



Principles of Curriculum Construction

Prepared by

Awatif H. Mahmoud, Ph.D.

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Preface

This course is intended for education students majoring in Science and Math (English Program). It presents some ideas and suggestions for curriculum construction. Issues involved in curriculum construction are discussed, An outline of curriculum foundations is presented. The course also considers goals of curriculum Further, different curriculum designs and types are included. In addition, curriculum approaches and choices are reviewed.

Course Objectives

By the end of this course, students are expected to be familiar with:

1. Meaning, functions, elements and principles of the curriculum.
2. Content and components of curriculum.
3. Foundations of curriculum.
4. Goals of curriculum planning.
5. Curriculum designs and types of curriculum.
6. Curriculum approaches and choices.

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I. Issues Involved in Curriculum Construction

Meaning of Curriculum

Etymologically, the word 'curriculum' is derived from a Latin word 'currere' which means the 'race course' or a 'runway' which one takes to reach a goal. Thus, a curriculum is the instructional programs through which the pupils achieve their goals.

Curriculum is the base in education on which the teaching learning process is planned and implemented. It is the totality of all the learning to which students are exposed during their study in the school; in the classroom, in the laboratory, in the library, in the workshop, on the farm and the playground.

Opinions widely differ on the precise meaning of curriculum. In the words of Kimball Wiles, " The school curriculum becomes what it is in any school at any given moment because of social setting, the ideals and commitment of individuals, and the skill, understanding and strategy of those concerned with change".

The author of this publication has listed 79 definitions in his book entitled Curriculum Reforms in India World Overview (1990). Some of the most important definitions which are often mentioned in educational literature are given below for the curiosity of the readers".

Alberty A. and Alberty E. (1959) regard curriculum as "the sum total of student activities which the school sponsors for the purpose of achieving its objectives".

American Association of School Administrators (1953) observes, "In recent years the curriculum has been commonly defined as all of the

directed learning experiences of children and youth under the influence of the school".

Blond's Encyclopedia of Education (1969) defines curriculum "as all the experience which a pupil has under the guidance of the school"

In the words of Cunnigham (1945), "Curriculum is a tool in the hands of the artist (the teacher) to mould his Material (the pupil) in accordance with his ideal in his studio (the school.)

Curriculum is defined in A Dictionary of Education by Rowntree Derek (1981) as "Curriculum can refer to the total structure of ideas and activities developed by an educational institution to meet the learning needs of students and to achieve desired educational aims."

Dictionary of Education (1973) edited by Carter V. Good gives the meanings of curriculum as, " Curriculum is a body of prescribed experiences under school supervision, designed to provide an individual with the best possible training and experience to fit him for the society of which he is a part or to qualify him for a trade or profession."

A Dictionary of Education (1982) by P.J. Hills writes, "A simple way of considering the curriculum is to see in terms of four facets: content, methods, purposes, evaluation."

The Education Commission 1964-66 has provided a very comprehensive definition of curriculum. "We conceive of the school curriculum as the totality of learning experience that the school provides for the pupils through all the manifold activities in the school or outside, that are carried on under its supervision. From this point of view, the distinction between curricular and extra-curricular work ceases to exist and a school camp and games and sports are curricular rather co-curricular activities."

Richamond, W. Rennet (1972) explains as, "Curriculum is a slippery word. Broadly defined, it means nothing less than the education process as a whole. Narrowly defined, as is usually done, the term is regarded as being more or less synonymous with the 'syllabus', 'a scheme of work' or simply 'subjects. According to one, no sharp distinction can be drawn between curricular, co-curricular and extra-curricular activities, all of which are held to play their part in the pupil's total experience; according to the latter, the time between formal instruction and informal learning needs to be drawn much more firmly. The difference between two positions corresponds to the difference between child-centered and discipline-centered."

Secondary Education Commission 1952-53 looks at the curriculum as, "It must be clearly understood that according to the best modern educational thought, curriculum in this context does not mean only the academic subjects traditionally taught in the school but it includes the totality of the experiences that a pupil receives through the manifold activities that go on in the school-in the classroom, library laboratory, workshop, playgrounds and in the numerous informal contacts between teachers and pupils. In this case, the whole life of the school becomes the curriculum which can touch the life of the students at all points and help in the evolution of balanced personality."

Wiles, Kimball in *The Changing Curriculum of the American High School* (1963) explains curriculum in these words, "The formal curriculum consists of the units of credits that are offered, the courses that are made available to students. The syllabi for those courses, the bibliographies and materials used, and the evaluative devices that are selected. The informal aspect of the curriculum includes the unplanned things that happen in classes, in the hallways, on the playground, in the cafeteria and on the way to and from school."

The concept of curriculum has changed from time to time. If you go through the traditional books on curriculum and the modern books on curriculum you will realize a great difference in the concept of curriculum. Since society has placed more responsibilities on its schools, the meaning of the running course is no more appropriate for the curriculum.

Arthur J. Lewis and Mid Alice (1972) defined curriculum in their book "Supervision for improved instruction" as "a set of intentions about opportunities for engagement of persons to be educated with other persons and with things (all bearers of information process, techniques and values) in certain arrangements of time and space."

Daniel Tanner and Laurel N. Tanner (1980) in their book "Curriculum Development: Theory and Practice" traced the history of curriculum definitions as follows:

- (i) The cumulative tradition of organized knowledge.
- (ii) modes of thought.
- (iii) race experiences.
- (iv) guided experiences.
- (v) planned learning environment.
- (vi) cognitive/affective content and process.
- (vii) an instructional plan.
- (viii) instructional ends or outcomes.
- (ix) a technological system of production .

A survey of the following definitions of "Curriculum" will help in understanding its actual meaning:

(a) Curriculum is that series of things which children and youth must do and experience by way of developing abilities to do the things will that make up the affairs of adult life; and to be in all respects of what adults should be." Franklin Bobbit (1918)

(b) Curriculum is all the experiences children have under the guidance of teachers" Caswell & Campbell (1935).

(c) Curriculum consists of all the means of instruction used by the school to provide opportunities for student learning experiences leading to desired learning outcome". Krug (1957)

(d) "Curriculum encompasses all learning opportunities provided by the school." Saylor & Alexander (1966)

(e) "Curriculum embodies all the teaching-learning experiences guided and directed by the school" Harnack (1968)

(f) "Curriculum is the formal and informal content and process by which learners gain knowledge and understanding, develop skills and alter attitudes, appreciations and values under the auspices of that school." Doll (1978)

(g) "Curriculum is that reconstruction of knowledge and experiences systematically developed under the auspices of the school (or university) to enable the learner to increase his or her control of knowledge and experience." Tanner & Tanner (1980)

(h) "Curriculum is a plan or program for all experiences which the learner encounters under the direction of the school." Oliva (1982)

The above mentioned definitions may be put into four categories. All of them fall in one or more categories:

- (i) Curriculum as subjects & subject matter.
- (ii) Curriculum as objectives.
- (iii) Curriculum as Program.
- (iv) Curriculum as personal experiences of the learner.

These four categories vary from concrete to abstract and school-centered to child center in their emphasis on the meaning of curriculum and in turn on the content and scope of curriculum.

CURRICULUM AS SUBJECTS & SUBJECT MATTER

Generally we find that the concept of the curriculum is that of subjects and subject matter taught by teachers and given in the text books. In spite of efforts made in the improvement of the concept of the curriculum for last 50 years, the concept of curriculum as subject matter continues to be the basis of the dominant curriculum design. The concept of curriculum as subject and subject matter has been presented in the theories relating to principles for selections, sequence and class placement of subject matter. This concept of curriculum follows the following procedure for curriculum planning:

- (i) Various social and educational factors are taken into account by curriculum experts to decide the subject to be taught to a particular age group.
- (ii) Interests of the students, difficulty of their age group and sequence are used as criteria to decide the subjects and subject matter to be taught to

the students belonging to a particular age group and particular area of location.

(iii) Methods of teaching are planned and implemented for the purpose of providing mastery of knowledge of subject matter of the subjects selected in curriculum.

But in the modern days this concept of curriculum is not considered appropriate because it restricts the concept of curriculum to the fields of organized knowledge.

CURRICULUM AS OBJECTIVES

Efforts have been made in the past to consider aims and objectives as bases for curriculum planning. F. Bobbit (1918) in his book "The Curriculum" defined curriculum "that series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects of what adults should be". Here Bobbit determined curriculum objectives based on skills and knowledge needed by adults.

Ralph Tyler (1949) in his book "Basic Principles of Curriculum and Instruction" presented the same views in his book about the curriculum but he combined curriculum and instruction in his approach. Probably he thought that curriculum and instruction cannot be separated otherwise the aims and objectives of curriculum planning will not be attained.

Muritz Johnson in the paper "Appropriate Research Directions in Curriculum and Instruction published in Curriculum Theory Network, 6 (Winter 1970-71): 25 presented his view of the curriculum in the following words:

"Curriculum is concerned not with what students will do in the learning situation but with what they will learn (or be able to do) as a consequence of what they do. Curriculum is concerned with what results, not with what happens. And it stands in anticipatory relationship to the learning process, not in a reportorial relationship, after the fact. It deals with expectations or intentions and more specifically with the learning outcomes intended to be achieved through instruction, that is, through the experiences provided through what happens and what learners do".

