UNIT –V: CURRICULUM EVALUATION AND CHANGE

Curriculum Evaluation – Concept, definition – Source dimensions and functions of curriculum Evaluation - Approaches to curriculum Evaluation – Need and importance of Curriculum Evaluation – Evaluation Phases - Tyler's objective-centered Evaluation model – Robert Stake's Congruence- Contingency Evaluation Model - Curriculum revision, Curriculum change and innovation: Types of change - Process of curriculum change strategies and models for curriculum change and innovation.

1.1 Evaluation

Evaluation is the process of determining the value of something or the extent to which goals are being achieved. It is a process of making a decision or reading a conclusion. It involves decision making about student performance based on information obtained from an assessment process. Assessment is the process of collecting information by reviewing the product of student work, interviewing, observing, and testing.

Evaluation is the process of using information that is collected through assessment. The ultimate purpose of any Evaluation process that takes place in schools is to improve student's learning (Howell and Nolet, 2000) .Evaluation entails a reasoning process that is based on influence. Inference is the process of arriving at a logical conclusion from a body of evidence. Inference usually refers to the process of developing a conclusion of the basis of some phenomenon that is not experienced or observed directly by the person drawing the inference. Evaluation is a thoughtful process. We use it to help us understand things. Evaluation has been defined in a variety of ways, all of which have at their core the idea of comparisons between things, note the differences, summarize our findings, and draw conclusion about result. (Deno, Winkin, Yavorsky, 1977). Evaluation is the judgment we make about the assessment of student learning based on established criteria. It involves a process of integrating assessment information to make inferences and judgment about how well students have achieve curriculum expectations. Evaluation involves placing a value on and determine the worth of student assessment. Evaluation is usually made so that process can be communicated to students and parents effectively. Evaluation provides the following information;

- Directly to the learner for guidance
- Directly to the teacher for orientation of the next instruction activity

• Directly to external agency for their assessment of schools functioning in the light of national purposes

1.2 Curriculum Evaluation

Curriculum Evaluation is the process of obtaining information for judging the worth of an educational program, product, procedure educational objectives or the potential utility of alternative approaches designed to attain specified objectives (Glass and Worthem, 1997). Curriculum Evaluation focuses on determine whether the curriculum as recorded in the master plan has been carried out in the classroom in Evaluation a curriculum, the following key question are usually asked in curriculum Evaluation basically:

- Are the objectives being addressed?
- Are the contents presented in the recommended sequence?
- Are students being involved in the suggested instructional experience?
- Are students reacting to the contents?

According to Gatawa (1990: 50), the term curriculum Evaluation has three major meanings:

- The process of describing and judging an educational programme or subject
- The process of comparing a student's performance with behaviourally stated objectives
- The process of defining, obtaining and using relevant information for decision-making purposes

According to experts there are four central features of Evaluation.

They are:

- Evaluation is appraisal in which we make judgment.
- Such judgments are made in the light of criteria.
- Criteria are based on particular contents.
- Such Criteria embody human resources, and Evaluation model, therefore, inform decisions.

1.3 Need for Curriculum Evaluation

The fundamental concerns of curriculum Evaluation relate to:

• Effectiveness and efficiency of translating government education policy into educational practice;

• Status of curriculum contents and practices in the contexts of global, national and local concerns;

• The achievement of the goals and aims of educational programmes

The need for curriculum Evaluation is twofold. Firstly, it is to ensure whether implementing the selected curriculum meets the desired objectives. Secondly, to ascertain if it needs any improvement or revision. In addition,

- Parents are interested because they want to be assured that their children are being provided with a sound, effective education.
- Teachers are interested because they want to know that what they are teaching in the classroom will effectively help them cover the standards and achieve the results they know parents and administration are expecting.
- The general public is interested because they need to be sure that their local schools are doing their best to provide solid and effective educational programs for the children in the area.
- Administrators are interested because they need feedback on the effectiveness of their curricular decisions.
- Curriculum publishers are interested because they can use the data and feedback from a curriculum Evaluation to drive changes and upgrades in the materials they provide.

The ultimate goal is always to make sure that students are being provided with the best education possible. It gains significance because the curriculum Evaluation is a means of deciding whether or not the chosen curriculum is going to bring the school closer to that goal.

1.4 Objectives of Curriculum Evaluation

The intent of the Evaluation phase is to determine the level of student success, and the impact of the course design on student performance. Evaluation occurs throughout the delivery of the course and includes student performance, internal lesson and assessment analysis, and feedback from students, Learning Coaches, and teachers. The required user feedback is obtained through messages, various feedback tools, and regular parent meetings. Specifically, the objectives include the following.

- To determine the outcomes of programme
- To help in deciding whether to accept or reject a programme.
- To ascertain the need for the revision of the course content.

- To help in future development of the curriculum material for continuous improvement.
- To improve methods of teaching and instructional techniques.

1.5 Purposes of Curriculum Evaluation

The purpose of an Evaluation is to determine the value of something. Most Evaluation experts contend that the main reason of evaluating a curriculum is to provide information for making decisions about either individuals or the curriculum.

Decision about Individuals: If the Evaluation is about individuals or learners, the following are the purposes are to be considered:

a. **Diagnostic:** means that those who must make diagnostic decisions require information about strengths and weaknesses and determination of areas that need special instructional attention.

b. **Instructional Feedback:** means that the decision concern adjustments students might need to make in their approaches to studying a subject based on their knowledge of the progress they are making.

c. **Placement:** means that the information about the level of proficiency of the students in particular skills in order to place them in group that are relatively homogeneous.

d. **Promotion**: means that the decision about promotion is based on information about the proficiency and maturity of students in order to decide whether or not to promote to the next grade level

e. **Credentialing:** means that it has to do with certification, licensure and otherwise attesting to the competence of a programme graduate. This decision requires attaining a predetermined passing level on a test designed by the credentialing body, typically the state or professional organization.

f. **Selection**: means that it is made by college admission offices, typically use existing data about student achievement (Grades), but this may also depend on standardized test.

