options. The instruments used in summative evaluation are publicly accepted, reliable and valid instruments, reflecting concerns of the sponsor and of the decision maker.

Scriven adheres to the view that there are no basic logical and methodological differences between formative and summative evaluation. Both are intended to examine the worth of a particular entity. Only timing, the audience requesting it, and the way its results are used can indicate whether a study is formative or summative. Moreover, the same study may be viewed by one client as formative and by another one as summative.

In sum we may present these two approaches to curriculum evaluation as :

1. Formative evaluation

a) Takes place at specified points during the development and pilot testing phases of curriculum building in order to identify and correct problems before the curriculum is put into full operation.

b) Can be used during actual operation to fine tune the curriculum.

c) Norman Grunlund advocates looking for and assessing unintended effects.

2. Summative evaluation

a) Follows full implementation and focuses on overall effectiveness.

b) May take place at designated end points throughout the curricular design such at the end of the pilot testing stage and the end of the implementation stage.

Several countries promote formative assessment as a fundamental approach to education reform. The OECD has studied the use of formative assessment in eight educational systems; Australia (Queens land), Canada, Denmark, England, Finland, Italy, New Zealand and Scotland. The study has also brought together reviews covering English, French and German language research literature. This Policy Brief looks at the results of that study, including policy principles to address barriers assessment and encourage its wider use.

Benefits of Formative Assessment

Formative assessment has been shown to be highly effective in raising the level of student attainment, increasing equity of student outcomes, and improving students' ability to learn.

Major Barriers to Wider Use of Formative Assessment

While formative approaches to teaching and assessment often resonate with practitioners and policy makers, there are barriers to wider practice. They include :

- Perceived tensions between formative assessments and highly visible summative tests to hold schools accountable for student achievement (teachers often teach to these summative tests and examinations).
- A lack of coherence between assessments and evaluations at the policy, school and classroom levels.
- Fears that formative assessment is too resource-intensive and time-consuming to be practical.

Description of the technique of Formative Evaluation

Formative evaluation seeks to strengthen or improve a programme or intervention by examining, amongst other things, the delivery of the programme, the quality of its implementation and the organizational context, personnel, structures and procedures. As a change oriented evaluation approach, it is especially attuned to assessing in an ongoing way, any discrepancies between the expected direction and outputs of the programme and what is happening in reality, to analyzing strengths and weaknesses, to uncovering obstacles, barriers or unexpected opportunities, and to generating understandings about how the programme could be implemented better. Formative evaluation is responsive to the dynamic context of a programme.

Formative evaluation pays special attention to the delivery and intervention system, but not exclusively. In formative evaluation, the evaluates also has to analyzes the intervention logic, the outcomes, the results and impacts.

Formative evaluation activities include the collection and analysis of data over the lifecycle of the programme and timely feedback of evaluation findings to programme actors to inform ongoing decision-making and action (i.e. it is a form of operational intelligence). It requires an effective data collection strategy, often incorporating reutilized monitoring data alongside more tailored evaluation activities. Feedback is primarily designed to fine-tune the implementation of the programme although it may also contribute to policy-making at the margins through piecemeal adaptation.

Evaluators conducting a formative evaluation ask many different kinds of questions and use a variety of methods to address them. Questions are commonly open-ended and exploratory, aimed at uncovering the processes by which the programme takes shape, establishing what has changed from the original design and why, or assessing soft organizational factors such as the extent of 'buy in' by practitioner staff to the programme's goals and intended outcomes. Formative evaluation questions also investigated the relationship between inputs and outcomes, which can involve the formulation and measurement of early or short-term outcome measures. These often have a process flavor and serve as interim markers of more tangible longer term outcomes.

Formative evaluation tends itself most readily to a case study approach, using a qualitative mode of inquiry. Methods which might be used include stakeholder analysis, concept mapping, focus groups, nominal group techniques, observational techniques and input-output analysis. Formative evaluation's concern with the efficiency and effectiveness of project management can be addressed through management-oriented methods like flow charting, PERT / CPM (Programme Evaluation and Review Technique and Critical Path Method) and project scheduling.

Formative evaluation may be planned and managed in a variety of ways. Newer conceptions of formative evaluation for example ! the mutual catalytic model of formative evaluation outlined by Chacon-Moscoso et al., 2002 emphasize a more inclusive approach to the involvement of stakeholders, and as well seek to elicit their participation as collaborators in the evaluation process rather than simply as providers of information.