Later on some writers started separating instruction from Curriculum which resulted in a definition of curriculum as consisting solely of aims and objectives or ends.

The concept of curriculum as attainment of aims and objectives had its own impact on education. Here the teacher gets the opportunity to check whether the constructed curriculum attains the aims and objectives or not.

CURRICULUM AS PROGRAM

In this concept of curriculum the course of events in the school is considered as the means used by the school to carry out its purposes. If it is understood in narrow sense, then it refers to the courses of study offered by the school. It may also mean the curriculum offered by each individual student in the form of core courses and electives. If it is understood in a broader way then not only it includes the courses of study but also various programs and activities organized by the school for the students. It may include literary, cultural, social activities etc. and guidance program.

CURRICULUM AS PERSONAL EXPERIENCES OF THE LEARNER

It is the most modern concept of curriculum while the earlier three categories can be put under the title of curriculum plan, the fourth category

i.e. curriculum as personal experiences of the learner has its roots in the idea that what is planned is not always what actually done. Thus the curriculum can only be found in the learnings that students get from their personal experiences. The merits of this definition focus on the learner and learning and inclusion of all the planned as well as un planned experiences.

FUNCTIONS OF THE CURRICULUM

School curriculum aims at promoting in the learner:

1. Language abilities and communication skills needed for social living and further learning.
2. Competencies that facilitate mathematical operations and their applications in day-to-day life and learning.
3. Knowledge, attitudes and habits necessary for keeping physically fit and strong in conformity with normal developmental pattern.
4. A proper understanding about the role and importance of sex in human life, healthy aptitude towards sex and members of opposite sex.
5. Qualities that make a man socially effective and happy in various social settings such as friendliness, cooperativeness, compassion, self-discipline, self-criticism, self-control, humor, courage, love for social justice, etc.
6. Moral and character values such as honesty, truthfulness, dependability, courtesy, fearlessness, compassion, etc.
7. Pre-Vocational/Vocational skills, willingness to work hard, and dignity of manual work necessary for increased productivity and job satisfaction.
8. Ability to appreciate and discover beauty in various life situations and integrate it into one's own personality.

9. Understanding of the environment and its limited resources and the need for conservation of natural resources and energy.

10. Appreciation of various consequences of large families and over-population and need of checking population growth.

11. Understanding of the diverse cultural and social systems of people living in different parts of the country and the country's composite cultural heritage.

12. Appreciation for the need of a balanced synthesis between the change-oriented technologies and the continuity of country's cultural heritage.

13. Knowledge of national symbols and desire and determination to uphold the ideals of national identity and unity.

14. Capability of appreciating and tolerating differences and diversities of various sorts and the capacity to choose between alternative value systems.

15. An awareness of the inherent equality of all and need of global fraternity with a strong commitment to human values and to social justice.

16. Scientific temper characterized by spirit of inquiry, courage to question and objectivity leading to elimination of obscurantism, superstition and fatalism.

17. Knowledge of scientific methods of inquiry and its use in solving problems.

18. Appreciation of sacrifices and contribution made by the freedom fighters and social workers in the country's freedom struggle and social regeneration, and readiness to follow their ideals.

19. Appreciation and readiness to practice in life the national goals of socialism, secularism, democracy and nonviolence.

20. Divergent and independent thinking and ability to discover new relationships and combinations.

21. Qualities and characteristics necessary for self-learning and for life-long learning leading to creation of a learning society.

Elements of the Curriculum

Every teacher has a series of beliefs about what schools what ought to do, a set of values about the most desirable outcomes from schooling and some very clear ideas about the kinds of the students the school should produce. Although this may not give a complete educational philosophy, it exists an influence on the kinds of teaching practices that go in the teacher's classroom. It has its direct impact on the school curriculum because it is the sum total of all that is studied, taught and learnt in school.

There are four dominant views about the curriculum.

They are:

- | | |
|------------------------|------------------------|
| (i) Humanism | (ii) Developmentalism |
| (iii) Social metiorism | (iv) Social efficiency |

Herbert Klicbard (1982) in his paper "Education at the turn of the century." published in Educational Researcher has identified these four dominant views.

Humanism:

- (i) Oldest model by William Torry Harris.

(ii) Provides answers to "How can society provide their young with weapons against ignorance?"

(iii) Humanist prescription was "study the accumulated knowledge of the western cultural heritage.

(iv) Humanist always took up the mantle of reinterpreting, preserving and instructing the young in the revered traditions and values amidst rapid social change.

(v) According to humanism, curriculum was nothing less than the mechanism by which the individual was elevated into the species and becomes privy to the accumulated wisdom of the race.

(vi) Classics are the only defensible course of study.

(vii) Curriculum should not be used to emphasize direct social reform.

(viii) Humanism should guide the curriculum because it endows students with the power of reason, sensitivity to beauty and high moral character.

Developmentalism:

(i) articulated by G. Stanley Hall

(ii) subject matter could be taught effectively if the results of child study were first taken into account.

(iii) Individual behavior develops through a series of stages, so curriculum should be according to natural growth of the students.

(iv) The child was the center of the curriculum.

(v) Developmentalism has remained near the center of the "theoretical" curriculum in the form of interdisciplinary studies, inquiry learning and active

learning involvement but it has seldom entered the mainstream of the school curriculum.

(vi) "Project method" of W.H. Kilpatrick in 1920 and "free schools" by a great array of theorists in 1960's and 1970' were reflection "Developmentalism" but perished soon after blooming because organizational structure of the schools did not suit them.

Social Metiorism:

(i) First explicated by Lester Frank Ward.

(ii) It conceived of education as the great panacea for all social ills.

(iii) Dissemination of information and popularization of knowledge would create widespread understanding of humans' relations with one another and the nature.

(iv) Only the state had sufficiently broad means and motives necessary to sponsor this kind of curriculum.

(v) The curriculum based on this conception would promote an equalitarianism.

(vi) It was later developed by Georg S. Counts who wanted the schools to become an agent for change in society.

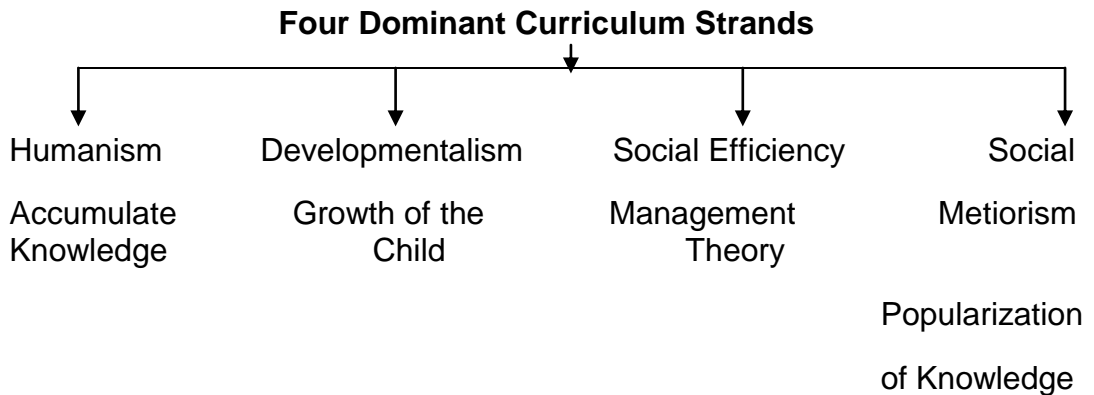
Social Efficiency:

(i) It was first clearly articulated by Joseph Mayer Rice who raised the question "What makes some schools more effective than others?" and the answer was "Social efficiency".

(ii) It had more influence on organization and instruction of the School curriculum.

(iii) Ralph Tyler's book "Basic Principles of curriculum and Instruction" which is representation of this curriculum was declared the most influential education book of the 20th century.

It can be illustrated as follows:



CONTENT OF THE CURRICULUM

(i) There are many schemes that define the content of the curriculum but there are two large and loosely organized families that can encircle most of these schemes.

(ii) One family is child-centered curriculum whose great exponent is John Dewey. The other family is discipline-centred curriculum whose great exponent is Jerome Bruner.

(iii) The main features of child-centered curriculum are as follows:

(a) Curriculum was a social invention and education was the fundamental method of social reform.

(b) Dewey saw a rapidly changing society while schools were emphasizing on intellect.

(c) Dewey objected to the curriculum which cared for intellect only and ignored emotion, purpose and action.

(d) Curriculum must be generated out of social situations. It should be based on the twin pillars of the capacities of the child and the demands of the environment.

(e) Teacher in this curriculum was to play a difficult role because he needed to know which opportunities to use, which impulses to encourage and which social attitudes to cultivate in the curriculum.

(iv) The main features of discipline-centered curriculum are:

(a) The object of education was to get as swiftly as possible to that structure-to penetrate a subject, not cover it.

(b) Bruner defined spiraling as first taking a pass through the discipline to obtain an intuitive sense of the subjects.

(c) Bruner wanted the school to be more intellectual because it gave children "the informed power of mind and a sense of potency in action.

COMPONENTS OF THE CURRICULUM

(i) Content: It refers to what is specifically taught in the classroom. Examples are aims and objectives of education, second world war II. How this content is organized varies widely across the content areas. Some teachers organize content in chronological order while others organize from simple to complex.