1.6 Types of Curriculum Evaluation

Scriven identifies the following three main types of Curriculum Evaluation

• **Formative Evaluation**. It occurs during the course of curriculum development. Its purpose is to contribute to the improvement of the educational programme. The merits of a programme

are evaluated during the process of its development. The Evaluation results provide information to the programme developers and enable them to correct flaws detected in the programme.

• **Summative Evaluation.** In Summative Evaluation, the final effects of a curriculum are evaluated on the basis of its stated objectives. It takes place after the curriculum has been fully developed and put into operations.

• **Diagnostic Evaluation**. Diagnostic Evaluation is directed towards two purposes either for placement of students properly at the outset of an instructional level (such as secondary school),or to discover the underlying cause of deviancies in student learning in any field of study.

Steps in Curriculum Evaluation:

As seen above, curriculum Evaluation is a systematic and organized process. Hence it involves a set of sequential steps.

- Focus on one particular component of curriculum (Eg. Content)
- Collect or gather information
- Organize the collected information
- Analyze the organized information
- Report the findings
- Recycle the findings for continuous feedback, modification and adjustment to be made in future

1.7 Sources of Evaluation

For Curriculum Evaluation, the evaluator can collect information from these sources: students, self, peer groups and professional evaluators.

Students: Curriculum can be evaluated by students, either those who have completed the course or those who are still studying. Evaluation can be very helpful in giving the correct picture of whether the course is helpful in providing job opportunities to students or not. Students are the best source in assessment of the need and importance of a particular programme. The curriculum evaluator should ideally ascertain the views of earlier and current students regarding the overall implications of the programme.

Self: The evaluator himself/herself plays a major role in the Curriculum Evaluation process. For this purpose s/he has to be definite about whether Evaluation is being undertaken as part

of an accreditation exercise or for the improvement of the teaching learning strategies. At the beginning an evaluator should ask himself/herself what the prerequisistes, objectives, content, required reading, and method of assessment of a particular programme are. This would definitely help him to indicate the type of materials, which should be.made available to students or even to suggest the required measures for student satisfaction with regard to the course.

Peer groups (students and teachers): Many times, students and teachers will openly discuss the problems and difficulties within their peer group rather than the teacher. Peer groups therefore can be a major help to evaluators. The views of a group can help the evaluator to modify curriculum.

Professional evaluators: Experts in the particular field can give advice in teaching and designing a programme. They are also the best people to give an unbiased opinion on the course content and the methodology. Lately, a lot of professional bodies and research institutions are entering the foray in helping universities to evaluate their programmes.

1.8 Aspects of Evaluation

This section focuses on the components and aspects of an Educational programme that need to be evaluated.

Goals and objectives

Each organization and institution has its mission and vision based on the values, trends and forces prevailing in society. Before a university develops any programme on any subject, the focus is on the goals, the overall framework of the course and social trends. Evaluation of the goals is the prime task of the evaluators. Goals could be many such as communication, critical thinking, occupational competence, perception of nature and environment, economic understanding, social awareness, responsibilities of citizenship, self-understanding, value clarification, etc. The curriculum planners plan the instructional objectives after having arrived at the goals of the programme. The objectives are aimed at fulfilling the goals. Evaluation of instructional objectives will include feasibility studies on how far these objectives have been clearly stated, how they relate to the students at a particular level of education and social background. Questions such as - is it worthwhile to increase the level of the course or should we increase its interrelation with other subjects? Evaluation of student achievement and related

reaction to the prescribed course are all important focus areas of the proper assessment of goals and objectives of a particular programme or course.

Prerequisites

By prerequisites, it is meant the Evaluation of both students' and teachers' knowledge, skills and values that they possess even before they have enrolled for the course. This essentially implies that the existing cognitive, affective and psychomotor abilities of both student and teacher are evaluated to accordingly examine the feasibility of the learning aids and learning strategies in terms of its effectiveness to achieve the specified objectives.

Content

Course content of a programme is primarily based on the discernment of the requirements of its instructional objectives and the consultation of subject matter specialists. It is necessary to seek a wide representation of views on the relevance and probability of the programme in achieving the course objectives. Other reasons for Evaluation of course content are:

- to validate the relevance of content to objectives;
- to make sure the course content is up-to-date and incorporates the latest findings and studies in the subject;
- to verify whether the content is suited to the cognitive development of the students;
- to evaluate the sequence of the content and find out if it is balanced;
- to evaluate the organizational structure of the content.

Processes

Process in the curriculum development refers to techniques involved in transaction of content.

Evaluation of teaching-learning strategies/process/methodology essentially means students' interest, participation and desired communication between students and teachers. Processes are not simply techniques of teaching adopted by teachers; they are the means to modify positively the behavior of the students using certain structured solutions, involving the use of instructional materials.

In evaluating teaching inputs and strategies, one should start with evaluating to what extent the strategies meet the objectives. Secondly, it is necessary to investigate the time taken to complete a learning process and the resources required to do so. Thirdly, Evaluation of the workableness of strategies must be looked at closely in real classroom situations. Last but not

the least, a realistic Evaluation must be made of the capabilities of the teacher to put to work the strategies for ensuring the success of the programme.