Formative evaluation involves many different tasks :

- identification of evaluation goals, planning data collection,

- contributing to methodological choices,
- making value judgments and
- generating evaluation findings.

Formative evaluations that are inclusionary and participative, involving local programme actors as active contributors and participants in the evaluation process.

Formative evaluation can also have important catalytic effects, mobilizing staff around a course of action, and engaging management thinking about future options. Patton introduced the idea of 'process use' to describe the utility to stakeholders of being involved in the planning and implementation of an evaluation, irrespective of findings and recommendations that occur. The developmental and capacity building benefits accrue to staff as a side effect of a participative, formative evaluation.

Although formative evaluation is commonly contrasted with summative evaluation, the distinction is not always helpful or apposite. The process of formative evaluation may be an important component in summative evaluation; formative evaluation can produce early outcome measures which serve as interim markers to programme effects; and by tracking changes and linkages between inputs, outputs and outcomes it can help to identify causal mechanisms that can inform summative assessment. In some programme contexts, a more fruitfull approach would be to see both types of evaluation as part of the same exercise.

■ **The main steps involved**

Step 1. A first step is gaining the commitment of key stakeholder and programme actors at all levels to a formative evaluation as a collective teaching and change-oriented process.

Step 2. Building evaluation into programme design so that it is perceived as an essential tool for managing the programme and helping it to adapt to local conditions within a dynamic environment.

Step 3. Creating an evaluation infrastructure to support formative evaluation as a learning, change-oriented, development activity. This includes working with programme staff on ongoing basis to :

- create a culture that supports risk-taking reduces fear of failure, and values lessons learned from mistakes.
- establish channel of communication that support the dissemination of information and allow organizational members to learn from one another in ways that contribute to new insights and shared understandings.
- create new opportunities for shared learning and knowledge creation.
- modify systems and structures that inhibit organizational learning.

Step 4. A fourth step entails finding out about the decision-making cycle, the different stakeholder groups and their information needs and interests. These might include policy makers and programme makers at central level, local site programme managers, and operational staff.

Step 5. Formative evaluation involves an ongoing cycle of data gathering and analysis. The choice of methods will be determined largely by the questions being addressed and the methodological preferences of different stakeholders.

■ **Strengths and Limitations**

Formative evaluation provides a rich picture of a programme as ft. unfolds. It is a source of valuable learning not just prospectively for the programme but for future programmes as well.

Formative evaluation is highly complementary to summative evaluation and is essential for trying to understand why a programme succeeds or fails and what complex factors are at work.

To be effective and achieve its purpose of programme improvement formative evaluation requires strong support from the top as well as bottom-up support.

Formative evaluation can serve an important developmental or capacity-building purpose, for the organization as a whole and for individual members, where it is seen as a form of organizational learning.

Let Us Check Our Progress

1. Indicate strengths of formative evaluation.
2. Distinguish between formative and Summative approaches to curriculum evaluation (Give only three points)

6.1.4.5 : CURRICULUM EVALUATION MODEL : INTRODUCTION

The term model may be defined in numerous ways. We are using this term as a framework or tasks to be performed in the matter of aspects of a curriculum. In fact curriculum evaluation process connotes flexible as the very term curriculum can be defined form various perspectives. Therefore, over the years curriculum researchers have looked forward curriculum evaluation models in order to put their respective ideas in different but somewhat systematic frameworks. One framework has given main focus of curriculum evaluation to a particular aspect of curriculum but a second framework has given main focus on another aspect of curriculum. For example, some writers

have used curriculum process evaluation. In this way we may generate a broader model of curriculum evaluation.

We shall learn numerous models of curriculum evaluation. However at the outset we are going some basic acquaintance with the models described by Alkin. He has broadly divided curriculum evaluation models into two head – Curriculum Product Model and Programming Model.

Curriculum Product Evaluation

This evaluation focuses on products such as course of study, syllabi, textbooks, and so on. One type of curriculum product evaluation employs specified external criteria. In this sense, curriculum evaluation is an examination of the adequacy of a curriculum product based on desire characteristics describing appropriateness. The work of Tyler and his associates offers an example of curriculum product evaluation employing explanations to the content selection, sequence, and presentation, evidence provided by the developers/publishers as the effectiveness of the curriculum materials, specifications of instructional objectives on which the material is based etc.