(ii) Concepts: It relates to the development of important concepts. A concept is an idea of an abstraction about particulars. Concepts help students in making sense out of world around them and have widespread application. Concepts go beyond time and space and can be transferred to

new situations. They help in making comparisons and contrasts. They can be used as organizers for the content.

(iii) Skills: Skills are content-free and can thus be applied or transferred to new settings and situations. Although all subjects have opportunities for skill development but subjects like Language, Mathematics and Typewriting are more noted as skill subjects skill development finds its place in Bloom's taxonomy of Educational objective as third level of cognitive domain.

(iv) Values

A good curriculum must take all three types into account; behavioral values, Procedural values and substantial values.

PRINCIPLES OF CURRICULUM CONSTRUCTION

The following Principles should be kept in mind when framing a curriculum:

1. The conservative principle. It has been stated that nations live in the present, on the past and for the future. This means that the present, the past and the future needs of the community should be into consideration. The past is a great guide for the present as it helps us to decide what has been useful to those who have lived before and what will be useful to those who are living now, Thus the function of the school is to preserve and transmit the traditions, knowledge, experience and way of life to the present generation.

The principle will be of help only when we carefully select as to what things of the past are likely to help us in the present. All the things of the past may not suit us. It is, therefore, essential that we should select only those subjects and activities which are required by the present generation.

This principle has been criticized by some educationists on the ground that it looks to subjects and not to the pupils. It is contended by its antagonists that in these days when it is accepted that education in schools, and therefore curriculum, should be child-centered, this principle does not take us very far. It may be replied to such critics that to condemn everything of the past is not a sound policy and especially in a country which has had a glorious past and which showed the path of knowledge to other countries. Another point to be stressed is that there must be a base to stand upon and if the base is durable it must be accepted. Thirdly, it would be wrong to say that in the past the child was entirely ignored. However, as stated above, the principle of selectivity should be adapted in the selection of the curriculum on the basis of the past.

2. The forward-looking principle. While discussing the first principle, we have pointed out that in the present, future needs and requirements of the community should be given their due place. Children of today are the future citizens of tomorrow. Therefore, their education should be such as it enables them to be progressive minded persons. Education should give them a foundation of knowledge, feeling and that will enable them to change the environment where change is needed.

3. The creative principle. In the curriculum those activities should be included which enable the child to exercise his creative and constructive powers. The objective of education is to discover and to develop special interests, tastes and aptitudes. Raymount says, "The promptings to anyone of the intellectual interests may fade away and become practically irrevocable unless opportunities be then and there forthcoming. None of the child's native gifts should escape our notice and so perish of inanition. In a curriculum that is suited to the needs of today and of the future, there must be a definite bias towards definitely creative activities.

4. The activity principle. The curriculum should be thought in terms of activity and experience, rather than of knowledge to be acquired and facts to be stored. Growth and learning take place only where there is activity. 'Experience' rather than 'instruction' is to meet the needs of the various stages of growth. In the words of John Dewey, The general movement is away from the old over-reliance and verbal instruction, formulated subject and learning from books, and in the direction of more varied and many-sided individual activities in keeping with child's real interests.

Play-grounds, shops, workrooms and laboratories not only direct the natural active tendencies of youth, but they also involve intercourse, communication and co-operation.

Abbott and Wood report has also stressed the activity principle, "It is vitally important that young children should not be required to sit still for long periods at a time. A young child needs rest, it is true, but he must play, he must explore, and he must be physically active if he is to derive a daily satisfaction out of his attendance at school. In short, he needs experience more than instruction.

The curriculum must ensure the activity of body and mind. It should be the center of the curriculum. All modern methods of teaching, i.e., Kindergarten, Montessori, Project, Basic, etc., are based on this principle of activity.

5. Principle of preparation for life. This is the most important principle in the construction of the curriculum. In the previous question we have seen that education must equip an individual for life. Hence curriculum must include those activities which enable the child to take his part effectively and amicably in the activities of the community when he becomes an adult.

We have to prepare him For such a way as he is capable of facing the various challenges of the complex problems of the future.

6. Child - centered curriculum. It is true that the child is to be prepared for life. But this does not mean that his immediate interests should be sacrificed for the sake of the future which is indefinite. As Ryburn puts, "The best preparation for life that we can give a child is to help him to live fully and richly his life at that stage at which he is." The child automatically prepares himself for the next stage by living well and truly life at one stage. Smith and Harrison also observe, "Education...regards the child as an individual growing by his own activity, living in his own environment, and preparing himself for adult life, not by imitating the adult, but by living as fully as possible in the environment of childhood."

7. Principle of maturity. Curriculum should be adapted to the grade of the pupils and to their stage of mental and physical development. In the early childhood 'wonder' and 'romance' predominate. So subjects and activities which present the elements of 'wonder' and 'romance' should be included at this stage. At a later stage they are interested in practical things. So at the junior secondary stage the curriculum should provide for practical problem. At the next stage, that is the senior secondary stage, students are interested in generalizations and accordingly curriculum should provide such activities. The child at this stage is keen to discover, to find out and discuss new facts. The curriculum should harness the adventurous spirit of the growing child. The experience provided should be within the comprehension of the students.

8. Principle of individual differences. Individuals differ in taste, temperament, skill, experience, aptitude, innate ability and in sex. Therefore, the curriculum should be adapted to individual differences. It should not be rigid.

9. Vertical and horizontal articulation. On the one hand each year's course should be built on what has been done in previous years and at the same time should serve as basis for subsequent work. It is absolutely essential that the entire curriculum should be coordinated.

10. Principle of linking with life. The community needs and characteristics should be kept in view while framing the curriculum.

11. Principle of comprehensiveness and balance. The curriculum should be framed in such a way as every aspect of life, i.e., economic relationships, social activities, occupations and spiritual life, is given due emphasis.

12. Principle of loyalties. The curriculum should be planned in such a manner that it teaches a true sense of loyalty to the family, the school, the community, the town, the province, the country and the world at large. It should enable the child to understand that there is unity in diversity.

13 . Flexibility. Curriculum should take into consideration the special needs and circumstances of the pupils. Curriculum of the girls may not always be identical with that of boys. The special needs of both the sexes should be given their due consideration. In general the curriculum of the village and the urban school will be the same but there might be variation according to the specific needs of the locality.

14. Principle of core or common subjects. There are certain broad areas of knowledge, skill and appreciation with which all the children must be made conversant and these should find a place in the curriculum. This is more important at higher secondary stage where there are diversified courses. These subjects are to be common to all groups. They are known as core subjects. Mother tongue or regional language, special studies

(general course), general science including mathematics and one craft are expected to be the core subjects.

15. Principle of leisure. The curriculum should prepare the child for the use of leisure time. According to Herbert Spencer, Literature, Music and Art occupy the leisure part of life and should, therefore, occupy the leisure part of education. The capacity to enjoy leisure greatly determines a man's capacity to work. If leisure is spent in gambling, drinking and reading obscene literature, it will hamper progress not only of an individual but also the nation as a whole. The school curriculum should therefore, prepare the would-be citizens to use effectively their leisure time.

16. Principle of all-round development of body, mind and spirit. All kinds of experiences should be provided to the students so that they may develop their all powers.

17. Principle of democracy, secularism and socialism. Curriculum should be such as it trains the child to imbibe ideals and values of a democratic, secular and socialist state.

18. Principle of character building. Curriculum should provide those activities and experiences which promote human and social values. There should be provision for a number of co-curricular activities.

19. Principle of dignity of labor. Curriculum should make provision for socially useful productive work. The students should be provided opportunities to learn from the use of hands.

Issues Involved in the Curriculum Construction and Implementation

Following are the basic questions that should be taken into consideration while constructing and implementing the curriculum.

1. Why to formulate the curriculum. This includes taking into consideration the aims of education. The educator and the learner must be clear about the aims of education so that right efforts are made in this direction.

2. For whom to formulate the curriculum. The curriculum is to be formulated for the learner. It is, therefore, very important that curriculum should be formulated according to the various stages and age-groups. Curriculum should cater to the individual differences of the learners.

3. What to include in the curriculum? This leads to the contents of the curriculum which has been described as the environment in motion. In a broader sense it includes all the courses, readings, clubs and activities in the school.

4. Where to use the curriculum. The curriculum is used in and outside the school-in the classroom, library, laboratory, workshop, playgrounds and in the numerous informal contacts between teachers and pupils, etc.

5. When to use the curriculum. This is concerned with the different stages of the child so that 'motivational aspects may be handled satisfactorily.

6. How to use the curriculum? This involves the knowledge and techniques of various methods of teaching-learning for making the teaching-learning process dynamic, effective and inspirational.

7. Who is to use the curriculum? The teacher and the students are the main consumers. The teachers must understand themselves also.

8. Who is to formulate the curriculum? Formation of curriculum is a joint enterprise of several categories of experts in which teachers should play a

major role. The views of the learners should also be given their due importance.

9. What type of resources to be used in the curriculum? With the rapid advances in science and technology new learning resources are coming into use. A judicious use of the traditional and modern audio-visual aids should be made.

10. How to evaluate the outcomes of the curriculum implementation. This is concerned with the success of the learners as well as of the teachers. Outcomes are evaluated by a number of tests.

11. How to bring about the required changes in the curriculum?

Curriculum must be evaluated from time to time so as to make it in conformity with the changing needs.

