Curriculum Planning

College vision:

The college seeks to assist the university in achieving its strategic goals by being one of the distinguished colleges and competing internally and externally in education, community service and scientific research by achieving a high level of performance and providing a distinguished graduate who meets the multiple needs of the local and external labor market.

Strategic objectives:

Strategic objectives have been prepared for the college emanating from the strategic objectives of the university included in the strategic plan for quality assurance of South Valley University and in line with the college's capabilities and ambitions and the aspirations of the local community, which are as follows:

• Preparing specialized cadres qualified to teach and equipped with the knowledge, skills and experience necessary for the field of specialization.

• Working on the establishment and development of college departments to become fields of expertise capable of serving the community and developing the environment.

• Implementation of various activities that develop different aspects of the student's personality.

• Activating the communication channels between the college and the local community.

• Achieving excellence in education and achieving the goal of being a scientific environment that facilitates and encourages scientific research.

• Creating the appropriate practical environment that enables the student to be able to solve problems and interact with the surrounding changes.

• Providing a distinguished graduate who meets the renewable needs of the local and global labor market.

• Providing opportunities for continuing education, knowledge, skillfulness and professionalism.

• Participation in the sustainable development of the local community.

• Increasing the efficiency and effectiveness of the college's administrative apparatus.

College mission:

The mission of the Faculty of Education in Hurghada stems from the long-standing educational mission entrusted to the faculties of education in general. South Valley University's mission is the commitment in providing the best opportunities for education and research services to students and the larger community, at a level of quality comparable to regional standards. The University is committed to creating an educational and learning environment based on scientific research, to encourage students to exert their utmost effort, to prepare experienced and qualified graduates who can adapt to changing circumstances. The university contributes to improving the quality of manpower in the South Valley region in a way that meets the needs of this unique community.

Accordingly, the Faculty of Education in Hurghada is an integrated part of the South Valley University system that completes its mission in providing educational, research or community services. Therefore, the integration of these capabilities enable the college to teach students how to develop appropriate solutions to urgent problems in the local environment, while meeting the requirements of governorates within the university, as well as the local community, even on a global scale. These are, of course, related to preparing educators who are compatible with the urgent modern educational requirements to meet the challenges of the 21st century

Based on the foregoing, the college's mission was determined as follows:

The College of Education aims for excellence through: -

• A number of educators, specialized teachers and leaders in various educational disciplines.

• Developing the professional and scientific capabilities of scholars in the field of education by introducing them to modern educational trends.

• Conducting research and studies in various educational disciplines within the college.

• Dissemination of modern educational thought and its contributions to solving the problems of environment and society.

• Exchange of experiences and information with educational and cultural bodies and institutions.

- Developing all aspects of students' personalities and nurturing talented and creative people.

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Chapter 1

CURRICULUM

Curriculum

Meaning of Curriculum:

The term ‘curriculum’ has been derived from a Latin word ‘currere’ which means a ‘race course’ or a runway on which one runs to reach a goal. Accordingly, a curriculum is the instructional and the educative programme by following which the pupils achieved their goals, ideals and aspirations of life.

It is curriculum through which the general aims of a school education receive concrete expression.

Traditional Concept of Curriculum

In the past, the second name of curriculum was ‘course of studies’. This term was considered to be a program related to various subjects only. However, the term ‘curriculum’ and ‘course of studies’ were, sometimes interchangeable but used in a very limited sense. As a matter of fact, this viewpoint was a static-view which emphasised only the textbook knowledge or factual information. In those it was correct because the main objective of education was to help the learner to memorize the contents.

Furthermore, curriculum was a body of preserved factual knowledge to be transmitted from the teacher to the pupils and mastered by them through memorization, recitation and drills; and to be reproduced on the demand of the teacher.

The traditional curriculum was subject centred while the modern curriculum is child and life-centred or student centred.

Modern Concept of Curriculum

With the passes of time and reinforcement of mind the traditional concept of curriculum (which was limited in scope) was replaced by a dynamic and modern concept. Hence, it is now considered to be a

broad cumulative and comprehensive term including all the curricular and co-curricular activities. It is the totality of all the learning activities to which we are exposed during study, i.e. classroom experiences, laboratory, library, playgrounds, school building, study tours associations withy parents and community. Now, it is more than the textbooks and more than the subject matter selected for a particular class.

Modern education is the combination of two dynamic processes. The one is the process of individual development and the other is the process of socialization, which is economically known as adjustment with the social environment.

In short, curriculum is a series of potential experiences, set-up in educational institutions for the reason of disciplining the learners in desirable ways of thinking of the concerned society. It is a path by following which we can reach a specified destination. Furthermore, it is considered to be a series of learning opportunities which are planned and carried out by a teacher and pupils working together.

Definitions:

There is no generally agreed upon definition of curriculum. Some influential definitions combine various elements to describe curriculum as follows:

- Curriculum is, perhaps, best thought of as that set of planned activities which are designed to implement a particular educational aim set of such aims in terms of the content of what is to be taught and the knowledge, skills and attitudes which are to be deliberately fostered together with statements of criteria for selection of content, and choices in methods, materials and evaluation.
- **Kerr** defines curriculum as, "All the learning which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside of school."
- **Crow and Crow** – "The curriculum includes all the learner's experience in or outside school that are included in a programme which has been devised to help him developmentally, emotionally, socially, spiritually and morally".

- **T.P. Nunn –** "The curriculum should be viewed as various forms of activities that are grand expressions of human spirit and that are of the greatest and most permanent significance to the wide world
- **Braslavsky** states that curriculum is an agreement among communities, educational professionals, and the State on what learners should take on during specific periods of their lives. Furthermore, the curriculum defines "why, what, when, where, how, and with whom to learn."

- Outlines the skills, performances, attitudes, and values pupils are expected to learn from schooling. It includes statements of desired pupil outcomes, descriptions of materials, and the planned sequence that will be used to help pupils attain the outcomes.
- The total learning experience provided by a school. It includes the content of courses (the syllabus), the methods employed (strategies), and other aspects, like norms and values, which relate to the way the school is organized.
- The aggregate of courses of study given in a learning environment. The courses are arranged in a sequence to make learning a subject easier. In schools, a curriculum spans several grades.

Curriculum can be ordered into a procedure:

Step 1: Diagnosis of needs.

Step 2: Formulation of objectives.

Step 3: Selection of content.

Step 4: Organization of content.

Step 5: Selection of learning experiences.

Step 6: Organization of learning experiences.

Step 7: Determination of what to evaluate and of the ways and means of doing it.

Characteristics of Curriculum

a. **The curriculum is continuously evolving**:- It evolved from one period to another, to the present. For a curriculum, to be effective, it must have continuous monitoring and evaluation. Curriculum must adapt its educational activities and services to meet the needs of a modern and dynamic community.

b. **It is is based on the needs of the pupils**:- A good curriculum reflects the needs of the individual and the society as a whole. The curriculum is in proper shape in order to meet the challenges of time and make education more responsive to the clientele it serves.

c. **It is democratically conceived**:- A good curriculum is developed through the efforts of a group of individuals from different sectors in the society who are knowledgeable about the interests, needs and resources of the learner and the society as a whole. The curriculum is the product of many minds and energies.

d. **The curriculum is the result of a long term effort**:- It is a product of long and tedious process. It takes a long period of time in the planning, management, evaluation and development of a good curriculum.

e. It **is a complex of details**:- A good curriculum provides the proper instructional equipment and meeting places that are often most conducive to learning. It includes the student-teacher relationship, guidance and counselling program, health services, school and community projects, library and laboratories, and other school related work experiences.

f. It **provides for the logical sequence of subject matter**:- Learning is developmental. Classes and activities should be planned. A good curriculum provides continuity of experience.

g. **The curriculum complements and cooperates with other programs of the community**:- It is responsive to the needs of the community. The school offers its assistance in the improvement and realization of ongoing programs of the community. There is cooperative effort between the school and the community towards greater productivity.

h. **It has educational quality**:- Quality education comes through the situation of the individual's intellectual and creative capacities for social welfare and development. The curriculum helps the learner to become the best that he can possibly be. Its support system is secured to augment existing sources for its efficient and effective implementation.

i. **It has administrative flexibility**:- A good curriculum must be ready to incorporate changes whenever necessary. The curriculum is open to revision and development to meet the demands of globalization and the digital age.

Concept of Curriculum: The term curriculum refers to the lessons and academic content taught in a school or in a specific course or program. In dictionaries, curriculum is often defined as the courses offered by a school, but it is rarely used in such a general sense in schools.

The concept of curriculum is as dynamic as the changes that occur in society: In its narrow sense, curriculum is viewed merely as a listing of subject to be taught in school; while in a broader sense, it refers to the total learning experiences of individuals not only in schools, but in society as well.

To accommodate difference of view, Hamid Hasan (1988) telling that curriculum concept can be evaluated in four dimension, that is

1. Curriculum as an idea; yielded pass or through research and theory's, especially in the field of education and curriculum

2. Curriculum as plan written, as materialization of curriculum as an idea; what in it load about target, materials, activity, appliances, and time

3. Curriculum as an activity, representing execution of curriculum as a plan written; in the form of study practice

4. Curriculum as a result of representing consequence of curriculum as an activity, in the form of got of curriculum target namely reaching of change of certain ability or behavior from all educative participants.

Curriculum: Curriculum is a focus of study, consisting of various courses all designed to reach a particular proficiency or qualification. A curriculum can consist of more than one course. Curriculum refers to the training assigned to a student. Curriculum is a focus of study, consisting of various courses all designed to reach a particular proficiency or qualification.

Meaning of Curriculum Framework, Syllabus and Textbook

Introduction:

A curriculum is considered the **heart** of any learning institution which means that schools or universities cannot exist without a curriculum. With its importance in formal education, curriculum has become a dynamic process due to the changes that occur in our society. Therefore, in its broadest sense, curriculum refers to the total learning experiences of individuals not only in school, but in society as well

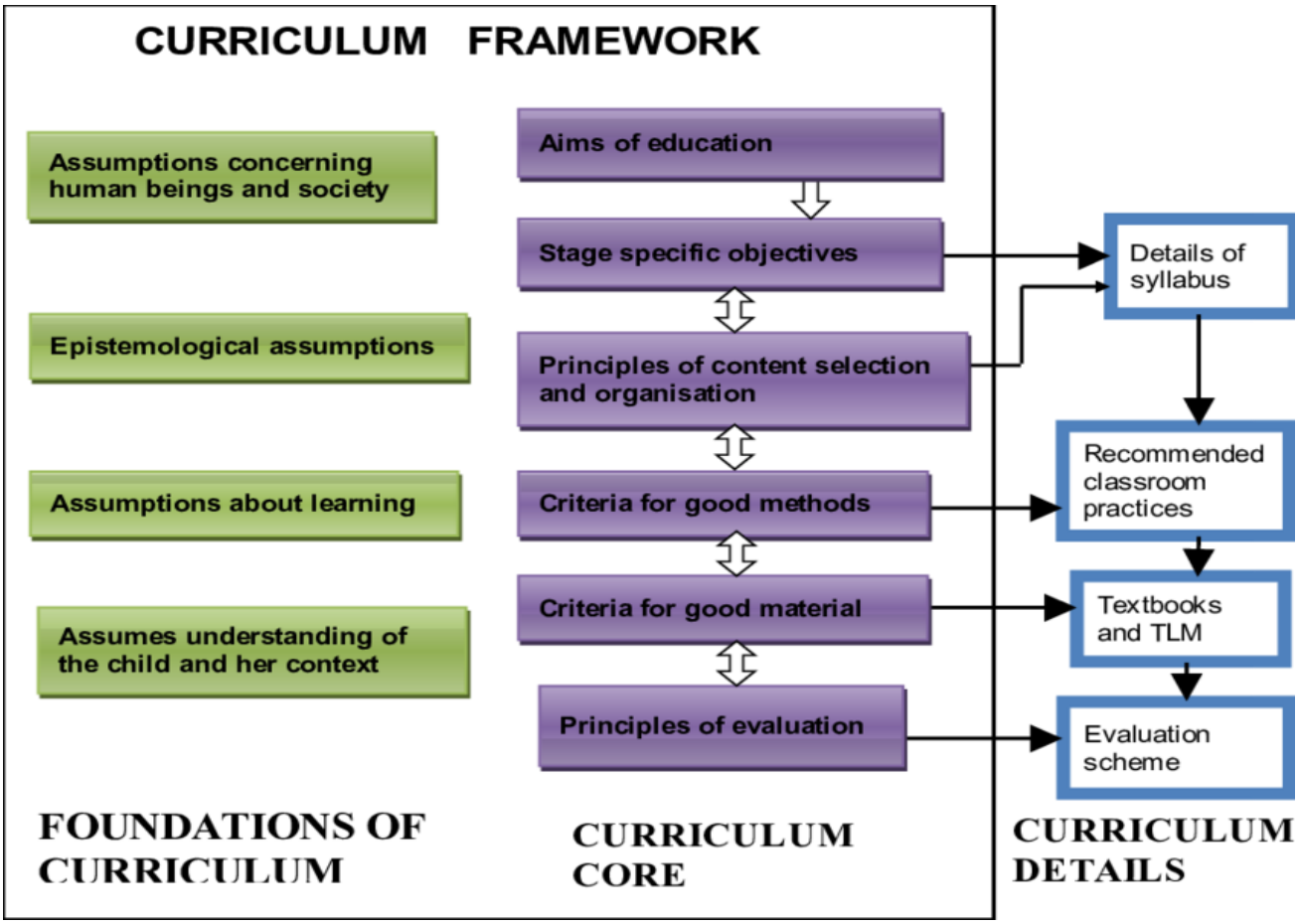


Figure 1:The Graphical Representation of Curriculum Framework. Source: Position Paper National Focus Group on Curriculum, Syllabus and Textbooks

Meaning of Curriculum Framework:

A curriculum framework is an organized plan or set of standards or learning outcomes that defines the content to be learned in terms of clear, definable standards of what the student should know and be able to do. A curriculum framework is part of an outcome-based education or standards based education reform design.

A plan that interprets educational aims vis-a-vis (in relation to/ with regard to) both individual and society, to arrive at an understanding of the kinds of learning experiences school must provide to children.

- **Curriculum**: Curriculum is, perhaps, best thought of as that set of planned activities which are designed to implement a particular educational aim set of such aims-in terms of the content of what is to be taught and the knowledge, skills and attitudes which are to be deliberately fostered together with statements of criteria for selection of content, and choices in methods, materials and evaluation.
- The curriculum is defined as the guideline of the chapters and academic content covered by an educational system while undergoing a particular course or program.
- In a theoretical sense, curriculum refers to what is offered by the school or college. However, practically it has a wider scope which covers the knowledge, attitude, behavior, manner, performance and skills that are imparted or inculcated in a student. It contains the teaching methods, lessons, assignments, physical and mental exercises, activities, projects, study material, tutorials, presentations, assessments, test series, learning objectives, and so on.
- The curriculum is well planned, guided and designed by the government or the educational institution. It is aimed at both physical and mental development of a student. It is the overall learning experience that a student goes through during the particular course of study.

Meaning of Syllabus: Syllabus refers to the content of what is to be taught and the knowledge, skills and attitudes which are to be deliberately fostered; together with stage specific objectives.

- The syllabus is defined as the documents that consist of topics or portion covered in
  a particular subject. It is determined by the examination board and create d by the professors. The professors are responsible for the quality of the c ourse. It is madeavailable to the students by the teachers, either in hard copy or electronic form to bring their attention towards the subject and take their study seriously.
- A syllabus is considered as a guide to the in charge as well as to the students. It helps the students to know about the subject in detail, why it is a part of their course of study, what are the expectations from students, consequences of failure, etc. It contains general rules, policies, instructions, topics covered, assignments, projects, test dates, and so on.

Meaning of Textbook: The textbook becomes an embodiment of syllabus - all that is in it has to be taught, and that is all that is to be taught. It becomes a methodological guide-has to be read and substantial portions memorized through repeated reading. It also becomes the evaluation system-questions at the end of each chapter have to be answered orally and inwriting, reproducing the text from the book itself. Here the textbook is an embodiment of the syllabus and of all aspects of classroom practices.

- A textbook used as a standard work for the study of a particular subject.

- A textbook is a manual of instruction in any branch of study. Textbooks are produced according to the demands of educational institutions.
- A book that contains detailed information about a subject for people who are studying that subject.

Textbook: Textbook, book used by students, from text (noun)+book(noun). It meant ‘book printed with wide spaces between the lines’ for notes or translation (such a book would have been used by students), from the notion of the text of a book being more open than the close notes.

- A coursebook, a formal manual of instruction in a specific subject, especially one foruse in schools or colleges.
- A textbook in the principles of science teaching it is likely to kill interest, and give bothteacher and pupils a didactic, textbook attitude at the very beginning.
- ...a kind of descriptive account or a social, geographical, anthropological, or historicalcommentary that may at times have a certain textbook tone to it.

Chapter 2

CURRICULUM PLANNING

Curriculum planning

The phrase “curriculum planning” can mean one of two related things: either the process of an individual teacher to build a class curriculum, or the means through which school boards coordinate the various curricula being used by teachers in order to achieve uniform goals. On its own, a *curriculum* is basically a lesson plan that functions as a map for learning. Careful planning is required to ensure first that the lessons actually touch on all required topics, and also that they meet school or governmental standards of basic education.

The process concerned with making decisions about what to learn, why, and how to organize the teaching and learning process taking into account existing curriculum requirements and the resources available. At the general level, it often results in the definition of a broad curriculum framework, as well as a syllabus for each subject to be used as reference by individual schools. At the school level, it involves developing course and assessment plans for different subjects. At the classroom level, it involves developing more detailed plans for learning units, individual lessons and lesson sequences.

INTRODUCTION

This Unit is designed to present a few models of curriculum planning. However,

we would like to caution you that these are not the only models available in the field under consideration. Nevertheless, we have taken up only those that serve our immediate purposes and that are not incomplete in that they have incorporated all the aspects of the activities involved in curriculum planning.

Besides in this Unit, we have clarified what exactly we mean by curriculum planning. We have also discussed the levels and components of curriculum planning and the issues pertaining to it.

CURRICULUM PLANING: A DEFINITION

It is essential that we should acquaint ourselves with a few terms in the field of curriculum. A working knowledge of these terms is not only part of studying curriculum, but also essential for effective participation in curriculum planning activities. As our immediate concern is curriculum planning, at the outset we shall attempt to evolve a definition of this term.

What does curriculum planning involve?

Curriculum planning is a complex activity involving the interplay of ideas from the curriculum field and other related disciplines. However, the ultimate purpose of curriculum planning is to describe the learning opportunities available to students.

Thus curriculum planning is ultimately concerned with the experiences of learners.

In any teaching/learning situation, however, the concern is not only with what students ought to learn, but also with how they are going to learn it. Curriculum plans that define concepts or ideas without considering action, are incomplete since learning must eventually involve the application of what has been learned. In the same way, plans that merely describe action without considering purposes are also incomplete since otherwise, learning activity runs the risk of being aimless. This relationship of content and process accentuates the need to consider curriculum and instruction not as distinct entities, but rather as interdependent concepts in the planning process.

Therefore curriculum planning involves decisions about both content and process.

Further, within the areas of curriculum and instruction, there are many specific issues and topics that may be subject to curriculum planning. Such areas might include identifying curriculum approaches that might be used, carrying out a programme, evaluating it or deciding about the need for new programmes etc. Besides, it concerns itself with various teaching/learning situations. It should be noted that curriculum planning typically involves decisions about some combinations of areas and issues since it is difficult to consider any one of these in isolation.