Outcome and Expectations

Outcome in terms of curriculum development means the consequence of the programme. There are several categories of outcomes: short term and long-term outcome; intended and unintended outcome; and also behavioral outcomes one exhibits. Broadly speaking, educational Evaluation is focused on the short term because it is concentrated on those who have just completed a programme. Long-term Evaluation is far more difficult and time consuming besides being diluted by the passage of time. The Evaluation of the intended and unintended outcome varies with the nature of the programme and the availability of tools. For Evaluation of behavioral changes, we should try to distinguish the types into cognitive, affective and psychomotor.

Linkages

Another ambit of course Evaluation is to identify the intra and inter course linkages. Take for example the subject history - it may include a different set of courses like Ancient Indian History, Medieval History, Modem History, etc. The contents of these courses are supposed to be organized with a definite logic. The courses are to be presented and ordered according to the difficulty level, and in sequence. So, intra course linkages can be identified through finding out logical sequences and the order of presentation of contents of a particular course. In contrast, when one tries to find out the links and logical presentation of a set of courses in a particular programme, it is referred to as inter course linkages. It is important to know both types of linkages while undertaking a course Evaluation. For instance, in an MBA programme the course content on ' Strategic Business Management' is dependent on other courses such as Marketing, Production and Personnel Management. So the evaluator would assess whether these prerequisites have been taken care of before the course on Strategic Business Management is sequenced in the MBA Programme

Assessment

Briefly, assessment is student performance Evaluation. Many strategies have been used to evaluate student performance - the basis of choice is directly linked to course content and the process. Some of these are through assignments, workshops, seminars, internal tests, group

discussions, field trips, project work and term exams. These are a few examples of student Evaluation methods most commonly adopted.

References

While undertaking Evaluation, if references have been used in the course material, we should focus on two main aspects: their adequacy and their availability. The course evaluator needs to examine whether the references are adequate and cover the entire material presented in the text. Also, the references that have been cited in the text must be easily available and accessible to both teachers and students.

1.9 APPROACHES TO CURRICULUM EVALUATION

Evaluation may be considered as a broad and continuous effort to find out the effects of implementing content and procedures to achieve pre-set goals. It is not content specific but is a methodological process. Michael Scriven feels that Evaluation essentially consists of gathering and combining data in relation to a weighted set of goals or scales so as to allow people to make judgments about worth. [Ornstein and Hunkins, 1988.1 How people process data is determined to a large extent by their philosophical and psychological orientations. Humanists would argue that quantitative expression of learning outcomes are insufficient to determine the quality of learning. They feel that the learning experience is important in itself and should have helped the students in enhancing their self-concept.

A behaviourist, would Approach Evaluation from a sequenced orientation, i.e. objectives will be clearly stated and relevant activities would be performed to achieve the intended outcomes. Whatever the orientation or posture adopted by the educator, Evaluation still involves two dimensions - management and decision-making. They have to obtain data on which judgements will be based; communicate the effectiveness of curriculum to students and others; determine criteria to judge various aspects of curriculum and devise a management plan fqt. all involved in the curriculum process.

Scientistic and Humanistic Approaches

Cronbach (1 982) has identified two approaches to Evaluation - the scientist ideals approach and the humanistic ideals approach. He has presented these two approaches at the two ends of an Evaluation continuum. The scientist end advocates experimentation and the humanistic end does not have faith in experimentation. The scientist ideals believer focuses on

experiment: "A true experiment ... concentrates on outcome or impact and embodies three procedures:

1. Two or more conditions are in place, at least one of them being the consequence of deliberative intervention.
2. Persons or institutions are assigned to conditions in a way that creates equivalent groups.
3. All participants are assessed on the same outcome measures" (Cronbach, 1982).

In this approach all efforts are focused on the learners. Students' achievements in different situations are compared by way of test scores. Quantitative measures are adopted for data collection and statistical tools are employed for data analysis. The humanistic ideals approach according to Cronbach is on the other end of the Evaluation continuum. He describes it as very different from the scientific ideals approach: "Writers at the humanistic extreme find experiments unacceptable. For them, naturalistic case studies are the panacea.

A humanist would study a program already in place, not one imposed by the evaluator. If persons are assigned to a treatment, that is because the policy under study calls for assignment; assignments are not made for the sake of research. The programme is to be seen through the eyes of its developers and clients. Naturalistic investigators would ask different questions of different programmes. Benefits are to be described, not reduced to a quality. Observations are to be opportunistic and responsive to the local scene and not pre-structured. Analysis of data collected through humanistic approach differs significantly from that collected through scientific approach. Data collected through the former are more qualitative than quantitative. The techniques employed are basically observation, interviews, personal meetings and discussions with participants. However, curriculum evaluators tend to adopt a middle approach i.e., somewhere between the two ends of the continuum.

The scientist approach and the humanistic approach are two different ways of Evaluating Curriculum. Here are some of the key differences between them:

1. Focus: The scientist approach focuses on measurable outcomes, such as test scores and academic achievement. The humanistic approach focuses on the personal and social dimensions of learning, such as critical thinking, communication skills, and personal values.