McNeil, et al take consideration of five general principles for evaluating the quality of instructional material used as classroom reading, matter, these are consistency with reading approach, adequacy of objectives, instructional content, instructional methodology, and validation.

Another kind of curriculum product evaluation goes to evaluate the actual impact of the curriculum on students. That is curriculum product evaluation is an examination or validation of the impact of a newly developed product.

Curriculum Programme Evaluation :

This refers to evaluation of curriculum programmes in operation. Thus, the term curriculum programme evaluation refers to the complex set of interactions between a given instructional programme and its setting. Here the task is looking at how a particular curriculum works within its instructional setting. The theories associated with curriculum programme evaluation may be differentiated into at least four heads : (a) measurement outcome oriented, (b) research or methodology oriented, (c) values oriented, and (d) decision or user oriented.

Since the curriculum evaluation model of Tyler's Goal Attainment Model, numerous models have come up. We may classify them into the following categories.

Goal Attainment Models associated with Ralph Tyler.

Judgment Models which emphasizes intrinsic criteria.

Decision-Making models which overlap with the other three model…..

In brief, the Tyler's goal attainment models seek to derive value judgments on the worth of a programme on the basis of an assessment of how students on the programme were fairing. The judgment models emphasizing intrinsic criteria seek to infer the quality of curriculum by engaging in

accreditation procedures include examine the quality of the inputs and processes such as the qualification of the staff implementing the curricula (Ahman and Glock). On the other hand, the judgment models which emphasize extrinsic of impact studies whereby assessment is made of the antecedents, transaction and outcome of the curriculum being evaluated (Stake, 1967). The decision – facilitation models overlap with the other three above evaluation models in that they employs criteria in judging curricula quality adopted by the other models but with more explicit emphasis on formative evaluation criteria. Stufflebeam has elaborated the decision – facilitation model into an evaluation system known as CIPP model which will be discussed later on.

Qualitative Curriculum Evaluation Model

Qualitative curriculum evaluation, also known as 'evaluation criticism', can not be defined by a fixed set of procedures, not by a specific set of data. It is not an effort to develop universal, invariant, or even unambiguous knowledge and valuations about educational situations. Qualitative curriculum evaluation aims at expanding reflective human understanding of specific educational situations and their social context. To do qualitative curriculum evaluation, evaluators immerse themselves in educational situations, not only to discover their tangible characteristics, but also to discern meanings and valuations, including tendencies to action, which he or she shares with others in order to provide multiple perspectives on each situation under investigation. Hence, qualitative curriculum evaluation may be defined as reflective effort to develop the fullest possible range of knowledge about their contexts in order to enlarge understanding and to promote moral action. To fulfill these aims qualitative curriculum evaluation treats curriculum in the fullest possible way, as the experience of the students. In general, it encourages reflection by using naturalistic methodology. Ultimately, qualitative curriculum evaluation model is not merely a way of assessing the curriculum, but also a means of increasing the quality of the education experience of all those who engage in it.

In the next section we shall study different models of curriculum evaluation in more elaborately.

Let Us Check Our Progress

1. Write a suitable definition of Model of Curriculum Evaluation.
2. Write down a few feature of curriculum product evaluation model.
3. What is new in Qualitative Curriculum Evaluation Model ?

6.1.4.5.1 : TYPES OF CURRICULUM EVALUATION MODEL

(A) The Eight-Year Study Model

This model includes the following seven main tasks to perform evaluation.

1. Establish broad goals or objectives.
2. Classify objectives (preferably with "Bloom's Taxonomy)
3. Define objectives in behavioral terms.
4. Find situations in which achievement of objectives can be shown.
5. Develop or select measurement techniques.
6. Collect student performance data, and
7. Compare data with behaviourally stated objectives.

(B) The Tyler-Newton Metfessel-William Michael Model

This may be shown, in brief, in the following steps.

1. Involve everyone who is directly or indirectly affected.
2. Develop goals and specific objectives and arrange them in hierarchical order.
3. Translate goals and objectives into curriculum content and experiences.
4. Select or create evaluation instruments to assess achievement of the objectives.
5. Conduct periodic observations.
6. Analyze, data, Interpret data and Make decisions.

(C) Michael Provus's Discrepancy Evaluation Model

This model is described as :

1. Four components are as follows :

a) Determining program standards.

b) Determining program performance.

c) Comparing standards with performance.

d) Determining whether discrepancies exist between standards and performance.