ORGANISATION OF THE CURRICULUM

Subject-Centered and Experience-Centered Curriculum

| Subject-centered curriculum | Experience-centered curriculum |
|--|--|
| 1. It is in terms of subjects. | 1. It is in terms of experiences. |
| 2. It revolves round subjects. | 2. It is centered on learners. |
| 3. Subject matter is invariably selected and organized before the teaching-learning situation. | 3. Usually learners doing the teaching-learning, select and organize the subject matter cooperatively. |

4. It stresses the teaching of facts, imparting of information.

4. It stresses the practical aspects of life.

5. It is normally isolated from life.

5. It is usually correlated with life.

6. There is little correlation of subjects.

6. There is lot of correlation of subjects.

7. It is very rigid and uniform.

7. It is very flexible and caters to individual differences.

Both types of curriculum have their own limitations. The ideal way will be to introduce as many experiences as possible in the subject curriculum so that bookish knowledge is supplemented by experiences. At the same time there is a limit beyond which it is not possible to provide experiences.

CURRICULUM AND SYLLABUS

Very frequently the terms curriculum and syllabus are used interchangeably but there is a great difference. Curriculum is a wider term and it includes syllabus also. The curriculum sets out the subjects to be studied, their order and sequence, and so ensures some balance between humanities and science and consistency in the study of subjects, thus facilitating inter-subject links. It follows that the curriculum determines the amount of school time allotted to each subject, the aim of teaching each subject, the place of motor skills which take time to acquire. It also includes the types of activities and experiences to be provided.

The syllabus includes the basic content of a given subject. The syllabus to be taken up is given week wise and term wise.

Framing of the Curriculum and the Role of the Teachers

Curriculum preparation is a joint venture of persons and institutions at various levels. Briefly stating following categories are involved:

1. Curriculum Experts
2. School Boards
3. Educational Researches
4. Teacher Educators
5. Teachers
6. Parents
7. Publishers
8. State Departments of Education
9. Non-School Educators
10. Students (in very rare cases)
11. Heads of Schools
12. Representatives of Industry and Trade
13. University Teachers

Regarding the involvement of teachers, it is admitted that they must play a major role in the curriculum construction. But is it feasible to involve each teacher? Perhaps not! Their representatives only can be associated in the formation of the curriculum. Of course, before the introduction of the curriculum, try-outs may be conducted in selected schools and feedback obtained from the experiences of the teachers. A few workshops of teachers may also be held. The teacher must be allowed a reasonable freedom to experiment with the curriculum.

2. Foundations of Curriculum

The roots of planning any curriculum depends upon the ideas of the following:

- (a) Philosophy
- (b) Sociology
- (c) Psychology

PHILOSOPHICAL FOUNDATIONS OF CURRICULUM

In order to have a curriculum, the decision has to be made about the selection of topics, issues and activities. The topics, issues and activities have to be selected on certain basis. The basis which helps in making selection of the topics, issues and activities depends upon fundamental beliefs of the curriculum planner. His beliefs will naturally depend upon his philosophy of education. Thus, philosophy is considered as one of the major foundations of curriculum.

The philosophy will provide the following information for the purpose of curriculum planning.

(i) What are beliefs about the nature of people ? All people are good while they are born or they are ignorant when they born and so on.

(ii) What are the sources of truth and values that provide life? Whatever is given in religious books is true. Everyone should develop those virtues which are given in his religion and so on.

(iii) What should be learnt by the people? Teachers can take decision on their own keeping their own interest or it will depend upon the circumstances and situations and so on.

(iv) What role should be played by the school in the society? The school should do as the parents want or the Government wants or school should be neutral and should not play any role in framing the society.

(v) What role should be played by the teacher in the learning process? Teacher should dominate the scene, or students should play an important role or teacher should be a dominant partner and so on.

If there was one philosophy of life, there would have been one philosophy of education and one and only one answer to each question. But since there are different philosophies of life and philosophies of education so there are different answers to these questions.

The main Philosophies of Education are:

(i) Idealism

(ii) Realism

(iii) Pragmatism

(iv) Existentialism

Each philosophy is itself a field of study and requires a lot of discussion but it is not the purview of this book. Here we shall discuss them very briefly and that too as foundation of the curriculum.

Idealism:

Plato advocated the philosophy of idealism because he believed that truth and values were eternal and that human beings were engaged in discovering them. He was also of the opinion that people had already ideas within and it was needed that they should be helped to bring out the ideas they already had.

If we apply this philosophy to education we can have the following ideas:

- (a) Children are born good and they have a tendency within themselves to remain good and to do right.
- (b) The teachers should also present such life before the learners that it further strengthens their inner goodness.
- (c) The schools should be highly structured and include only those ideas in their program which have religious and moral values.
- (d) Learning should be centered around broad ideas to help the learners to see the relationship among various aspects of the universe.

A school known as Summerhill School is being run under the guidance of A.S. Neill which works on the idealistic philosophy of education. Here lessons are optional. Children go to the classes when they like and where they like. There is no timetable for students. It is for teachers only.

Realism:

Aristotle developed the philosophy of realism because he believed that truth can be discovered by studying the world of matter or reality. Science and Philosophy were both important because science is a method for objective study of reality. Discovery of truth by study, view of human beings as rational animals and notion of enduring values existing in the world provide the basis of realism. According to this philosophy children were born ignorant. They did not know about the reality of the world. They cannot enjoy their life unless they were taught the reality of the world. Since human beings were considered as rational according to this philosophy, they would be able to learn if they were taught. If they were not taught, they will remain ignorant.

If we apply this philosophy to education, we can have the following ideas :

(a) Children are born ignorant so they need direction towards required knowledge.

(b) Children would remain ignorant if they were not provided proper guidance.

(c) Children should be taught what is already about that world because it is reality.

(d) The role of the teacher is very important because children will learn from the life of the teacher as well as from his knowledge. So the teacher should live his life which pleases Allah and teach the reality which he has learnt from his studies. According to this philosophy, it is the knowledge of teacher about the world which is more important for the learner.

(e) The school should develop such virtues which are real and of permanent nature such as honesty diligence, etc.

Several Madrasas are working according to this philosophy. Their teaching is not only in the form of knowledge to which this philosophy gives great importance but it goes beyond that because the teachers of these madrasas live a life of virtuous man.

Pragmatism:

John Dewey was the proponent of Philosophy of pragmatism because he believed that children were neither born with goodness nor with ignorance but they had the physical and mental equipment which allowed them to participate in the world around them. He also believed that society and culture did not have any fixed values and all ideas were temporary

because they continued to be changed and refined. Thus, truth and values were not fixed but they were the result of changing human experience.

If we apply this philosophy to education, we can have the following ideas :

(a) Children learn through interaction around them but that learning will not be fixed but will be changed and refined with further experience.

(b) Education does not mean learning eternal truth or fixed subject matter.

(c) The past experiences though changed later on are not of less importance because they would provide grounding for the new learning.

(d) Education of children should emphasize learning about other people and learning how objects fit into or work in the environment.

(e) The role of the teacher is not to provide information but to provide direct experiences and opportunities. to children to learn from experiences. The basis of learning would be child's own world rather than the world of adult.

Existentialism:

Jean-Paul Sartre and Masten Buber developed the philosophy of existentialism because they thought people existed and developed ideas and values that were personal to them and might or might not be connected with any organized social pattern. According to them life was without any order. Values and institutions can be developed differently by different people and through different situations. Even if the human were rational, they would use this rationality to justify their individual values and behavior.

If we apply this philosophy to education, we can have the following ideas:

- (a) Child is an individual so he must seek meaning in a meaningless world.
- (b) Child should acquire or create his own ideas rather than depending upon ideas of others.
- (c) Education must concentrate on the perceptions and feelings of the child in order to help him to understand personal reactions or response to life situations..
- (d) Nature of education should be mainly determined by the child himself.
- (e) The role of the teacher is non-directive and facilitating rather than imposing.

Thus, it can be concluded that philosophy has a valuable place in construction of curriculum through formulation of educational goals because they are determined on the basis of the Philosophy and they themselves determine the curriculum.

SOCIOLOGICAL FOUNDATIONS OF CURRICULUM

If all the students live in their schools and do not come into contact with world outside the school, the task of education will become simpler than the present. But in real life students live in a world which is larger than the school in which they study. Thus' their interests and attitudes are shaped not only in the school but by the out world also. Besides this, society maintains schools to help the students to adapt to and prepare for life in the larger society. Thus it is incumbent upon the curriculum planners to take into account the characteristics of present society as well as the characteristics of future society in which they will live most of their life. So it is necessary to identify those social issues which they will face. However, these social issues are mainly affected by two factors.

(i) Students not only live in the larger world outside the school but they learn a great deal from this world. The sources from which they learn are radio, television, parents, community, friends, state and religion etc. So the learnings from outside the school should not be ignored and be supplemented with. If the learnings from the school and outside school continue to be conflicting they make the school unrealistic.

(ii) The role of the school is important in meeting the needs of the society. Students are an important resources of solving social issues through their role as a student of today and as adult of tomorrow. It will depend upon their education how much role students will play in society. Thus the curriculum serves not only the needs of the students but also of the society.

Thus the curriculum planner should take into consideration the following issues:

(i) What knowledge, skills and attitudes are needed in students of today and adults of tomorrow by society?

(ii) Is curriculum for maintaining the present values of society?