Therefore curriculum planning involves decisions about a variety of issues/topics.

Popular thinking in the early 1900's was that curriculum planning was the prerogative of a few scholars and the teacher's role was to implement what has been planned. Due to of advances in thinking, it is now considered that curriculum

planning is not the sole responsibility or privilege of any one group. It is, in essence, a product of team-work.

Curriculum planning thus involves many groups of people and levels of operation and is a continuous process.

Now, if we put together what is presented in the above boxes, we shall arrive at a working definition of the term ‘curriculum planning’. We can define the term ‘curriculum planning’ as a continuous process in which participants contribute at various levels towards making decisions about:

- the purposes of learning
- how that purpose might be carried out through teaching - learning situations
- whether the purpose identified and the means selected are both appropriate and effective curriculum planning.

Now, let us quickly touch upon a few other terms associated with curriculum planning. The terms ‘curriculum planning’ and ‘curriculum development’ are often used interchangeably. Some, however, believe that they represent two different stages of an educational activity. According to this new, curriculum planning is a blanket concept that may describe activity ranging from the identification of broad goals to the description of experiences for specific teaching/learning situations. Curriculum development is an activity concerned mainly with the design of actual teaching/learning situations. Based upon the broad goals, at the development stage ‘we identify ways to translate those goals into a coordinate’ and coherent programme of learning experiences.

Yet another term which we should familiarize ourselves with is ‘instruction’. It is developed from broad goals and curriculum plans and focuses on methodological questions such as teaching techniques and the implementation

of activities, resources and measuring devices used in specific teaching/ learning, situations.

Thus, curriculum planning is a generic concept that includes both curriculum development and instructional design, and instructional design denotes a highly specific activity focused on methods of teaching and learning.

ISSUES IN CURRICULUM PLANNING

Curriculum Planning: Levels

The planning of learning experiences is one of the most important professional activities in education. It is an important activity since it largely determines the day-to-day life of learners. There are seven situations that are involved in the planning of learning experiences. They represent curriculum planning activities at:

- the national level
- the state level
- the institution-system-wide level
- the building level
- the teacher team level
- the individual teacher level
- the classroom level with cooperative planning between students and teachers.

The purpose of discussing the seven situations is to give you a familiar context in which to consider the meaning of curriculum planning. Once we go through these situations, we can discuss the common patterns that run through them and that helps us further clarify what curriculum planning is.

National level:

Curriculum planning at the national level involves scholars of some particular discipline from various institutions across the country. They discuss and decide to develop and disseminate a programme, the existing one being either obsolete or inadequate to meet the demands. The stages involved in the planning process are:

- identifying important subject matter, facts, principles, concepts, etc.
- deciding on a sequence in which the subjects matter may be taught—from specific to general or from easy to difficult, etc.
- recommending activities through which students might best learn the subject matter, including experiments, discussions etc.
- listing supplementary materials for further studies in the particular subject area,
- suggesting tests that learners might take to check their progress. These stages are then put together to form sets of teaching/learning materials for purposes of implementation.

The underlying assumption, you would have noticed, is that once developed, such curriculum projects or packages could be put in the hands of teachers and quality education would be assured. The materials, thus produced, are often branded ‘teacher proof’ since it is believed that teachers with less than

desired skills or knowledge would be working from the plans of scholars/ experts, and that the teachers themselves don't have to contribute to the content.

Though we do not have immediate answers with empirical evidence, it is worth considering the following questions;

- Can national level curriculum projects account for the characteristics of learners in local institutions where the projects are supposed to be used?
- Are the subject-area scholars sufficiently knowledgeable about learner characteristics to prepare curriculum plans for use in all the institutions?
- Are subject-area scholars better equipped than teachers to develop curriculum plans in their area of specialization?
- How do national-level curriculum plans influence the professional role of teachers?
- Is it possible to develop curriculum plans that would be successful even when used by relatively unskilled teachers?

State level: In this scene, a group of educators (teachers, principles, curriculum coordinators, etc) form a committee under the State Education Department. The task of the Committee is to recommend what ought to constitute the overall programme across the State. It however depends upon the characteristics of the learners and the broad goals of education. A series of meetings of the group over a course of several months culminates in the production of a model to be sent to all the Institutions for implementation.

The issues pertaining to this level of curriculum planning are:

- Should the local authorities have the prerogative of setting up their own programmes based on local needs and preferences?
- Are statewide programmes and standards necessary to ensure the quality of education for learners across a state?
- Are State level personnel more qualified to develop curriculum plans than local teachers are?
- How do State level curriculum guides and mandates affect the role of the Curriculum Planning teachers at the local level?

Building level:

This scene deals with a group of parents, teachers, administrators, counsellors, and students from a particular institution. They are supposed to work together to evolve a new discipline policy for that institution.

The group works on the basis that a student's encounter with personal and social experiences is as important as with those experiences gathered from the academic activities. Therefore, these personal and social experiences form part of the curriculum. This situation represents a form of curriculum planning that result from the recognition that students learn a great deal from what is termed the 'hidden curriculum'. The hidden curriculum includes such institutional features as governance structure, grouping patterns, grading procedures, teacher expectations, etc. Since features like these do result in learning, whether they are planned or unplanned, they need to be considered in conscious efforts to plan the curriculum. That is to say, they must be planned in terms of purposes, activities, evaluation devices and so on.

Hence the issues are:

- Should students be included on a building-level curriculum council? If so, in what capacity, and how would student representatives be selected?
- To what extent should the aspects of hidden curriculum be considered to be sources of learning for students?

Teacher-team level:

This scene deals with a group of teachers representing different subject areas who come together to develop a unit. This type of activity is known as inter-disciplinary curriculum planning since it involves contributions from various subjects or disciplines of knowledge.

The oft-repeated questions at this level of curriculum planning are:

- What might be the benefits of cooperative interdisciplinary planning?
- What are the factors that are believed to detract from the effectiveness of an interdisciplinary team?
- How might aspects of various subjects be correlated with one another?

Individual teacher level:

In this case, a teacher tries to take a decision about learning objectives-what the teacher would like a group of students learn. In the area of subject matter or content, the teacher will have to take decisions about important facts, principles, concepts and learner outcomes that should be emphasized. The teacher must also plan different kinds of activities and resources and ways to measure how well learners have accomplished various objectives. At some stage, the teacher may search through various journals looking for ideas about activities, gather background information, or consult other teachers. In the end,

the teacher decides on long-and short-term objectives as well as on the timing of various activities. The teacher must then develop a set of plans for use on a daily or weekly basis. In designing this kind of plan, a number of items must be considered, such as the characteristics of the learners, the sequencing of activities, the appropriateness of various learning materials, and the availability of resources.

We must recognize here that the planning orientations of prospective teachers are often limited to daily lesson planning. All too often, little attention is paid to how these relate to long term unit plans. As a result, many teachers may have difficulty in understanding the relationship between short and long term plans with a wide range, and, in addition, may not realize the need for the latter. The planning done by the individual teacher is probably the most critical in the range of curriculum planning forms.

As a teacher you might be interested in the following questions:

- In developing curriculum plans for your teaching, do you consider both long and short term learning objectives?
- What is the greatest problem you encounter in your curriculum planning?
- About how much time do you spend on curriculum planning? Is that time sufficient? If not, how much more do you require? How do you arrange for it?
- What format do you use for formulating curriculum plans? How does your format compare with that of other teachers?
- How often do you teach without having prepared curriculum plans?
- Do you feel the preparation of careful curriculum plans enhances your teaching?

- How often do you depart from your plans in teaching situations?

Cooperative curriculum planning level:

This scene deals with a teacher and a group of learners. After discussions, the group draws up a formal set of the plans, summarizing all of its discussions about what might be done.

Here the teacher is guiding a group in formulating plans as to how they might study a particular topic. The teacher and learners work together to decide any combination of the 'what, how, who where, and when' questions regarding the unit they are working on.

Whether one believes its use or not, student-teacher planning does represent a level and form of curriculum planning. Its proximity to the actual group of learners and the possibilities for including learner interest in plans lead some of its proponents to conclude that it is the ultimate level of curriculum planning.

In this context let us consider the following issues:

- Can we involve learners in curriculum planning, if yes in what ways?
- What factors might inhibit learner participation in curriculum planning?
- What might be the benefits we gain from learner participation in curriculum planning?
- Should learners play a role in curriculum planning? If no, why not? If yes, what kind of role?

At each of these levels there might be various issues to be looked into in order that the curriculum planned will serve the set purpose. We have listed a few procedural issues pertaining to each of these levels. There are still some pedagogical issues that demand out attention which we have grouped into three

categories for convenience and easy reference. In sub-section 2.3.2 we shall take them up for discussion.

Curriculum Planning:

we have learnt that curriculum decisions mostly depend on one's philosophy of education. Irrespective of curriculum planning levels, therefore, the curriculum composition depends on what one wants one's students to achieve. When a group of people comes together for evolving a curriculum, naturally there will be diverse views and opinions. For our purpose, we have categorized these issues as follows:

i) subject centered versus learner centered curriculum.
ii) who plans the curriculum; and
iii) the basics that constitute the curriculum

Let us take each one of them in the given order for discussion.

i) Subject centred vs. Learner centred curriculum The idea of focusing curriculum plans on separate subjects has a long tradition in education. The subject area approach to curriculum development is based on the idea that the various subjects contain essential knowledge, the mastery of which makes a person complete or 'educated'. Thus some feel that the most appropriate method of education is to explore various subject areas and 'learn' what is contained in them.

The Progressive Education Movement of the 1930s, however, introduced the concept of a learner centred curriculum. Here, the curriculum would be

based not on separate subjects, but rather on the emerging world of the learner. The important issues that a curriculum plan should address itself to, according to the advocates of this movement, are the interests, needs, problems, and concerns of the learner. For example, curriculum plans for middle grade learners might focus on getting along with peers or on physical changes during this stage of development and so on and those for high school students might centre on questions of self-identity, global awareness, plans beyond high school, etc.

Thus, in designing curriculum plans curricularists are often confronted on the subject and the learner centred curriculum as questioning whether subject matter should be mastered or discarded. The fact is that subject matter always forms a part of the teaching/learning experience. John Dewey attempted to resolve the issue by arguing that the issue of subject versus subjects, i.e., learners is not an 'either or' question. The task, according to him, was to work with subject matter that was of use to the learner both in the immediate sense and in gradually expanding horizons of new realizations.

ii) Who plans the curriculum? Many groups are involved in curriculum planning: scholars, teachers, administrators, learners, citizens, state education department personnel and so on. Yet, in reality, a debate continues over the question of balance and even whether some groups ought to participate at all.

It is decidedly logical that teachers ought to be involved. Yet some people believe that teachers ought to play the role of the implementers of plans while scholars and/or administrators ought to do the actual planning. Others believe that curriculum planning ought to involve professionals and exclude

citizens and so on. In short, positions on this question range from including only one group to including all the groups in different degrees.

Of late, this issue has been compounded by the emergence of politics in curriculum planning. Various groups have sought power in that process, ranging from those representing national and religious movements to local groups interested in specific materials which they want to be used in teaching and learning. Within the profession, a new job-title, i.e., curriculum developer, has emerged. Although selected issues or topics may serve as the focus for these recent events, the fundamental issue is still who should plan the curriculum? We shall talk more about this in Unit 3 of this Block.

iii) The basics that constitute learning Perhaps the most compelling educational issue we have faced since the 1970s revolves around the question of 'basics' in learning. Displeased over the alleged decline in reading, writing and mathematics test scores, many critics decry the emphasis on relevant learner centred curriculum plans developed in the late 1960s, extending the cry for reform beyond basic skills to a renewed emphasis on traditional subject areas.

Some members of the public and of the profession respond to this movement by describing a broad definition of the basics. It includes not only those skills previously mentioned but also such areas as values, citizenship, problem solving and global awareness. The study of curriculum history seems to show that these issues arise almost every decade, and one or another view has gained the most favoured status at various times. It has become a cliché in education that, 'the pendulum is always swinging from

one position to another'. For many educators, it is a question of maintaining a sense of balance between specific skills and broad concepts and between traditional subjects, emerging social issues and the personal needs of learners.

CURRICULUM APPROACHES

We may define curriculum approaches as a pattern of organisation used in taking decisions about the various aspects of a teaching/learning situation. There is a wide range of approaches that are used. However, these generally fall into the following four major categories:

i) Subject area approach
ii) Broad fields approach
iii) Social problems approach
iv) Emerging needs approach

The selection of an approach reflects and influences the organizing center, i.e. the topic for the teaching/learning situation, the selection of objectives, and the use of subject matter or content.

Let us touch upon each of these approaches in the given order.

i) Subject area approach:

One way to organize curriculum plans is around separate subject areas or disciplines of knowledge. For example, the programme of studies might be divided into areas like English languages, arts, social

studies, sciences, mathematics and so on. When this is done, learning objectives involve mastering subject matter and skills within a given subject. The subject areas approach is the most popular method of curriculum organization. As this approach defines important learning in terms of subject matter from existing disciplines of knowledge, it is particularly favored by proponents of the philosophy of realism.

ii) Broad fields approach:

In this approach, organization of curriculum involves combining two or more subject areas into a broader field. For example, a unit may be developed in art and history and music may be combined to form a humanities programme; a unit on metrics may involve the simultaneous study of metric mathematics and its use in science etc. The broad fields approach recognizes and uses individual subject areas, but it also attempts to show learners the correlations between various areas of knowledge. Advocates of this approach cite the knowledge of such correlations as providing an advantage over the separate subject approach. The emphasis on broad ideas and concepts from subject fields makes this approach popular with those who favour the philosophy of idealism.

iii) **Social problems approach:**

Major problems in society dictate the organization of curriculum plans. For example, units may be developed with regard to environmental problems, technology, the future, racism, global interdependence and so on. In this approach, learning objectives involve analyzing the problem or issue, and the subject matter is

drawn from any source pertinent to the problem. If the unit topic, for example, were to be 'Future', learners might turn to social studies for information about government or population growth, to science for trends in technology, or to language arts for ideas regarding communications. However, little if any, concern is shown for retaining the identity of separate subjects even when the subject matter is derived from them. In other words, complete emphasis is laid upon the problem under study.

The major purpose of using this approach is to help learners develop awareness of crucial social issues and the skills that they might need and use in the future to help solve them. For this reason, it is particularly popular among proponents of the re-constructionist philosophy of education.

iv) Emerging needs approach:

Learner needs is the focal point of this approach. Curriculum plan focuses on the personal and social needs that are emerging in learners' lives at the present time. Topics such as getting along with others, understanding physical changes associated with puberty, developing personal values, understanding peer status etc., will gain entry into curriculum. Thus, the issues will relate to the stages of the learners' development.

As in the social problems approach, here too, information may be drawn from various subject areas, but there is no attempt to recognize a distinct line between disciplines of knowledge. The major purpose of this approach to curriculum is to help learners come to grips with issues in their present lives so as to be prepared for the present rather

than the future. While some topics or issues for study may be pre-planned by teachers, others may emerge spontaneously from discussions among teachers and students about pressing problems in learners' lives. It has the support of those who adhere to the pragmatic and existential philosophies of education.

We have looked into the four major approaches to curriculum with illustrations of each. Now we shall look into the issues relating to these approaches.

Issues relating to various 'approaches'

We shall categories the issues into the following three items:

i) Curricular approach and various instructional methods:

Many educators tend to stereotype various ideas and roles in curriculum. The most common stereotype is the distinction between traditional and progressive approaches. In this case, traditionalists are described as advocates of the subject approach and proponents of methods such as 'lectures'. Progressives, on the other hand, are seen as advocates of the social problems or emerging needs approaches and associated methods such as 'small-group discussions'. Educational stereotypes tend to be largely destructive and in this case erroneous. For example, we can easily imagine an English teacher developing a unit on short stories. During the session, it is possible for a resource person to visit the classroom to conduct a small-group discussion on the characters or personalities of a story. It is also possible in a different situation that a teacher studying peer pressure with a

group of learners might present a lecture on the reasons as to why status is assigned to various individuals. In essence, the activities are independent of the approach. The other unfortunate result of stereotyping the approaches is the idea that the subject area and broad fields approaches involve hard work and 'real' learning while the social problems and needs approaches are simply fun and games or the "soft side" of the curriculum. Again, such a conception is erroneous and foolish. For instance, typing to understand 'racial prejudice' in our society involves just as much serious attention and hard work as learning about the elements in the periodic chart in Chemistry— though views may differ on this.

ii) Curricular approaches and various instructional organizations:

Two popular ideas gaining currency in the field of curriculum are general education and inter-disciplinary teaching. The former refers to that portion of the educational programme which is considered central and, is therefore, required of all students. The latter has gained attention through the formation of teaching teams involving various subject areas such as language, mathematics, social studies, science and so on.

Again, in both the cases, the problems of stereotyping and narrow definition have emerged. The definition of 'general education' excludes the idea that all learners might also develop knowledge and skills related to social problems and emerging needs. On the other hand, many interdisciplinary team efforts have failed because teachers have been led to believe mistakenly that such teams must always fuse the various subject areas into a social problems approach. Such narrow-minded positions exclude the idea that interdisciplinary teams can use all the curriculum

plans.

iii) Choice of curricular approaches:

Very often, educators will propose that one particular approach is better than the rest. While it is certainly probable that individuals would favour or emphasize a particular approach, it is equally clear that all four have an appropriate place in any educational programme. Each serves a different and important purpose. Thus the real issue in considering curriculum approaches is not which one is better, but how can it be used optimally. By addressing the issue in this way, educators would confront the question of how to provide balance in the curriculum, which is in fact the real challenge.

MODELS OF CURRICULUM PLANNING:

AN OVERVIEW

All through our discussion so far, we have been emphasizing the need for careful curriculum planning for successful education. Prior to creating or implementing a programme, we should therefore require a master plan. In Block 1 we have seen that one's conceptualization of a curriculum plan largely depends on one's inclination towards a particular educational philosophy. Furthermore, our awareness of and sensitivity to curricular issues, both present and anticipated, influence our plan. We have been reiterating that, we cannot construct a curriculum without giving some serious though to goals, content, learning activities and evaluation. Obviously, the need for planning in curriculum is very crucial.

However, the problem seems to be that there are various ways to define curriculum planning, and rarely do any two persons agree on what it is or what it involves. We can attribute this kind of impasse to one's idea of which factor should receive attention in curriculum planning—subject matter, students or society.

Ideally, all those who are/or will have to be affected by a curriculum should be involved in the process of development. But, as with most aspects of education, there is some debate about what formula to follow in order to achieve particular educational goals. Although there are numerous models, from which to choose, most of them can be classified as either a 'technical model' or 'non-technical model'.

A word of caution

Before we proceed any further in discussing these two models, we should clarify here that we do not imply any prerogative sense when we use the terms 'technical' and 'non-technical'. We use them to mean two contrastive postures. For instance, persons who believe in some subject matter curriculum design usually advocate the technical approach to curriculum planning. Those who favour a learner-centred design prefer the non-technical approach. Problem-centred designs can fall within either approach.

Having said this, we shall take up the two models for detailed study.

Technical Models

Those who advocate the technical models look at curriculum planning as a plan for structuring the environment to coordinate in an orderly manner the elements of time, space, material, equipment and personnel. The implications are that they do not regard the technical models as vehicles for dehumanizing education, but rather a means of planning curricula to optimize students learning and to allow them to increase their output, including their humanness. Thus, technical models enable us to comprehend curriculum from a macro viewpoint, i.e., a complex unity of parts organized to serve a common function—the education of individuals.