2. Methodology: The scientist approach uses quantitative data and statistical analysis to evaluate the curriculum. The humanistic approach uses qualitative data and subjective feedback, such as interviews and observations.
3. Values: The scientist approach values objectivity, control, and predictability. The humanistic approach values subjectivity, empathy, and personal experience.
4. Goals: The scientist approach is primarily concerned with academic outcomes and the effectiveness of the curriculum in achieving those outcomes. The humanistic approach is concerned with the personal and social development of learners, as well as their academic achievement.
5. Outcomes: The outcomes of the scientist approach are typically focused on academic achievement and the effectiveness of the curriculum in meeting specific learning goals. The outcomes of the humanistic approach are more diverse and may include personal growth, social responsibility, and other non-academic dimensions of learning

Intrinsic and Pay-off Evaluation

Evaluators may look at a curricular programme directly while others could study it quantitatively after it is implemented. The first type is called intrinsic Evaluation by Michael Scriven (1978). The evaluators merely answer the question, "How good is the curriculum? ", instead of evaluating it on any criteria. Scriven cites the example of studying an axe to explain intrinsic Evaluation. An individual would study an axe by examining the following aspects; design of the bit, the material used, the weight distribution, shape and fit of the handle. People assume that an axe of such dimensions would cut trees but they do not try it directly. Intrinsic Evaluation of curricula implies that evaluators study the content, its sequence, organization, accuracy, learning experiences provided etc. They believe that with an accurate content and organization student learning would be stimulated. Most of the times evaluators tend to neglect the concept of intrinsic Evaluation. Instead of asking the question, "How good is the curriculum?' They ask, "How well does the course or curriculum achieve its goals?" Educators must however establish the worth of the curriculum, its goals, objectives and related content. According to Scriven, pay-off Evaluation occurs when the effects of the delivered curriculum are examined and its worth has been established. The effects of the curriculum on learners can be determined since this Evaluation involves judgements based on pre-test post-test scores or experimental group tests and control group tests and other parameters. Apart from students, its effects can be examined on teachers, parents and administrators. This allows evaluators to

measure the Curriculum Evaluation attainment of objectives by learners which intrinsic evaluators cannot gauge. On the other hand, supporters of intrinsic Evaluation counter that outcomes of curriculum do not actually show up because the present testing instruments and scoring procedures are laced with their short-comings. They also feel that to examine the full worth of a curriculum, the materials should be looked at directly rather than at students' test scores. (Ornstein and Hunkins, 1988.)

The Intrinsic and pay-off Evaluations are two different approaches used in Curriculum Evaluation to assess the effectiveness of educational programs.The Intrinsic approach focuses on evaluating the curriculum based on its internal components, such as the learning objectives, content, and teaching methods. This approach involves analyzing the curriculum to determine whether it aligns with the goals of the educational institution, whether it is effective in achieving those goals, and whether it provides a meaningful and engaging learning experience for students. The intrinsic Evaluation assesses the quality of the curriculum itself and is concerned with the curriculum's internal validity.

In contrast, the pay-off Evaluation assesses the effectiveness of the curriculum based on its external outcomes, such as the success of students in academic or career settings. This approach involves measuring the performance of students who have completed the curriculum and comparing it to the performance of those who have not. The pay-off Evaluation focuses on the curriculum's external validity and its impact on the students' future lives, such as their academic achievement or job prospects.

The main difference between intrinsic and pay-off Evaluation is their focus. Intrinsic Evaluation is focused on the internal quality of the curriculum, while pay-off Evaluation is focused on the external outcomes of the curriculum. Both approaches have their advantages and limitations, and a comprehensive Evaluation of the curriculum should consider both approaches to provide a complete picture of the curriculum's effectiveness

Formative and Summative Evaluation:

These are two types of assessments that are commonly used in Education, Training, and other fields to measure learning outcomes and evaluate the effectiveness of programs or interventions.

Formative is an ongoing process that takes place during the learning or training process. It is designed to provide feedback to learners, teachers, or trainers on their progress and to help identify areas where they need further support or improvement. Formative Evaluation is often informal and may involve self-reflection, peer feedback, or teacher feedback. The goal of Formative Evaluation is to improve learning and promote student success.

On the other hand, Summative Evaluation is a final assessment that takes place at the end of a learning or training program. Its purpose is to evaluate the overall effectiveness of the program and to determine whether the program's learning objectives have been achieved. Summative Evaluation is often formal and involves assessments such as exams, tests, or project Evaluations. The goal of Summative Evaluation is to measure the success of a program or intervention.

In summary, Formative Evaluation is ongoing and designed to improve learning, while Summative Evaluation is a final assessment that measures the overall effectiveness of a program or intervention. Both types of Evaluation are important for measuring learning outcomes and evaluating the effectiveness of educational and training evaluators.

1.10 CURRICULUM EVALUATION PHASES

The previous models reveal that a variety of practices are involved in curriculum Evaluation. Although there are various opinions about the precise steps, it is useful to know exactly how to proceed through the Evaluation process. Whether the approach is scientistic or humanistic, both have to focus on the curricular phenomenon and devise means, subjective or objective, to collect information. There should be a plan of action. A common process that is adopted for Evaluation is:

Focus of Evaluation- Evaluators should decide what they will evaluate and how i.e., the focus and design. They have to determine the precise aspect of the curricular programme to be evaluated, i.e. whether it will be the entire school system or one school, the entire subject area curriculum or one unit in the subject etc. For this evaluator will have to define the objectives, identify the constraints and policies, level of decision-making, a scheduled time frame for completion of operations. Alternative action paths are determined and criteria identified for assessing results of curricular components.

Collection of Information- Evaluators identify the essential sources from which they will get information and methods they'll employ to get them. In terms of the time schedule, they also work out the stages of collecting information.

Organizing the Information - The information is organized in a manner that is easily understood and used by the target audience. The information is organised, stored and retrieved in a specific manner.

Analysis of Information-Suitable analysis techniques is selected and information is analysed. The choice of techniques will be based on the focus of Evaluation.

Reporting Information-Depending on the audience the evaluators will decide the nature of reporting. Evaluators could use informal reporting techniques such as giving opinions, making judgements. They could also subject the information to statistical treatment and analysis.