2. Five Stages at which program performance is compared to program standards involve :

a) Design vs. Design Criteria determination.

i) Internal soundness – congruence with philosophical stance, adequacy of resources, etc.

ii) External soundness – comparison with similar programs.

iii) Identification and resolution of initial problems.

b) Installation vs. Installation Criteria determination.

i) Is the program operating as intended ?

ii) Are all the parts (people, equipment, etc.), in place ?

c) Processes vs. Process Adjustment questions

i) Are communication lines functioning as intended ?

ii) Are planned activities functioning as intended ?

d) Product vs. Product Assessment tasks performance.

i) Evaluation of entire program in terms of original goals.

ii) Effects on all affected.

e) Cost vs. Benefit.

(D) Robert Stake's Congruence-Contingency Model (1969) – also known as the Countenance Model is specified as :

1. Data needs to be collected on the basis of :

a) Antecedents – conditions existing before the treatment begins.

i) Student attitudes, achievement levels, attendance, etc.

ii) Teacher attitudes, years of experience, etc.

b) Transactions – The interactions among students, teachers, materials and environment, the teaching-learning process.

c) Outcomes – The consequences of the program – cognitive, affective, personal, community-wide, immediate, and long term.

2. Evaluate data on the basis of what was intended and what was actually observed.

3. The main proposition is to find that outcomes were contingent upon the antecedents and the transactions. The greater the congruence between the intended and the observed outcomes, the better.

(E) Daniel Stufflebeam's Context, Input, Process, Product (CIPP) Model (1971)

This model is being narrated briefly below. The objectives are w. r. t. :

1. Context Evaluation

a) “Its purpose is to provide a rationale for the determination of objectives”.

b) Unmet needs are identified, reasons are unmet hypothesized, and the curriculum environment defined (who, what, when, where, why).

2. Input Evaluation

a) The purpose is to “provide information for determining how to utilize resources to achieve project objectives”.

b) Analysis of goals and objectives.

c) Analysis of resources and experiences to be used to meet goals.

d) Comparison with alternative programs and strategies.

3. Process Evaluation

a) Three main objectives are :

i) to detect or predict defects in the procedural design or its implementation during the implementation stage,

ii) provide information for programmed decisions, and

iii) to provide a record of the procedure as it occurs”.

4. Product Evaluation

a) Formative and summative data needed.

b) Rational interpretations needed on the basis of the recorded context, input, and process information.

[This model will be again discussed in details]

(F) Stufflebeam’s Macro (Total) Evaluation Model

This is an extended version of CIPP model. The steps are :

1. Expansion of CIPP model

a) Planning decisions made after context evaluation.

b) Structuring decisions made after input evaluation.

c) Implementation decisions made after process evaluation.

d) Recycling decisions made after product evaluation.

2. Four kinds of change to be evaluated.

a) Neomobilistic change – Large change, low information.

b) Incremental change – a series of small changes based on low information.

c) Homeostatic change – small change based on much information.

d) Metamorphic change – great change based on much information.

(G) Elliot Eisner's Connoisseurship Evaluation

This is shown as :

1. Focuses on Model (1985) is on the process itself,

   a) What took place ?

   b) Who participated ?

   c) What did they think of the experience ?

2. Follows the model of criticism and evaluation of art.

3. Requires upon "referential adequacy" and "structural corroboration" instead of scientific validity,

   a) Referential adequacy means that critical observations and interpretations must be empirically grounded (must be able to be replicated by independent observers).

   b) Structural corroboration means that there must be continuous inquiry about whether the various parts of the criticism fit together as a consistent whole.

4. The criticism should communicate to some public, what is going on in the school.

(H) Robert Stake's Responsive Evaluation Model (1975)

This is shown as :

1. As the Eisner Connoisseurship Model, the Responsive Evaluation model focuses on describing activities and processes rather than on test scores and outcomes. It seeks to "tell the story of the program".
2. A formal evaluation plan consisting of ten steps is implemented. The ten steps are :

   a) Negotiate a framework for evaluation with the sponsors,

   b) Elicit topics, issues and / or questions of concern from the sponsors.

   c) Formulate questions for guiding

   d) Identify the scope and activities of the curriculum – the needs of clients and personnel.

e) Observe, interview, prepare logs and case studies.

f) Pare down information, identify the major issues or questions,

g) Present initial findings in a tentative report.

h) Analyze reactions and investigate predominate concerns more fully.

i) Look for conflicting evidence that would invalidate findings and corroborating evidence that would support findings.

j) Report the results.