To elaborate on this theme we shall talk about the following models:

i) The Tyler model
ii) The Taba model

iii) The Saylor and Alexander model

iv) The Goodlad model

v) The Hunkins model

vi) The Miller and Seller model

Let us take up each one of them in the given order for our discussion.

i) The Tyler Model

Tyler (1949) argues that those who are involved in curriculum inquiry should try to define the

- purposes of education
- educational experiences related to the purposes
- organization of experiences
- evaluation of the purposes

Fig. 2.1 gives us an idea of Tyler's curriculum development models.

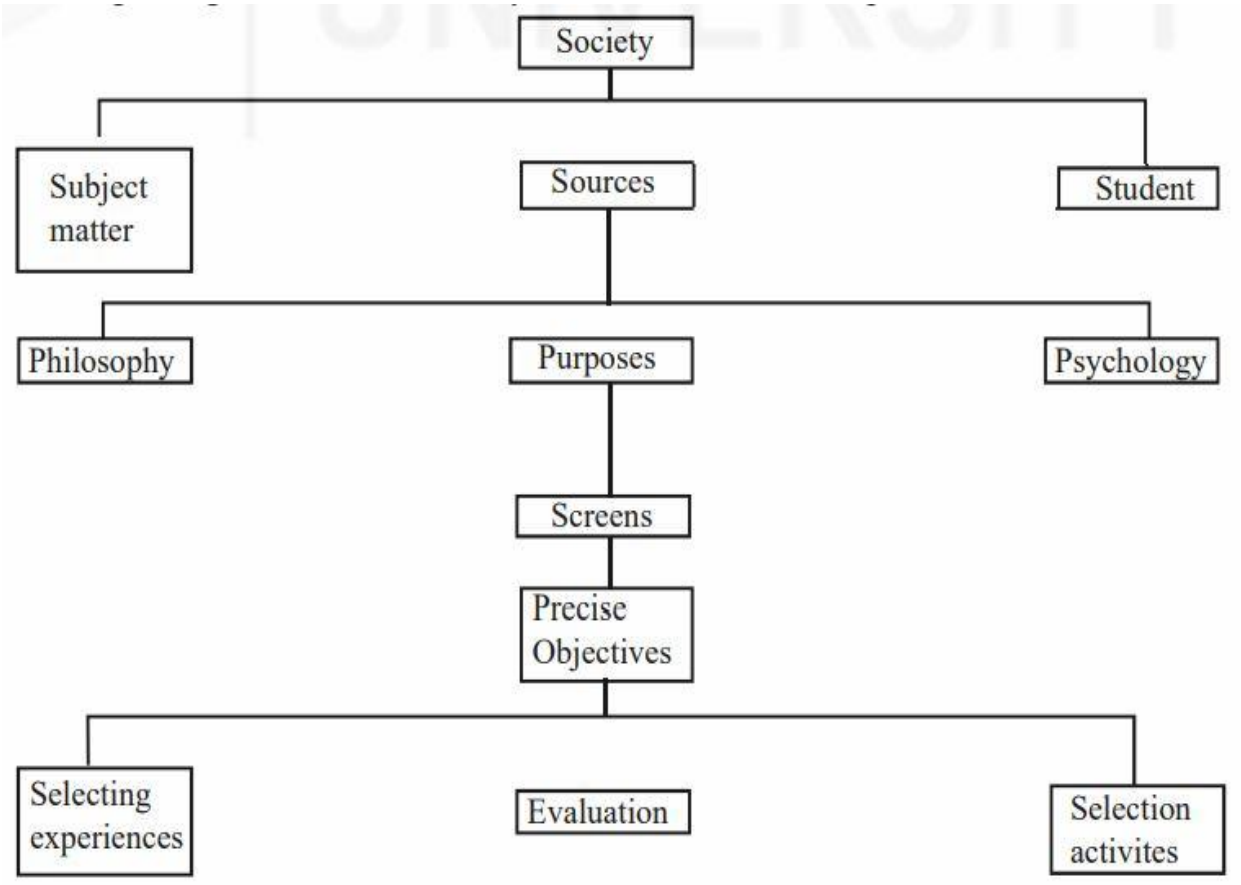


Fig. 2.1: The Tyler Model

A look at Fig. 2.1 should tell us that to identify the purposes we need to gather data from three sources, namely society, students and subject matter. As the purposes will be general in nature, we need to translate them into precise instructional objectives.

Tyler makes a provision for this purpose in his model on the bases of educational philosophy and the psychology of learning. By filtering the general purposes through these two screens as the figure suggests, we can refine them to specific instructional objectives. Once we have identified the objectives, we shall take up the task of selecting the requisite learning experiences, i.e. those which suit the objectives. The selection of learning experiences depends to a great extent on the previous experience and the

perceptions that the learner brings to a situation. The identified content-mass has to be chiselled and tailored in such a way as to reach the intended target group in an organised and a sequential pattern in order to effect the required learning. Tyler's last principle deals with evaluating the effectiveness of planning and actions. It gives us feedback as to whether or not we have achieved the intended goals. As the figure suggests all the four basic principles are interdependent.

ii) The Taba Model

Hilda Taba's grassroots model (1962) is a reaction to how Tyler's model was put to use. Although Tyler does not suggest that all the elements in his model should only be employed by selected core personnel, it was taken for granted that it is a top-down model, as the curriculum user does not find a role to play in curriculum planning in this model.

Taba feels that curriculum should be designed by its users. Teachers, for instance, should begin the process by creating specific teaching-learning units for their students. She further advocates that teachers need to take an inductive approach to curriculum development—starting with specifics and building to a general design as opposed to the traditional deductive approach—starting with the general design and working toward the specifics.

Accordingly, she has noted the following seven steps to her grassroots model in which teachers would have major inputs to make.

- Diagnosis of needs: The teacher (the curriculum designer, in this context) start the process by identifying the needs of the students for whom the curriculum is to be planned.

- Formulation of objects: After the identification of the needs that require attention, the teacher specifies objectives to be accomplished.
- Selection of content: The objectives selected should suggest the subject matter to unit-lesson.
- (Taba points out that not only should objectives and content match, but the validity and significance of the content identified need to be determined as well).
- Organization of content: Having selected the content, we need to organize it in some sequential pattern. Organization of content depends on the cognitive maturity of the learners, their academic achievement and interest areas.
- Selection of learner-activities: Depending on the content selected and its sequence we should introduce appropriate instructional methodologies that will help the students involve themselves with the content.
- Evaluation: The purpose of evaluation is to determine how much of the objectives could be achieved. The evaluation procedures need to be considered by the students and teachers.

You might have noticed here that the elements in the grassroots model of Taba are identical with those of Tyler's. The emphasis however in the former is that curriculum framing should adopt participatory management rather than a top-down on.

Though Taba's model has much merit, some maintain that its primary weakness is that

- it applies the concept of participatory democracy to a highly technical and specialized process; and
- it assumes expertise such extensive curricular activity on the part of the teachers in.

However, we do need to recognize that the grassroots approach has made it abundantly clear that a broad base of involvement is essential for curriculum decision making.

iii) The Saylor and Alexander model

Saylor and Alexander have presented a systematic approach to curriculum development that has 4 distinct stages with a feedback loop. We can illustratively present it as shown in Fig. 2.2

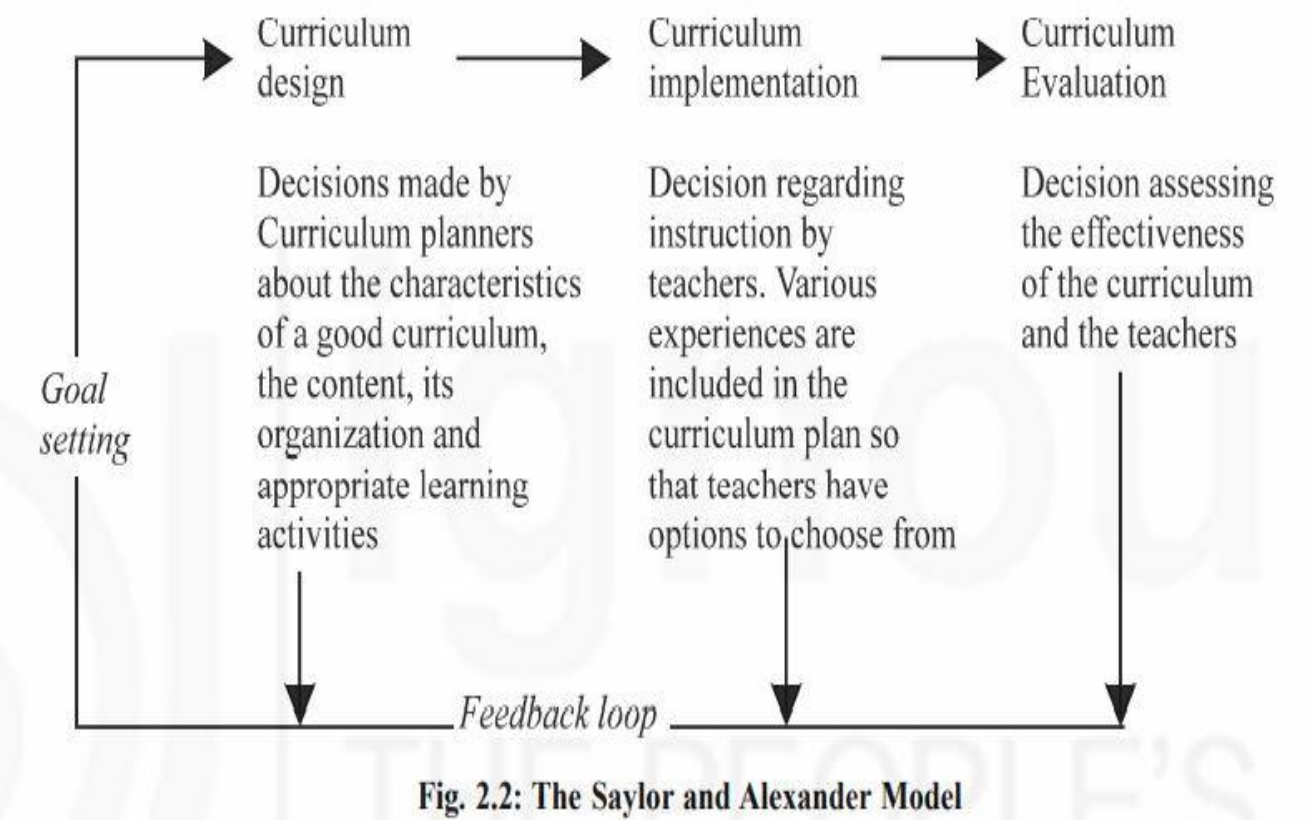


Fig. 2.2: The Saylor and Alexander Model

Though the figure by itself is suggestive of the stages involved in curriculum planning, a word about each of the stages is in place here.

Goal setting: There are four major curriculum domains that should receive attention: personal development, human relations, continued learning skills and specialization. Each of the goals identified should depict a curriculum domain.

Curriculum design: Here we have to take a decision on the content, its organisation and appropriate learning opportunities for the content selected. Moreover, at this stage we decide whether the curriculum be designed to emphasise the academic disciplines, the learner needs or the needs of the society.

Curriculum Implementation: Once we design the curriculum and develop it for implementation, the teachers. Select various methods and materials to suit their

learners. In a distance education context, mostly the learners themselves decide on the methods.

Curriculum evaluation: This is the final stage in the model. At this stage, the curriculum planners and teachers choose from the available evaluation techniques, those that will furnish an accurate picture of the value and success of the curriculum and its delivery. Evaluation should focus on the curriculum plan, the quality of the instruction and the learning behaviours of the students. Through such comprehensive evaluation we determine whether to retain a programme, modify it or discard it. (Please see the feedback loop in the figure).

iv) The Goodlad model

`In this model, all educational aims are drawn from the analysis of the values of the existing culture. These educational aims are then translated into educational objectives stated in behavioural terms. Obviously, the objectives identified suggest learning opportunities. According to this model, curriculum planners deduce specific educational objectives from the general educational objectives identified and the learning opportunities suggested. Specific objectives help the planner in selecting organizing centres, i.e., specific learning opportunities set up for identifiable students or for a particular student.

v) The Hunkins Model

It has the following seven major stages:

- curriculum conceptualization and legitimization
- diagnosis

- content selection
- experience selection
- implementation
- evaluation
- maintenance

A diagramatic representation of the model is given in Fig. 2.

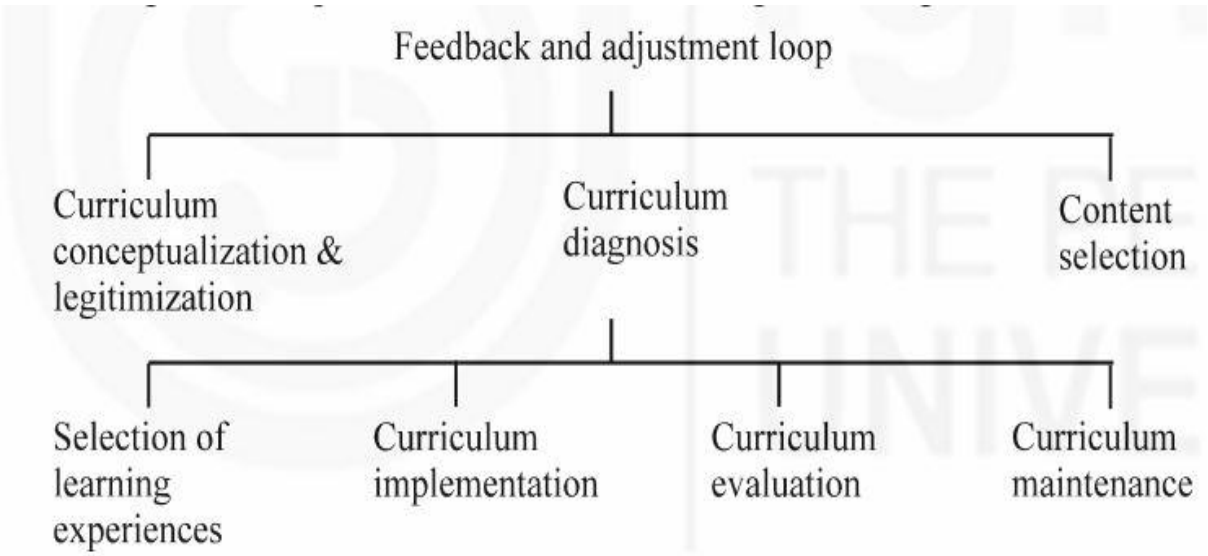


Fig. 2.3: The Hunkins Model

If you noticed, in this model there are a few elements which are missing in the other models.

What are they?

Except in Goodlad's model, the rest do not have the feedback and adjustment loop. And even in Goodlad's model the loop is of a primitive nature. But in this model it has gained importance. It allows those working with the model to continually adjust their decision making about curricular action, depending on the situation.

For instance, supposing the designers are at the stage of content selection and find that there is a lack of resources, they can return to the curriculum diagnosis stage to modify the objectives selected. Or they can even go back to the beginning stage and rethink the curriculum in the light of the new information. It allows the process of curriculum decision-making to be 'spiral' rather than 'linear'.

And the other distinguishing feature of this model is the incorporation of the stage at which conceptualization and legitimization of curriculum takes place. It is possible that people engage in the curriculum development process without considering what their philosophical orientations are. The first stage in the Hunkins model resolves this problem. It ensures that at the beginning itself one should be able to clearly articulate one's philosophical orientation. It guides the rest of the curriculum planning activities- In the other models; curriculum evaluation has been considered the final stage of curriculum planning activities. However, the Hunkins model has a unique stage after the evaluation stage. It is the curriculum maintenance stage. Generally, we tend to be self-complacent once we launch a programme or are satisfied with the data' collected from the feedback system. But then, curriculum programmes that are not consciously maintained usually dissipate and finally become parts of a patchwork of courses. The curriculum maintenance stage suggests various means of managing the curriculum system and the support systems necessary for the continuation of the programme.

The activities at the rest of the stages are by and large similar to those of the stages in the other models.

vi) The Miller and Seller

Model It introduces the notion that the various models of curriculum development exhibit at least the following (three orientations towards the purpose of curriculum:

- Orientation of transmission position: The curriculum can emphasise that the education should transmit facts, skills and values to students. The stress is on mastery of competencies and carrying on the culture.
- Orientation of transaction position: An individual should be perceived as a rational being and thought to be capable of intelligent action. We can therefore, view education as a dialogic process between the student and the curriculum.
- Orientation of transformation position: It centres on personal and social change. Here, as you may recall, there are those who have an inclination towards humanistic approach in curriculum planning, those who approve of personal attitudes, etc., and social changes in uencing curriculum.

We shall present this model in a diagrammatic form as shown in Fig. 2.4.

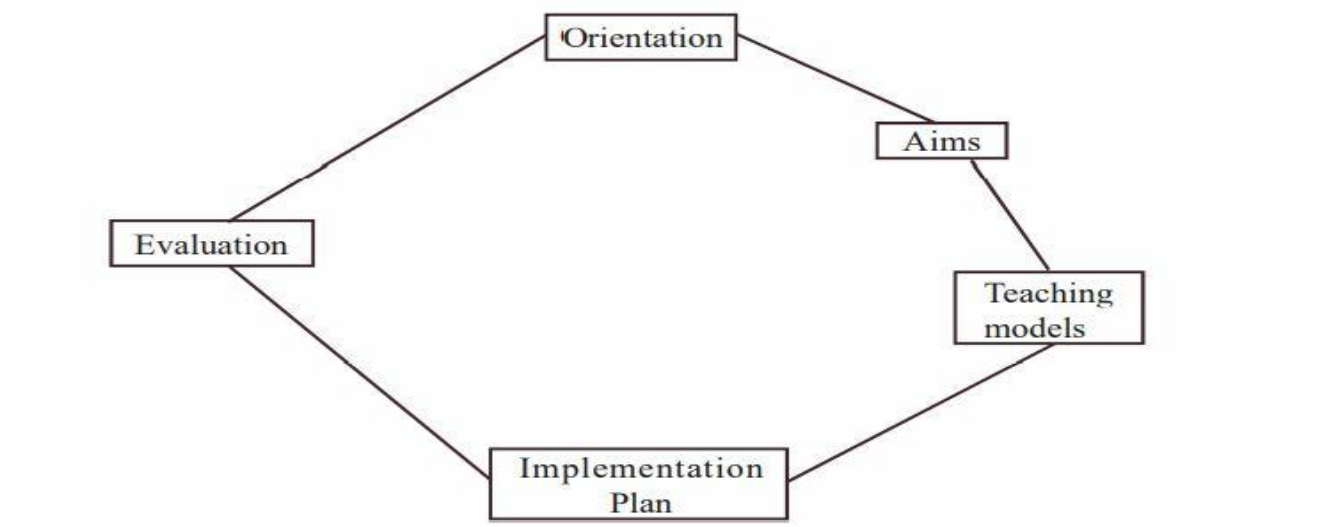


Fig. 2.4: The Miller and Seller Model

The figure clearly shows that it has all the features of the 'technical model' of curriculum planning, in spite of the fact that it advocates orientation to transformation.

The stages presented in the figure are rather self-evident. The orientation stage deals with considering one's philosophy and, one's view of society. From this orientation, we determine the aims, goals and objectives to be addressed. You may have noticed here that the content of the curriculum which normally follows the objective setting stage in the other models seems to have been ignored. Here, one goes from objectives to experiences and teaching methods. The implementation stage that follows refers to incorporating the curriculum into the teacher's repertoire of behaviour. At the evaluation stage, one assesses the effectiveness of the curriculum.