Information Recycled

The process of curriculum Evaluation is a continuous enterprise. The information is continuously recycled and re-evaluated to keep it updated. This will ensure regular feedback for curriculum improvement. The pressures affecting school and curricula are ever changing. Hence the curricula should be flexible for modifications and adjustments. The tusk of the evaluator is not merely to report the results. Along with this they should communicate the interpretations, analysis and recommendations through the various stages.

Sometimes evaluators themselves are the audience and they have to decide how to use that information and results. If they are involved with curriculum 'development they could give their recommendations to the curriculum decision makers and ensure that these are acted upon. We must also bear in mind the management aspect of the Evaluation process. At the very outset the management aspects should be worked out i.e. outline the various Evaluation stages with their time schedules, assign tasks to people (allocation of work) and financial requirements per task should also be determined i.e. budgets prepared. [Ornstein and Hunkins, 1988.]

1.11 CURRICULUM EVALUATION MODELS

Tyler's Evaluation Model

Tyler's goal attainment model or sometimes called the objectives-centered model is the basis for most common models in curriculum design, development and Evaluation. The Tyler model is comprised of four major parts. These are:

- defining objectives of the learning experience
- identifying learning activities for meeting the defined objectives
- organizing the learning activities for attaining the defined objectives
- evaluating and assessing the learning experiences

The Tyler Model begins by **defining the objectives** of the learning experience. These objectives must have relevancy to the field of study and to the overall curriculum (Keating, 2006). Tyler's model obtains the curriculum objectives from three sources:

- the student
- the society
- the subject matter

The objective oriented approach was developed in 1930s and was credited with the works of Ralph Tyler. Tyler regarded Evaluation as the process of determining the extent to which the objectives of a project are actually attained. He proposed that for one to evaluate a project he/ she must:

- Establish broad goals or objectives of that project
- Classify the goals or the objectives
- Define those objectives in measurable terms
- Find situations in which achievement of objectives can be shown
- Develop or select measurement techniques
- Collect performance data
- Compare performance data with measurable terms stated When defining the objectives of a learning experience

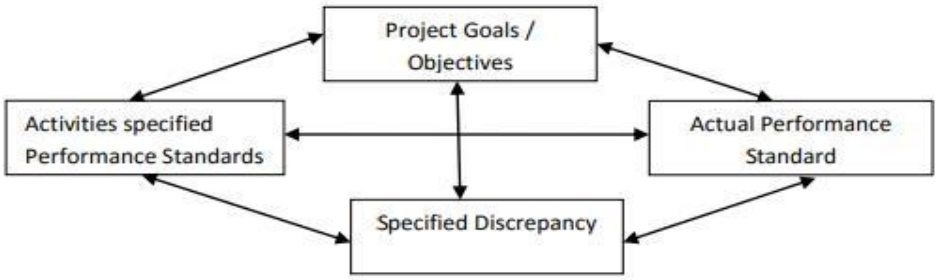
Tyler gives emphasis on the input of students, the community and the subject content. Tyler believes that curriculum objectives that do not address the needs and interests of students, the community and the subject matter will not be the best curriculum.

The second part of the Tyler's model involves the **identification of learning activities** that will allow students to meet the defined objectives.

To emphasis the importance of identifying learning activities that meets defined objectives, Tyler states that "the important thing is for students to discover content that is useful and meaningful to them" (Meek, 1993, p. 83).

In a way Tyler is a strong supporter of the student-centered approach to learning. Overall, Tyler's model is designed to measure the degree to which pre-defined objectives and goals have been attained. In addition, the model focuses primarily on the product rather than the process for achieving the goals and objectives of the curriculum. Therefore, Tyler's model is product focused. It evaluates the degree to which the pre-defined goals and objectives have been attained There are several criticisms levelled at the Tyler's goal attainment model or the Tyler's objective centered model. The first criticism is that, it is difficult and time consuming to construct behavioural objectives. Tyler's model relies mainly on behavioural objectives. The objectives in Tyler's model come from three sources (the student, the society, and the subject matter) and all the three sources have to agree on what objectives needs to be addressed. This is a cumbersome process. Thus, it is difficult to arrive to consensus easily among the various stakeholders' groups. The second criticism is that, it is too restrictive and covers a small range of student skills and knowledge. The third criticism is that Tyler's model is too dependent on behavioural objectives

and it is difficult to declare plainly in behavioural objectives the objectives that covers none specific skills such as those for critical thinking, problem solving,and the objectives related to value acquiring processes (Prideaux, 2003). The fourth and last criticism is that the objectives in the Tyler's model are too student centered and therefore the teachers are not given any opportunity to manipulate the learning experiences as they see fit to evoke the kind of learning outcome desired.



Tyler's Model

From the Tyler's figure above, the beginning point of the curriculum development is educational objectives. Educational objectives are clear statements of what it is students know or be able to do as a result of a programme. Once the objectives are clearly delineated, the next angle of the triangle is concerned with designing and organizing the educational experiences that are likely to helps students master those objectives. The final stage of the triangle is concerned with the determining the whether the objectives are being attained, that is evaluating the programme in terms of the objectives. The objectives based Evaluation focused inclusively on the degree of attainment of the pre-specified objectives of the specific statements of educational objectives in terms of student behavior and specific content. Once the objectives are explicitly delineated, the next step is to develop assessment techniques that permit students to demonstrate the behavior in question. If the objective is clearly stated, the form the assessment can take is also clear. Once measures of the objectives are developed, they are administered as pre- test to students before the prgoramme begins. The pre-test provides a baseline against which to compare performance at the end of the programme, when the students take the post- test. Changes from pre- test to post- test in the percentages of the students mastering each objective become the key criteria of the programme's success.

