

# MODELS FOR DEVELOPING SECONDARY TECHNICAL EDUCATION IN BAHRAIN.

by

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I am fully convinced that the recommendations of the Bahraini Ministry of Education are the very best for the society in which we live.

# INTRODUCTION

Views as to what constitutes 'education' involves beliefs as to what teaching is. As teaching is necessarily related to learning and learning to knowledge and experience, beliefs about teaching connect with beliefs about knowledge, learning and children. Though the surface features of teaching are very varied in fact idiosyncratic to different teachers in different classrooms, there are two major models underlying the diversity of current practice. Such models are not found in a pure form but do provide 'master patterns' orientating practice and discussion about practice in education.

One view sees teaching in schools as a form of unequal social and intellectual interaction between representatives of different generations between those who have status and 'worthwhile knowledge',and those who do not. Teaching is to initiate learners into valuable pre-existing knowledge form in an orderly systematic way. The teacher is the'asker' of questions and the 'possessor' of knowledge, the pupil is the 'respondent' and the 'receiver'. Classroom interaction involves the teacher in didactic instruction (as the major teaching mode), in keeping 'discipline' and in promoting motivation so as to get pupils to learn. In Bernstein's terms such teaching is characterized by strong 'framing' i.e. strict control by the teacher over the selection, organization and pacing of the knowledge transmitted and received in the pupil-teacher relationship. The evaluation of such teaching and learning in through 'objective' criteria derived from knowledge forms and embodied in tests and examinations which emphasize 'right' answers and 'right' ways to these. Most conceptions of education (despite having different ends in view) and much current practice have assumed a view of teaching similar in most respects to this model. Curricula as implemented in schools have reflected it in consequence.

The second teaching model involves very different assumptions. Teaching is seen as a form of social and intellectual interaction between two equally active partners each seeking meaning, it assumes a two-way relationship between the development of children's thinking and the teacher's structuring of knowledge - each takes account of, and works on, the other. Prominence is given, not to 'objective' knowledge structures as subjects to be mastered, but to pupils mental ordering processes. Pupil's 'commonsense knowledge' acquired outside school is not disregarded but accorded respect along with'academic knowledge'. Didactic instruction is minimized, concept formation through active exploration on the part of the pupils is stressed. Much more latitude is given in the teacher-pupil relationship. The latter is much more symmetrical : the teacher can be'respondent' as well as 'asker', receiver as well as possessor - likewise the pupil. In Bernstein's terms framing is weak with pupils having more say in what knowledge is transmitted and how it is transmitted in classrooms. Pupils interests and felt concerns are paramount thus problems of motivation are minimised. Evaluation is far less clear cut and subject to multiple criteria, not all of them quantifiable in terms of marks or grades.

Associated with each model are certain kinds of ideologies systems of beliefs and values about the educational enterprise held by particular groups in societies. In most general terms ideologies can be religious, political, economic, even aesthetic or metaphysical as well as educational.

Educational ideologies vary in the types of knowledge they consider worthwhile or of high status, in the ways they believe such knowledge should be transmitted and evaluated and the degree to which they believe such knowledge should be made accessible to those who do not already possess it. Ideologies constitute systems which give meaning to the complex and diverse practical enterprise of teaching and provide general guide lines which this enterprise can be directed (Taylor and Richard, 1979, p.40).

Therefore curricula (or modles of teaching) are seen as a result of competing ideologies. They have considerable cultural and political significance.

Four-fold classification of major educational ideologies were identified by Davies, I (1969) namely :

> ('Conservative', 'revisionist', 'romantic' and 'democratic', (Quoted in Richard and Taylor, 1979, p.40-41).

The objective model which will be subjected to criticism in the following discussion may fall in between the first two of the mentioned ideologies - the conservative ideology which values stability, continuity with the past and transmission of the nations cultural heritage, together with that revisionist ideology which values modernization, efficiency and the expansion of education to produce a skilled labour force.

The suggested process model on the other hand may fall in between the other two ideologies - the democratic ideology which values equality, ans supports changes in education (and the wider society). In order to realize this it stresses the importance of creating a common culture and a genuine democracy in which all social classes can participate on equal bases. Together with the romantic ideology which centres on the individual rather than the nation, on the present rather than the past or the future, on the child rather than on the adult.

It is important however to realize that the objective model is more biased toward the conservative ideology while the process model is more toward the democratic type.

The content of this dissertation is organised around three main Chapters :-

Chapter 1 ; will attempt to discuss the main element comprising the process model namely :

- Aims of Education
- Concept of Knowledge
- Concept of Child and Childhood
- Concept of Teaching.

Chapter II ; will attempt to discuss the cultural contexts in which this model is expected to work.

Finally, Chapter III will attempt to discuss curriculum innovation which involves the barriers and constraints in the implementation process.

The proposed model is hereby recommended for the acquisition of knowledge at the primary, intermediate and secondary technical or general levels.

In the area of skills in technical education, however the existing objective model will fulfil the aims of Technical Education which have been largely determined by the social and economic factors in Bahrain.

* * * * * * *

# C H A P T E R  I

## CURRICULUM DESIGN

(Philosophical, Psychological and Sociological factors) .

Aims of Education :

The contrast between education and curing is given by Hirst and Peters (1970) who both argue that in curing people the doctor is concerned to make people physically or mentally better, but in educating people the desirable end of education is to make people morally better. This contrast is at the heart of any discussion about the aims or desirable end of education. It draws our attention to the problem involved when we wish to justify our belief as to what qualities we think it most desirable to develop in individuals. Values or goods are plural in morals, just as ends in education are plural. Hirst and Peters[1] (1970) thus argues :-

> "Education is not quite so straightforward a concept as 'cure ... it is doubtful whether education is always used to designate processes that leads up to a general end in the way in which 'cure' always seems to be used".

Furthermore, education is concerned with developing knowledge and understanding in people. This, too, raises problems for making decisions about the forms of knowledge which are thought to be most worthwhile. For example some educationists place more value on depth and understanding while others emphasize breadth in learning. It is this tension between the different views which leads to much debate about the ends and methods to be adopted in education.

According to Websters University Dictionary, one meaning of the verb 'to educate' is 'to bring up a child' yet so many features contribute to bringing up a child, the directions and goals he pursues, the values and meanings he posesses that it is impossible to define this in a specific narrow way. It looks therefore, as if the concept of 'education' is a very fluid one. At one end of the continuum is the older undifferentiated concept which refers to the whole process of bringing up or rearing

children. According to this definition what is desirable or worthwhile knowledge is purely contingent. Going back over two thousand years Plato[2] (1965) conceived of education as a means of producing a just, harmoneous society and personal life :

> "Education was to train men to fulfil their different roles in society".

To Plato a just society was one in which the various social orders comprising it were organized in a hierarchical way.

Almost a thousand years later in a very different context Rousseau[3] (1972) made explicit a conception of education which was to prepare pupils for obedient services in a society dominated by the chirstian church. Here the desirable end of education was the bringing up of the young to love of God to acceptance of life according to the christian interpretation of Him.

The more recent and more specific concept links education with the development of particular states in a person. It involves both depth and breadth of knowledge and understanding and suggests that these are desirable. This is the implicit meaning of education, offered by Stephen Ross[4] (1966), which leads to the formation of a capable and wise adult in society. He argues :-

> "Education refers to the endowmment of an individual with powers and capacities to the formation of a capable and wise adult".

Education in this sense is conceived as the process whereby an immature organism evolves into the mature unique human individual he ultimately becomes.

Justifying the ends of education does not alone determine what should be done, but it does provide a focus.

Where the aims of education are explicitly stated, there seems to be wide agreement about them. Differences appear however, just as soon as we begin to ask questions about these aims : How are they derived and justified? Similarly there is more agreement about the phrasing of the ends of education than about their concrete meanings in any specific cultural context. Even in a society devoted to individual education, to the widening and deepening of individual powers, there are perspectives which must remain essentially unactualized, for they interfere with the education of others. Society provides the framework of education, the dominance and alternative that are deemed acceptable. And all of these to some extent oppress individual diversity and particularity. Thus there is an essential dichotomy between the demands of education per se and the demands of society.