Note: It is not as though there are only these models are available under the technical models.

There are in fact a few more but all of them are incomplete by themselves. We should also understand that it is not possible for every model to show every detail

and every nuance of the curriculum planning process. We should furthermore realize that even though the models that we have talked about are inclined to the subject-centred curriculum designs, they can, in fact, be employed to develop a curriculum for any and all of the curriculum designs. Having looked into the technical models, let us now take up the non-technical models in sub section.

Non-Technical Models

Let us start this subsection with a word of caution. Here, we are not suggesting that the non-technical models are unsystematic by comparison. Rather, these models take up issues with some of the key assumptions underlying the technical approach and questioning some of the consequences that result from utilizing this approach to curriculum development.

In this subsection, we shall be talking about the following three models in the given order:

i) Open Classroom Model
ii) Weinstein and Fantini Model
iii) Interpersonal Relations Model

i) The Open classroom model

Much discussion favouring a non-technical approach to curriculum appeared during the early 1970s in what has come to be known as the open-classroom or open-school movement.

It is based on an activity based curriculum in which the activities are treated as ends in themselves. To a certain degree, those who favour the activity curriculum are averse to making in advance any plan that might sti e the development and learning of the students. It, thus, suggests that students learn by participating in tasks and by actively moving around the room and not by passively listening to the teachers.

In essence, this model places great faith in students and encourages learner autonomy.

Although some persons believe in such non-planning of the curriculum, most of them advance some consistent ways of creating a programme. They present, for example, stages of actions that need to be considered systematically

ii) The Weinstein and Fantini model

Through this model, teachers can generate new content and techniques to assess the relevance of the existing curriculum, content and techniques. Weinstein and Fantini note that it is a way of linking sociological factors with cognition so that the learners can cope with their concerns.
According to this model the first step in the curriculum planning activity is to identify the learner-group. By implication, this model gives importance to learner-concerns, that determine the:

- content and its organisation; and
- teaching procedures to be employed

Since concerns are deeper and more persistent than interests, they give the curriculum some consistency over a period of time. The nature of content organization contributes in sustaining the motivation of the students. All content, in fact, is organized into the following three divisions:

- content gained from experiences one has as a growing person here the content addresses student identity, power, belonging and connection,
- content relating to the learners' feelings about his or her experiences for instance, one's feelings about one's friends, about sports and social activities need to find a place in the curriculum,
- content that the student gets/obtains from the social environment in which he or she lives.

The types of content selected obviously influence the types of skills selected as well. Identifying the teaching procedures is the next major stage in this model. The necessary procedures are those that will address the learning styles of individuals and that will also have the greatest impact on their affective dimensions. The message of this model, therefore, seems to be to foster self-control of one's educational experience.

iii) **Interpersonal relations model**

Cart Rogers is not a curriculum specialist, but he has developed a model for changing human behaviour, which can be used for curriculum development. His emphasis is on human experiences and not on content or learning activities. Rogers' model is used for exploring group experiences, whereby people examine themselves and others through peer group discussion etc.

With the aid of a trained facilitator each participant in the group is encouraged to put aside his/her own defences, to communicate honestly and to explore his/her own feelings and those of others. So the model is called 'interpersonal' relations model.

Rogers' model can be used for improving the attitudes, behaviours and personal relations of students, parents, community member and so on. It can be used not only among peers, but also to effect relations between members of different status-roles such as a curriculum committee consisting of board members, community members, parents, administrators, teachers and students. In this manner, members of the curriculum committee can learn to understand themselves and others better, and to become more flexible and willing to work for constructive changes.

As we have mentioned earlier, the danger in noting that one set of approaches is systematic or rational is the implication that the other is systematic or non-rational. However, we do not intend any such nonimplication here.

The technical approach to curriculum suggests that the process of curriculum development has a high degree of objectivity, universality and logic, and it works on an assumption that we can identify, understand and represent these elements in symbolic form. It states that the aims of education can be made known, stated precisely and addressed in a linear fashion.

In contrast, those who advocate the non-technical approach stress the subjective, the personal, the aesthetic, the heuristic and the transactional. In other words, this approach to curriculum focuses on individual's self-perceptions and personal preferences, their own assessments of self-needs,

and their attempts at self-integration. They stress not only the outputs of the transaction but also the learner, especially through activity oriented approaches to teaching and learning. Those favouring this approach note that not all ends of education can be known, nor indeed, do they need to be known in all cases. In essence, this approach considers that the curriculum evolves rather than being planned precisely. This differs to some degree from the technical approach which relies more heavily on the view of the expectations and the demands of the subject matter and of society for determining student needs.

Those favouring this view place high priority on educational objectives that are personal and process-oriented and that allow individuals to grow as individuals and as members of a social order.

In this section we have looked into two contrasting approaches to curriculum planning without making value judgements about either of them. It may not be possible to follow any one approach strictly in the curriculum planning process. Learners are as important as the selection of content or teaching activities, etc., and vice versa. The point of departure however is as to what should be given more or less importance. Ideally, to evolve and effective and purposeful curriculum, we need to opt for an eclectic model.

Chapter 3

Curriculum development

What Is Curriculum Development ?

Curriculum Development is the step-by-step process of designing and improving the course offered at schools, colleges and universities. Even though each institution will have its own process, the broad stages of the framework consist of analysis, design, implementation, and evaluation.

Curriculum refers to specific lessons and academic content taught in schools and educational institutes for a particular course or program. On the other hand, **curriculum development** is a process that aims to improve the curriculum by using various approaches. A few of the commonly used techniques include need and task analysis, objective design, choosing appropriate teaching and learning methods, choosing assessment methods, and forming the curriculum committee and curriculum review committee.

Hence the entire process is divided into segments to ensure the development of an effective curriculum that would help to facilitate an enriching educational program.

Types Of Curriculum Development Models:

- Learner-Centered Design
- Subject-Centered Design
- Problem-Centered Design

1) Learner-Centered Design

The learner-centered design focuses on the understanding that each learner has different characteristics. The teachers or instructors are to give opportunities to the learners to take ownership of a project or assignment. They require to create chances for independent learning with well-regulated liberty. This indicates that students take a more active role in the classroom, but it is to be done under the instructor's guidance.

There are four distinct attributes of learner-centered design, which includes:

Context- This refers to the assignments and tasks given in the classroom that should have real-world application. Consequently, the relevant context in student learning will help learners to connect with what they are learning.

Construction - Learners should relate their own experiences and prior learning with new learning.

Collaboration- Creating an environment and providing opportunities that encourage collaboration between classmates. Activities like group discussions and team assignments allows the learners to only form individuality but also expose to others' opinions.

Conversation- Exercises to improve learners' communication skills are mandatory, and hence instructors should employ them accordingly.

2) Subject-Centered Design

Subject-centered design is a traditional approach to curriculum that focuses on a particular subject matter or discipline rather than on the individual. Additionally, during the curriculum development process, this approach includes four subtypes of curriculum designs: subject-area design, discipline design, broad-field design, and correlation design.

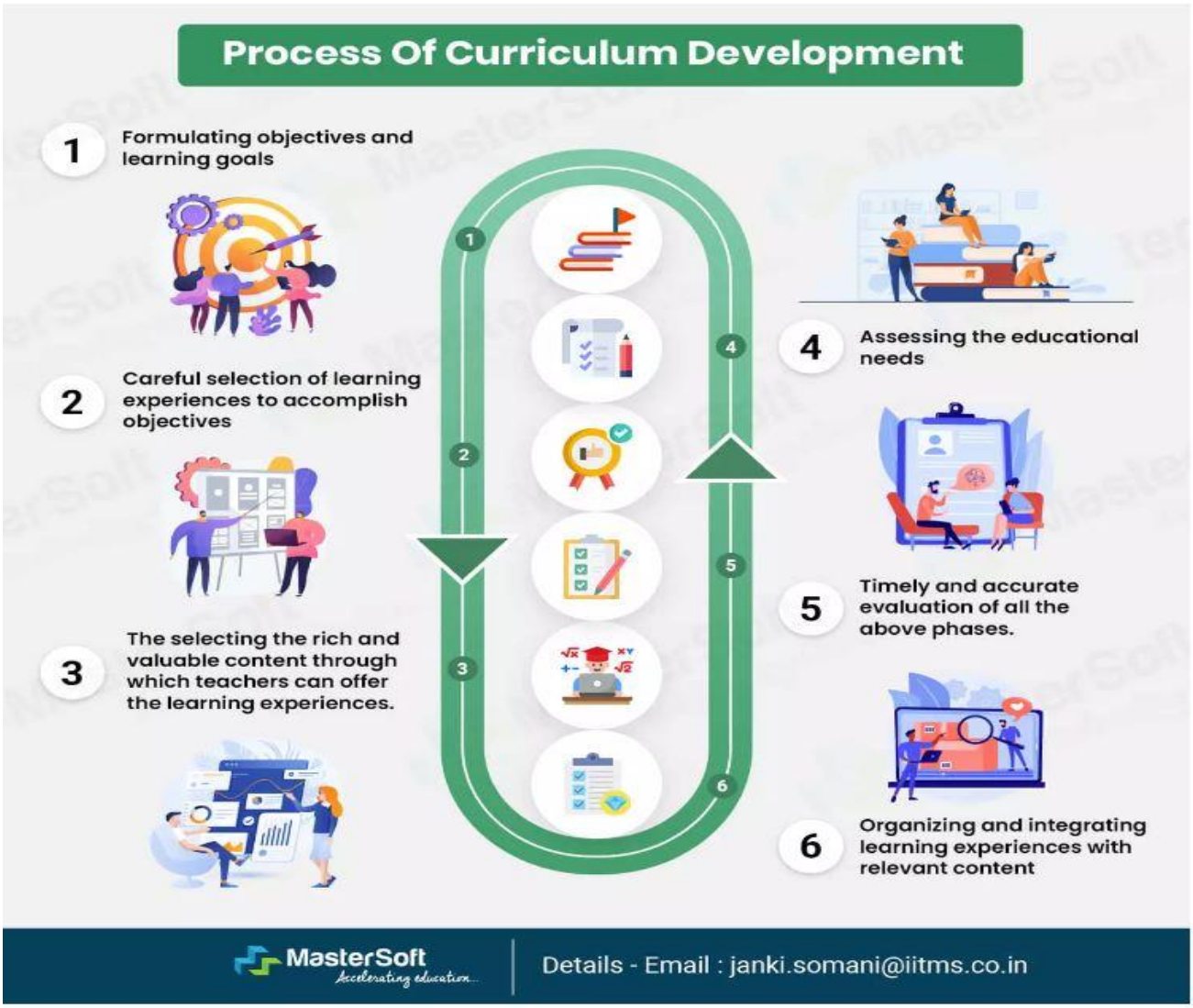
3) Problem-Centered Design

Problem-centered design is an approach that focuses on developing problem-solving skills, thinking and communication skills. This is a student-centric strategy wherein the learners are given problematic situations and encouraged to solve them after careful observation.

Process Of Curriculum Development

The curriculum development process consists of the following six stages.

- **Stage 1:** Assessing the educational needs
- **Stage 2:** Formulating objectives and learning goals
- **Stage 3:** Careful selection of learning experiences to accomplish these objectives
- **Stage 4:** The selecting the rich and valuable content through which teachers can offer the learning experiences.
- **Stage 5:** Organizing and integrating learning experiences with relevant content keeping in mind the teaching-learning process
- **Stage 6:** Timely and accurate evaluation of all the above phases.



Principles Of Curriculum Development

The principles of the curriculum are norms, values, moralities, and philosophies that will benefit teachers, students, and the whole education system. The curriculum and instructional strategy are essential components of imparting knowledge to students.

The following are a few of the basic principles of curriculum development :

1) Principle Of Totality Of Experiences

It is imperative to realize that curriculum does not merely indicate academic subjects traditionally taught in schools and colleges. It also includes the totality of experiences a student gains through several curricular, extra-curricular and co-curricular activities.

2) Principle Of Child-Centeredness

Instead of sticking to the predetermined curriculum, instructors must consider the child's concerns, motives, and needs while developing the curriculum. In addition, while planning any curricular activities, educators must consider ways to enrich learners' interests.

3) Principle Of Conservation And Creativity

While developing a curriculum, it is mandatory to include subjects and experiences that would help conserve cultural heritage. Furthermore, one of the most essential principles of curriculum development is that the curriculum cannot be static. On the contrary, it should be subject to modification as per the requirement aligned with the changing global educational trends and students' needs.

4) Principle Of Integration

The curriculum should be planned in such a way that varied subjects could be added at different stages of education. Similarly, the existing subjects should be able to integrate with other subjects apart from enabling the students to correlate with the content.

5) Principle Of Flexibility

One of the ideal qualities that a curriculum should have is flexibility and dynamism, as this will be instrumental in serving the needs and concerns of individuals and society. Also, timely changes and appropriate modifications to the

curriculum allows educators and learners alike to stay updated with academic goals.

6) Principle Of Utility

Curriculum construction should follow the principle of utility, according to which educators must include content that is useful to the individual and society. In addition, the curriculum must consist of rich and valuable content that would be useful later in life.

7) Principle Of Character Formation

The goal of the curriculum is not just educating learners through bookish knowledge. It should also encourage the development of character and personality in students. Therefore, the curriculum must aid in students' character training throughout the academic years.

8) Principle Of Mental Discipline

A significant task of the curriculum is to foster learners' various mental faculties or powers through cognitive training and practice.

9) Principle Of Social Fulfillment

Education aims to provide the overall development of the students through comprehensive teaching styles and content. Moreover, the curriculum should also consider adding the element of social life so that learners could gain insight into becoming responsible citizens.

Chapter 4

Curriculum Evaluation and Strategies for Changing Curriculum

Curriculum Evaluation

The key terms in Curriculum Evaluation namely Curriculum and Evaluation has to be defined clearly.

The word “curriculum “comes from the Latin word “currere”, which means:

- Torun or to run a course”. That is, a course of study, which contains a body of subject matter approved for teaching by society in schools. However, different experts view curriculum from perspectives other than a course of study definition. Here are some of them;
- Curriculum is a structured series of learning outcomes. It therefore tries to see curriculum as an input which result in a certain output. Another definition says: curriculum is an organized set of formal educational or training intentions.
- Curriculum is a deliberate, systematic and planned attempt undertaken by the school to modify or change the behaviours of the citizen of a particular society.

Implicitly, there is a programme which schools must run in order to properly educate the citizens. Curriculum may be said to be a total package of what schools do to make learners become what society expects them to become, namely good citizens, who are not only able to understand or learn school subjects but fully integrated individuals that are able to fit into society and contribute their own quota as well, to the progress of that society.

The word evaluation is to form an idea or judgment about the worth of something. It includes, of course, making judgment so that decision might be made about the

future of programme, whether to retain the programme as it stand, modify it or throw it out altogether.

A model is a representation of a system that allows for investigation of the properties of the system and, in some cases, prediction of future outcomes. Models are often used in qualitative analysis and technical analysis, and sometime also in fundamental analysis. It can also be said that a model is a simplified representation used to explain the workings of a real world system or event.

curriculum evaluation is therefore the process of passing judgment on educational programmes. It is "a process of appraising educational programmes to determine whether or not, programme goals has been achieved" (Daramola, 1995) this is a simple definition for curriculum evaluation.

Bloom (1972) defined Curriculum evaluation as "the systematic collection of evidence to determine whether in fact certain changes are taking place in the learners, as well as to determine the amount of or degree of change in individual students".

Stake (1967) said that Curriculum evaluation as comprehensive, giving a full description (of performance) with statistical support, showing what happen, highlighting the merits and shortcoming of a programme and offers generalization for "the guidance of subsequent educational programme".

Lewy (1977) defined Curriculum evaluation essentially, as the provision of information for the sake of facilitating decision making at various stages of curriculum development.

Explicitly curriculum evaluation is not general but specific, using specific methods based on certain criteria. Evaluation has both qualitative and quantitative aspects. The quantitative aspects pertain to the assignment of scores to

performance based on certain criteria, and the qualitative aspects refer to the value placed upon the scores assigned to the material. For example 60% in an English text is quantitative, but the value attached to it (e.g. Fair) is qualitative. Curriculum evaluation has different kinds and models.

Models of Curriculum Evaluation:

Curriculum evaluation has to be planned and systematically carried through. Evaluation is made for different purposes. Conforming to the basic principles of curriculum evaluation, evaluators have developed different models of curriculum evaluation to suit their purposes. Some well known curriculum models are discussed below

Ralph Tyler Model:

One of the earliest curriculum evaluation models, which continue to influence many assessment projects, was that proposed by Ralph Tyler (1950) in his monograph Basic Principles of Curriculum and Instruction. The Tyler approach moved rationally and systematically through several related steps:

1.Begin with the behavioral objectives that have been previously determined. Those objectives should specify both the content of learning and the student behavior expected:

“Demonstrate familiarity with dependable sources of information on questions relating to nutrition.”

2.Identify the situations that will give the student the opportunity to express the behavior embodied in the objective and that evoke or encourage this behavior. Thus, if you wish to assess oral language use, identify situations that evoke oral language.

3.Select, modify, or construct suitable evaluation instruments, and check the instruments for objectivity, reliability, and validity.

4.Use the instruments to obtain summarized or appraised results.

5.Compare the results obtained from several instruments before and after given periods in order to estimate the amount of change taking place.

6.Analyze the results in order to determine strengths and weaknesses of the curriculum and to identify possible explanations about the reason for this particular pattern of strengths and weaknesses.

7.Use the results to make the necessary modifications in the curriculum.

Implicitly, Tyler’s model gave greater emphasis to the behavioral objectives expected by a curriculum implemented.

The Tyler model has several advantages: It is relatively easy to understand and apply. It is rational and systematic. It focuses attention on curricular strengths and weaknesses, rather than being concerned solely with the performance of individual students. It also emphasizes the importance of a continuing cycle of assessment,

analysis, and improvement. As Guba and Lincoln (1981) pointed out, however, it suffers from several deficiencies. It does not suggest how the objectives themselves should be evaluated. It does not provide standards or suggest how standards should be developed. Its emphasis on the prior statement of objectives may restrict creativity in curriculum development, and it seems to place undue emphasis on the pre-assessment and post-assessment, ignoring completely the need for formative assessment.

Merfessel-Michael Model:

The Merfessel and Michael Model identify the eight steps:

1.Involve the total school community as facilitators of program evaluation.

2.Formulate cohesive model of goals and specific objectives.

3.Translate specific objectives into a communicable form applicable to facilitating learning in the school environment.

4.Select or construct instruments to furnish measures allowing inferences about program effectiveness.

5.Carry out periodic observations using content-valid tests, scales, and other behavioral measures.

6.Analyze data using appropriate statistical methods.

7.Interpret the data using standards of desired levels of performance over all measures.

8.Develop recommendations for the further implementation, modification, and revision of broad goals and specific objectives.

This model was heavily influenced by the work of Tyler. Its major contribution was in expanding the possibilities regarding alternative instruments

Provu's Discrepancy Model:

Malcolm Provu has developed this model with the help of systems management theory. This model is basically devised by keeping in view 4 components and 5 stages. At each stage these components are kept in cognizance and finally it continues till the last stage.

The four components included in the model are

1)Determining the standards-'S'

2) determining the performance-'P'

3)Comparing performance with standards-'C'

4)Determining whether there is any discrepancy between performance and standards-'D'

If there is any discrepancy observed, decision making will become more important. At every stage the performance is compared with the standard.