Tyler's posited four fundamental questions or principles in examining any curriculum in schools. These four fundamental principles are as follows:

i. What educational purposes should the school seek to attain?
ii. What educational experiences can be provided that is likely to attain these purposes?

iii. How can these educational experiences be effectively organized?

iv. How can we determine whether these purposes are being attained or not?

Advantages of the Tyler's Model

- It is good common sense to ask whether a programme has met its goals. Consequently, the model is widely used and credible.
- It forces programme personal to be clear about their indented outcomes and can be used to hold them accountable for attainment of outcomes.
- It minimizes disruption and instruction on the part of the evaluator, who only appear briefly to administer tests.
- The objectives are relatively inexpensive, particularly when standarsed machine scored tests are used.
- It provides easily quantifiable, "objectives" information about student performance
- It is easy to assess whether the project objectives are being achieved
- The model checks the degree of congruency between performance and objective
- The model focuses on clear definition of the objectives
- It is easy to understand in terms of implementation
- It produces relevant information to the project

Stake's Model

Robert E Stake (1975) made a major contribution to curriculum Evaluation in his development of the responsive model, because the responsive model is based explicitly on the assumption that the concerns of the stakeholders - those for whom the Evaluation is done should be paramount in determining the Evaluation issues.

Stake recommends an interactive and recursive Evaluation process that embodies these steps:

- The Evaluator meets with clients, staff, and audiences to gain a sense of their perspectives on and intentions regarding the Evaluation.
- The Evaluator draws on such discussions and the analysis of any documents to determine the scope of the Evaluation project.

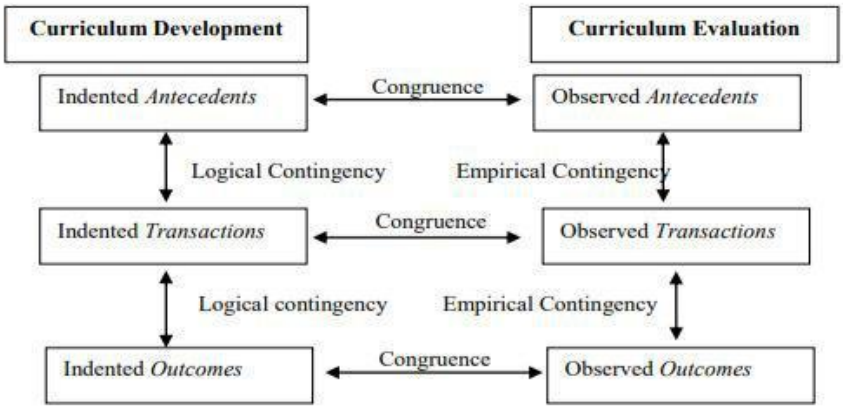
- The Evaluator observes the program closely to get a sense of its operation and to note any unintended deviations from announced intents.
- The Evaluator discovers the stated and real purposes of the project and the concerns that various audiences have about it and the Evaluation.
- The Evaluator identifies the issues and problems with which the Evaluation should be concerned. For each issue and problem, the evaluator develops an Evaluation design, specifying the kinds of data needed.
- The Evaluator selects the means needed to acquire the data desired. Most often, the means will be human observers or judges.
- The Evaluator implements the data-collection procedures.
- The Evaluator organizes the information into themes and prepares "portrayals" that communicate in natural ways the thematic reports. The portrayals may involve videotapes, artifacts, case studies, or other "faithful representations."

Stake proposed a model for curriculum Evaluation Congruence - Contingency model (1969) is also known as Countenance model. The principal ways of processing the descriptive evaluate data: finding the contingencies among antecedents, transactions and outcomes and findings the congruence between events and observations.

- Antecedents are conations existing before the treatment beings i.e., student attitudes, achievement levels, attendance, etc. and teacher attitudes, years of experience, tec.
- Transactions are interactions among students, teachers, materials, and environment in the teaching learning process.
- Outcomes are the consequences of the programme – cognitive, affective, personal community- wide, immediate, and long-term. Intent (intended students' outcome objective) and observations are congruence if what was intended actually happens, to be fully congruent the intended antecedents, transactions, outcomes must be identical with the observed antecedents, transactions, and outcomes. (This seldom happen and often should not).

Greater congruence is between the intended and the observed outcomes, the better. Some Evaluation studies concentrate only on the congruence between intended and observed outcomes. If our purpose is to continue a good curriculum or revise a poor one, we should

know about congruence of antecedents and transactions as well. Contingencies are relationship among the variables. An evaluator's search for contingency is in effect the search for casual relationships. These are what Hasings (1966) called the "Ways of outcomes", Knowledge of what causes what obviously facilitates the improvement of instruction. One of the evaluator's tasks is identifying outcomes they are contingent upon particular antecedent conditions and particular instructional transactions.



Stake's Matrix for Processing Descriptive Data(adapted)

For as long as, there has been schooling, curriculum planning has rested upon faith certain contingencies. Today, every teacher arranges his presentation and the learning environment in a way that according to his logic – leads to the attainment of his instructional goals. On first step in Evaluation is to record the potential contingency. A film of on floodwaters may be scheduled (intended transaction) to expose students to background for understanding conservation legislation (intended outcomes). Of those who know both subject matter and pedagogy, we ask, "is there a logical connection between this event and purpose?" if so, a logical contingency exists between these two intents. Whenever intents are evaluated, the contingency criterion is one of the logic. To test the logic of an educational contingency, evaluators' replies on previous experience, perhaps on research experience, with similar observable, on immediate observation of these variables, however, is necessary to test the strength of the contingencies among events.