Ideally education, in the sense of diversification and determination of all perspectives may be socially abhorrent. But social needs are primary, and thus completely determine the values of individual education.

The conflict netween the demands of education and the demands of society is always apparent even in a most educational society as STephen Ross[5] (1966) argues :

> "If the basic value of a society is individual education the society will be most devoted to individual dignity and achievement, yet there will still be clashes between individual ideas and social compromises if even in this most educational society social values must be reconciled with individual diversity and particularity, ordinary societies whose goals are less towards education and more towards social intity are enormously mis-educational".

It is important therefore to distinguish 'aims' of education in these cases from aims of education when the more general undifferentiated concept of 'education' is being used - e.g. by politicians talking about the

educational system.

Viewed in its social context, a politician or administrator, in an economic frame of mind, might think of education as the means by which a supply of trained manpower is assured. He might think of education purely in this way and have no regard for the endeavour of educators who might in their turn be impervious to the economists frame of reference.

Thus it is not from a practical point of view that distinction has to be made between the aim of education in its pure forms and the aims of education as conceived by the school in its role as a social institution.

Stenhouse[6], (1977) has suggested that Educa tion in school must comprise at least four different processed, namely : training, instruction, initiation and induction. Training is concerned with the question of skills ; instruction is concerned with the learning of information ; initiation is concerned with familiarization with social values and norms and finally induction stands for introduction into thought systems - the knowledge.

The distinction between these functions however is very important, it serves to indicate that although they are interrelated they must not be substituted for each other because each one of them will serve a fifferent function of schooling.

Education in its wider sense has no end beyond itself, this is another concept of education promoted by John Dewey[7] (1916). He characterizes education with growth in the same way that life is characterized. For the primary purpose of education is nothing but more education :

> "Since in reality there is nothing to which growth is relative save more growth, there is nothing to which education is subordinate save more education".

Growth, democracy and intelligence are among a list of aims for education which were provided by Sidney Hook[8] (1946) in his book Education for Modern Man. Growth refers to the maturation of man's natural power toward the highest desirable point which his body, his mind and his culture make possinle. Democracy means that the school must provide its students with a democratic atmosphere in its institutions :-

> "it makes for greater tranquility, justice freedom, security, creative diversity, reasonableness and less cruelty, insensitiveness and intellectual intolerance than any other social system that has so far been devised or proposed".

Finally the aim of education is the development of intelligence and reasoning.

Many liberal educational theorists - including John Dewey - have gone beyond these rather limited objectives to posit a role for schools in equalizing the vast extremes of wealth and poverty. Schooling some have proposed, can not only assure fair competition, but can also reduce the economic gap between the winners and the losers. The underlying assumption is that by providing equal opportunity in education the school will facilitate equal opportunity for economic attainment thus reducing the gap between the vast extremes of wealth and poverty. Dewey[9] (1966) asserting the role of the school in this process states :-

> "it is the office of the school environment .... to see to it that each individual gets an opportunity to escape from the limitation of the social group in which he was born, and to come into living contact with a broader environment".

From the economists point of view education can be seen as investment and consumption. Education for consumption is not supposed to have

economic value, because it is for the individual's own satisfaction. while education for production generates economic benefit both for himself and for the society at large and this way the two fold aim of education is realized : it satisfies the individuals own spirit and also benefits both him and his society economically.

When it is the aim of education to develop the national economy, it is necessary to train (in a wider sense) individuals to perform skills and services required by the nation. Sound educational goals will provide a number of educational benefits as T.W.Schultz[10] (1963) listed ;

> "These include the benefits the economy obtain from educational research, the cultivation and discovery of (potential) talent, increased 'capability of people to adjust to changes in job opportunities', the preparation of teachers (a self-sustaining activity), and the provision of manpower for sustained economic growth. In addition schooling provides for better citizenship, the ability to appreciate and recognize a wider range of cultural and other services."

To contribute effectively to economic growth, schools have to meet the demands of rapid teaching technological change. The aims of the school, under these new conditions, have to be adjusted in relation to industrial change in the country. Because of the reciprocating nature of education and job opportunity change in one must be concurrent with change in the other. The new demands on education thus require mechanical flexibility rather than training in specific skills, in order to meet the vast changes in job opportunities. At the same time it is important to develop intellectual minds which can accomodate these changes. Chase[11] (1956) feels that under conditions of rapid change, the only thing that the school can hope to do is to :-

> "Aim for an education which will enable man to abstract from culture the understanding and skills through which to maintain his equilibrium in a

field of rapidly shifting forces".

The role of education in socializing the young into a common culture is very important for the maintenance of society as a closely knit and well integrated unit - to develop continuity of civilization and help develop cultural identity. The aim of education thus becomes - a balance between traditional and vocational orientations. George Tobias[12] (1964) explicitly states these two aims :-

> "Education should fit harmoniously into a chosen pattern of change, progress enough to produce the technical leadership required, while at the same time not isolating from the mainstream of the national culture those who are privileged to receive higher education".

These then are a sample of the many different views concerning the desirable ends of the educational enterprise. Curriculum which embrace the educational aims are one means by which the young are systematically introduced to the material and non-material world they inhabit. The definition of curriculum offered by John Kerr[13] (1968) is one among many definitions offered in this field :-

> "All the learning activities which is planned and guided by the school whether it is carried on in groups or individuals, inside or outside school".

Definition of the word curriculum may not solve education problems, but they do suggest perspective from which to view education.

Both a curriculum proposal and its underlying model or design rests on a view of education. For example when Plato conceived education as a means of providing different kinds of curriculas to serve the different roles demanded of people. Hirst took a very similar view to Plato when he suggested that certain forms of knowledge are very necessary for

the development of mind. Education, Hirst argued, is centrally concerned with the development of rational minds. Hirst then attempted to categorize the forms of knowledge which he thought to be logically distinct forms of understanding, and suggested that the rational mind entails initiation into all of these forms.

In Great Britain, recent efforts for formulating the aims of education have been drawn around helping the pupils to develop lively, enquiring minds, and to learn to use language effectively. The list of aims[14] were as follows :

1) To help pupils develop lively, enquiring minds, the ability to question and argue rationally and apply themselves to tasks, and physical skills.

2) To help pupils acquire knowledge and skills relevant to adult life and employment in a fast-changing world.

3) To instil respect for religious and moral values, and tolerance of other races, relions and ways of life.

4) to help pupils to use language and numbers effectively.

5) to develop pupils understand the world in which they live, and inter-dependence of individuals, groups and nations.

6) To help pupil's appreciate human achivements and aspirations.

Clearly these aims are very broad and are not spelled out in behavioural terms, learning is viewed as a process not as product, it seems that it is very difficult to express in a concise way, a set of aims which take account of the whole range of desirable activities in the school curriculum. Any attempt at such an exposition may be most valuable as an indication of the values against which any substantial element of a school curriculum may be tested rather than a checklist of

of items which should be found within it.

However, the aims listed above parallel my own view of the aims of the 'proposed process model' which takes full account of the social and cultural change that is taking place in Bahrain and in consequence preparation of the child to meet with these demands.

The aims will help schools to achieve their desired ends. Thus schools are likely to be more effective in achieving their curricula aims if those aims are clearly set out in writing, are generally known and accepted by staff and pupils, and are systematically pursued through curriculum organization and day-to-day teaching. The aims must be related to the age of the pupil and local circumstances and also should be reviewed from time to time for readjustment.

Bruner[15] (1971) expressed his concern at the rate of change in a society and emphasized that schools must review their aims from time to time to keep up with the new demand :-

> "Each generation must define a fresh the nature, direction, and aims of education to assure such freedom and rationality as can be attained for a future generation. For there are changes both in circumstances and in knowledge that impose constraints on and give opportunities to the teacher in each succeeding generation".