Sr. No.	Performance	Standards	Specific aspects of the program
1.	Design	design criteria	internal adequacy 1.space 2.personnel 3.resources 4.materials 5.external standards
2.	Installation	installation facility i.e., (accuracy, faithful, loyalty)	characteristics of a program media , facilities
3.	Process	process adjustment	Staff and students activities, functions, communication, adequacy.
4.	Products	Product assessment	Effect of the whole program is evaluated in terms of original goals. Products in terms of students, staff, school and community.
5.	Cost	cost benefit analysis	Compared with similar program in terms of cost benefits. it should respond to the social, political and economic implications.

This model can be used for:

1)Ongoing programs in any stage

2)From planning stage to implementation could be used at the different district level, regional and state level.

Stake's Congruence Contingency Model:

Stake's model of curriculum evaluation is more than just an evaluation process. Stake's model also looks at the development of the curriculum. When using this model, it is necessary to compare the developed curriculum with what actual happen in the classroom.

There are six key terms, broken down into two groups of three, which we need to know in order to understand Stake's model and they are as follows

Development Stage:

- Potential prerequisites
- Potential Curriculum
- Potential results

Evaluation Stage:

- Prerequisites applied in context
- Evaluation of operational curriculum
- Actual results

Prerequisites:

The prerequisite is another way of saying "before" or the state of the context before the intervention of teaching. This includes student's attitude, motivation, prior academic performance, teacher characteristics, and more. In the development

stage, the teachers need to identify what are some potential prerequisites that may impact learning. In the evaluation stage, the evaluators determine what prerequisites actually impact the curriculum. In other words, there is a comparison of what was anticipated and what actually the case in terms of the prerequisites was.

Potential & Operational Curriculum:

Potential curriculum is the "dream" curriculum that is developed. It includes everything that the teachers want to do. The Operational curriculum is what was actually used. There is normally a discrepancy between the two as it is difficult to cover all of the material and use all of the activities. The evaluation will examine the difference between these two aspects of curriculum as other criteria for assessing the quality of the curriculum.

Potential vs. Actual Results:

Potential results are what the teachers hope to see as a result of the use of the curriculum. Actual results are the real performance of the students. The difference between the potential or desired results and actual results is another indicator of the quality of the curriculum in Stake's model.

Conclusion:

Stake's Model provides evaluators with an opportunity to compare the desire outcome with the actual outcome. The benefit of this is that it is the curriculum developers that set the criteria of evaluation. All the evaluators do is determine if

the curriculum performed in a manner that is consistent with the ideas of the developers.

Stake's Responsive Model:

Robert 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. He made the point this way:

To emphasize evaluation issues that are important for each particular programme, I recommend the responsive evaluation approach. It is an approach that trades off some measurement precision in order to increase the usefulness of the findings to persons in and around the programme. An educational evaluation isa responsive evaluation if it orients more directly to program activities than to program intents; responds to audience requirements for information; and if the different value perspectives present are referred to in reporting the success and failure of the program.

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."
- 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.

Implicitly, inputs from all concerned stakeholders of curriculum development are paramount to curriculum evaluation issues.

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.

Stufflebeam's Context, Input, Process, Product Model:

The obvious weaknesses in the Tyler model led several evaluation experts in the late 1960s and early 1970s to attack the Tyler model and to offer their own alternatives. The alternative that had the greatest impact was that developed by a Phi Delta Kappa committee chaired by Daniel Stufflebeam (1971). This model seemed to appeal to educational leaders because it emphasized the importance of producing evaluative data for decision making; in fact, decision making was the sole justification for evaluation, in the view of the Phi Delta Kappa committee.

To service the needs of decision makers, the Stufflebeam model provides a means for generating data relating to four stages of program operation: context evaluation, which continuously assesses needs and problems in the context to help decision makers determine goals and objectives; input evaluation, which assesses alternative means for achieving those goals to help decision makers choose optimal means; process evaluation, which monitors the processes both to ensure that the means are actually being implemented and to make the

necessary modifications; and product evaluation, which compares actual ends with intended ends and leads to a series of recycling decisions.

During each of these four stages, specific steps are taken:

- The kinds of decisions are identified.
- The kinds of data needed to make those decisions are identified.
- Those data are collected.
- The criteria for determining quality are established.
- The data are analyzed on the basis of those criteria.

- The needed information is provided to decision makers.

Implicitly, Stufflebeam's CIPP model was all about taking an informed decision on curriculum implemented. If an implemented curriculum is not living up to the expected objective and goals, alternative means available can be used to make modifications necessary to attain the expected objectives and goals. The context, input, process, product (CIPP) model, as it has come to be called, has several attractive features for those interested in curriculum evaluation. Its emphasis on decision making seems appropriate for administrators concerned with improving curricula. Its concern for the formative aspects of evaluation remedies a serious deficiency in the Tyler model. Finally, the detailed guidelines and forms created by the committee provide step-by-step guidance for users.

The CIPP model, however, has some serious drawbacks associated with it. Its main weakness seems to be its failure to recognize the complexity of the decision-making process inorganizations. It assumes more rationality than exists in such situations and ignores the political factors that play a large part in these decisions. Also, as Guba and Lincoln (1981) noted, it seems difficult to implement and expensive to maintain.

Stufflebeam's Macro Evaluation Model:

Daniel Stufflebeam's Macro evaluation goes a step further from the CIPP model where the 4 stages of evaluation and types of decisions were discussed. Macro Evaluation includes the evaluation settings apart from the earlier 2 aspects in which decisions can bemade. The 4 different settings that lead to different changes, which he discusses are as follows:

1. Neomobilistic change small I- Large change
2. Incremental change small S- Small change
3. Homeostatic change L-S
4. Metamorphic change L-L

Generally we understand from any research that is carried out at different levels of intensity and depths. For instance, an M.Ed. Dissertation within 9 months duration

, which is carried out on a small scale with respect to time and the size of the sample. Similarly at M. Phil. level the time frame and scope is a little higher when compared to M.Ed. but it is with more intensity and wider scope and a larger sample the research is conducted and generalizations are made. And it is also observed that these types of researches are carried out in social sciences and basic sciences and anthropological studies, the kind of generalizations made or conclusions drawn varies i.e., from small changes that they suggest to a larger change. Let us look at the changes indicating the scope of study.

1.Neomobilistic change:

This basically occurs when some people bring large changes on the basis of small/low information. That is, there is a little evidence or it is tired out on small scale. E.g., on the basis of R.R. district trying out and applying it all over India.

2.Incremental change:

A series of small changes based on low information. that is, at the institutional level certain small changes are made based on small/low feedback from their own limited staff.

3.Homeostatic change:

A small change based on the large information. For e.g. this is mostly observed in the area of education. A large sample is taken to make certain small changes.

4. Metamorphic change:

It is a great change/large change that occur on the basis of more/large information. For e.g., Microsoft soft software is tried world over and implemented world over.

Eisner's Connoisseurship Model:

Elliot Eisner (1979) drew from his background in aesthetics and art education in developing his "connoisseurship" model, an approach to evaluation that emphasizes qualitative appreciation. The Eisner model is built on two closely related constructs: connoisseurship and criticism. Connoisseurship, in Eisner's terms, is the art of appreciation - recognizing and appreciating through perceptual memory, drawing from experience to appreciate what is significant. It is the ability both to perceive the particulars of educational life and to understand how those particulars form part of a classroom structure. Criticism, to Eisner, is the art of disclosing qualities of an entity that connoisseurship perceives. In such a disclosure, the educational critic is more likely to use what Eisner calls "nondiscursive"- a language that is metaphorical, connotative, and symbolic. It uses linguistic forms to present, rather than represent, conception or feeling.

Educational criticism, in Eisner's formulation, has three aspects. The descriptive aspect is an attempt to characterize and portray the relevant qualities of educational life - the rules, the regularities, the underlying architecture. The interpretive aspect uses ideas from the social sciences to explore meanings and develop alternative explanations - to explicate social phenomena. The evaluative aspect makes judgments to improve the educational processes and provides grounds for the value choices made so that others might better disagree.

The chief contribution of the Eisner model is that it breaks sharply with the traditional scientific models and offers a radically different view of what evaluation might be. In doing so, it broadens the evaluator's perspective and enriches his or her repertoire by drawing from a rich tradition of artistic criticism. Its critics have faulted it for its lack of methodological rigor, although Eisner has attempted to refute such charges. Critics have also argued that use of the model requires a great deal of expertise, noting the seeming elitism implied in the term connoisseurship.

Curriculum change or Revision:

Curriculum revision means making the curriculum different in some way, to give it a new position or direction. This often means alteration to its philosophy by way of its aims and objectives, reviewing the content included, revising its methods and re-thinking its evaluatory procedures.

Dimensions of Curriculum Change:

Curriculum change may be classified on a number of dimensions of change (Hoyle, 1972):

Dimension	Range
Rate	Rapid or slow
Scale	Large or small
Degree	Fundamental or superficial
Continuity	Revolutionary or evolutionary
Direction	Linear or cyclical

The following are the broad categories of curriculum change

- Introduction of a whole new degree program or specialized stream at the undergraduate level.
- Introduction of a whole new (course-work) degree program at the postgraduate level.
- Introduction of a new subject, or deletion of an existing subject.
- Change to or within a first-year or other core subject, such as a change to the first language taught to undergraduate students.
- Change to or within an elective subject, such as a change inthe choice of AI language used in a third-year subject.

Need to Change the Curriculum:

- To restructure the curriculum according to the needs, interests or abilities of the learner.
- To eliminate unnecessary units, teaching methods and contents. To introduce latest and update methods of teaching and content, new knowledge and practices.
- To add or delete number of clinical hours of instruction.
- To correlate between the student's theory courses and clinical learning practices.
- To select clinical learning experiences base on the objective rather than on the service needs of the hospital.
- The students themselves receive little or no experience in assuming responsibilities or in making choices; everything is decided for them by the teacher or the administrator.

Factors influencing the Change in Curriculum: General Factors:

- Population growth
- Population pattern
- Move towards urbanization
- Consumption of natural resources

Health Care Changes:

- Increasing in Government control in health care
- Increasing need for health professional to work with other professionals as well as the client system
- Increasing the professionalization of health workers
- Increasing socialization of health field
- Increasing supply of the health workers perhaps resulting in more supply

Rapid obsolescence of practice, skills and knowledge levelThe following are the general factors affecting curriculum change

1.Influential or outspoken individuals.

2.Financial pressures, including resource availability.

3.Staff availability or workload.

4.Employer or industry viewpoints.

5.Current or prospective student viewpoints.

6.Student abilities or limitations, or intake considerations.

7.Pedagogical argument or academic merit.

8.University or Government requirement or regulation.

9.Professional accreditation needs, or syllabi set byprofessional bodies.

10.Academic “fashion”, including the desire to remain in step with other institutions.

Chapter 5

CURRICULUM AND ASSESSMENT

Between Assessment and the Curriculum

Dylan Wiliam

INTRODUCTION

For most of this century, and in most countries, the most common method for certifying achievement in schools, whether for purposes of social accountability, or for providing information to aid decisions on the futures of individuals, has been by the administration of an assessment instrument that is devised, and is scored, externally. These external assessments, typically written examinations and standardized tests, can assess only a small part of the learning of which they are claimed to be a synopsis. In the past, this has been defended on the grounds that the test is a random sample from the domain of interest, and that, therefore, the techniques of statistical inference can be used to place confidence intervals on the estimates of the proportion of the domain that a candidate has achieved, and indeed, the correlation between standardized test scores and other, broader measures of achievement are often quite high.

However, it has become increasingly clear over the past twenty years that the contents of standardized tests and examinations are not a random sample from the domain of interests. In particular, these timed written assessments can assess only limited forms of competence, and teachers are quite able to predict which aspects of competence will be assessed. Especially in “high-stakes” assessments, therefore, there is an incentive for teachers and students to concentrate on only those aspects of competence that are likely to be assessed. Put crudely, we start out with the intention of making the important measurable, and end up making the measurable important. The effect of this has been to weaken the correlation between

standardized test scores and the wider domains for which they are claimed to be an adequate proxy.

This is one of the major reasons underlying the shift in interest toward “authentic” or “performance” assessment (Resnick and Resnick 1992)—assessments that measure valued performance like writing essays, undertaking scientific experiments, solving complex mathematical problems and so on, directly, rather than through the use of proxies like multiple-choice or short-answer tests.

In high-stakes settings, performance on standardized tests can not be relied upon to be generalizable to more authentic tasks. If we want students to be able to apply their knowledge and skills in new situations, to be able to investigate relatively unstructured problems, and to evaluate their work, tasks that embody these attributes must form part of the formal assessment of learning—a test is valid to the extent that one is happy for teachers to teach toward the test (Wiliam 1996a).

However, if authentic tasks are to feature in formal “high-stakes” assessments, then users of the results of these assessments will want to be assured that the results are sufficiently reliable. The work of Linn and others (see, e.g., Linn and Baker 1996) has shown that in the assessment of individual authentic tasks, the variability of tasks is a significant issue. In other words, the score that a student gets on a specific task depends partly on how good the student is, but also on whether that particular task suited the student’s strengths and weaknesses. If we use only a small number of tasks, then the overall score achieved by students will depend to a significant extent on whether the particular tasks they were asked to do suited them—in other words, we are assessing how lucky they are as much as how competent they are in the domain being assessed. Using authentic tasks improves validity, in that they tell us about students’ performance on important aspects of the domain that are generally neglected in multiple-choice and shortanswer tests,

but reliability is generally weakened, in that the results of authentic tasks taking the same amount of time as multiple-choice tests are generally less reliable. This can be illustrated by drawing an analogy with stage lighting. For a given power of illumination, we can either focus this as a spotlight or as a floodlight. The spotlight brings real clarity to a small part of the stage, but the rest of the stage is in darkness. This is analogous to a highly-reliable multiple-choice test, in which the scores on the actual matter tested are highly reliable, but we know nothing about the other aspects of the domain that were not tested. A floodlight, on the other hand, illuminates the whole stage. We may not be able to make quite such accurate distinctions in the small part of the domain assessed by the multiple-choice test, but what we can say about the other areas will be more accurate.

The work of Shavelson, Baxter, and Pine (1992) shows that we don't get adequately reliable results even in subjects like mathematics and science unless we use at least six tasks, and in other subjects, where students' liking of the task may be more important, we may need ten or more. Since it is hard to envisage many worthwhile authentic tasks that could be completed in less than an hour or two, the amount of assessment time that is needed for the reliable assessment of authentic tasks is considerably greater than can reasonably be made available in formal external assessment. The only way, therefore, that we can avoid the narrowing of the curriculum that has resulted from the use of timed written examinations and tests is to conduct the vast majority of even high-stakes assessments in the classroom.

One objection to this is, of course, that such extended assessments take time away from learning. There are two responses to this argument. The first is that authentic tasks are not just assessment tasks, but also learning tasks; students learn in the course of undertaking such tasks and we are, therefore, assessing students'

achievement not at the start of the assessment (as is the case with traditional tests) but at the end—the learning that takes place during the task is recognized. This also has the effect of integrating learning and assessment, which is taken up in more detail below. The other response is that the reliance on traditional assessments has so distorted the educational process leading up to the assessment that we are, in a very real sense, "spoiling the ship for a half-pennyworth of tar." The ten years of learning that students in most developed countries undertake during the period of compulsory schooling is completely distorted by the assessments at the end. Taking (say) twelve hours to assess students' achievement in order not to distort the previous thousand hours of learning in (say) mathematics seems like a reasonable compromise.

Another objection that is often raised is the cost of marking such authentic tasks. The conventional wisdom in many countries is that, in high-stakes settings, the marking of the work must be conducted by more than one rater. However, the work of Linn cited earlier shows that rater variability is a much less significant source of unreliability than task variability. In other words, if we have a limited amount of time (or, what amounts to the same thing, money) for marking work, results would be more reliable if we had six tasks marked by a single rater than three tasks each marked by two raters. The question that remains, then, is who should do the marking?

The answer to this question appears to depend as much on cultural factors as on any empirical evidence. In some countries (e.g., England, and increasingly over recent years, the United States) the distrust of teachers by politicians is so great that involving teachers in the formal assessment of their own students is unthinkable. And yet, in many other countries (e.g., Norway, Sweden) teachers are responsible not just for determination of their students' results in school leaving

examinations, but also for university entrance. Given the range of ephemeral evidence that is likely to be generated by authentic tasks, and the limitations of even authentic tasks to capture all the learning achievements of students, the arguments for involving teachers in the summative assessment of their students seem compelling. As one German commentator once remarked: “Why rely on an out-of-focus snapshot taken by a total stranger?”

The arguments outlined above suggest that high-quality educational provision requires that teachers are involved in the summative assessment of their students. However, it is also clear that high quality educational provision requires effective formative assessment as well (see Black, this volume). Are the formative and summative functions of assessment compatible? Some authors (e.g., Torrance, 1993) have argued that formative and summative assessment are so different that the same assessment system cannot fulfill both functions. Maintaining dual assessment systems would appear to be quite simply beyond the capabilities of the majority of teachers, with the formative assessment system being driven out by that for summative assessment. If this is true in practice (whether or not it is logically necessary), then there are only three possibilities:

- teachers are not involved in the summative assessment of their students
- teachers are not involved in the formative assessment of their students
- we find ways of ameliorating the tension between summative and formative functions of assessment.

In view of the foregoing arguments, I consider the consequences of the first two of these possibilities to be unacceptable, and, therefore, I would argue that if we are to try to create high-quality educational provision, ways must be found of mitigating the tension between formative and summative functions of assessment.

Of course, this is a vast undertaking, and well beyond the scope of this, or any other single article. The remainder of this chapter is, therefore, intended simply to suggest some theoretical foundations that would allow the exploration of possibilities for mitigating, if not completely reconciling, the tension between formative and summative assessment.

SUMMATIVE ASSESSMENT

If a teacher asks a class of students to learn twenty number bonds, and later tests the class on these bonds, then we have what Hanson (1993) calls a "literal" test. The inferences that the teacher can justifiably draw from the results are limited to exactly those items that were actually tested. The students knew which twenty bonds they were going to be tested on, and so the teacher could not with any justification conclude that those who scored well on this test would score well on a test of different number bonds.

However, such kinds of assessment are rare. Generally, an assessment is "a representational technique" (Hanson 1993, p. 19) rather than a literal one. Someone conducting an educational assessment is generally interested in the ability of the result of the assessment to stand as a proxy for some wider domain. This is, of course, an issue of validity—the extent to which particular inferences (and, according to some authors, actions) based on assessment results are warranted.

In the predominant view of educational assessment, it is assumed that the individual to be assessed has a well-defined amount of knowledge, expertise or ability, and the purpose of the assessment task is to elicit evidence regarding the

amount or level of knowledge, expertise or ability (Wiley and Haertel 1996). This evidence must then be interpreted so that inferences about the underlying knowledge, expertise or ability can be made. The crucial relationship is, therefore, between the task outcome (typically the observed behavior) and the inferences that are made on the basis of the task outcome. Validity is, therefore, not a property of tests, nor even of test outcomes, but a property of the inferences made on the basis of these outcomes. As Cronbach and Meehl noted over forty years ago, "One does not validate a test, but only a principle for making inferences" (Cronbach and Meehl 1955, p. 297).

More recently, it has become more generally accepted that it is also important to consider the consequences of the use of assessments as well as the validity of inferences based on assessment outcomes. Some authors have argued that a concern with consequences, while important, go beyond the concerns of validity—George Madaus for example uses the term impact (Madaus 1988). Others, notably Samuel Messick, have argued that consideration of the consequences of the use of assessment results is central to validity argument. In his view "Test validation is a process of inquiry into the adequacy and appropriateness of interpretations and actions based on test scores" (Messick 1989, p. 31).