Evaluation of observation contingencies depends on empirical evidence. To say, 'this arithmetic class progressed rapidly because the teacher was somewhat but not too sophisticated in mathematics' demands empirical data, either from, within the Evaluation or from the research literature. The usual Evaluation of a single programme will not alone provide the data necessary for contingency statements. Relationship requires variation in the independent variables.

What happened with various teaching treatment? Here, too, as Ausubel has contended (1966), previous experience with this content and with these teaching methods is a basic qualification of the evaluator. By again being sensitive to the concerns of the stakeholders, the evaluator decides which audiences require which reports and chooses formats most appropriate for given audiences. (As cited by Glatthorn, 1987, pp. 275–276) Clearly, the chief advantage of the responsive model is its sensitivity to clients. By identifying their concerns and being sensitive to their values, by involving them closely throughout the Evaluation, and by adapting the form of reports to meet their needs, the model, if effectively used, should result in Evaluations of high utility to clients. The responsive model also has the virtue of flexibility: The evaluator is able to choose from a variety of methodologies once client concerns have been identified. Its chief weakness would seem to be its susceptibility to manipulation by clients, who in expressing their concerns might attempt to draw attention away from weaknesses they did not want exposed.

1.12 Curriculum revision and Evaluation

The process of revision is a common activity involved in every stage of curriculum development. In some cases, it is explicitly shown while in some others it is implicit. This can be seen from the figure given below.

Revision represents an articulation of what students should know and be able to do and supports teachers in knowing how to achieve these goals. The taught curriculum was to be revised in order to match the newly integrated assessment model mandated by state. The basis for any major curriculum change/revision is significantly to improve the existing curriculum.

The process of curriculum revision helps in the assessment of future needs of the existing curriculum along with a determination of what needs to be changed and the selection of possible solutions to problems and the means by which the necessary changes can be achieved.

Need for Curriculum Revision

Revision of curriculum is needed to restructure the curriculum according to the needs, interests or abilities of the learner. It is required to eliminate the unnecessary content and teaching methods and introduce latest methods of teaching and learning practices. It helps in a greater level of correlation is aimed at between the student's theoretical courses and learning practices. Based on the Evaluation of the curriculum and to implement the recommendations of the Evaluation with due approval from the concerned changes need to be made resulting in revising the curriculum. Also, the pace of knowledge explosion and the need to keep pace with the changes in development in various related fields becomes the driving force for curriculum revision. Based on the Evaluation, this revision helps in changing the objectives, content or methods as the case may be to suit the specific requirement.

1.13 CURRICULUM CHANGE AND INNOVATION

Change is the law of nature. Change always makes things better. Curriculum change and curriculum improvement are used interchangeably and no distinction is made between the two. Changing curriculum also involves changing individuals. According to Coffey and Goldner, changing individuals includes two types of changes:

1. Cognitive aspect – the way the child is habituated to his world around and how he perceives it.
2. Affective aspect- his emotional orientation.

Types of curriculum change

There are varied types observed in curriculum. According to different curricularists, the following types of change can be seen: According to Warder Bennis, the curriculum change could be:

1. PLANNED CHANGE:
2. COERCION
3. INTERACTION CHANGE

4. NATURAL OR RADOM CHANGE:

Robert- Chin considered three types of changes in curriculum:

1. EMPIRICAL -RATIONAL
2. NORMATIVE-RE-EDUCATIVE

Curriculum Innovation

Many schools spend a lot of time working together on curriculum change. This a very crucial time and valuable time for all schools. Gone are the days when we could sit back, relax, plan ahead for our summer break. Our cushioned presumption that our schools see no reason to make significant changes has gone by. The curriculum needs a review every year and a review that must look into what is the most suitable for our learners of tomorrow. We need to shirk away from the confidence that as educators we are already serving the needs of our learners well. Some of the broader areas where curriculum shift and innovation is needed could range from:

- Reorganizing the curriculum around themes if our curriculum is based on themes…adding on new subjects of study
- Review the time allocation and bifurcation of periods done for each of the subjects allocated from KG to X…do we need to give more time for activities?
- Do we need to allocate longer blocks of time for some subjects?
- Do we need to readjust the school timings to accommodate exploration and innovation?
- Have we provisioned enough in the curriculum to meet the needs of learners of all abilities and interests?
- Is the stress in our curriculum design on developing pupils' learning skills.

We need to carefully research and learn from the strengths of our previous practice and not hesitate to make necessary revision. Gone are the days when School leaders often had to overcome deeply embedded resistance to change. Our apprehensions can no longer revolve around getting the highest score or 100% first divisions in the board exams. The effort has to begin from the KG or Cycle I or Foundation. Successful schools must and do go through a systematic process of investigation, consultation, planning and Evaluation of the school curriculum. Complementing this effort of the school leader should be a strong team of heads

of departments, subject matter experts, well trained and seasoned teachers who can bring to the table years of learning and experience. This involvement of key stakeholders would also ensure that everyone involved in innovation of the curriculum would have a clear understanding of the rationale behind innovation and the roles and responsibilities of individuals.

- Factors that impact such an ambitious move are: in specific areas
- Lack of minute planning by the team member spearheading the change
- Failure to adhere to timelines
- Evaluation and criteria for Evaluation of learning at varying stages
- Teacher support and training and lack of a rigorous professional development programme for teachers

Most of all this needs positive thought, courage and conviction from the school leader to ensure that learning at school in the new academic year through curriculum changes would make learning enjoyable for learners apart from achieving more.