The aims of the school them, must keep up with change in the social circumstances. This view is again emphasized by Bernstein (1977,p.72-74) who contends that as the society moves toward more 'open society' the school has to follow in the same direction i.e. open school for open society (See Chapter II). According to Bernstein, discovery approach to learning (i.e. the proposed process model) is one important characteristic of the open schooling. In my view Bahrain is moving toward more open society and therefore the proposed process model is hereby

recommended to prepare children to cope with these new social changes.

To summarize this discussion is to note that curriculum development is a continuous process of evaluation and planning. Knowledge continues to develop, society evolves, people change and the curriculum must keep pace with all of them.

The Concept of Knowledge: -

The conception of education also involves important ideas about the nature of knowledge.

Essentially two main kinds of therories have emerged with regards to the nature of knowledge and its relation to school curriculum on the one hand, one-theory suggests that knowledge is objective : a body of principles, laws, theories etc., which are external to the learner. His task is to come to terms with these public thought-forms, to understand them so that they come to inform how he views the world. Here knowledge reified has true entity, made into an object of study which exists independent of the learner and unaffected by his own particular way of possessing data and ordering experience. Education is to initiate the learner into this knowledge.

Those theorists who support this approach to the curriculum design are described by Eggleston[16] (1977) as representative of the 'received' perspective :-

> "it is one in which curriculum knowledge, like other components of knowledge system in the social order, is accepted as a received body of understanding that is 'given', even ascribed and is predominantly not negotiable."

The group of theorists falling under this perspective are : Bloom, Hirst Phenix, Bruner, Gragne', Ausubel .....

Opposed to this approach is the view that knowledge results from the creative power of the individual to form a highly complex personal system of interpretations, intentions and recollections. The status of knowledge as an objective reified , now becomes problematic and subject to wide variation, interpretation and relational ideas.

Such theorists are described by Eggleston[17] (1977) as representative of the reflexive perspective. They are represented mostly by sociologists like, Young, Esland, Bourdieu, Berger, Luckman, Blum, Maxine Green and some other educationalists like Holt.

Sociologists, especially have been attracted by a range of new interpretative interactionism to the study of knowledge variously labelled 'symbolic interactionism' and phenemonology and elhnomelhoedology. For the phenomenologistsm the social construction of reality by individual is infact social knowledge. This is not seen as having a permanant 'out-there' nature but rather as an essentially relativist artefact such as the qualities of truth and objectively associated with it. It follows from this view that the particulats take apart in defining reality in any social situation. For example the teachers and the students have a role to play in the curriculum in which they are regarded. The participants presence may significantly change the situation in which he is engaged. This means that all participants are forced to some extent to redefine and modify their actions accordingly to the situation. This view is well expressed by Esland[18] (1980) :-

> "The theory of knowledge which is contained in the epistemological psychology is built on a different principle of social order .... the organization of curriculum into clearly bonded zones can no longer be taken as axiomatic instead, several different arrangements are possible."

This suggests that the curriculum is not to be divided into subjects rather it is to be left wide open for participants' i.e. teachers and students - negotiation and interpretations in this way, it is claimed, school will avoid the aleination of its students from learning and they will thus become committed to it. They maintain that if students simply a ccept a prescribed knowledge, the pupil will feel a stranger to the field of knowledge unable to integrate different ideas in his mind, and thus learning will not take place. Maxine Green[19] (1971) among others has powerfully exercised objectivity in the school curriculum. She emphasized that there is no body of knowledge 'out-there' for the student to receive :-

> "if curriculum is seen as extermal for the search of meaning it becomes an alien and alienating edifice a kind of crystal palace of ideas".

It is worth mentioning here that some consensus does exist among the representative of this view - that fields of knowledge which forms the curriculum is in fact a human construction - it has man-made knowledge. Esland[20](1980) has well expressed this view clearly when he asserts :-

> "Subject perspectives can be summarized as the biographically constituted .... through time, they become the habituated thought form through which individuals reality is constructed."

Further they see knowledge as a product of informal understanding negotiated among members of organized intellectual activity and the curriculum in consequence as a social system, thus Blum[21] (1970) writes :-

> "The social organization of knowledge is described not in terms of the structural, proportion of events in-the-world which the knowledge is intended to be rather as a product of the informal understanding negotiated among members of organized collectivity".

Knowledge then is not real it is socially determined, made and employed by some people who have some interest in passing on particular information through the school curriculum. Socially constructed knowledge is ideology, that it is the knowledge of an organized group. The present dispute over the content of the curriculum is seen as a result of competing ideologies, so that any attempt to impose a particular body of knowledge on children is regarded as an attempt to gain control of them by exposing them to the influence of only one such ideology. Whether this is done intentionally or is merely an accidental by-product of the system, the values of school are imposed on all of its pupils and this is one reason for the demand of people like Illich, Ferire and others for the de-schooling of society. Illich[22] (1971) simply writes :-

> "Schools not only perpetuate hierarchy, but also whole cancerous patterns of modern living. A major, and pernicious function of the school is to indoctrinate children in habits of consumption which turns them into obedient, addictive consumers of products of mass consumption society."

Those theorists simply advise us not to treat school curriculum as reified body of knowledge rather to be tentative of its nature. They argue for commonsense knowledge of what-ever knowledge passes in a society to be the main subject in school curriculum. Thus school curriculum should not consist of different forms of knowledge, different subjects, rather knowledge should be wide open and integrated, rather than specialized or restricted in seperate boundaries. Teachers, therefore do not only discuss a particular subject matter, rather, they may broaden their discussion to all areas of knowledge whether religious, political, economic, sexual or any topic that interest the participants i.e. students. This type of curriculum is often called unstructured type curriculum, that is

a curriculum which is characterized by Bernstein as integrated code:-

> "The pedagogy of integrated codes is likely to emphasize various ways of knowing in the pedagogical relationships,
> (Bernstein, B. 1977, p.102).

While there is agreement within the group representing the 'reflexive' perspective, certainly there is a wide spread disagreement among the 'received' perspective group. The variations in the received perspective are found in the view that the curriculum is given not so much as a consequence of the nature of knowledge but rather as a result of the nature of children. However there is agreement within this perspective that structured fields of knowledge exist, that unless the structure of, and the context within such fields of knowledge are made clear the learning process will be impaired. Furthermore teaching is an intentional activity designed to provide the learner with prepared and selected environment.

The differences within this perspective however lie only in the method of presenting the prescibed knowledge to the leaner.

Broadly speaking there are two distinct types : the stimulus response theory of Skinner and Bloom on the one hand and the developmental psychology of Piaget and Bruner on the other. Each has its own social principles, assumptions about human nature and consciousness, and its own consequences for the transmission of knowledge. Their models of teaching will appear in later discussion.

Still within the province of the 'received perspective' there seems to be a wide variation of opinions among the philosophers concerning the wothwhileness of some forms of knowledge over others.

Starting from the conviction that education is concerned with the development of mind, Paul Hirst (1971) for example has tried to show that there are seven distinct forms of knowledge, and that the development

of the rational mind entails initiation into all of these forms, thus Hirst[23] argues :-

> "All knowledge and understading is logically located within a number of domains which I suggest : mathematics. the physical sciences and history, literature and the fine arts, moral religion and philosophy".

To fail to acquire knowledge of a certain fundamental kind is to fail to achieve a rational mind in that significant respect.

His argument entails a comprehensive education for the whole society Hirst[24] (1971) maintains :-

> "if the objective of our education differs from section of our society so as to ignore any of these elements for some reason they are thought less important for these pupils, then we are denying to them certain basic ways of rational development".

Hirst has thus argued for a liberal education which is determined by knowledge itself, reflecting his concern with the development of mind. For Phenix on the other hand the primary goal of a philosophy of the curriculum is to analyse the nature of meaning. He offers a view of knowledge that is more 'person-oriented' than Hirst's, seeing human-beings as essentially creatures who have the power to experience meanings. Distinctively human existence consists in a pattern of meanings. Furthermore, a general education is the process of engendering essential meaning. Phenix has then argued for six fundamental meanings. He[25] (1964) maintains :-

> "Six fundamental patterns of meaning emerge from the possible distinctive modes of human understanding. These six patterms may be designed respectively as : symbolic, empirics, aesthetic, Synnotics, ethics and synoptics."