Messick argues that this complex view of validity argument can be regarded as the result of crossing the basis of the assessment (evidential versus consequential) with the function of the assessment (interpretation versus use), as shown in Figure 10.1.

Figure 10.1
Messick's Framework for the Validation of Assessments

	Result Interpretation	Result Use
Evidential basis	Construct validity A	Construct validity and Relevance/utility B
Consequential basis	Value implications C	Social consequences D

The upper row of Messick's table relates to traditional conceptions of validity, while the lower row relates to the consequences of assessment interpretation and use. One of the most important consequences of the interpretations made of assessment outcomes is that those aspects of the domain that are assessed come to be seen as more important than those not assessed, resulting in implications for the values associated with the domain. The assessments do not just represent the values associated with the domain, but actually serve to define them—what gets assessed tells us what the subject is "really" about, and teachers and students act accordingly.

The use of Messick's framework can be illustrated by considering whether a student's competence in speaking and listening in the mother tongue should be assessed in an assessment of their overall competence in the language. Each of the following sets of arguments relates to one of the cells in Figure 10.1.

A. Many authors have argued that an assessment of English that ignores speaking and listening skills does not adequately represent the domain of "English." This is an argument about the evidential basis of result

interpretation (such an assessment would be said to underrepresent the construct of "English").

B. There might also be empirical evidence that omitting speaking and listening from an assessment of English reduces the correlation with other accepted assessments of the same domain (concurrent validity) or with some predicted outcome, such as advanced study (predictive validity). Either of these would be arguments about the evidential basis of result use.
C. It could certainly be argued that leaving out speaking and listening would send the message that such aspects of English are less important, thus distorting the values associated with the domain (consequential basis of result interpretation).
D. Finally, it could be argued that unless such aspects of speaking and listening were incorporated into the assessment, then teachers would not teach, or would place less emphasis on, these aspects (consequential basis of result use).

Messick's model presents a useful framework for the structuring of validity arguments, but it provides little guidance about how (and perhaps more importantly, with respect to what?) the validation should be conducted. That is an issue of the referent of the assessment.

REFERENTS IN ASSESSMENT

For most of the history of educational assessment, the primary method of interpreting the results of assessment has been to compare the results of a specific individual with a well-defined group of other individuals (often called the "norm" group), the best known of which is probably the group of college-bound students

(primarily from the northeastern United States) who in 1941 formed the norm group for the Scholastic Aptitude Test.

Norm-referenced assessments have been subjected to a great deal of criticism over the past thirty years, although much of this criticism has generally overstated the amount of norm-referencing actually used in standard setting, and has frequently confused norm-referenced assessment with cohort-referenced assessment (Wiliam 1996b).

However, the real problem with norm-referenced assessments is that, as Hill and Parry (1994) have noted in the context of reading tests, it is very easy to place candidates in rank order, without having any clear idea of what they are being put in rank order of. It was this desire for greater clarity about the relationship between the assessment and what it represented that led, in the early 1960s, to the development of criterion-referenced assessments.

CRITERION-REFERENCED ASSESSMENTS

The essence of criterion-referenced assessment is that the domain to which inferences are to be made is specified with great precision (Popham 1980). In particular, it was hoped that performance domains could be specified so precisely that items for assessing the domain could be generated automatically and uncontroversially (Popham 1980).

However, as Angoff (1974) pointed out, any criterion-referenced assessment is underpinned by a set of norm-referenced assumptions, because the assessments are used in social settings and for social purposes. In measurement terms, the criterion "can high jump two metres" is no more interesting than "can high jump ten metres" or "can high jump one metre." It is only by reference to a particular

population (in this case human beings), that the first has some interest, while the latter two have little or none. Furthermore, no matter how precisely the criteria are drawn, it is clear that some judgment must be used—even in mathematics— in deciding whether a particular item or task performance does yield evidence that the criterion has been satisfied (Wiliam 1993).

Even if it were possible to define performance domains unambiguously, it is by no means clear that this would be desirable (Mabry 1999). Greater and greater specification of assessment objectives results in a system in which students and teachers are able to predict quite accurately what is to be assessed, and creates considerable incentives to narrow the curriculum down onto only those aspects of the curriculum to be assessed (Smith 1991). The alternative to "criterion-referenced hyper specification" (Popham 1994) is to resort to much more general assessment descriptors which, because of their generality, are less likely to be interpreted in the same way by different assessors, thus re-creating many of the difficulties inherent in norm-referenced assessment. Thus, neither criterion-referenced assessment nor norm-referenced assessment provides an adequate theoretical underpinning for authentic assessment of performance. Put crudely, the more precisely we specify what we want, the more likely we are to get it, but the less likely it is to mean anything.

The ritual contrasting of norm-referenced and criterion-referenced assessments, together with more or less fruitless arguments about which is better, has tended to reinforce the notion that these are the only two kinds of inferences that can be drawn from assessment results. However the oppositionality between norms and criteria is only a theoretical model, which, admittedly, works well for certain kinds of assessments. But like any model, it has its limitations and it seems likely that the contrast between norm and criterion-referenced assessment represents the concerns

of, and the kinds of assessments developed by, specialists in educational and psychological measurement. Beyond these narrow concerns there are a range of assessment events and assessment practices that are typified by the traditions of school examinations in European countries, and by the day-to-day practices of teachers all over the world. These practices rely on authentic rather than indirect assessment of performance, and are routinely interpreted in ways that are not faithfully or usefully described by the contrast between norm and criterion-referenced assessment.

Such authentic assessments have only recently received the kind of research attention that has for many years been devoted to standardized tests for selection and placement, and, indeed, much of the investigation that has been done into authentic assessment of performance has been based on a "deficit" model, by establishing how far, say, the assessment of portfolios of students' work, falls short of the standards of reliability expected of standardized multiple-choice tests. An alternative approach is, instead of building theoretical models and then trying to apply them to assessment practices, we try to theorize what is actually being done. After all, however illegitimate these authentic assessments are believed to be, there is still a need to account for their widespread use. Why is it that the forms of assessment traditionally used in Europe have developed the way they have, and how is it that, despite concerns about their "reliability," their usage persists?

What follows is a different perspective on the interpretation of assessment outcomes—one that has developed not from an a priori theoretical model but one that has emerged from observation of the practice of assessment within the European tradition.

CONSTRUCT-REFERENCED ASSESSMENT

The model of the interpretation of assessment results that I wish to propose is illustrated by the practices of teachers who have been involved in "high-stakes" assessment of English Language for the national school-leaving examination in England and Wales (the General Certificate of Secondary Education or GCSE). Until the government's recent change in national examinations, which required all GCSEs to have an externally-assessed component, the GCSE grade for the vast majority of students in England and Wales was determined not by performance on an examination, but entirely on the basis of a portfolio of work, prepared by the student, and assessed by her or his teacher. In order to safeguard standards, teachers were trained to use the appropriate standards for marking by the use of "agreement trials." Typically, a teacher is given a piece of work to assess and when she has made an assessment, feedback is given by an "expert" as to whether the assessment agrees with the expert assessment. The process of marking different pieces of work continues until the teacher demonstrates that she has converged on the correct marking standard, at which point she is "accredited" as a marker for some fixed period of time.

The innovative feature of such assessment is that no attempt is made to prescribe learning outcomes. In that it is defined at all, it is defined simply as the consensus of the teachers making the assessments. The assessment is not objective, in the sense that there are no objective criteria for a student to satisfy, but the experience in England is that it can be made reliable. To put it crudely, it is not necessary for the raters (or anybody else) to know what they are doing, only that they do it right. Because the assessment system relies on the existence of a construct (of what it means to be competent in a particular domain) being shared among a community

of practitioners (Lave and Wenger 1991), I have proposed elsewhere that such assessments are best described as "construct-referenced" (Wiliam 1994). Another example of such a construct-referenced assessment is the educational assessment with perhaps the highest stakes of all— the Ph.D.

The "criterion" given creates the impression that the assessment is a criterionreferenced one, but in fact, the criterion does not admit of an unambiguous meaning. To the extent that the examiners agree (and of course this is a moot point), they agree not because they derive similar meanings from the regulation, but because they already have in their minds a notion of the required standard. The consistency of such assessments depends on what Polanyi (1958) called connoisseurship, but perhaps might be more useful regarded as the membership of a community of practice (Lave and Wenger 1991).

The touchstone for distinguishing between criterion- and construct-referenced assessment is the relationship between the written descriptions (if they exist at all) and the domains. Where written statements collectively define the level of performance required (or more precisely where they define the justifiable inferences), then the assessment is criterion-referenced. However, where such statements merely exemplify the kinds of inferences that are warranted, then the assessment is, to an extent at least, construct-referenced.

FORMATIVE ASSESSMENT

Strictly speaking, there is no such thing as a formative assessment. The formative-summative distinction applies not to the assessment itself, but to the use to which the information arising from the assessment is put. The same assessment can serve both formative and summative functions, although in general, the assessment will have been designed so as to emphasize one of the functions.

As noted by Black (this volume), formative assessment can be thought of "as encompassing all those activities undertaken by teachers and/or by their students which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged" (Black and Wiliam 1998a). Although perhaps somewhat simplistic, it is useful to break this general idea into three (reasonably distinct) phases: the elicitation of evidence regarding achievement, the interpretation of that evidence, followed by appropriate action.

The evidence of achievement provides an indication of the actual level of performance, which is then interpreted relative to some desired or "reference" level of performance. Some action is then taken to reduce the gap between the actual and the "reference" level. The important thing here—indeed some would argue the defining feature of formative assessment—is that the information arising from the comparison between the actual and desired levels must be used in closing the gap. If, for example, the teacher gives feedback to the student indicating what needs to be done next, this will not be formative unless the learner can understand and act on that information. An essential prerequisite for assessment to serve a formative function is, therefore, that the learner comes to understand the goals toward which she is aiming (Sadler 1989). If the teacher tells the student that she needs to "be more systematic" in her mathematical investigations, that is not feedback unless the learner understands what "being systematic" means—otherwise this is no more helpful than telling an unsuccessful comedian to "be funnier." The difficulty with

this is that if the learner understood what "being systematic" meant, she would probably have been able to be more systematic in the first place. The teacher believes the advice she is giving is helpful, but that is because the teacher already knows what it means to be systematic. This is exactly the same issue we encountered in the discussion of criterion-referenced assessment above, and why I believe, in contrast to Klenowski (1995), that learning goals can never be made explicit. The words used—whether as criteria or for feedback—do not carry an unambiguous meaning, and require the application of implicit knowledge (Claxton 1995).

Now this should not be taken to mean that "guidelines" or "criteria" should not be used in helping learners come to understand the goals the teacher has in mind. These criteria can be extraordinarily helpful in helping learners begin to understand what is required of them. But it is a fundamental error to assume that these statements, however carefully worded, have the same meaning for learners as they do for teachers. Such statements can provide a basis for negotiating the meaning, but ultimately, the learners will only come to understand the statements by seeing them exemplified in the form of actual pieces of students' work.

This notion of "understanding the standard" is the theme that unifies summative and formative functions of assessment. Summative assessment requires that teachers become members of a community of practice, while formative assessment requires that the learners themselves become members of the same community of practice. As the paper by Broadfoot et al. (this volume) makes clear, as well as understanding the cognitive aims of the community of practice, becoming a full participant also requires understanding how the classroom "works," with the students "given a central role in the management of their own learning, but are also

given the knowledge and skills to discharge their responsibilities" (Simpson this volume).

This process of becoming attuned to the constraints and affordances (Gibson 1979) of the classroom is an essential part of being an effective learner. Whether success in one particular classroom is effective beyond that classroom depends on the extent to which the constraints and affordances of that classroom are available in other settings. Boaler (1997) provides a stark example of students who were highly successful in one particular community of practice, but because the constraint and affordances to which they had become attuned were not present in their examinations, their performance was considerably weakened.

For the teacher's part, however, as both Black (this volume) and Simpson (this volume) point out, it is not enough just to "understand the standard." Where a learner understands the standard, and is able to assess her or his own performance, they can become aware of the "gap" between current and desired achievement. What they lack, however, is any clear idea of how to go about closing the gap. They know that they need to improve, but they are unlikely to have any clear idea of how to improve (for if they did, they would be able to reach the desired level). An essential role for the teacher in formative assessment is, therefore, to analyze the gap between present and desired performance, and be able to break this down into small, comprehensible steps that can be communicated to the learner (recall the teacher quoted by Simpson who realized that he had, in the past been telling his pupils that they "must work harder at problem-solving"). Put crudely, summative assessment requires teachers to understand the standard, while formative assessment requires learners to understand the standard, and for teachers to understand the standard and the "gap."

The summative and formative functions of assessment are further distinguished by how they are validated. With summative assessments any unfortunate consequences tend to be justified by the need to establish consistency of meanings of the results across different contexts and assessors. With formative assessment, any lack of shared meanings across different contexts is irrelevant—all that matters is that they lead to successful action in support of learning. In a very real sense, therefore, summative assessments are validated by their meanings and formative assessments by their consequences.

The foregoing theoretical analysis provides a basis for distinguishing between formative and summative functions of assessment, but does not address the issue raised earlier in this paper and by Val Klenowski (this volume) of the tension between the formative and summative functions of assessment. As Klenowski shows, in the context of portfolio assessment, the requirements of the summative function for a portfolio to contain particular elements results in a situation in which the formative function is weakened.

Of course, the formative and summative functions of assessment will always be in tension, but the identification of three phases of the assessment cycle above (elicitation, interpretation, action) suggests some ways in which the tension can be mitigated somewhat (for a fuller version of this argument, see Wiliam 1999). When evidence is being elicited, the basis of the assessment must be broad, and must, as far as possible, not be predictable (at least not to the extent that those being assessed can ignore certain parts of the domain because they know that they will not be assessed). Consideration should also be given to changing the focus of the assessment from a quality control orientation, where the emphasis is on the external assessment as the measurement of quality, to a quality assurance orientation, where the emphasis is on the evaluation of internal systems of self-

assessment, self-appraisal or self-review. In the case of Klenowski's example of teacher training, we might insist that the portfolio includes statements about the procedures used by the student in evaluating their own practice rather than insisting on actual examples of the evaluations.

Once evidence is elicited, it must be interpreted differently for different purposes, and it is important to note that once the data has been interpreted for one purpose, it cannot easily serve another. For formative purposes, the focus will be on learning. Some items are much more important than others, since they have a greater propensity to disclose evidence of learning needs. In particular, the results on some sorts of very difficult assignments can be especially significant, because they can point clearly to learning needs that were not previously clear. However, the results of these difficult assignments should not count against the learner for summative purposes—what goes into the portfolio, for example, must be only a selection from all possible work, and may even be redrafted or reworked before it is included. The relationship between the summative and the formative assessment is not the aggregation of the latter into the former, but rather the result of a reassessment, for a different purpose, of the original evidence.

Finally, summative assessments are best thought of as retrospective. The vast majority of summative assessments in education are assessments of what the individual has learned, knows, understands, or can do. Even where the assessments are used to predict future performance, this is done on the basis of present capabilities, and assessments are validated by the consistency of their meanings. In contrast formative assessments can be thought of as being prospective. They must contain within themselves a recipe for future action, whose validity rests in their capability to cause learning to take place. There is no doubt that, for most of the school year, the formative function should predominate:

We shouldn't want [a shift to formative assessment] because research shows how it improves learning (we don't need to be told that—it has to be true). We should want it because schools are places where learners should be learning more often than they are being selected, screened or tested in order to check up on their teachers. The latter are important; the former are why schools exist. (Peter Silcock, Personal communication, March 1998)

As part of their day-to-day work, teachers will be collecting evidence about their students, and, for most of the year, this will be interpreted with a view to gauging the future learning needs of the students, and helping the students to understand what it would mean to be a member of the community of practice. In such a system "assessment is seen as continuous, concerned with the creation of a flow of contemporary information on pupil progress which will genuinely inform the teaching and learning processes" (Simpson this volume).

However, at intervals (perhaps only as often as once each year) the original evidence of attainment can be revisited and reinterpreted holistically, to provide a construct-referenced assessment that is synoptic of each student's achievement—an indication of the extent to which they have become full members of the community of practice.

Chapter 6

Teacher Involvement in Curriculum Development

1. Introduction

The goal of a successful educational program and thus effective curriculum development should be to meet the needs and current demands of the culture, the society, and the expectations of the population being served. Therefore curriculum development and the educational reform process continually under goes review, revision, and constant change (Johnson, 2001). Curriculum development can be challenging, therefore the involvement of all stakeholders, especially individuals who are directly involved in student instruction, are a vital piece in successful curriculum development and revision (Johnson, 2001). So, this paper will discuss the importance of teachers' involvement in curriculum development, the challenges that teachers face in curriculum development, preparation for teachers involvement in curriculum development, the teachers role in curriculum development, and then conclusion.

2. The Importance of Teachers Involvement in Curriculum Development

Without doubt, the most important person in the curriculum implementation process is the teacher. With their knowledge, experiences and competencies, teachers are central to any curriculum development effort. Better teachers support better learning because they are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom. If another party has already developed the curriculum, the teachers have to make an effort to know and understand it. So, teachers should be involved in curriculum development. For example, teacher's opinions and ideas

should be incorporated into the curriculum for development. On the other hand, the curriculum development team has to consider the teacher as part of the environment that affects curriculum (Carl, 2009). Hence, teacher involvement is important for successful and meaningful curriculum development. Teachers being the implementers are part of the last stage of the curriculum development process.

3. The Challenges Teachers Face in Curriculum Development

The teachers' involvement in the curriculum development process is essential in meeting the needs of society. The process of curriculum development requires teachers to act and reflect on society's needs in each stage of the development process. Nevertheless, sometimes this process which teachers are requested to follow is unclear. For example, in South Africa most teachers are not qualified and lack the necessary skills to participate in curriculum development. Their approach of participation in the process is not well defined and very difficult on teachers, so they face many challenges regarding their involvement in curriculum development (Ramparsad, 2000). As a result, I think that there should be major advances in teacher development in order for teachers to actively reflect on society's needs in each stage of the curriculum development process. On the other hand, in any curriculum implementation process not all teachers will have the chance to be involved in these processes. Professional development of teachers is as an important factor contributing to the success of curriculum development and implementation (Handler, 2010). So, we should think

about what extent teacher education programs are needed for prospective teachers to study curriculum development.

4. Preparation for Teacher Involvement in Curriculum Development

Because teachers have to be involved in curriculum development, the teacher should be provided with appropriate knowledge and skills that help them to effectively contribute in curriculum development operation.
As a result, teachers need training and workshops, which are geared toward professional development to be able to contribute to curriculum development. On the other hand, there is an important point to make efficient in involvement teacher in curriculum development that is teachers have to be empowered in the process of curriculum development (Carl, 2009). This means teachers should have improvement and increasing in many points of them, such as experience and autonomy. Thus, teachers play an integral part in the process of developing the curriculum; then students' outcomes.