(iii) Should be curriculum bring out changes in values of society?

(iv) Should specific social problems be included in the curriculum?

What are those social problems or issues which curriculum planners should consider while framing curriculum. The list will be very wide so we shall discuss only important issues.

(a) Family Structure:

Family was considered an important informal agency of education. It was called the first school of child. Now the position of family is changing not only in developed countries but also developing. They unity of family is

breaking and several children have to live in broken families. Parents do not have time to look after children because the working hours of father and mother are the same and both of them are away from home at the same time. Several nursery schools and pre-nursery schools have come up not for the love of education but because maid servant charges more than the school fee. It is economical to send the child to nursery or pre-nursery school than to hire a maid servant to look after the children in the absence of parents.

Not only the ties between husband and wife are also becoming weak but sometimes they are resulting into conflicts, quarrels, separation and ultimately into divorce. But in spite of this family continues to be the main institution for rearing child. Thus, it is necessary that schools should work with family to strengthen it. Effective ties between schools and home are very important. For strengthening ties, the curriculum planner should know socioeconomic status of the family, educational level of parents, cultural, emotional and intellectual climate of the family.

The change of family structure poses some issues before the curriculum planner :

- (i) Should the school assume some responsibilities of the family which have been traditionally associated with the latter?
- (ii) What kind of family structure should be aimed at when it is changing so much?
- (iii) What should be the expectation level of the school about the role of family in providing learning at home?
- (iv) Who should be responsible for the development of morals and values ?
Parents or school.

(b) Occupational Structure:

The occupational structure of the society is changing very fast. There was a time that it was sufficient to be educated to get a job. Now there is a problem of educated unemployment. Even graduates and post-graduates are unable to get any job. Even those who are graduating with Engineering and Technology are finding it difficult to get a suitable job.

Besides this specialization is taking too fast in the jobs that it is difficult to get persons of that specialty. Too much specialization and that too early has created a problem of proper general education of educated ones.

This situation is creating problems for the curriculum planner. The main issues are:

(i) What occupational fields might emerge for which some preparation should be done in the schools?

(ii) What work values should be developed in the students so that they could accept the challenge of the society while they enter from world of learning to world of work?

(iii) What skills should be provided during school education so as to live as satisfying life in future?

(iv) At what stage the elective courses be introduced to provide background in general education on the one hand and proper orientation for occupational work on the other hand.

(c) Change in Role of Women:

Formerly the work was divided between men and women. Men were considered suitable for fieldwork and women were considered suitable for work at home. Now the situation is changing very fast. The jobs in teaching,

typing and nursing etc. are almost going to women. They are entering into fields like Engineering and Technology, police and defense etc. which were formerly reserved for male group. It has also been observed that they have out-numbered the male sex in quality also in some jobs like teaching and office worker.

This situation is creating problems for the curriculum planners because they have to consider the following issues:

- (i) Should the curriculum be used as a means to dispel sex-role stereotypes?
- (ii) What represents equitable sex-role portrayal in curriculum materials and activities?
- (iii) To what extent should young students be expected to participate in activities that conflict with sex-role stereotypes ?
- (iv) Which aspects of the curriculum plans are based on unfair sex-role bias ?
- (v) What changes should be made in the curriculum to prepare women for some special jobs?

(d) Values:

The schools are responsible for transmitting the culture. The values of a society influence decisions regarding aspects of the cultural heritage to be transmitted political, economic, moral and social values-all influence what is in the curriculum.

There has been so rapid technological and social changes, the problem of choosing the values has arisen. It has become a problem for the

curriculum planner to identify values held by the community. If the school has a homogeneous group of students, it can teach moral and ethical values of that group. If there is cultural heterogeneity, it becomes difficult for school to transmit values directly.

The following issues are to be considered by the curriculum planner.

- (i) Which values should curriculum emphasize?
- (ii) Should life in the school reflect the diversity of society?
- (iii) What curricular activities should be included if the school consists of students of different ethnicities or religion?
- (iv) What guidance should be given to identify way to use leisure time?

PSYCHOLOGICAL FOUNDATIONS OF CURRICULUM

Thirdly psychology has made great contribution for the development of school curriculum. Actually, psychology played a leading role in giving shape to schools and has been responsible to a great extent what happens in classrooms. The main fields of contribution have been through researches in motivation, learning, child growth and development etc.

The following ideas have developed in relation to psychological foundations of curriculum.

(a) Self-Actualization:

Abraham Maslow (1937) in a paper "Dominance-Feeling, Behavior and Status" published in Psychological Review 44 (1937): 404-429 pointed out five basic needs in the following hierarchical order-psychological needs, safety needs, social needs, need for esteem and need for self-actualization. So self-actualization need can be fulfilled after going through the first four

needs. In his book, Maslow (1954) "Motivation and Personality" discussed in detail the process involved in maximizing self-actualization. It required that child should be helped to realize his potential through those activities which will fulfill his basic human needs. The curriculum can provide those learning activities which will help the children in selecting those activities which they could do and in doing those which are difficult but necessary for them. Thus self-actualization will help children to find out who he is, who and what he wants to become. Thus' school curriculum should pay attention for maximizing the achievement of these needs.

The curriculum planners should pay special attention towards the concept of self-actualization. He should also recognize the importance of school and community goals. Thus there is a need that the curriculum should reflect a balance between personal needs and institutional needs for the proper growth of the children.

(b) Development Tasks:

The concept of developmental tasks is important for considering human needs for the purpose of curriculum planning. R. Havighurst (1950) in his book "Develop mental Tests and Education" identified tasks for the infancy and early childhood, middle childhood and adolescence which are helpful to the curriculum planner to plan the curriculum meeting basic human needs of children during their school-going age. The development tasks identified by Havighurst are as follows:

Infancy and Early Childhood

1. Learning to walk.
2. Learning to talk.
3. Learning to control the elimination of body wastes.

4. Learning sex differences and sexual modesty.
5. Learning to relate oneself emotionally to parents, siblings and other people.

Middle Childhood

1. Learning physical skills necessary for ordinary games.
2. Learning to get along with age-mates.
3. Learning an appropriate masculine or feminine social role.
4. Developing fundamental skills in reading, writing and calculating.
5. Developing concepts necessary for everyday living.
6. Achieving personal independence.

Adolescence

1. Achieving new and more mature relations with age-mates of both sexes.
2. Achieving emotional independence of parents and other adults.
3. Achieving assurance of economic independence.
4. Selecting and preparing for an occupation.
5. Preparing for marriage and happy life.
6. Acquiring a set of values and an ethical system as a guide to behavior.

Curriculum planner can frame better curriculum if they keep above mentioned developmental tasks in their mind because they indicate the readiness of the students for a particular task at a particular age-group.

(c) Fully Functional Personality:

Earl Kelley (1962) in an article "The Fully Functioning Self contributed to the 1962 year book of the Association for Supervision and Curriculum Development suggest that school should play its part in helping each young boy and girl to achieve the potential of his or her "fully functional self". It is possible only if school curriculum is prepared around the basic needs of young boys and girls so that students could progress toward becoming fully functional personality. Kelley defines the following characteristics of fully functional personality:

- (i) It thinks well of himself.
- (ii) It thinks well of others.
- (iii) It, therefore, sees himself as part of a world in movement.
- (iv) It sees the importance of people develop and hold human values.
- (v) It knows no other way to live except in keeping with his values.

The curriculum planner should consider the characteristics of fully functional personality as guidelines for curriculum planning so that objectives of the curriculum can be effectively achieved.

(d) Needs Theory:

No doubt the main task of the curriculum is to promote learning but if it could meet the emotional needs also quite obviously it would be a better achievement for children. Louis Rath (1972) in his book "Meeting the needs of children" identified eight persisting emotional needs. They are as follows:

- (i) Need for love and affection.
- (ii) Need for achievement.

- (ii) Need for belonging.
- (iv) Need for self-respect.
- (v) Need to be free from deep feelings of guilt.
- (vi) Need to be free from deep feelings of fear.
- (vii) Need for economic security.
- (viii) Need for understanding of self.

If these needs will not be satisfied through curricular activities, the children may be frustrated. Teachers can play an important role through curricular activities if they do not overlook or hide symptoms of unmet needs and identify them and pursue for their satisfaction. If school, its teachers and curriculum increase attention towards emotional needs, the children learn effectively. If emotional needs are satisfied, other basic human needs will also be met.

Thus it may be concluded that Psychological foundations of Curriculum are concerned with basic human needs. The curriculum should meet these needs at every stage of development of children. The curriculum planner should take into account the nature and level of the children, for presenting the material before children in the form of curriculum so it may be more effective in meeting basic needs of children.

3. Goals of Curriculum Planning

INTRODUCTION

Goals and objectives are generally used with the same meaning but Beane, Toepfer and Alessi (1986) make differentiation between them and define as follows in their book Curriculum Planning and Development.”

Goal : a broad or general statement reflecting the ultimate ends towards which the total educational program is directed.

General Objective: a statement reflecting the purpose of a particular unit or level of the school program such as elementary, middle level or high school.

Specific objective : a statement reflecting a short range or more immediate purpose involved in a specific teaching-learning activity such as a unit or daily plan.

Since "goals" are related to total educational program, general objectives are related to a subject or school level and specific objectives are related to a particular day or week teaching, goals seem to be more relevant for the curriculum planning because it also represents total educational program. Goals can also be divided into two categories.