(I) Practices of Evaluation Model

A. Six common evaluation phase's are

1. Focusing on the Curricular Phenomena to be Evaluated.

a) What are the objectives of the evaluation effort ?

b) Who and what will b evaluated ? By whom ? When ?

c) What instruments and criteria will be used ?

2. Collecting the information

a) How will confidentially be protected ?

b) Periodic collection of information important to see change over time.

3. Organizing the information – Coding, storing, and retrieving

4. Analyzing the information – Utilizing appropriate analysis techniques.

5. Reporting the information – Report and interpret information either formally (written report) or informally (discussions)

6. Recycling the information – Using the information to continually improve the curriculum.

B. All phases should be planned during the development process.

(J) Seriven's goal-free model (1970s)

- Introduced the term 'formative' and 'summative'
- Broaden perspective of evaluation
- Evaluator should not know the educational program's goals in order not to be influenced by

them.

- Evaluator therefore totally independent
- Evaluator free to look at processes and procedures, outcomes and unanticipated effects.
- Methodology, the field is open to the hunter but he did have a 'lethal' checklist of criteria for judging any aspect of the curriculum.

(K) Stenhouse's research model (1970s)

- Evaluation as part of curriculum development
- Continuous cycle of formative evaluation and curriculum improvement at school level.
- Relationship between curriculum developer and evaluator is central.
- Curriculum developer offer solutions.
- Evaluator is the practical man who temper enthusiasm with judgment.
- The developer is the investigator; teacher
    - Autonomous professional self-development through self-study
    - Study of others and testing ideas

(L) Tyler's Objectives model

- Tyler's principle deals with evaluating the effectiveness of planning and actions.
- Curriculum should be evaluated in relation to its pre-specified set of objectives.
- Requires an objectives-based curriculum model t.
- Evaluation measures fit between student performance and objective.
- Methodology will depend of the evaluator's definition of **'measurement' (standard setting)**

  The framework (in checklist pattern) is presented below :

- **Context**
    - Planning decisions
- What needs are to be addressed
- Defining objectives for the program
- **Input**
- Structuring decisions
- What resources are available
- What alternative strategies should be considered
- What plan has the best potential

- **Process**
  - Implementing decisions.
- How well is the plan being implemented
- What are the barriers
- What revision are needed
- **Product**
  - Recycling decisions
- What result are obtained
- Were need reduced
- What should be done with the program
- **Context evaluation**
  - Most basic kind of evaluation
  - Objective
- To define the context
- Identify population
- Assess needs
- Diagnose problem
  - Method : system analysis, survey, document review, hearing, interview, tests, Delphi (Wiseman technique).
  - Relation to decision-making.
- Decide on setting
- Goals and objectives
- Planning
- Providing basis for judging outcomes
  - Provides rationales for determining objectives
  - Uses experimental and conceptual analysis, theory, authoritative opinion to judge basic problems which must be solved.
- Input evaluation
  - Objective
- Identify and assess system capabilities
- Alternative strategies
- Implementation design
- Budget
  - Method : resources analysis, feasibility analysis, literature research, exemplary program

visits and pilot projects.

- Decision

- Selecting sources
- Structuring activities
- Basis for judging implementation process evaluation
  - Objective
- Identify / predict defects in design or implementation and record and judge procedural activities
  - Method : monitoring, describing process, interacting, observing
  - Decision :
- For implementing and refining program design and procedures
- Process control
- Information to use in interpreting outcomes.
  - Provides periodic feedback to those responsible for implementation
  - Maintain a record of procedures as they occur product evaluation.
- Describe and judge the outcome
- Relate them to objectives
- Interpret worth
  - Method : operationally measuring criteria, collecting stakeholder judgment
  - Decision
- To continue
- Terminate
- Modify
- Refocus
- And present record of effects
  - Purpose to measure and interpret attainment at end of project cycle
  - Operationally measures objectives and compare to predetermined standards
  - Interpret outcomes using context, input and process information
- Steps in CIPP model
  - Focus the evaluation
  - Collect information
  - Organize information
  - Analyze information
  - Report information
  - Administration of the evaluation report

- CIPP model of curriculum development is a process of developing the curriculum,
- CIPP model of curriculum evaluation is the process to see the effectiveness of the developed and implemented curriculum.