5. The Teachers Role in Curriculum Development

The teacher involved in curriculum organization has many roles and responsibilities. Teachers want to enjoy teaching and watching their students develop interests and skills in their interest area. The teacher may need to create lesson plans and syllabi within the framework of the given curriculum since the

teacher's responsibilities are to implement the curriculum to meet student needs (Carl, 2009). Many studies support empowerment of teachers through participation of curriculum development. For example, Fullan (1991) found that the level of teacher involvement as a center of curriculum development leads to effective achievement of educational reform. Therefore, the teacher is an important factor in the success of curriculum development including the steps of implication and evaluation. Handler (2010) also found that there is a need for teacher involvement in the development of curriculum. Teachers can contribute by collaboratively and effectively working with curriculum development teams and specialists to arrange and compose martial, textbooks, and content. Teacher involvement in the process of curriculum development is important to align content of curriculum with students needs in the classroom.

6. **Conclusion**

In short, No curriculum will be perfect, a finished product cast in stone, or free from criticism, but to be effective it must be accepted by teachers and must be deemed educationally valid by parents and the community at large (“Guide to curriculum development,” 2006). Curriculum development should be viewed as a process by which meeting student needs leads to improvement of student learning. In addition, it cannot be stagnant. Curriculum must be a living document that is in constant flux. It must be adaptable to changes in the educational community and in society in general. Only then will it be able to be an effective change agent in the educational process.

The change journey comes in many phases, where collaboration and feedback are important (Glickman, Gordon & Ross-Gordon, 2013, p. 293). Teachers and supervisors gather and collect data, reflect with dialogue, and make informed decisions together. Instructional leadership is shared with teachers, in its most progressive forms it is being cast as collegial investigation, reflection, and coaching (Blasé, 1999, p. 350). Problems and conflict do happen, but "problems are our friends" (Glickman, Gordon & Ross-Gordon, 2013, p. 293). Problems need to be embraced so that the organization can come up with a reasonable solution or solutions. Finally, for schools to be successful with change and development, they must believe that creating a culture of continuous improvement is the way to adapt to changing needs and conditions. Schools need to continuously assess themselves and have the goal toward self-actualizing (Glickman, Gordon & Ross-Gordon, 2013, p. 293). Thus, schools are never perfect or self-actualized.

Glossary

Active learning

Learning which engages students and challenges their thinking, using a variety of activities.

Assessment for learning

Essential teaching strategies during learning to help teachers and students evaluate progress in terms of understanding and skill acquisition, providing guidance and feedback for subsequent teaching and learning.

Backwash effect

The impact of an examination on teaching and learning, by influencing the design of the learning programme and activities.

Balanced curriculum

A school curriculum with a complementary range, combination and weighting of subjects. This normally includes mathematics, languages, sciences, technology, humanities, creative arts and physical education.

Benchmarking

Measuring performance against an established standard.

Bilingual education

Teaching and learning in two or more languages, developing both subject and language knowledge and skills.

Broad curriculum

Every student experiences a wide range of different subjects and learning activities.

Co-curriculum

Valued educational activities that support learning beyond the school curriculum, which the school encourages and supports.

Component

A component is an assessable part of a subject examination, not certificated as a separate entity, e.g. a written paper or a practical.

Concept

A mental representation of a class of things. A concept may refer to concrete or abstract things.

Content and language integrated learning (CLIL)

In a CLIL approach to bilingual education, students develop their subject knowledge and language skills at the same time using specific teaching and learning strategies.

Core subject

A subject which is an essential part of the curriculum, typically English, Mathematics and Science.

An alternative meaning is a subject filike Global Perspectives) which becomes a focus of learning in other subjects enhanced by interdisciplinary approaches and connections with other subjects.

Creative development

Enabling learners to develop their imagination and original thinking in solving problems and producing ideas, images, artefacts, performances and actions which have value to themselves and others.

Critical thinking

The ability, underlying all rational discourse and enquiry, to assess and evaluate analytically particular assertions or concepts in the light of either evidence or wider contexts.

Curriculum

An overall description of the aims, content, organisation, methods and evaluation of the learning programme and the factors influencing the quality of learning.

Curriculum framework

The systematic structure of the curriculum as set out in documentfis) specifying the way in which learning and assessment is to be organised.

Curriculum mapping

Documents all the interrelationships within the curriculum, e.g. what is to be learned, how and when.

Differentiated learning

Adapting one's teaching to suit the needs of different learners for their current level of understanding and performance, by providing appropriate learning activities, support, and assessment, so that all students in the group can learn effectively fisee 'Scaffolding learning').

Directed study

Learning in which the teacher as expert authority sets out and transmits the knowledge to be learned.

Distributed leadership

Builds capacity in schools by giving teachers the responsibility for leading in areas of pedagogy, curriculum development and the social and emotional wellbeing of learners.

Educational aims

Statements of the broad purposes or intentions of the curriculum or learning programme.

E-learning

Learning that takes place using electronic media, for example online.

ESOL

English for speakers of other languages.

Experienced curriculum

What students actually learn from their whole educational experience, including

both planned and unintended outcomes, as a result of all their activities in the learning environment.

First language

The language that the learner mainly uses, from childhood and at home.

Formal assessment

Planned and structured measurement of learning.

APPENDICES

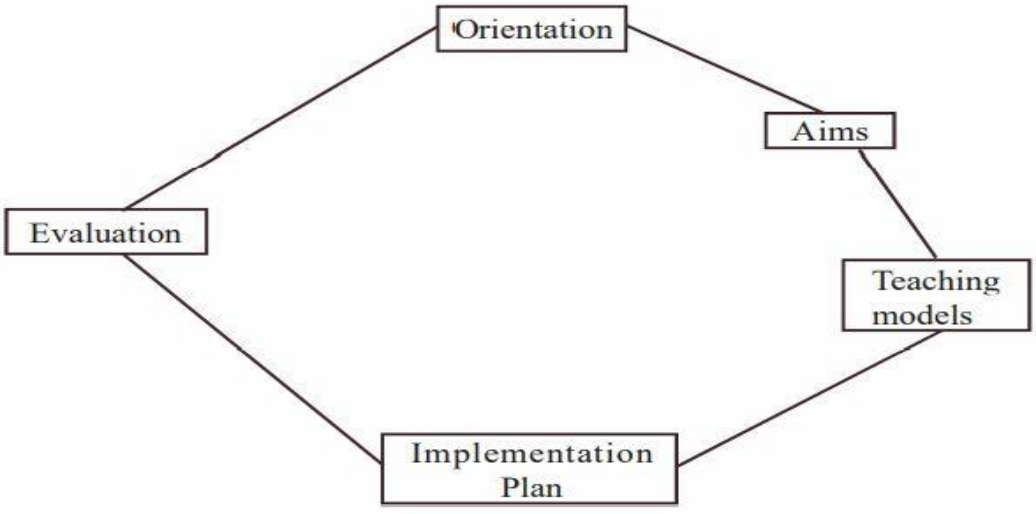
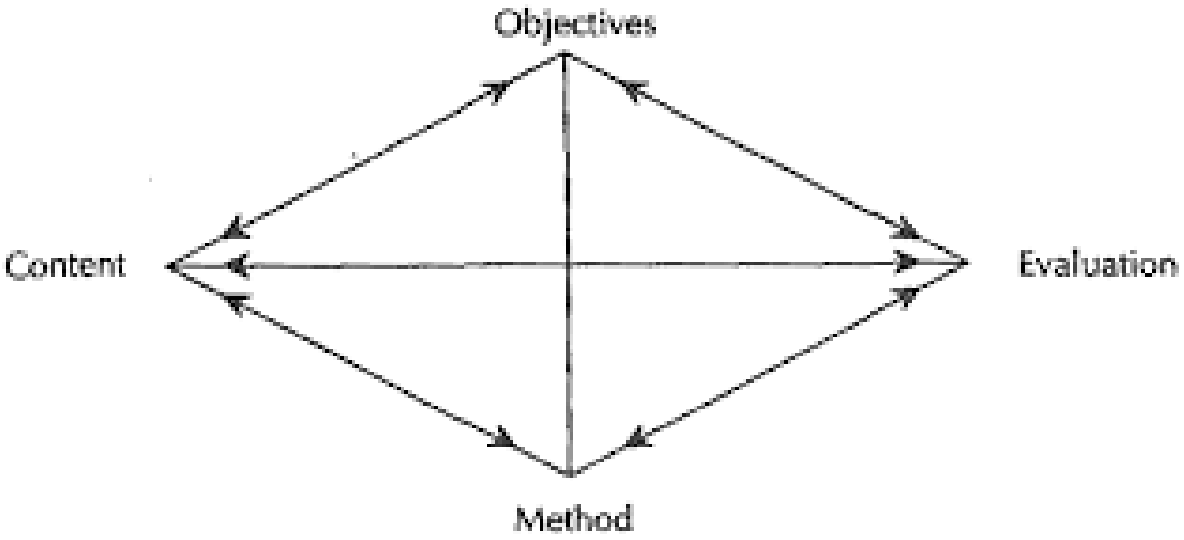


Fig. 2.4: The Miller and Seller Model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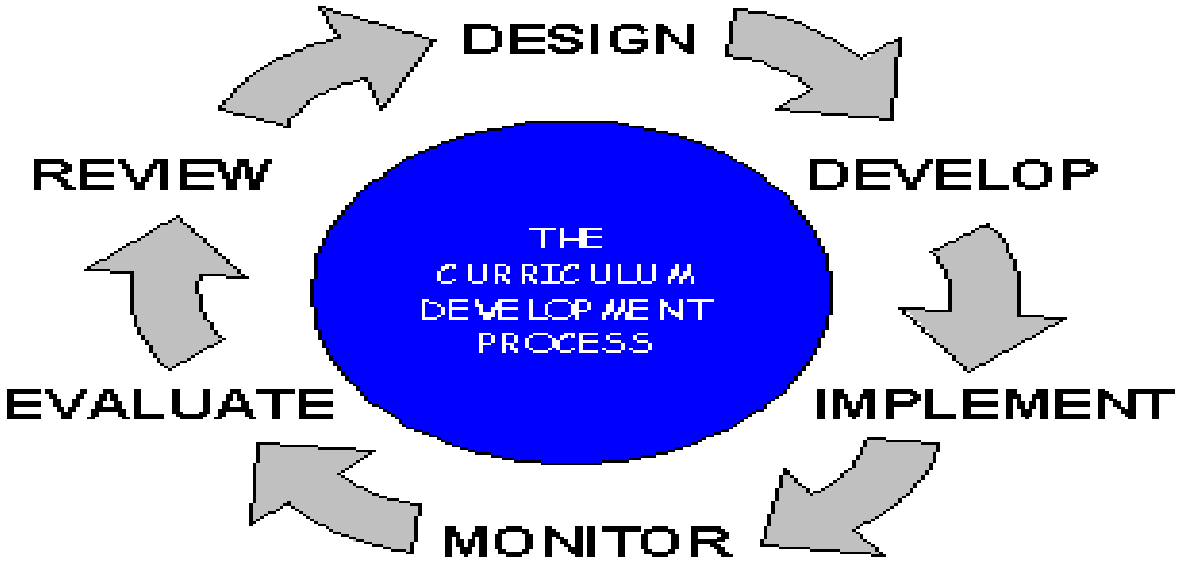
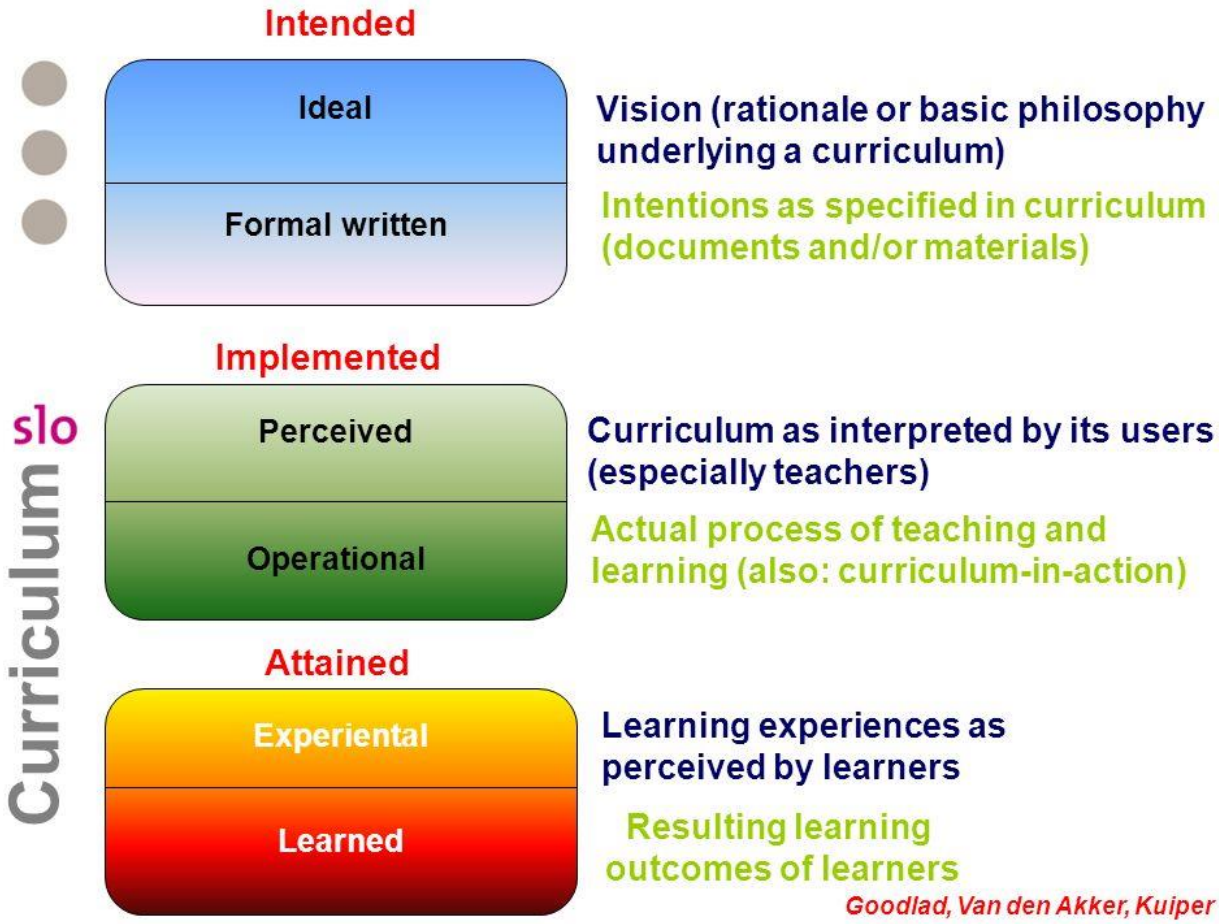
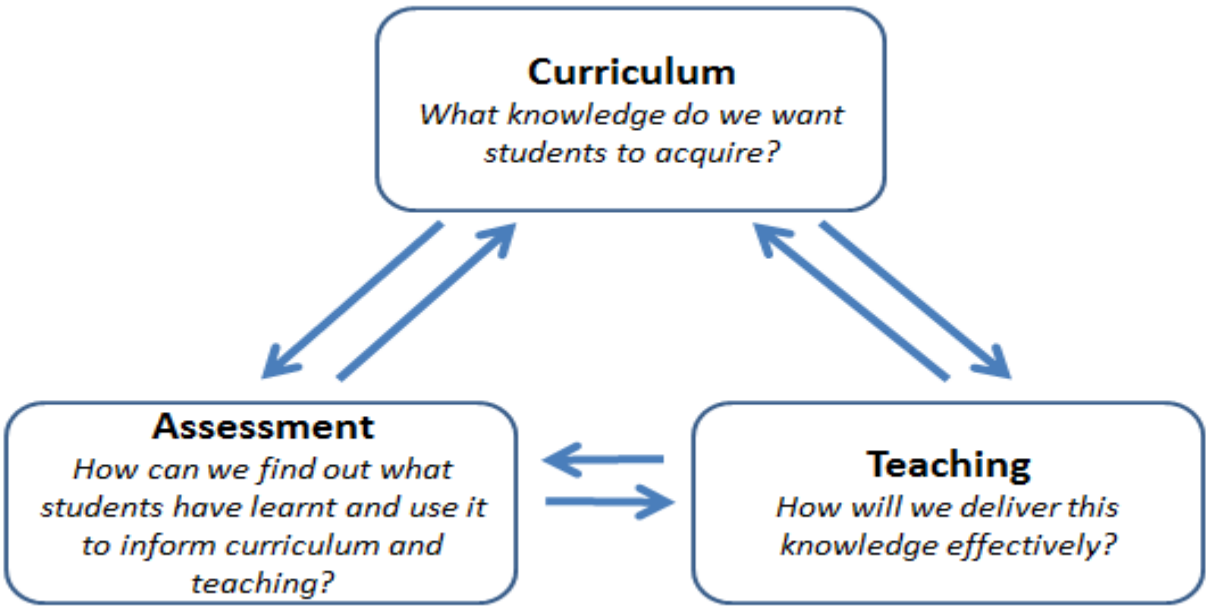
Content
Evaluation
Method


DESIGN
DEVELOP
IMPLEMENT
MONITOR
EVALUATE
REVIEW
THE
CURRICULUM
DEVELOPMENT
PROCESS


Intended
Ideal
Formal written
Vision (rationale or basic philosophy underlying a curriculum)
Intentions as specified in curriculum (documents and/or materials)
Implemented
slo
Curriculum
Perceived
Operational
Curriculum as interpreted by its users (especially teachers)
Actual process of teaching and learning (also: curriculum-in-action)
Attained
Experiental
Learned
Learning experiences as perceived by learners
Resulting learning outcomes of learners
Goodlad, Van den Akker, Kuiper


Curriculum
What knowledge do we want students to acquire?
Assessment
How can we find out what students have learnt and use it to inform curriculum and teaching?
Teaching
How will we deliver this knowledge effectively?