Phenix is trying to make provisions for general education, whilst Hirst is concerned with the requirements for a liberal education. They perceive these as two different activities. Hirst sees liberal education as concerned with the freeing of the mind to achieve its own good in knowledge. The seven forms of knowledge will free the mind from wrong conduct. Hirst[26] (1974) thus argues :-

> "A liberal education is the one that is determined in scope and content by knowledge itself, the freeing of mind to achieve its own good in knowledge .. .. freeing of human conduct from wrong".

In Hirst's view the mind is but an instrument to allow the individual to achieve understanding of the fundamental nature of knowledge. In Phenix's view the mind is itself involved in the creation of knowledge. Phenix[27] (1964) sees the aim of general education as the development of the whole person :-

> "A complete person should be skilled in the use of speech symbol and gesture, factually well informed capable of creating an. appreciating objects of aesthetic significance endowed with a rich and disciplined life in relation to self and to others, able to make wise decisions and judge between right and wrong and possessed of an integrated outlook."

Nevertheless, ;

> "Phenix sees mind as given just as fully as knowledge itself so that then the ultimate outcome is similar to that of Hirst"
> (Eggleston, 1977. p.59

Others came to believe that education involves taking part in worthWhile activities and that such activities have their own built-in standards of excellence, and thus can be appraised according to these standards rather than because of what they lead on to. It may be argued that they are worthwhile in themselves rather than as means towards objectives.

In Peter's[28] (1966) the most important examples of activities of this kind are the arts and the forms of knowledge :-

> "There is very little to know about riding a bicycle, swimming or golf. It is largely a matter of 'knowing how' rather than 'knowing that', of knack rather than understanding .. .. in history, science or literature, on the other hand there is an immense amount to know and if it is properly assimilated, it constantly throws light on, widens and deepens one view of countless other things".

Critics of this approach to the curriculum have expressed their dissatisfaction with it in a number of ways. Downey and Kelly[29] (1975) have emphasized that an approach to curriculum planning that is based on knowledge alone, without due regard to the development of the pupil, will lead to undue emphasis on cognitive attainment :-

> "To start from the conviction that education is the development of rational mind is to be comitted to view that must lead to the kind of emphasis and to disregard of the aspects of the development of pupils".

Another criticism of this kind of approach derives from the view put forward by Young (1980) based on what he called 'stratification of knowledge' that is if certain forms of knowledge are said to be more worthwhile than others, then a hierarchy of knowledge is formed and consequently students with different abilities are forced to take different forms of knowledge. Thus Young[30] (1980) argues :-

> "Those in position of power will attempt to define what is to be taken as knowledge, how accessible to different groups any knowledge is and what are the accepted relationships between different knowledge areas and between those who have access to them and make them available".

Yet further criticism of this approach to the curriculum has been cited by Ryle[31] (1978) who suggests that education in a real sense is not only concerned with 'knowing that', but, it must also include 'knowing how'. He insists that both forms of knowledge must be combined to form the curriculum. He criticized the traditional approach with its emphasis on 'knowing that' and its complete negkegence of 'knowing how' :-

> "Theorists have been so pre-occupied with the task of invistigating the nature, the source, and the credentials of the theories that we adopt that they have for the most part ignored the question of what it is for someone to know how to perform a task".

What makes Bruner distinctive from other conventional theorists in his emphasis on the 'how' and the 'why' of knowledge rather than the 'what'. His approach to curriculum is not to 'get across' a body of knowledge but encourage students to participate in his own learning process. Bruner[32] (1966) writes :-

> "A body of knowledge .... is the result of much prior intellectual activity. To instruct someone in these discipline is not a matter of getting him to commit results to mind, it is to teach him to participate in the process that make possible the establishment of knowledge .... knowing is a process not a product.

Bruner, however accepts the traditional subject boundaries and believes that structuring knowledge for student is vital ; he also argues that unless the structure of and the context within such fields of knowledge are made clear, the learning process will be impaired, Bruner[33] (1978, emphasizes the importance of structure in curriculum :-

> "Knowledge one has acquired without sufficient structure to tie it together is likely to be forgotton".

The dispute over what forms of knowledge should comprise the curriculum dominates educational discussion every where. But the most fundemental

dispute in this field still remains between on the one hand, philosophers who insist that there are seven or eight distinct forms of knowledge all of which should be included in the curriculum. And on the other hand, those sociologists who assume that knowledge is a human construction, and should therefore socially be socially determined with implications for commonsense knowledge as the basic requirement for the cucciculum. Commonsense knowledge they argue is cultural knowledge or what ever passes as knowledge in a society.

.This dispute over the nature and source of knowledge is partially resolved by Piaget. He distinguished between man-made knowledge such history or spelling and knowledge such as mathematics which is "a rational construction" is no way arbitrary but possessing universal validity. Piaget[34] (1971) sees these two types of knowledge as serving different roles in the curriculum and so they are both important :-

> "There is some subjects, such as, French, History or spelling whose contents have been developed, by adults .... There are other branches and learning on the other hand, characterized by a mode of truth ... a mathematical truth is not dependent upon the contingencies of adult society but upon a rational construction accessible to any healthy intelligence".

This distinction made by Piaget is very helpful in forming the 'core curriculum' that will be common to all students in the school. Such curriculum will include a selection from both types of knowledge - the man-made knowledge elements of culture together with the universal type of knowledge. Each will serve different purposes. Mathematics, it is claimed by many educationists will provide students with logical ways of thinking, while cultural knowledge will serve to inform the students about the understanding of his cultural which is vital for communication process.

Other fields of knowledge can be made available for student's choice, which, when added to the 'core curriculum' it will form the 'balanced curriculum'. The aim of such curriculum is to provide each individual with a broader view of life, the ability to adopt to change and the desire for continuous improvement.

The Concept of Child :

Curriculum planning involves the interaction of knowledge and mind. The contribution of Psychology to school curriculum is very great.

However, not all psychological models are of equal significances, in the organization and presentation of subject material.

One may broadly distinguish two generic types : The stimulus - Response-Theory of Bloom and Skinner, and the Developmental Theory of Piaget and Bruner. Each has its own social principles, assumptions about human nature and its own consequences for the transmission of knowledge.

Starting from the assumption that certain specific knowledge disciplines the mind better than others, the Stimulus-Response theory represented by Bloom and Skinner concentrated on finding ways and means of sequencing and presenting such knowledge to the learner, who is viewed as a passive recipient. The task of the school is simply reduced to depositing certain specific knowledge into the pupil mind. Children according to this view are endoweed with varying degrees of intellectual ability, the ability being subject to limits in every case, it manifests itself as a result of interaction between the childrens' environment and their innate potentials. The latter is composed of various factors

prominant among which is 'intelligence' that can be measured objectively through tests. Children are not assumed to be active learners but are believed to require motivation or stimulating in order to fulfil their potentials. They learn because of the external reward to be gained in the forms of examination, sucsession, prizes and general approval.

The control idea is a basic theme within reinforcement theory. Skinner[35] (1980) maintains that individual freedom and dignity are illusion because we are all controlled by our environment. He suggests that only by a scientific analysis can we shift both the responsibility and the achievement to the environment :-

> "The selective role of the environment in shaping and maintaining the behaviour of individual is only beginning to be recognized .... a scientific analysis shifts both the respinsibility and achievement to the environment".

The critics of this approach have bitterly attacked the principle on which the control theory is founded.

The leading critics of this approach include, John Dewey, Holt, Esland, Grintis, Stenhouse, Bourdeiue among many others.

In their attacks on control theory they have expressed concern over the implicit view behind such a theory, and have argued that the aims of education under such learning are exactly reversed. The following extracts summarize the critiques :-

> : imposing rigid frame of work for absorbing specific knowledge will alienate the student from his school and his future learning
>
> (Esland,1980, in Young 1980)

: by treating the child as a passive recipient we are denying him the ability to think for himself, making him dependent on others and resistant to change.

(John Dewey, 1979)

: that children have different learning style, and by treating them as if they were one bunch, learning will not take place.