The CIPP Evaluation Model is a comprehensive framework for guiding evaluations of programs, projects, personnel, products, institutions, arid systems. This checklist, patterned after the CIPP Model, is focused on program evaluations, particularly those aimed at effecting long-term, sustainable improvements. The checklist especially reflects the eight-year evaluation (1994 – 2002), conducted by the Western Michigan University Evaluation Center. It is generally consistent with a wide range of program evaluations conducted by the Evaluation Center in such areas as science and mathematics education, rural education, educational research and development, achievement testing, state systems of educational accountability, school improvement, professional development schools, transition to work, training and personnel development, welfare reform, nonprofit organization services, community development, community-based youth programs, community foundations, and technology.

The model's core concepts are denoted by the acronym CIPP, which stands for evaluation of an entity's context, inputs, processes, and products. Context evaluations assess needs, problems, assets, and opportunities to help decision makers define goals and priorities and help the broader group of users judge goals, priorities, and outcomes. Input evaluations assess alternative approaches, competing action plans, staffing plans, and budgets for their feasibility and potential cost-effectiveness to meet targeted needs and achieve goals. Decision makers use input evaluations in choosing among competing plans, writing funding proposals, allocating resources, assigning staff, scheduling work, and ultimately in helping others judge an effort's plans and budget (I see input evaluation as the most neglected, yet critically important type of evaluation). Process evaluation assess the implementation of plans to help staff carry out activities and later help the broad group of users judge program performance and interpret outcomes. Product evaluations identify and assess outcomes – intended and unintended, short term and long term – both to help a staff keep an enterprise focused on achieving important outcomes and ultimately to help the broader group of users gauge the effort's success in meaning targeted needs.

In the formative case – where evaluation helps guide an effort – context, input, process, and product evaluations respectively ask. What needs to be done ? How should it be done ? Is it being done ? Is it succeeding ? The evaluator submits interim reports addressing these questions to keep stakeholders informed about findings, help guide decision making, and strengthen staff work.

In finalizing a summative report, the evaluator refers to the store of context, input, process, and product information and obtains additionally needed information. The evaluator uses this information to address the following retrospective questions : Were important needs addressed ? Was the effort guided by a defensible plan and budget ? Was the service design executed competently and modified as needed ? Did the effort succeed ?

In summing up long-term evaluations, the product evaluation (Did it succeed ?) component may be divided into assessments of impact, effectiveness, sustainability, and transportability. These product evaluation subparts ask, Were the right beneficiaries reached ? Were their targeted needs met ? Were the gains for beneficiaries sustained ? Did the processes that produced the gains prove

transportable and adaptable for effective use elsewhere ?

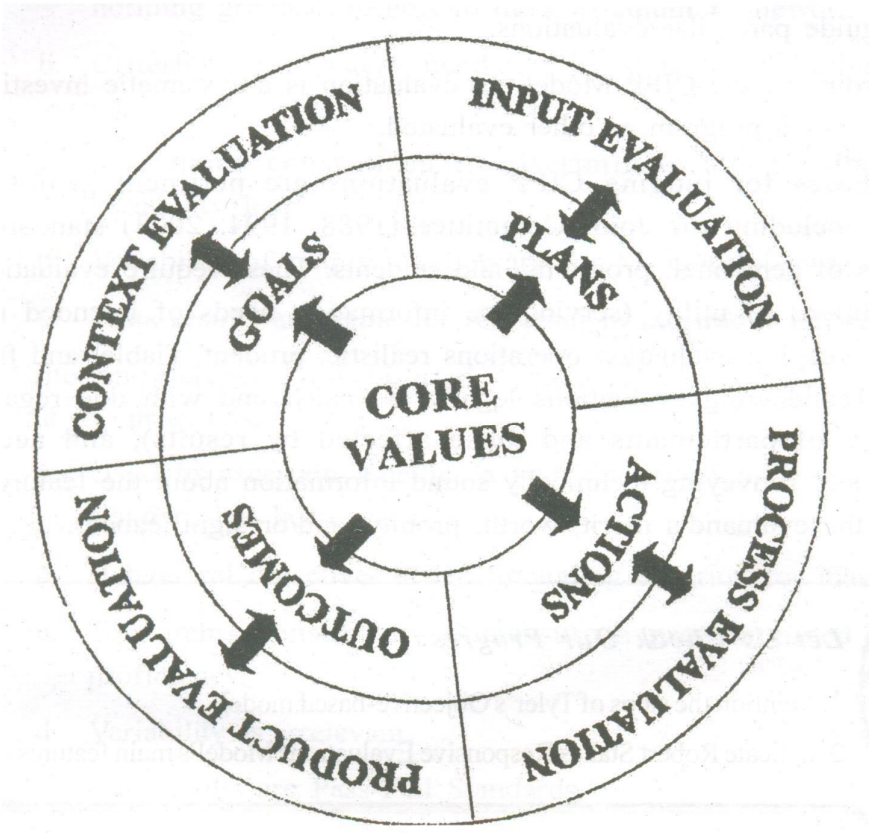
Consistent with its improvement focus, the CIPP Model places priority on guiding the planning and implementation of development efforts. The model's intent is thus to supply evaluation users – such as policy boards, government officials, foundation presidents and staff members, project staffs, school administrators, curriculum developers, city planners, military leaders, curriculum specialists, teachers and counselors – with timely, valid information of use in identifying an appropriate area for development; formulating sound goals, activity plans, and budgets; successfully carrying out work plans; periodically deciding whether and, if so how to repeat or expand an effort; and meeting a funder's accountability requirements.