SAYLOR, ALEXANDER & LEWIS MODEL

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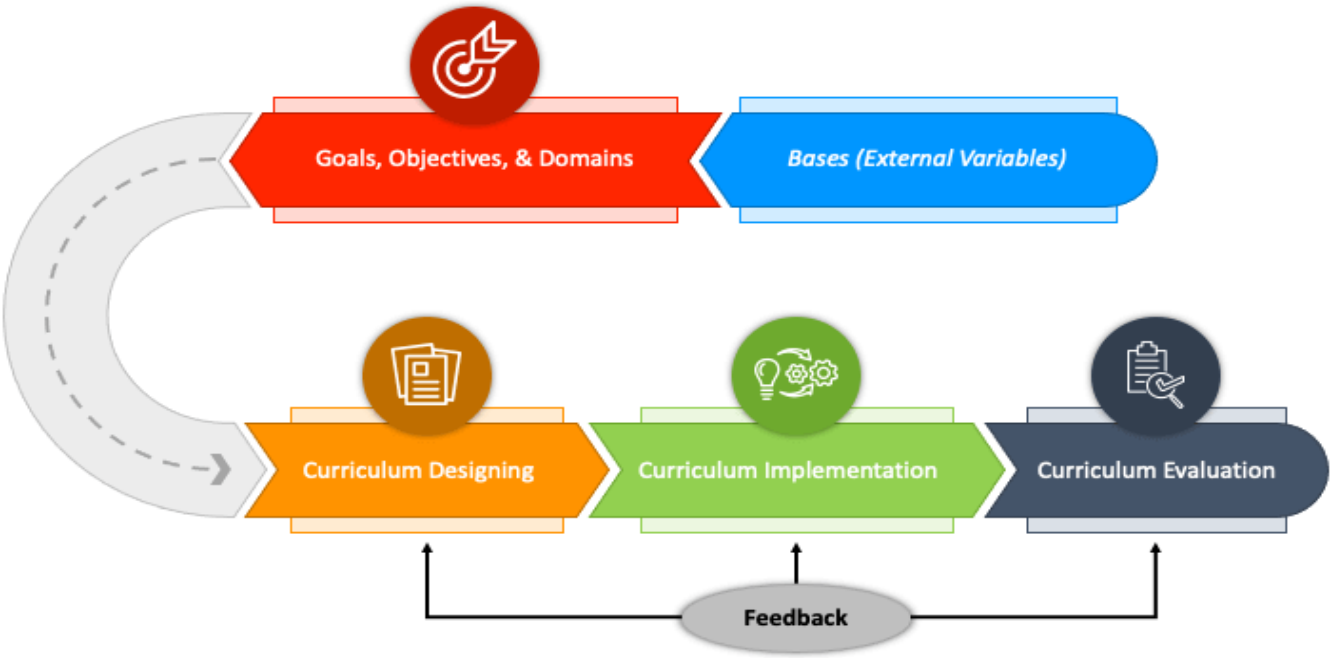
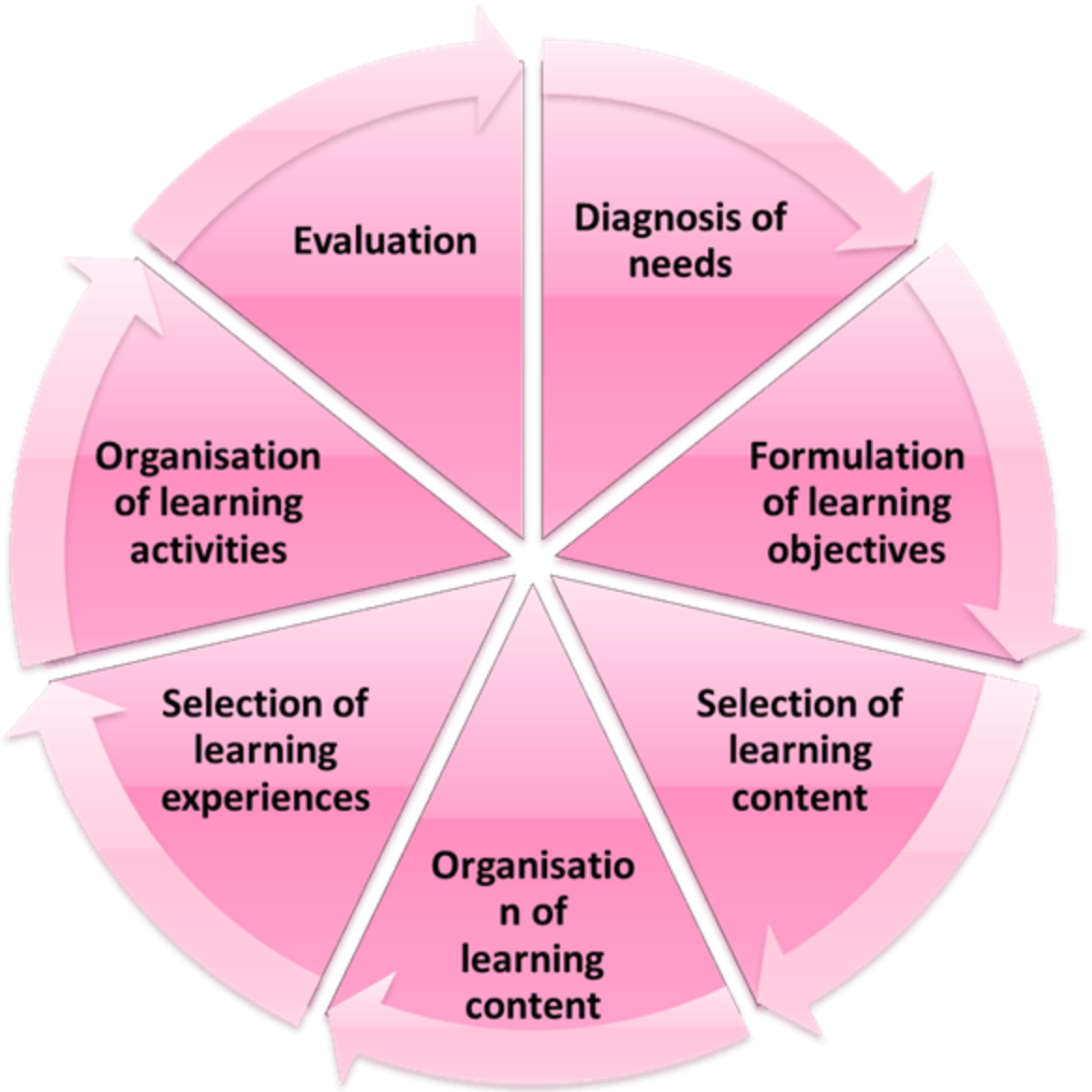
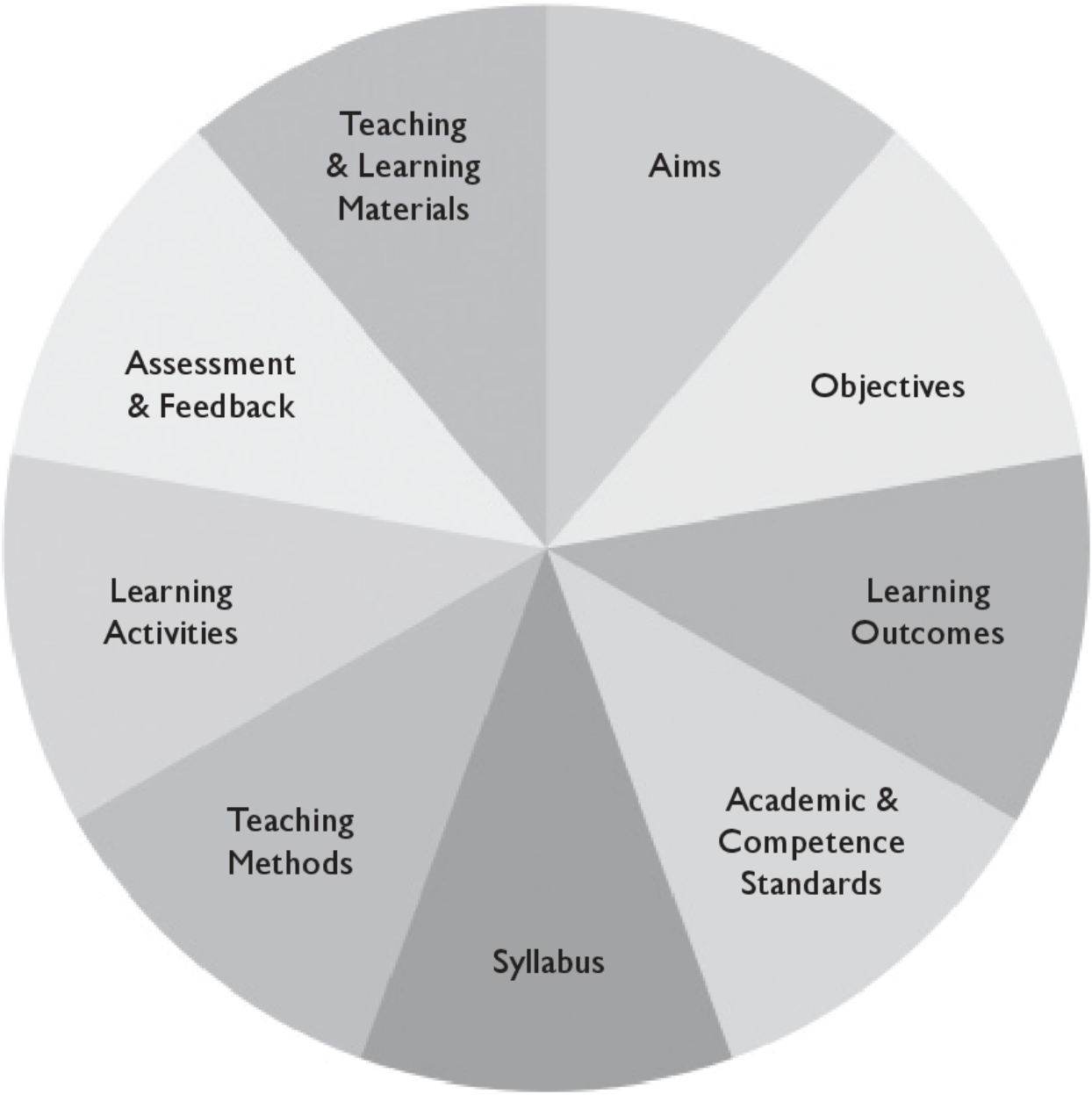



Diagnosis of needs
Formulation of learning objectives
Selection of learning content
Organisation of learning content
Selection of learning experiences
Organisation of learning activities
Evaluation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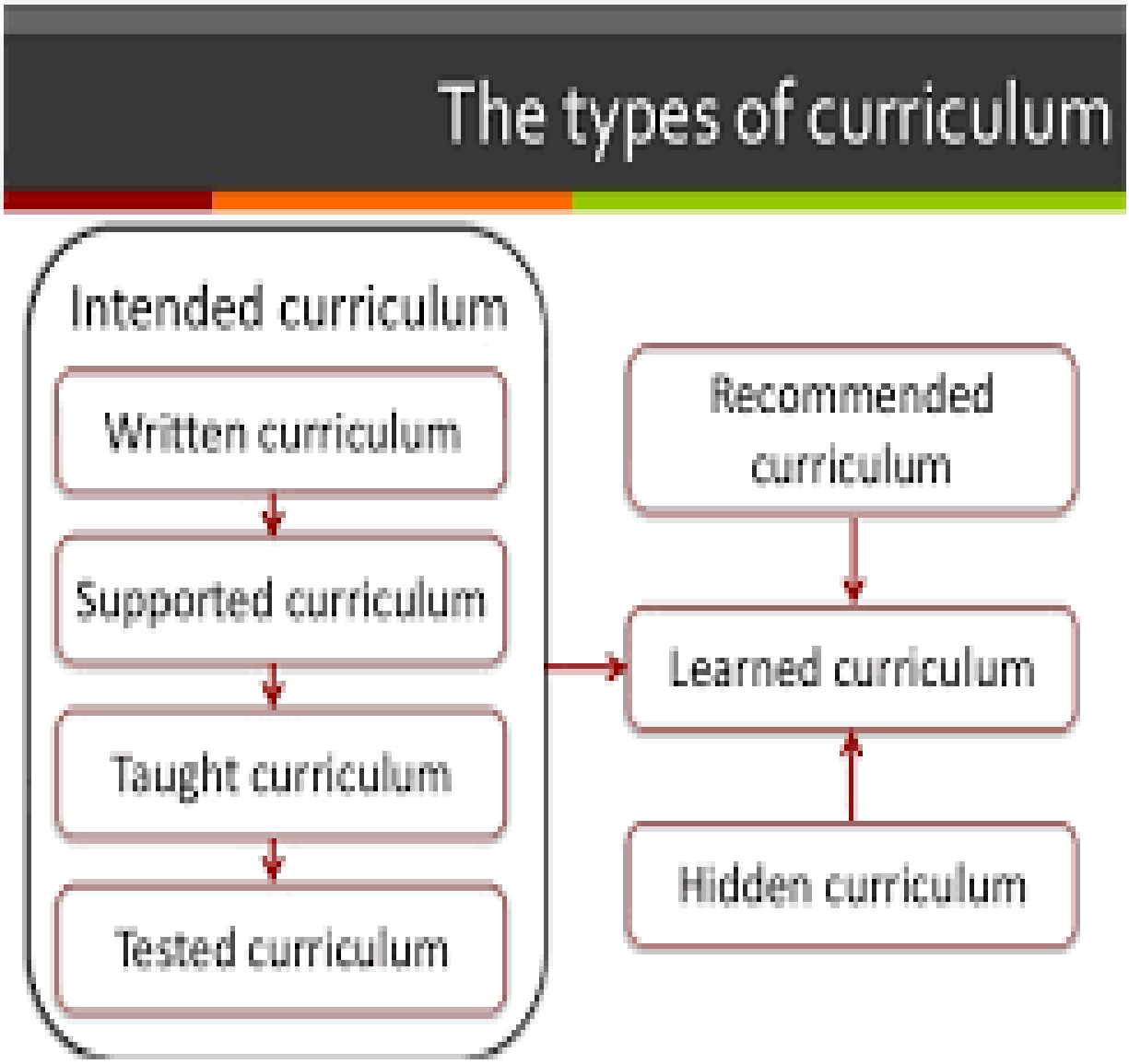
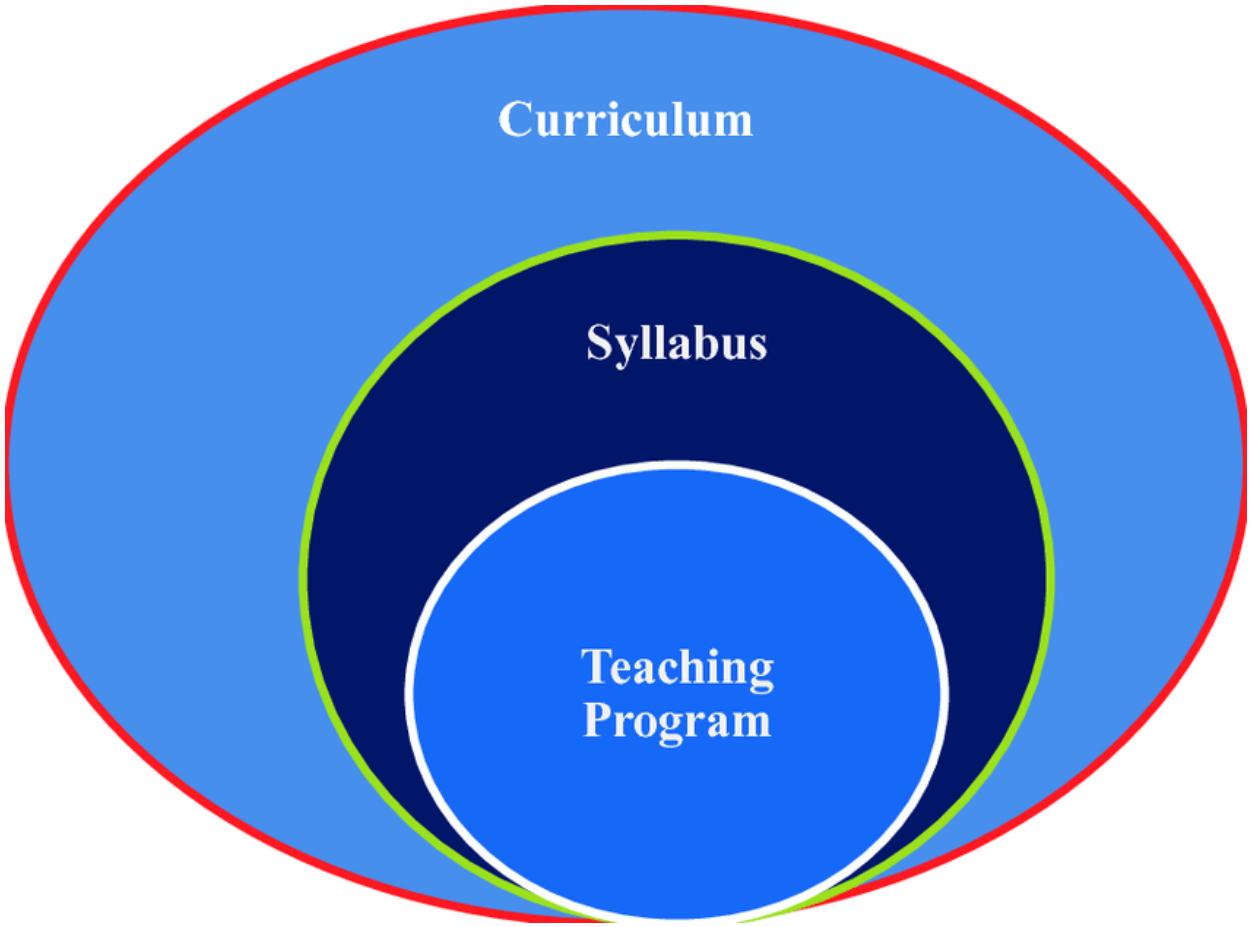
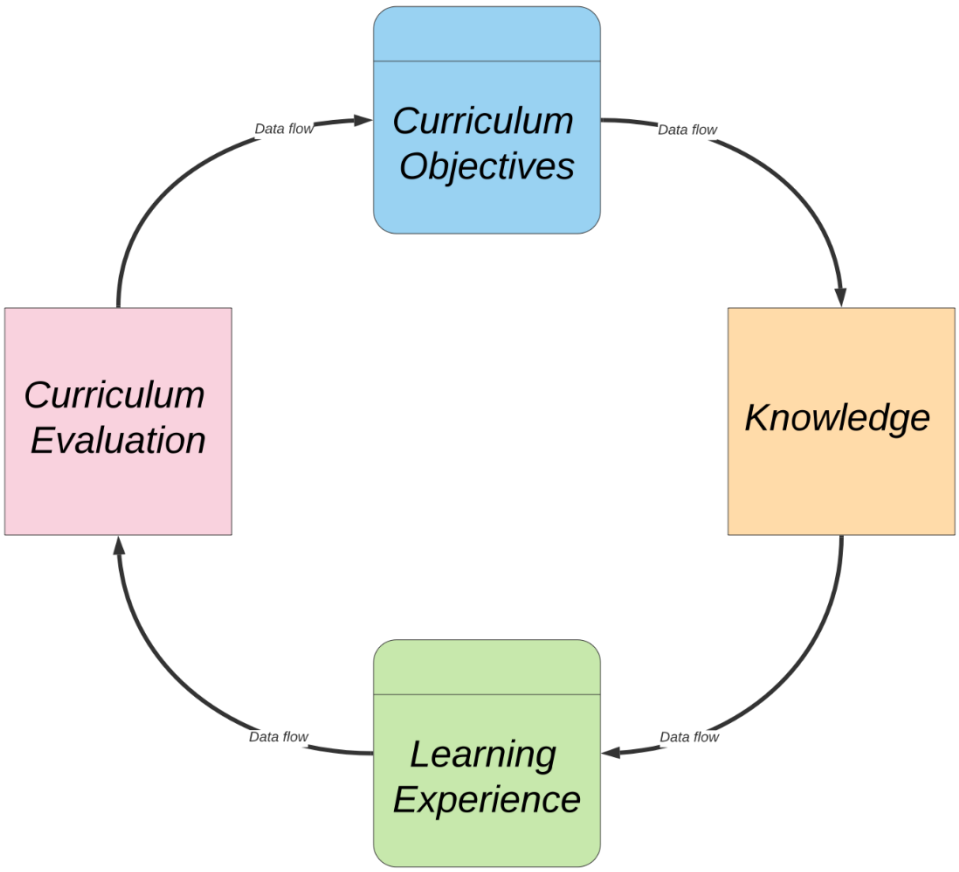
Objectives
Learning Outcomes
Academic & Competence Standards
Syllabus
Teaching Methods
Learning Activities
Assessment & Feedback
Teaching & Learning Materials


The types of curriculum
Intended curriculum
Written curriculum
Supported curriculum
Taught curriculum
Tested curriculum
Recommended curriculum
Learned curriculum
Hidden curriculum


Curriculum
Syllabus
Teaching
Program


Implementation
Visioning
Assessment
Preparation
Implementation
Visioning
Planning
Program
Learning
Outcomes
Analysis
Curriculum
Mapping
Evidence
Gathering
Analysis


Curriculum Objectives
Data flow
Knowledge
Data flow
Learning Experience
Data flow
Curriculum Evaluation
Data flow