(Reissman, 1977)

: that intelligence does not develop merely by the acquisition of specific knowledge, but by the interaction of knowledge and mind.

(Magging 1978, in Lawton,D. 1978, pp.61-69).

: that by categorizing pupils according to their ability we are disintergrating the society -

"the differentiation of schooling threatans the cultural intergration, because the high achievement will form the elite in the society.

(Bourdieu, in Young,1980, p.199)

: it does violence to notion of education to suggest that development of knowledge can be divorced from the simultaneous promotion of feeling and affection"

(Kelly, A.V., 1977, p.30)

: it is undemocratic to deposit knowledge in this way to students.

(Lawrence Stenhouse, 1977, p.89)

: that it justifies social inequality and social control.

(Gintis, 1979, p.27).

The other psychological model represented by Bruner and Piaget is built on totally different assumptions about the learning and growth of children.

One of the main features of this model is its pre-occupational with the subjective experience - the child is represented as an active rather than a passive creature. Emphasis is on the construction of thought forms through sensory and linguistic ordering. According to this view knowledge alone does not develop the mind, instead, the mind will develop by processing the knowledge which is selected and organized by the school. Whereas the stimulus-Response Psychology of Bloom and Skinner was mainly concerned with the measurement of abilities, the developmental psychology of Piaget and Bruner is concerned with structuring abilities, and with developing the student's powers of thinking and understandings.

Piaget's view of intellegence, requires the school to guide the developing child through the stages of intellectual growth, providing him with an appropriately structured curriculum in terms of learning sequences yet allowing him freedom to discover and structure knowledge for himself. Thus Piaget[36] (1977 argues :-

> "The goal of education is not to increase the amount of knowledge, but to create the possibilities for a child to invent and to discover."

Piaget (1971) maintains that knowledge is an active assimulation of reality into structure, going from the simplest to the most complex and abstract. He[37] stresses that the roots of knowledge are in action :-

> "To know an object is to act upon it and to transform it".

This process of learning is referred to by Ryle as 'training' or 'knowing' how i.e. developing in the student the initiative for finding information for himself rather than trying to force on him the accumulations of Stocks of knowledge, Ryle[38] (1978), thus distinguishes

between 'drill' and training when he argues :-

> "We build up habits by drill but we build up intelligent capacities by training ... 'drill' dispenses with intelligence, training develops it".

Thus in Ryle's terms to develop someone's intelligence is to train him to solve his own problems and handle his own learning - developing in student learning to learn strategy. This view of intelligence is very different from that of Bloom and Skinner, who believe that intelligence will be improved simply by feeding students with specific knowledge in the quickest way, that is they are more concerned with assimilation of knowledge rather than with the using of it.

Yet Ryle[39] (1978) argues that to act intelligently is to think about what one is doing, thus it would not be possible to act intelligently by accident or chance. To say that one person is more intelligent than another means that he acts more intelligently more of the time :-

> "in judging that someone's performance is or is not intelligent, we have in a certain manner to look beyond the performance itself"

This argument supports the view that not every action or behaviour can be considered intelligent behaviour. A young child for example might accidentally do something that for his age appears exceptionally intelligent, but if it is not incorporated into his thinking pattern and is not repeatable - if he is not able to learn from his own experience this would not count as intelligent behaviour, only as a chance happening. This criteria of intelligence emphasizes the active nature of learning,

it is not enough for children merely to develop intelligence, they must also be able to use it, to think for themselves in every kind of situation not only in school.

A major principle from Piaget's theory is the assumption that learning has to be an active process because knowledge is construction from within. To have knowledge is to have understanding of that knowledge, but we can not create further understanding simply by talking to the child. Piaget[40] (1964) maintains :-

> "as far as education is concerned the chief outcome of this theory of intellectual development is a plea that children be allowed to do their own learning .... you cannot further understanding in a child simply by talking to him".

Like Piaget, Bruner feels that mental growth does not develop by the acquisition of knowledge, but by providing ideas and dialogues in the learning situation. Mental growth according to Bruner will develop when the students mind interacts with the structured knowledge provided by the school. Along this line Bruner[41] (1971) argues :-

> "I suspect that much of growth starts out by our turning around on our own traces and recording with the aids of adult tutors, what we have been doing or seeing ... the heart of educational process consists of providing aids and dialogues for translating experience into more powerful notation and ordering".

Because understanding is emphasized rather than assimilation of abstract material, students will achieve their own satisfaction in learning. They will not depend on out-side rewards but on self-rewards and self-satisfaction. Bruner maintains that discovery learning leads to a type of understanding that is not only more exciting to students but also

very likely to increase their self-reliance. The reason Bruner feels this way is that students are literally encouraged to 'discover' on their own, which is diametrically opposed to telling students the answer or giving them the solution in a more traditional way. What this amounts to is developing in the child an interest in what he is learning. Thus Bruner[42] (1978) argues :-

> "The best way to create interest in the subject is to render it worth knowing, which means to make the knowledge gained usable in one's thinking beyond the situation in which learning has accurred".

Students are thus motivated to learn by their own creative work. They learn because they can find meaning is what every they are learning therefore they become committed and more productive. Stenhouse (1975) among others have supported the view that process model of curriculum is more productive than the objective model :-

"In educational terms 'a process model of curriculum is more an objective model"

(Stenhouse,L., 1975, quoted in Downy & Kelly, 1979, p.246)

This view of learning and motivation finds strong support within the humanistic-perceptual framework according to which humans are influenced and guided by the personal meaning they attach to their experience. It is a point of view that focuses not so much on people's biological drives, but on their goals ; not so much on stimulus impenging on them, but on their desires to be ot to do eomething ; not so much on their past experiences, but on their current circumstances ; not so much on environmental forces as such, but on their perceptions of those forces. Hence the emphasis is on the subjective qualities rather than on their objectives,

observable, measurable responses.

Two psychologists whose work has been within a humanist - perceptual framework are A.H. Maslow and C.R. Rogers. A.H. Maslow[43] (1971) has noted :-

> ".... growth, self actualization, the striving toward health, the quest for identity and autonomy the yearning for excellence .... must by now be accepted beyond question as a widespread and perhaps universal human tendency".

This view does not however suggest that students do not require encouragement or praises from their teachers, on the contrary, encouragement and praises are crucial especially at early ages. Encouragement will help the child to achieve competence in what he is doing, this view is supported by Erickson's stages of development.

Erick Erickson[44](1950) held that an individual passes through eight stages of development in his life and the success or failure in each successive stage will depend to a large extent on success or failure in the previous one. Furthermore each stage has a positive and a negative component, for example stage four in Erickson's stages of development has a sense of industry at one extreme and a sense of inferiority at the other. Thus when children are encouraged or praised in their efforts to do or to make things and are allowed to finish their product, a sense of industry is enhanced, conversely if they are degraded or embarrased a sense of inferiority will result, which will contribute negatively to their success in the following stages of development.

Thus when the school in the objective model (Stimulus-Response Theory) has streamed children according to their ability or failed them because they could not compete to a certain specific criteria they have in fact contributed toward a sense of inferiority.

In the Brunarian model however the way to inhance competence is to encourage students to take responibility and independence in decision and action. Along this line Bruner argues :-

> "Emphasis upon individual responsibility and initiative upon independence in decision and action, upon perfectability of the self - All of these things serve to perpetuate more basic competency motives past childhood".

The work of Bruner is strongly linked with the research of Piaget.

Piaget[46] (1976) has evolved a theory of cognitive development which he sees as broken into four major stages of intellectual growth in youngsters' capacity for thinking and problem solving :-

1. the sensori-motor stage.
2. the pre-operational stage,
3. the concrete stage,

and 4. the formal operation stage.

He found from this research that children at the concrete level stage have limited verbal reasoning, and learn best when they are actively involved in concrete materials - by seeing, touching or exploring things. Problems occur when children at this stage are taught only verbally and are assumed to understand meanings. For example Piaget has shown that at this level (without concrete materials) children will fail to realize that volume or capacity is conserved when quantity of solid or liquid is transferred from one container to another. Furthermore students might remember or repeat words or statements without understanding the concept behind them, this view is further supported by Sigel[47] (1961) who has pointed out that children may say the word 'brother' without understanding the concept behind it, similarly Jahoda[48] (1963) has revealed childrens partial understanding at the concept of 'nationality'.