(a) Learner goals which are described in the form of kinds of behaviors, knowledges and attitudes which are prescribed in the hope that learner achieves them through curriculum.

(b) School goals which are described in general terms which school proposes to provide to its students. They may be in the classroom as well as outside the classroom. The schools goals are influenced by outside social forces.

Though learner goals and school goals are meant for different purposes but they should work in coordination with each other otherwise they would not be able to provide guidelines for curriculum planning.

GOALS OF CURRICULUM PLANNING

Since curriculum represents the total educational program of a school, it should be based on three principles.

(a) They should be based on philosophical, social and psychological foundations.

(b) They should be developed through the participation of all the members of the society.

(c) Goal statements should be helpful in their clarification with additional information.

The following goals of curriculum are suggested:

(a) To help to acquire skills of understanding, speaking, reading and writing of mother tongue and one or two other languages.

(b) To help to develop skills in Mathematics.

(c) To help acquire knowledge of different cultures and an appreciation of them.

(d) To help to develop qualities of good citizens.

(f) To help to acquire the ability to become a contributory member of a society.

(g) To help to live a successful personal and family living.

GOAL ANALYSIS OF CURRICULUM

It is not sufficient that goals of curriculum should be carefully developed but they should be regularly examined to check if they continue to be relevant for the group for which they have been developed. Naturally some criteria are to be used for analyzing the curriculum regularly. The criteria are as follows:

(i) The sociological, philosophical and psychological foundations should be carefully analyzed to see if they continue to be relevant for the present goals of curriculum. If there is change in any one of them, it has to be reflected in the curriculum.

(ii) Any of the goals may be found ambiguous when implemented. It will be necessary to make it unambiguous so that curriculum planning may be properly guided by all the goals.

(iii) The teachers, the students and the parents are the important parties for whom the curriculum is meant. They have to be regularly consulted to keep the curriculum goals relevant to them.

(iv) The curriculum goals can never be static. They have to be regularly revised to keep them up-to-date.

(v) It is possible that curriculum planner may not realize at the time of developing the goals of curriculum, that some of them may be conflicting with each other but it may be realized when the goals are to be reflected in curriculum planning. So attempts should be regularly made to keep internal consistency in curriculum goals.

GENERAL OBJECTIVES OF CURRICULUM

General objectives represent the purposes of a particular unit or level of the school program. Naturally they will be different for elementary level, secondary level and higher secondary level. But general objectives define two important aspects of the curriculum. They are:

(i) "Scope" which represents the contribution made at a particular level.

(ii) "Sequence" which reflects the flow of experience. It may be immediate environment in the case of elementary level and the whole world in higher secondary level.

If the general objectives are also included in curriculum planning, the curriculum planner can plan curriculum for each level of education according to them.

SPECIFIC OBJECTIVES

Specific objectives are related to a particular teaching learning situation so they are more relevant to classroom than to curriculum planner. In day to day classroom teaching the teacher identifies specific objectives which he proposes to attain through a particular day's teaching.

4. Curriculum Designs

MEANING

Curriculum design means a particular shape, framework or pattern of learning opportunities. Since the opportunities are not all provided at the same time and since they lack the permanent structure of a building or the texture and color of a dress, the design is not rapidly visualized.

STEPS IN CURRICULUM DESIGN

The curriculum planning process involves five steps in curriculum design. They are:

(i) Considering Basic Factors Relating to the Major Goal and Domain:

To identify goals, domains and objectives of curriculum the curriculum planner uses data about aims and needs of the society, learners and learning process and requirements of knowledge. The same things are required for curriculum design. In addition to these relevant to a domain and population.

These information could be collected through the answers of the following questions:

- (a) What special interests do the students have?
- (b) Which interests are not acceptable to the society in which students learn?
- (c) Which interests are useful only in future life of students?
- (d) Which interests can be developed in the school and community ?

(II) Identifying Sub-Goals of the Domain:

The curriculum designing requires that sub-goals should also be identified. They are meant achievable by a particular group of students and within a particular domain. For example in Language curriculum they may be skills relating to reading, listening, understanding and writing.

(III) Identifying Possible Types of Learning Opportunities:

This step in curriculum designing is actually for the purpose of enrichment of curriculum. It depends upon the abilities of the students, availabilities of resources in schools and community and resourcefulness of the teachers. If the students are better than average students, they will like to do better than an average student. If the school has sufficient facilities in the form of material and equipment, the learning opportunities will be extended. If the community has got material and human resources which can help school to make it more lively and the teachers are resourceful enough to avail those opportunities from the community, the curriculum will be enriched and students standards will not only be raised but it will make the school program more realistic.

(IV) Considering and Selecting Alternative Designs:

When three earlier steps have been effectively taken, the curriculum designer is in a position of considering different curriculum designs and select the appropriate designs for the school concerned. The selection of curriculum designs in general will depend upon the opportunities available and of particular school will depend upon the students, teachers and facilities of the school.

The designs which may be considered will differ from school to school but the following design may provide a suggestive but not exhaustive list of designs.

(a) Subject matter design: In this design, more emphasis will be on subject matter knowledge.

(b) Competencies design: In this design, more emphasis will be on acquiring specific competency by each student. Mostly it will be in skill areas.

(c) Human trait design: In this design, more emphasis will be on developing certain traits among students.

(d) Social Needs design: In this design, more emphasis will be on meeting the needs of the society through community activities.

(e) Individual needs design: In this design, more emphasis will be on meeting the needs and interests of students.

(V) Identifying Implementation Requirements:

It is one thing to prepare curriculum and it is another to implement it in reality. The curriculum is a blue print for a building and the teaching is actual construction of the building. However the teacher has to play a great role between these two preparation of curriculum and actual teaching according to that curriculum. This role is played at this stage and is measured by the correspondence between the blue print and the construction of building.

The curriculum designer can help classroom teachers in this task by identifying requirements for implementation. It would include preparing

detailed unit plans, deciding on a physical setting for classroom teaching and placing orders for teaching material required for the curriculum.

CRITERIA FOR SELECTING THE CURRICULUM DESIGN

It is not an easy task to select the curriculum design. Each design depends upon the following criteria:

- (a) Purposes and goals of education to be achieved.
- (b) Sources of objectives to be utilized.
- (c) Characteristics of learners to be identified.
- (d) Nature of the learning process to be used.
- (e) Type of society for which design is meant.
- (f) Nature of knowledge to be provided.

The curriculum design whichever is selected influences the following:

- (a) What strategies will be used for teaching?
- (b) What role is to be played by the teacher?
- (c) What role is to be played by the students ?
- (d) What instructional material is required?
- (e) What evaluation devices are to be used ?

It should not be understood that there is a particular curriculum design which will be suitable for all. If anyone adheres to a single curriculum design, he actually deprives the students learning opportunities.

Curriculum Designs are Identified as Follows:

- (i) Subject matter/disciplines curriculum design.
- (ii) Specific competencies/technology curriculum design.
- (iii) Human traits/process curriculum design.
- (iv) Social functions/activities curriculum design.
- (v) Individual needs and interests/activities curriculum design.

(I) Subject Matter/Disciplines Curriculum Design:

In most of the schools, colleges and universities this design of curriculum is followed. Teachers, students and parents are well conversant with this design. In this design, knowledge is organized into disciplines which can be used easily as school subjects. The major role in this design is of knowledge. Since knowledge is continuously changing so if the curriculum is designed on knowledge basis so the curriculum will continue to be up-to-date through adding new knowledge and deleting obsolescent knowledge.

J.B. Bruner (1960) in his book "The Process of Education" advanced the case of subject curriculum. "The curriculum of a subject should be determined by the most fundamental understanding that can be achieved of the underlying principles that give structure to that subject". Bruner saw the following advantages in it:

- (a) It makes a subject more comprehensible.

(b) It improves memory since it allows learners to place detail into a structured pattern.

(c) An understanding of fundamental principles and ideas facilitates a transfer of training to similar principles.

(II) Specific Competencies/Technology Curriculum Design:

This design is considered of the most narrow or limited possibilities because it focuses on specific competencies. Although all curriculum designs have a provision of some type of performance by the learners but this design assumes that there is a direct relation among objectives of instruction, learning activity and performance. So the difference is that this design puts all emphasis on development of specific competencies while other designs make some provision only for performance. This design is based on task analysis in the following order:

(a) Identification of tasks or jobs.

(b) Determination of knowledge and skill required to perform these tasks or jobs.

(c) Arrangement of these tasks and jobs in the curriculum.

(d) Organization of knowledge and skill for each task or job into a hierarchy.

(e) Determination of the needs for mastery of each knowledge or skill.

This design is more concerned with how and less with what. The desired performance is considered as competency, the learning activities are organized to achieve the objective and the learner's performance is checked as a basis for moving from one competency to another

competency. It advocates basing the curriculum on ideals as well as activities but in a narrower sense.

The specific competencies curriculum design gets its more supports from W. James Popham. His much emphasis is on the definition of objectives as the first step in curriculum development. These objectives should be focused on what the learner should learn and not on what he is to study or to experience or even to know.

(III) Human Traits/Process Curriculum Design:

While all curriculum designs develop certain human traits but human traits/process curriculum has two special features.

(a) The main goal is to develop certain pre-determined and specific human traits.