Curriculum Change	Curriculum Innovation
Dictated by the changes in the economic,social and technological aspects of a society.	Ideas or practices that are new and different from those that exist in the formal prescribed curriculum
Has magnitude and direction and takes place within a definite time frame.	Occurs when human and material resources are created, selected, organized and used in ways where the outcomes are higher achievement of curriculum goals and objectives
May occur in response to external events	Always planned, Become meaningful and effective if they are planned and organized.

Need and Importance

Every successful concept and project in life requires a proper framework and planning. This relates to all processes, including education. Whenever we embark on any new plan or procedure, we need to make sure that we have all the plans drawn up. What is on offer, what are the resources that we have, what are the steps, which we need to take and what are the goals that we need to achieve are some elements that need to be looked upon. A similar set of constraints when applied to education in schools and colleges gives birth to curriculum.

A curriculum is a set of courses, including their content, offered at a school or university.

The curriculum often contains a detailed list of subjects and the elements of teaching them. John Franklin Bobbitt's "The Curriculum" published in 1918 mentions curriculum as an idea that has its roots in the Latin word 'race-course'. He also explained "The Curriculum" as the course of deeds and experiences through which children grow up into adults and get going for success in the society. A curriculum is more than putting together a set of academically required subjects. It must consider all aspects of the student life, the learning needs of students, the time available for the sessions and the teachers' idea, capability and workload. Now that we know the constitution of a curriculum, let us study its importance in the lines that follow.

Significance of Curriculum

In Elementary Schools

In elementary schools, the curriculum is primarily drawn by the educational boards or some central society. They study the needs of the kids and all other feasibilities before selecting courses and drafting a curriculum. Here, the students have least choice in their subjects and study based on a universal curriculum, which works on all sections of the students' psyche and aid in the total development of the student. No area is left untouched. Hence, the curriculum aids in the proper development, while the child comes to terms with his or her own inclination. Therefore, at primary school levels, the curriculum aims at providing a structured platform, which gives every child an equal opportunity to excel.

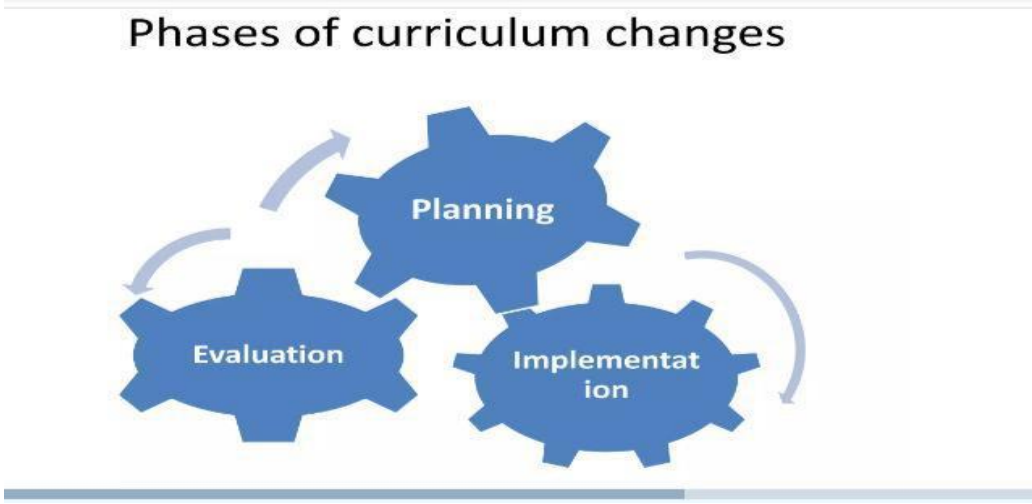
In High Schools

At high school levels, teenagers can take their own liberty in choosing their path. Though complete autonomy does not rest with a student, a level of choice is very evident. This helps in the development of the teenager, with added importance of being given the field of his own choice. At this stage, the development is more focused and rampant, enhanced through a

proper curriculum. Without an effective curriculum, a student would not be able to understand or meet the challenges of the society.

At College & Higher Education

At a higher stage of education, an unprecedented autonomy is provided to the students. The students can opt for a more focused curriculum, based on their choice of subjects. A student will graduate, post-graduate or attain a doctorate based on the choice of his subjects and the mode of his study, both or either one determined by him. The curriculum here is reduced to just a framework that is very flexible yet very important. The curriculum chosen by the student will go on to determine the shape of his career. A curriculum prepares an individual with the knowledge to be successful, confident and responsible citizens.



Phase -1 Planning

- Reviewing of Curriculum is the first phase of curriculum change, curriculum should be reviewed by committee to identify areas that need to be changed.
- The curriculum committee have to study,report and make plans for the change in Curriculum.
- Involvement of faculty, administration and students in curriculum change is necessary.
- Implementing the plan of change in curriculum required a system development of the content, learning experience and Evaluation.
- Certain Principles to be made for the use of curriculum when changing a curriculum.
- Change Occurs within the institution and in the participants of change.

Phase – 2 Implementation

- Once curriculum has been finalized,course modification steps have to taken.

- The change plan will be implemented by formulating objectives,course content, learning methods ,teaching approaches and evaluation process.
- The behavioral changes expected in the students with the implementation of the curriculum.

Phase: 3 Evaluation

- Evaluation methods and procdures are made at planning.
- Evaluation must be used to monitor the progress of the student learning to determine the extent to which the objectives have been achieved and to find ways of improving teaching and learning methods.

1.14 Strategies and models for curriculum change and innovation.

A strategy of innovation refers to the planned procedures and techniques used in the desire for change.

- Participative Problem-solving
- Planned Linkage
- Coercive Strategies