Yet Hamline[49] (1980) stresses that when people say words without understanding the concepts behind them this does not count as knowledge. He argues :-

> "Another consideration that would rule out knowledge would be the discovery that the person who gives right answers does not really know what he is saying."

This view of knowledge leads to a more efficient method of learning than that which is adopted under the objective model. When understanding rather than rote learning is emphasized in the process model under current discussion, more effective learning will occur.

The Concept of Teaching :-

Views as to what constitutes 'education' also involves beliefs as to what teaching is. As teaching necessarily related to learning and learning to knowledge and experience, beliefs about teaching connect with beliefs about knowledge, learning and children.

Broadly speaking there are two views as to what constitutes education. These two views have generated two different models of teaching.

According to one view education is a means - to an end, the end of achieving specific goals. Teaching content will be selected, sequenced, transmitted and evaluated in order to achieve the 'intended learning outcome'. This approach to teaching was referred to as the 'objective model' of teaching, now it is called the 'behavioural objective model'.

The advocates of this model are Tyler, Skinner, Bloom, Gagne and Ausubel among many other.

The other view of education has generated models of teaching. In this view, education is not a means - to an end, it is a continuous process :

> "Education has no end beyond itself it is its own end".
> (John Dewey, 1966, p.20)

This model of teaching is referred to as the 'process model' of teaching. The advocates of this model are : John Dewey, Stenhouse,L., Bruner, Piaget among many others.

The most lucid and straightforward account of the use of objectives in curriculum development remains that of Tyler (1949). Tyler starts from the question : What educational purposes does the school seek to attain? and he equates a purpose with an ibjective or goal. Then he goes on to propose that the real purpose of education is to bring about changes in student behaviour, therefore the school will be successful only to the extent that it has achieved the intended behaviour of its students, Tyler[50] (1949) thus argues :-

> "since the real purpose of education is not to have the instructor perform certain activities but to bring about significant changes in the student's patterns of behaviour, it becomes important to recognise that any statement of the objectives ofnthe school should be a statement of changes to take place in students".

Later on Benjamin S. Bloom (1956) designed a frame-work on taxanomy for writing out educational objectives at instrumental level.

In his taxanomy the kind of behaviour we seek to have students display as a result of a learning programme are classified. Learning materials are then selected, sequenced and transmitted to meet the pre-specified objectives. Evaluation follows - measuring the learners performance and feeding back. Usually the model takes a linear approach ; i.e. aims → objectives → content and method and evaluation. The learning programme will be successful to the extent that the objectives have been realized, it is very rarely that modification of the course takes place, once the course has been organized the work will continue in a very formal and traditional way, since the real test of its success is that it works, as Gagne[51] (1967) argues :-

> "what one really wants to know about a given curriculum is that it works".

Thus teaching will procedd in the form of repertoire - what the teacher has said last year or years before, he will repeat this year, nothing more.

Classroom interaction involves the teacher in didactic instruction, in keeping discipline and in promoting motivation so as to get pupils to learn. This approach is often called teacher-centred. The teacher is the asker and the possessor at knowledge, the student is the receiver and can only respond in short answer form. As John Holt[52] (1964) once said 'right answer' pay off. The teachers themselves are answer centred, what they do they do because this is what the book says to do or what they have always done. One ironic consequence is that both teachers and students are too busy (in accumulating knowledge) to think, learning will be successful to the extent that students pass

their examinations which mostly emphasizes rote memorization.

According to this view the clever student or the intelligent one is the one who passes the test, the ignorant one fails it. This fact is soon learnt by students and teachers. The teachers on their part, to show that their teaching is efficient tended to stress what they can test and students stress what they know they will be tested. Thus good teaching and learning will be judged according to the pass rate in the examination. Students are ranked hierarchically according to their achievements in these tests, and treated status-wise accordingly. Consequently the scope of examination becomes much narrower than the scope of educational objectives.

This is considered to be the main weakness of the objective model of teaching. It is argued that the sole aim of teaching will be reduced to trivial outcomes like remembering facts, rather than to developing powers of thinking in students. As Taba[53] (1962) argues :-

> "it is well known that things that are most clearly evaluated are also most effectively taught".

Since trivial learning behaviours are the easiest to operationalize, the really important outcomes of education are likely to be under emphasized. Atki [54] (1969) among others has levelled this criticism :-

> "There is a strong tendency in the literature about behavioural objectives in curriculum design to make the assumption that the objectives that can be defined behaviourally, the objectives that can be readily assessed, are the important objectives for a school programme. The corollary also seem to be accepted. If it seems impossible to detect and assess a specific learning outcome, it probably isn't important".

Yet Bloom[55] (1956) puts clearly the role of evaluation in a grand design behavioural objectives model :-

> "The criterion of determining the quality of a school and its educational functions would be the extent to which it achieves the objectives it has set for itself .... our experience suggests that unless the school has translated the objectives into specific and operational definitions little is likely to be done about objectives."

According to Bloom, effective learning can only be achieved when objectives are clearly specified and the outcome is measured according to objective criteria. Thus teaching tends to be restricted to a very narrow and limited area of knowledge.

In Bernstein[56] (1977) terms such teaching is characterized by strong 'framing' i.e. strict control by the teacher over the selection, organization and passing of the knowledge transmitted and received in the pupil-teacher relationship. The educational atmosphere under which this model works has been criticized very strongly critiaized by Gintis[57] (1979) when he argues :-

> "Alienation .... is reflected in the students lack of control over his or here education. The alienation of the student from the curriculum content and the motivation of school work through a system of grades and other external rewards rather than the students integration with either the outcome (knowledge) of the educational 'production process' ".

The other model of teaching advocated by Bruner and Piaget is built on different assumption about children and learning. Unlike the objective model which allows children to be grouped and taught according to their group ability, what follows from the development approach of Piaget and Bruner is essentially individualized teaching and learning.

Not all children of given age level have reached the same level of cognitive development nor indeed the same cognitive structure or develop at the same rate across all fronts and may be at one stage in one conceptual area and at different ones in another. To try to teach a whole class of children as if they were all at one stage in everything is to deny the importance of the individual rate of growth as revealed by Piaget's[58] (1975) research :-

> "For those children who are not yet ready to cope with the concepts involved, the content will mean little and they will make little or no progress for those who have already mastered those concepts it will mean nothing but repetition of what they already know, with little or no novelty to activate their mind".

This approach to teaching is often referred to as the child-centred or progressive approach, it is a type of learning that is concerned more with how the child actively constructs and arranges his knowledge of the world in his mind. The teacher has to see how the child is structuring his knowledge at present so that he can amplify his power. This is the implicit view behind Bruner[59] (1978) claims that :-

> "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development".

Even at Secondary School level this approach to learning is recommended by great numbers of psychologists. For example Riessman suggests that each student, like each of us has a distinct style of learning as individual as his personality. Riessman[60] (1977) has observed that :-

> "An individual's basic learning style is probably laid down early in life and is not subject to fundamental change".

Thus the teacher's job is to diagnose student's particular style of learning and advise him on how to recognise its strength and weaknesses.

Just as there are differences among people in learning patterns and styles so too, are there differences in how people think and conceptualize. Jerome Kogan's research for instance, has shown that some students are characteristically impulsive thinkers while others are characteristically reflectibe. Impulsive students operate in a fast conceptual tempoin the sense of being among the first to respond to a question, even if their response is wrong. Reflective students on the other hand are slower to respond, preferring to evaluate alternative answers and to give correct responses rather than quick, erroneous ones. He also discovered that impulsiveness appears early in life, as reflected in a wide variety of situations and in a relative permenant and general trait. Impulsivity could be psychologically harmful to a student if he is punished and made to feel badly by peers and teachers. If this happens over a long enough span of time, Keggan[61] (1965) warns that :-

> "Students will become alienated from the educational process."