(b) Definite steps are taken to develop pre-determined and specific human traits.

John Raven (1977) identified the following human traits for development in his paper "on the Components and their Developments in Education" published in Teachers College Record Vol. 78 May 1977 on Page 457 - 475.

(a) Work effectively with others.

(b) Communicate effectively.

(c) Lead effectively.

(d) Follow effectively.

- (e) Make one's own observations.
- (f) Learn on one's own.
- (g) Make decisions .
- (h) Make good judgments
- (i) Invent.
- (j) Forecast.
- (k) Plan.
- (l) Monitor the effects of one's own actions.
- (m) Take corrective action when necessary.
- (n) Tolerate ambiguity.

However he concluded that self-confidence and sensitivity to one's feelings and emotions were the most important human traits because they were responsible for developing other human traits.

Kimball Wiles (1963) focused in his book "The changing curriculum of the American High School" on valuing process and proposed four curriculum domains :

- (a) analysis of experiences and values.
- (b) acquisition of fundamental skills.
- (c) exploration of the cultural heritage.
- (d) specialization and creativity.

Robert J. Schaefer (1967) proposed in his book "The School as a Centre of Inquiry" that the school curriculum should become a center of

inquiry to help learners to develop traits which would prepare them for a lifelong pursuit of knowledge.

Louise M. Burma (1968) in her book "New Priorities in the curriculum" proposed for "the development of process oriented person or persons who are able to handle themselves and the situations of which they are a part with adequacy and ease. Such persons are the contributors to as well as the recipients of society's resources. She suggested following process skills for the purpose.

- (a) Perceiving.
- (b) Communicating Loving.
- (c) Loving.
- (d) Decision-making.
- (e) Knowing.
- (f) Organizing.
- (g) Creating.
- (h) Valuing.

(IV) Social Functions/Activities Curriculum Design:

This design emphasizes society as an influence on curriculum development. It is rooted in society and social problems. Three organizational themes are included in this design. They are:

- (a) The curriculum design should follow the persistent functions, areas of life situations in humanity's existence.

(b) The curriculum design should organize curriculum around aspects of problems of community life.

(c) The curriculum design should be used for bringing improvement in society through involving schools and their students.

This design draws its inspiration from the educational philosophy of social reconstruction because in this design schools are used to build a new society. This design is relevant to the needs of students and can contribute a lot for the improvement of society by meeting its needs.

(V) Individual Needs and Interests/Activities Curriculum Design:

This design is based in the felt and unfelt needs of individual students and groups of students. It has its roots in the ideas of Rousseau, Pestalozzi and John Dewey. It has the following main characteristics.

(a) It is based on a knowledge of students needs and interests in general and on diagnosis of specific needs and interests of the community in particular.

(b) It is highly flexible to meet the needs and interests of particular students.

(c) It assumes that students will be taught individually at appropriate points in the curriculum.

The Dewey School at the University of Chicago and the Project method advocated by Kilpatrick were good examples of implementation of this design. A.S. Neill's Summer hill School is a living example of the design.

The design has three major points in its favor :

(a) Learning opportunities based on the needs and interests are more relevant to the students.

(b) The design involves a high degree of motivation and therefore success of the student.

(c) Achievement of the students' potential is facilitated by this design.

The concept of independent study gets its relevance from this design.

5. Types of Curriculum

INTRODUCTION

The curriculum can be seen from different angles. Each angle will provide different classification. If one classification is seen towards another classification, types of curriculum would appear overlapping.

TYPES

One way of classifying curriculum is horizontal curriculum versus vertical curriculum. Horizontal curriculum as well vertical curriculum both believe in continuing of learning but while horizontal curriculum deals with the continuity of learning arrangements, materials and activities at a particular level, the vertical curriculum deals with the continuity of learning across levels, grades and classes. Hilda Taba (1962) in her book "Curriculum Development" made the distinction between the two on the basis of sequence and integration when she remarked."

" The continuity of learning has two aspects that of a vertical progress from one level to another and that of a relationship between the learnings in various areas de the curriculum which take place at the same time. The first of these is associated with the term sequence, the other with the term integration".

In India, the central schools organization practices the horizontal curriculum program. These schools are spread over whole India. The students are children of uniformed defense personnel and transferable central Government employees. The same curriculum is used for a particular class in all the central schools. A student transferred from one school to another school has no difficulties of adjustment because all the

schools are having the same subject material and activities at a particular time.

Vertical curriculum involves at least two different class levels. This may be in consecutive classes in the same level or between terminal class in one level and entry class in the next level. This may be across all classes or and all levels. For example it may be between the highest class of primary level and the lowest class of secondary level. It may also be in classes one and two, two and three and so on in the primary level and between ninth and tenth in the secondary level.

Another way of classifying curriculum is subject centered curriculum versus child- centered curriculum. It has been a long tradition that curriculum is divided into different subjects. Each student is required to study subjects like Mother tongue, another language, Mathematics, Social Studies, Science etc. These subjects themselves are divided into branches and topics. For example Social Studies consists of Arithmetic, Algebra, Geometry, etc. The subject-centered curriculum is based upon the idea that various subjects contain essential knowledge, the mastery of which will make child an educated one. Thus the best method of making children educated is to explore various subject areas and learn what is given in them.

The child-centered curriculum has been introduced with the progressive education movement of twentieth century. In this, curriculum is based not on separate subjects but on the interests, needs and problems of children. In this curriculum issues and problems related to a particular age group and society are taught to the students of particular age group. The "class" organization may work in this system also because almost all children belonging to a particular age will study in the same class.

The debate between the advocates of subject-centered curriculum and child-centered curriculum should not be understood as whether subject matter should be focused or ignored. Subject matter will always be taught whether the curriculum is subject-centered or child-centered. According to Beane, Toepfer & Alessi (1986) "John Dewey attempted to resolve this issue by arguing that the issue of subject versus learner is not an either/or question. The task 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. Despite the efforts of Dewey and others, the issue continues to be a source of debate in the curriculum fields".

Another way of classification may be core-curriculum versus elective curriculum. John H. Louns Bury and F.V. Gordon (1978) defined "Core-curriculum" in their book. A curriculum for the Middle School years "Specifically core is a form of curriculum organization, usually operating within an extended block of time in the daily schedule in which learning experiences are focused directly on problems of significance to students". Harold Albery and Elsie Albery (1962) developed a classification for core-curriculum in five categories. They are as follows:

Type one core Curriculum: Based upon separate subjects

as separate courses by one or more teachers.

Type two core Curriculum: Based upon correlation to two or more

subjects in an attempt to show relationship

between them. The subjects are taught

separately but teachers plan together.

Type three core Curriculum: Based upon the fusion of two or more subjects

such as language, Social studies,

Science, Mathematics, etc.

Type four core : Based upon common problems, needs and interests of students within a framework of problem areas. This type breaks from subject-related studies in considering units.

Type five core Curriculum : Based on teacher-student planned activities without reference to any formal structure units follows the interests of teachers and students without pre-planned topics or themes.

On the other hand elective curriculum consists of that subjects or courses that students select themselves. The problem of elective curriculum generally arises after a completion of ten years un-stratified education. While the core-curriculum is a required course for all the students at a particular age level, the elective curriculum provides choice to the students to offer them depending upon their interest, needs and future aspirations. While the students have choice to choose the required number of elective subjects but generally it is done by them on the advice of the parents, teachers and counselors.

The problem between the core-curriculum and elective curriculum is not of either/or. Both are to be offered by the students to complete requirements of a required course of study for a certificate or diploma or degree. The problem is which subjects or areas of subjects should be included in core curriculum and which should be included in elective curriculum.

Another classification may be general education curriculum versus vocational education curriculum, what is general education and what constitutes general education curriculum are the difficult questions to answer. The reason is that several definitions of general education are given. However, a good and workable definition has been given by C. Kridel (1991) in his article "General Education Curriculum" in the International Encyclopedia of curriculum on page 633.

"General education becomes that component of the curriculum that provides a "basic knowledge of life" (or aspects of common culture and heritage) but does not necessarily carry the burden of providing knowledge for occupational ends."

This definition is very suitable in relation to secondary school education. However C. Kridel (1991) has given four versions of general education curriculum. They are:

- (i) General education within separate subjects.
- (ii) General education as core curriculum.
- (iii) General education as learning traits.
- (iv) General education as realms of meaning and modes of Inquiry.

The general education within separate subject composed of the accumulation of a specified number of courses. In this focus is one some basic important knowledge that is to be provided to all the students but no effort is made to integrate the general education knowledge within the separate subjects.

The general education as core curriculum consists of basic educational experiences for all the students which have been integrated into a core

curriculum. According to H. Albery (1947) in "Reorganizing the High School Curriculum" core curriculum is "that aspect of the total curriculum which is basic for all students and which consists of learning activities that are organized without references to conventional subject lines".

General education as learning traits consists of common traits that all students should develop. It does not focus upon content. Its main focus is on certain traits or abilities like thinking effectively, communicating thought making relevant judgments and discriminating among values.

General education as realms of meaning and modes of inquiry has been developed by P. H. Phenix (1964) in his book "Realms of Meaning: A Philosophy of the Curriculum for General Education" in which he has considered general education curriculum to a more abstract level because he defines general education as "the process of engendering essential meanings."