The CIPP Model also provides for conducting retrospective, summative evaluations to serve a broad range of stakeholders. Potential consumers need summative reports to help assess the quality, cost, utility and competitiveness of products and services they might acquire and use.

Table 1 summarizes uses of the CIPP Model for both formative and summative evaluations.

Evaluation Roles	Context	Input	Process	Product
Formative Evaluation: Prospective application of CIPP information to assist decision making and quality assurance	Guidance for identifying needed interventions and choosing and ranking goals (based on assessing needs, problems, assets and opportunities)	Guidance for choosing a program or other strategy (based on assessing alternative strategies and resources allocation plans) followed by examination of the work plan.	Guidance for implementing the work plan (based on monitoring and judging activities and periodic evaluative feedback).	Guidance for continuing, modifying, adopting or terminating the effort (based on assessing outcomes and side effects).
Summative Evaluation : Retrospective use of CIPP information to sum up the program's merit, worth, probity, and significance	Comparison of goals and priorities to assess needs, problems and opportunities	Comparison of the program's strategy, design and budget to those of critical competitors and to the targeted needs of beneficiaries.	Full description of the actual process and record of costs. Comparison of the designed and actual processes and costs.	Comparison of outcomes and side effects to targeted needs and, as feasible, to result of competitive programs. Interpretation of results against the effort's assessed context, inputs and processes.

Figure 1 : Depicts the Key Components of the CIPP Evaluation Model and Associated Relationships with Programs into four evaluative foci associated with any program or other endeavor goals, plans, actions, and outcomes. The outer wheel indicates the type of evaluation that serves each of the four evaluative foci. i.e. context, input, process, and product evaluation. Back two-directional arrow represents a reciprocal relationship between a particular evaluative focus and a type of evaluation. The goal-setting task raises questions for a context evaluation, which in turn provides information for validating or improving goals. Planning improvement efforts generates questions for an input evaluation, which correspondingly provides judgments of plans and direction for strengthening plans. Program actions bring up questions for a process evaluation, which in turn provides judgments of activities plus feedback for strengthening staff performance. Accomplishments, lack of accomplishments, and side effects command the attention of product evaluations, which ultimately issue judgments of outcomes and identify needs for achieving better results.



These relationships are made functional by grounding evaluations in core values, referenced in the scheme's inner circle. Evaluation's root term value refers to any of a range of ideals held by a society, group, or individual. The CTPP Model calls for the evaluator and client to identify and clarify the values that will guide particular evaluations.

According to the CIPP Model, an evaluation is a systematic investigation of the value of a program or other evaluated.

The bases for judging CIPP evaluations are pertinent professional standards, including the Joint Committee (1988, 1994, 2003) standards for evaluations of personnel, programs, and students.

These require evaluations to meet conditions of utility (serving the information needs of intended users), feasibility (keeping evaluation operations realistic, prudent, viable, and frugal), propriety, (conducting evaluations legally, ethically, and with due regard for the welfare of participants and those affected by results), and accuracy (revealing and conveying technically sound information about the features that determine the evaluand's merit, worth, probity, and / or significance).

Let Us Check Our Progress

1. Mention the Steps of Tyler's Objective-based model.

2. Indicate Robert Stakes Responsive Evaluation Model's main features.

6.1.4.6 : SOME METHODOLOGICAL ISSUES

Let us now understand some methodological issues in this context.