Therefore to impose one style of learning on all or to treat all children as having one personality characteristic is to prevent them from learning from their own experience. The methods of learning andb behaving becomes foreign to the existing capacities of the young and beyond the reach of their experience. The very situation forbids much active participation by pupils in the development of what is taught.

In Brunerian model of teaching, prominance is given, not to 'objective' knowledge structures enshrined as subjects to be mastered, but to pupil's mental ordering process. Pupils' commonsense knowledge acquired outside school is not disregarded but accorded respect along with academic knowledge. Didactic instruction is minimised. The teacher can be responded as well as asker, receiver as well as well as possessor - likewise the pupil. In Bernstein[62] (1977) terms framing in week with pupil having more say in what knowledge is transmitted and how it is transmitted in classroom. This approach is a very different approach from that employed by the teacher in the 'objective' model, who merely wants to find out whether a child has learned what the teacher has just said with no regard to psychological development of children.

The contrast between the two kinds of teaching reveals the difference between the child as an active learner and the child as a passive automation parroting the right answers.

Bruner[63] (1973) advocated that we do not discover nearly so much when we are already informed :-

> "Discovery, like a surprise favours the well prepared mind".

The criteria by which teachers evaluate children is found in the type of learning activities which are likely to lead to further learning. To progress along what John Dewey called 'further experience', that is to promote continued experience for children. Since it is only from experience that they will learn in the fullest sense. The emphasis here is not on the quantity of experience, rather it is on the quality, individual difference is not pursued in the interest of quantitative

achievement rather on qualitative performance, thus Dewey[64] (1979) argues :-

> "it is not enough to insist upon the necessity of experience nor even of activity in experience. Everything depends on the quality of experience which is had ... hence the central problem is to select the kind of present experience that will live fruitfully and actively in subsequent experience".

Therefore the characteristic of this approach is its stress on the importance of individual experiences, and of human relations in the classroom. Children's creative work is being fed by their own experience fortified by the experience of others gained through life.

In this way evaluation does not only examine whether children have passed or failed to attain the course content but illuminates the learning and finds out why learning has not occured. Bruner[65] (1973) has emphasized the role of evaluation in this model of teaching :-

> "Evaluation should examine not only the product or content of learning but also the process by which the child 'gets' or 'fail' to 'get' to mastery of naterials for only in that way can the efficacy of pedegogy be examined".

Bruner has attempted to apply his model of teaching to a social studies curriculum in the structure of the course MAN[66] (1971) Course of Study (Macos). One of the fundamental concerns of Macos is to achieve a balance between what the child wants to know and what we as adults, parents or teachers, feel that he ought to know. Macos was not designed according to the pre-specification of behavioural objectives. The aims that were listed centred on the learning process rather than the product of learning.

The framework of the course is marked by a firmly felt notion of structure and sequence, and its route is through concepts, it is an example of a spiral curriculum, but not in sense that the same topic is revisited at different stages of student maturity. Here within a one or two years span the student will meet increasingly complex examples of behaviour and concepts, first required in exploring the comparatively simple life pattern of baboon, the chimpanzee and the eskimo. The major concepts are - life cycle - innate and learned behaviour, adaptation, natural selection, structure and function, information and communication. These concepts serve the exploration of Bruner's five great humanizing forces : Tool making ; child rearing ; social organization ; language ; the urge to explain the world. Bruner has structured the content of the course so that those mentioned concepts stand out for the student to explore and relate to new situations. Bruner[67] (1978) consistently says that :-

> "The school curriculum and methods of teaching should be geared to the teaching of the fundemental ideas in what ever subject is being taught."

It also involves the programming of content in a manner which enables the student to discover generalization and to incorporate these into his way of thinking instead of simply knowing them verbally. Students in the classroom were frequently grouped to discuss the topics involved to form their judgement about a particular concept. This obviously has the effect of leading children to greater mutual understanding and give them the habit of constantly presenting themselves with a point of view which they did not previously hold.

Discussion in classroom is stronly recommended by Piaget who held that discussion in the classroom increases the opportunity to reconcile different view points and encourages the use of language through the exploration of concepts. Further it promotes logical thinking and develop co-operative kinds of behaviour in students, Piaget[68] (1950) maintains :-

> "As far as intelligence is concerned, co-operation is thus an objectively conducted discussion .... it is clear that co-operation is the first of a series of forms of behaviour which are important for the constitution and development of logic".

Bruner has attempted to incorporate and reconcile different extreme views into his model of teaching. The relativists or the reflexive view of knowledge is reconciled with the objectivist view to form a subject-based inquiry method approach. Similarly Bruner has reconciled the wide variation between the stimulus-response theory which is basically strict control theory with that of the humanists theory which allows complete freedom for children in their classrooms. Teaching in Brunarian model is an intended activity that is planned and guided by the school to achieve the aims or desirable end set by the institution.

Finally, I wish to recognize the usefulness of the objective model to serve in the area of skill and vocational training in Technical School in Bahrain. The support for the objective model to serve in this area is well recognized by STenhous[69] (1977) when he argued :-

> "The process model of curriculum is more appropriate than the objective model in the areas of the curriculum which centres on knowledge and understanding. The objective model appears more suitable in curriculum areas which emphasize information and skills".

But since the intake of secondary technical school in Bahrain is from the primary and intermediate schools, it is important that the process model should be first implemented at primary and intermediate level before it can be introduced at secondary level. This first step is vital to improve the intake of secondary technical education on the one hand and to train and prepare students for their future learning on the other.

* * * *

# C H A P T E R  II

## CURRICULUM DESIGN

(Cultural Factors)

In the following discussin it will be shown that curriculum planning which forms the educational system cannot go on in an intellectual vacuum, cut off from contact with the society and culture from which it originates. As Eggleston[1] (1977) has argued :-

> "To write of the context of the curriculum is not to write only of the whole education but also of the whole society. The curriculum is exposed to and in some way interacts with every aspect of the total social situations".

As the instrument of society for the education of the young, the curriculum will reflect the ideas, knowledge and skill, that are believed to be significant, or that are related to the common activities of the members of society. The role of education in socializing the young into the common culture is very important for maintaining the society as a closely knit and well integrated unit. Therefore the curriculum will tend to emphasize the more fundamental universal or cultural core that provides society with stability and vitality and individuals with the motivation and deep-lying controls of conduct.

The classic definition of culture is that of E.B. Tylor[2] (1971) :-

> "Culture is that complex whole which includes knowledge, belief, arts, morals, law, customs and other capabilities acquired by man as member of society"

The definition of culture may act as a guide to curriculum planners and developers in the selection of content and methods of transmission of educational knowledge.

Talcott Parsois[3], a modern American sociologistm stresses three attributes of culture :-

> "First, the culture is transmitted it constitutes a heritage or social tradition secondly, that it is learned, it is not a manifestation, in particular content of man's genetic constitution, and third, that it is shared. Culture, that is on the one hand the product of, on the other hand a determinant of, systems of social interaction".

The assertion that culture is learned immediately suggests the link between culture and education.

Common culture serves as a basis for co-operation between people. In order to behave co-operatively towards some one I must be able to predict and anticipate his action. This co-operation can only be achieved through common understanding which makes communication between people possible. Moreover we learn the understanding which comprises culture through communication. Thus understanding and effective communication are both main elements of culture as Werner Stark [4] (1952) has argued :-

> "We know, we can effectively comminicate with, other minds, because behind us all there is the common life which holds together as a unity in a diversity - a true unity and a true diversity."

The role of education in transmitting the culture is achieved by inducting individuals into culture through taking part in a process of social interaction. This role is important for keeping the society as an integrated unit, it is a vital role for the individual and the society, since cultural understanding is not in the ordinary sense heritable, it is vital for the individual to learn the common understanding shared by the community in which he lives in order for him to be accepted by them.

Culture with its basis of stored, shared, valid and legitimate knowledge constitutes the accepted way of life in a group. Eggleston[5] (1977) writing along this line has argued :-

"The learning and internalization of at least an essential core of the culture by each individual is seen to be an essential prelude to achieving a recognized adult identity or as Durkhein put it 'to construct the social being' ".