As far as vocational education is concerned according to G. Loose (1985) in his article "Vocational Education" to International Encyclopedia of Education it carries a double meaning. First it describes the whole range of activities in education for work over the total life span of an individual and across all learning environments of his or her life space. Second it is used in a more traditional sense to describe entry-level skill training which constitutes a central part of the broader concept just defined. In this restricted sense vocational education is understood as education for performing a particular occupation or for entry into an occupation or "group of occupations and does not include pre-vocational education. If vocational education is understood as given in its first meaning, it passes through the stages of vocational awareness, vocational orientation, vocational exploration, vocational pre-preparation, vocational establishment,

vocational maintenance and retirement or broadly it may be divided into pre vocational, vocational and post-vocational (i.e., preparation for retirement).

Thus we not only classify general education curriculum versus vocational education curriculum. We can also classify whether vocational education curriculum should be for the total life span of an individual and across all learning environments of his or her life space or it should be for entry level skill training which constitutes a central part of total education.

Another classification may be subject-area curriculum versus Broad-Fields curriculum. The subject-area curriculum is organized around subject areas or disciplines. For example the curriculum may consist of Languages, Social Studies, Mathematics, Science, Art etc. When subject-area curriculum is used, learning objectives mastering subject matter and skills within particular subjects. In the Broad-Field curriculum, two or more subjects are combined into a broader field. This curriculum recognizes and uses individual subject areas but it also attempts to show students the correlation between various disciplines of knowledge. For example the curriculum of Social Studies may show the impact of history, geography, civics and economics on the life pattern of human beings.

Another classification may be hidden curriculum versus planned curriculum. The hidden curriculum is not ordinarily addressed through regular curriculum planning but which influences what and how students learn. The source of the hidden curriculum is found in the fact that the school is an institution concerned with the socialization of the young. For this purpose, it has rules and regulations that govern social conduct, organizational features that allow it to manage students within the context of the educational program and a system of a procedures that make it as an acceptable institution in the larger society. This collection of institutional features communicates to students a set of social values. What is learnt

from the hidden curriculum is frequently more powerful and lasting than that which is learnt from the more obvious planned curriculum. On the other hand planned curriculum is the educational program which is intentionally and formally planned for the attainment of certain knowledge and skills.

A good example of hidden curriculum in Aligargh Muslim University. Students in this university are famous for learning such qualities of social behavior which probably no university in India can claim. The University may or may not be famous, depending upon the personal opinions of the persons, in excellence of knowledge but any honest person will have no dispute about the impact of hidden curriculum on the students of this University. This curriculum has got so much reputation there that several parents send their children to this University only because it has certain traditions of culture which their children cannot get anywhere in India. Thus hidden curriculum is a powerful and pervasive source of learning.

Much the same point emerges when we consider the distinction which has sometimes been made between the official curriculum and the actual curriculum, or between the planned curriculum and the received curriculum. By the official or planned curriculum is meant what is laid down in syllabuses ; the actual or received curriculum is the reality of the pupils' experience. The difference between them may be conscious or unconscious, the cause of any mismatch being either a deliberate attempt by the teachers or others to deceive, to make what they offer appear more attractive than it really is, or merely the fact that, since teachers and pupils are human, the realities of any course will never fully match up to the hopes and intentions of those who have planned it.

It becomes even more important, then, that we should not adopt a definition of curriculum which confines or restricts us to considerations only of that which is planned. What is actually received by pupils must be an equally important, or even more important concern, so that the actual or received curriculum must be seen as the teacher's or planner's responsibility every bit as much as the hidden curriculum.

Lastly, we must also recognize the distinction that is often drawn between the 'formal curriculum' and the 'informal curriculum', between the formal activities for which the timetable of the school allocates specific periods of teaching time and those many informal activities that go on, usually on a voluntary basis, at lunch-times, after school hours, at weekends or during holidays. These latter activities - sports, clubs societies, school journeys and the like - are often called 'extracurricular' activities and this suggests that they should be seen as separate from, as over and above the curriculum itself.

6. Curriculum Approaches & Choices

MEANING

A Curriculum approach is a pattern of organization used in making decisions about the various aspect of teaching-learning situation.

KINDS

Every teacher has his own approach of curriculum. It depends upon the way that he uses the curriculum for the purpose of teaching his students. But broadly they can be put under four categories. They are:

- (a) Subject-area approach.
- (b) Broad-fields approach.
- (c) Social problem approach.
- (d) Emerging needs approach.

Subject Area Approach:

Those who are the supporters of the Philosophy of realism in curriculum organize the curriculum around separate subject areas or disciplines of knowledge. Most of the school curricula in the world are organized on subject area approach. The curriculum provides some core subjects up-to a certain level of school education and at a later stage adds some electives also.

In this approach, learning objectives involve mastering subject matter and skills within a given subject. The subject matter is drawn from within the subject. This approach defines important learning in terms of subject matter from existing disciplines of knowledge.

Broad-Fields Approach:

Those who are the supporters of the Philosophy of idealism in curriculum organize the curriculum which involves combining two or more subject areas into a broadest field. For example Social Sciences curriculum may be organized combining history, geography, civics and economics. Or unified Sciences Curriculum may be organized combining Physics, Chemistry, Botany and Zoology. This approach recognizes and uses individual subject areas but it also attempts to show learners the correlations between various disciplines of knowledge. The supporters of broad-field approach quote such correlation as an advantage over the separate subject approach. There is emphasis on broad ideas and concepts from subject fields in this approach.

Social Problems Approach:

Those who are the supporters of Reconstructionist philosophy of education in curriculum organize the curriculum around major problems or issues in society. For example curriculum may be organized in the form of units like Secularism, Communalism, Environmental problems, etc. In this approach, problems or issues are analyzed through learning objectives. The subject matter is taken from any source which is relevant to the problem or issue. If the unit topic was environmental problems, students will be required to refer social sciences as well as general science. Though the subject matter in this approach is taken from various subjects, but the identity of subjects is avoided. The teacher focuses upon the problem under study.

A great advantage of using this approach of curriculum is that students become fully aware of important crucial problems and issues facing their

society and they learn those skills which might be helpful to them to solve those problems.

Emerging Needs Approach:

Those who are the supporters of the pragmatism and existentialism as Philosophies of education in curriculum organize the curriculum on the emerging personal and social needs of the students at the present time. In this approach, the units may be around such topics as getting along with the others, developing social and moral values related to their culture etc. The material for the units is drawn from various subject areas but no attempt is made to recognize distinct lines between different disciplines of knowledge.

A great advantage of this approach is that students are made aware of their present day problems rather than of the future. In this approach the present life of the student is given proper importance and it is not sacrificed for the preparation of adult life. The source of topics or issues may be teachers because young students may not be aware of their problems but when teachers discuss some problems with the students other problems also emerge and are pointed out by students also.

CURRICULUM CHOICES

Curriculum planners have the responsibility of developing and revising curriculum regularly. However they have six choices, any of which might be used as value base for curriculum development. They are as follows:

1. The regressive choice.
2. The conservative choice.
3. The liberal choice.

4. The experimental choice.

5. The regenerative choice.

6. The eclectic choice.

Let us discuss them one by one.

The Regressive Choice:

This choice is opted when curriculum planners find that discipline and intellectual vigor have gone down and social and affective development have replaced intellectual development. Motivation has lost importance due to replacement of hard subject matter and competitive grading by equalitarian and life adjustment programs. The quality of secondary education has gone down. This choice seeks to bring back high standards and intellectual climate. Thus regressive choice aims at returning to some of the values and practices which have been discarded.

The Conservative Choice:

This choice is opted when it is considered that curriculum is meeting the requirements. Curriculum planners prefer to preserve those qualities which they think are the best of present situation but they continue quest for basic literacy skills. This choice emphasizes basic education for all. It wants to leave things as they are.

The Liberal Choice:

The curriculum planners who opt for this choice give emphasis on those practices in curriculum which improve the performance of all students through recognition of individual differences, psycho social needs and meaningful learning. The curriculum planners opting this choice tend to

utilize innovative and sometimes even untested practices. They adopt changes that are mandated by a changing society.

The Experimental Choice :

The curriculum planners who opt for this choice encourage the creation and validation of novel approaches to design curriculum around real world needs and attempt to bring out such social reforms through curriculum that provide almost equal educational opportunities. The supporters of this choice reject the elitist and competitive stance and status quo policy and attempt new or promising ideas and endeavor for the generation and implementation of experimental and innovative practices. Thus the choice aims at creating new educational designs.

The Regeneration Choice:

This choice is opted by those curriculum planners who want to bring radical changes. This choice implies a substantial reform. The supporters of the regeneration choice see education for the future in radically new or different forms. This choice adopts new approaches to learning experiences.

The Eclectic Choice :

The curriculum planners who are not satisfied with only one particular choice adopt eclectic choice in which any combination of the above mentioned five choices is considered the best choice. Thus a combination of various doctrines, beliefs or practices depending upon the age of the students, their individual differences or their socio economic and cultural background is selected for curriculum.

References

- Aggrawal, J. C. (2007). Principles, Methods & Techniques of Teaching (2nd ed.). Delhi: SN Printers.
- Kelly, A. V. (2009). The Curriculum Theory and Practice (6th ed.). Los Angeles: SAGE Publications Limited.
- Khan, M. S. (2016). School Curriculum. New Delhi: APH Publishing Corporation.