A. Should objectives specify or realizations of those intents ?

B. Should evaluation focus on the program (the operation went according to accepted procedure) or on the students (the patients lived or died) ?

C. Intended outcomes (achievement of specified curriculum objectives) or goal-free outcomes (Gee, look what we found).

D. Norm-Referenced or Criterion Referenced.

1. Norm-referencing most useful in making decisions about people.

   a. Used to ascertain individual's relative position within the norming group in respect to the curriculum framework.

   b. Criterion for mastery need not be stated as mention in the curriculum.

   c. Test items constructed to discriminate among students of variability levels.

   d. Variability of scores is necessary for meaningful interpretation,

   e. Tests results amenable for reporting in the traditional system.

2. Criterion-referencing can be used to make decisions about curriculum and its programs.

a. Used to ascertain whether a specific criterion or performance standard has been reached.

b. Behavioural objectives stated, including criterion for mastery.

c. Test items constructed to measure a predetermined level of proficiency.

d. Variability is irrelevant.

e. Test results are Pass-Fail Standards.

E. Standards or Criteria

1. Absolute Maximum

2. Absolute Minimum (Criterion-referenced)

3. Relative (Norm-referenced)

4. Multiple (Pre-Post for each individual)

F. Technical Hazards

1. The use of grade-equivalent scores – A procedure typically used to obtain these scores makes them too low in the fall and to high in the spring. A second grader's score of 3 on a reading test does not mean that the student can read at a third grade level. It means only that he has mastered some of the skills of third grade reading.
2. The use of gain scores. Students who initially have the lowest scores will have the greatest opportunity to show gain. P. E. teachers well aware of this.
3. The use of norm-group comparisons with inappropriate test dates. If the norming group was tested in May and the local students take the test in the fall, comparisons will be misleading.
4. The use of inappropriate test levels. Tests designated as appropriate for particular grade levels may, in fact, be too easy or too difficult for a particular group of students. To be most useful tests should reflect actual achievement level rather than grade level.
5. The lack of pre- and post-test scores for each student. If many low ability students dropout before the posttests , the posttest mean will be unrealistically high. Only matching pre-and posttest scores should be included in mean. Reason for dropouts should be noted.
6. Noncomparable treatment and comparison. Unless students are randomly assigned to treatment and control groups (something very difficult to accomplish in a typical school setting) initial difference between groups may influence outcomes.
7. Use of pretest scores to select program participants. Lowest scoring students will appear to gain the most and highest scoring students will appear to gain the least (regression toward the

mean).

8. Careless administration of tests. Students in treatment and control groups should complete pre- and posttests together. This helps avoid inconsistencies in test administration.
9. Assuming that an achievement gain is due to the treatment alone. Hawthorn effects such as novelty and extra attention may be least partially accountable.

Approaches to curriculum evaluation

Some approaches may be,

- **Goal-based**
  - Determining whether pre-stated goals of curriculum programs were met.
- **Goal-free**
  - Uncovering and documenting what outcomes were occurring in educational or training programs without regard to whether they were intended program goals focus.

- **Responsive (contingency-unforseen event)**
  - Comparing what was intended for instruction to what actually was observed.
- These approaches are based on the classical curriculum evaluation models as presented by Stufflebeam and Shinkfield (1990).
  - The decision-making.
- The collecting information about educational or training programs for the purpose of decision-making.
  - The accreditation
- It is for forming professional judgments about the processes used within education or training programs.

6.1.4.7 : LET US SUM UP

This Unit has helped us deeply in understanding various aspects of curriculum evaluation. Important aspects are meaning, approaches and models of curriculum evaluation process. Specifically, approaches and models of curriculum evaluation depend upon the very meaning of evaluation outlooks followed.

6.1.4.8 : SUGGESTED READINGS

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4. Posner, G. J. (1992). Analysing the Curriculum, New York : McGraw-Hill.
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6.1.4.9 : ASSIGNMENTS

1. Explain concept of and approaches to curriculum evaluation.
2. Discuss formative and summative approaches to curriculum evaluation with suitable examples.
3. Elaborate any one model of curriculum evaluation.
4. Write down your own understanding about curriculum evaluation. Discuss purposes of curriculum evaluation.
5. Write critically your acquaintance with curriculum evaluation.
6. Discuss perspectives of curriculum evaluation.
7. What do you mean by models of curriculum evaluation ? Point out their importance.
8. Write an elaborate note on CIPP model of curriculum evaluation.