Carleton S. Scoon[6] (1954) has made a similar assertion in a very concise manner, to emphasize the learning of the culture by individuals when he asserts :-

"Society proceeds any existing individuals".

Almost by definition school is required to supervise the process of learning to see that the heritage is infact handed on from generation to generation. This aspect of culture is well exempted in language, which both parts of culture and the expression of culture is symbolic.

As individuals we learn the language in so far that we can communicate it with other individuals. The culture then is both individual and social. One conclusion which may follow from the preceding discussion is that the curriculum which forms the educational system should be a selection from the worthwhileness of particular subject matters which have been identified in the field of philosophy together with a selection from the elements of culture. Bahrain however has fairly homogeneous culture which can be identified.

Furthermore a selection of curriculum contents must be sensitive to variations of culture within a society.

Kelley has pointed out that most societies are dynamic and since the school is part of society, the changes in the society must be reflected in the school curriculum. Further, new time demands new answers. Kelley[7] (1978) argues :

> "Most societies are far from static entities and this implies that one feature of their culture is that it is changing, evolving, developing ... there are several aspects of this that have serious implications for education and the curriculum ... should go beyond the notions of initiation of pupils into the culture of the society ... to the idea of preparing pupils for the fact of social changes".

However, in developing countries such as Bahrain the social change which, although fairly rapid, is not considered to be as rapid as social change in fully developed countries. The institutional, economic and social background is not the same. Society in the fully developed country is subject to upheaval brought about by innovations in technique, since technique is an integral part of the social setting, the trends follow the pattern of accepted and familiar forces. On the other hand, society in developing countries is in the process of continuous change. As Andre Page[8] (1966) argued :-

> "Society in the developing countries is still in a state of flux, it is in the process of breaking away from traditional society which still exercises considerable ascendency and is gradually moving towards a new type of relationship and adopting new values not yet clearly defined".

Perhaps Page has used the word 'values' too strongly here. I will substitute the word attitudes instead. I sincerely hope that our society will not break away from their values. Our Moslem society has strong belief in the values which are deeply rooted in our holy Muslim Religion. However Page has alerted us to understand the moral problems emerging from the social change that most societies are witnessing and, Bahrain is no exception as the International Herald Tribune (I.H.T) a daily newspaper has commented on July 9th, 1981 :-

> "Flexibility and adaptability based on confidence are the keys to the speed to which Bahrain has developed

> not just in terms of concrete structures and imported technology but finding new ways of building relations fitted to a new age".

To encounter and perhaps organize ourselves for the new change schools have to provide an acceptable balance in education between (on the one hand) the inculcation of individualism and on the other, a sense of social conformity. Brian Holmes[10] (1965) has summarized this new dual role that school has to play :-

> "There is always need to temper individual freedom with an acceptance of social responsibility ... the question is to what extent should individuals be expected to conform to established social norms and to what extent and what areas should they be encouraged or challenged and reject it."

Dewey as early as 1897 consistently saw that education in a social process, the primary and almost effective instrument of social reconstruction. He saw that the school is not merely a residual institution to maintain things as they are ; education has a creative function to play in the shaping of the individuals and through them in the shaping of the culture. He[11] (1929) argues :-

> "I believe that all education proceeds by the participation of the individuals in the social consciousness of the race. This process ... is continually shaping the individuals's power saturating his consciousness, forming his habits, training his ideas, and arousing his feelings and emotions ... The most formal and technical education in the world cannot safely depart from this general process ... This educational process has two sides - one psychological, and one sociological and ... neither can be subordinated to the other, or neglected without evil consequences .. .. knowledge of social conditions of the present state of civilization is necessary in order to properly interpret the child's powers .... and that school is primarily a social institution."

This view implies that the aim of education is not only the development of children and youth, but also of the future society of which they will be the constituents. This puts new demands on education, thus instead of reproducing current habits, better habits should be formed and so the future adult society will be an improvement on their own.

This is the view which gives education a creative role in modifying and even re-shaping the culture in which it functions. Education must deal with the needs of current culture and even help to shape the future.

Cole S. Bremeck[12] (1962) emphasizes this dual role of education in modern society writes :-

> "Education has a most difficult dual role to play that of preserving the good roots of the culture while planting new seeds that have the capacity to bear rich fruit in a rapidly changing society."

This role is almost necessary since education and public policy are intimately related, and progress in one is limited without progress in the other.

However it is important to realise here that traditional education has served largely to reinforce the traditional way of life and has used authoritarian methods of instruction in schools ; viewing learning as the act of acquiring a fund of information. It has been stubborn in its resistance to the change that the society in Bahrain is already witnessing. Thus it has not been assuming the role demanded by the new age. The new role demands the development of man as an active participant rather than a passive observer. The educated man in Bahrain must now be prepared to take a leading role in building his country, in all fields, as leader, innovator and worker. New education must unfreeze resistance to change and open the mind for new ideas.

This new role does not however require more expenditure on education or the purchase of new equipment. Meaningful educational experience can be carried on even in the classroom, where modern equipment is limited. The answer lies within the suggested model "The Process Model" of curriculum.

The dependence on rote memory must give way to problem - centred learning in which the student is stirred to develop his ability to think. The student must be set free even required to participate in his own learning. He must work for his education, relieve the pursuit of knowledge, dig for his new understanding. His power to think cannot be fully developed on a diet of pre-digested textbooks and lectures.

## The Cultural Relevance for the Process Model
(Social and Political Implication)

The most thorough and systematic treatment of the influence of the school organization and value system on its curricula organization of knowledge is that of Bernstein[13] (1977). He argues :-

> "How a society selects, classifies, distributes, transmits and evaluates the educational knowledge it considers to be public, reflects both the distribution of power and the principle of social control."

In his argument on 'classification and framing of educational knowledge', he has introduced two concepts, namely 'classification' and 'frame'. Classification refers to the degree of boundary between contents. Frames refers to the degree of control. that teacher and pupil possess over the selection, organizations and passing of knowledge, transmitted and received in a pedegogical relationship. Bernstein[14] (1977) asserts :-

> "when classification is strong the boundaries between different contents are sharply drawn.. .. strong classification creates a strong sense of membership in a particular class and so specific identity. Strong frames reduce the power of pupil over, what when and how he receives knowledge, and increases the teachers power in pedagogical relationship. However, strong classification reduces the power of the teacher over what he transmits, as he may not overstep the boundary between contents and strong classification reduces the power of the teacher vis-avis the boundary maintainers."

Bernstein[15] (1977) has also pointed out that the strength of classification and the strength of framing can vary independently of each other :-

> ".... it is possible to have weak classification and exceptionally strong framing, consider programmed learning. Here the boundary between educational contents may be blurred (weak classification) but there is little control by the pupil (except for pacing) over what is learned (strong framing) ... Frames may be examined at a number of levels and the strength can vary as between the levels of selection, organization pacing and timing of knowledge transmitted in the pedagogical relationship".

The distinction between classification and framing of educational knowledge made by Bernstein has the merits of drawing our attention to the connection between curriculum organization, its transmission, evaluation, and some of the social and political implications resulting from it.

It has been posited by Bernstein that to move from strong classification (acurriculum in which subject boundaries are fixed i.e. 'collective code') to weak classification (a curriculum in which the boundaries are wide i.e. 'integrated code') is one aspect of a more general trend in education towards 'open' rather than 'closed' schools ; from education in 'depth' to education in breadth' with a corresponding move from 'closed'

society to an 'open' society, from 'mechanical' society to organic solidarity, Bernstein[16] (1977) argues :-

> "Where the forms of social integration was mechanical, the community would tend to become sealed off, self enclosed and its boundary relationship would be sharply defined, inside and outside would be clearly differentiated. These notions can apply to changes both within the school and its relations to the outside ...
> ... education in breadth arouses fears of the dissolution of the principles of social order..
> .. education in breadth weakens authority systems or renders them pluralistic."

Bernstein has delineated the problems which may arise from integration in a hierarchically organized institution. Integration which is the subordination of previously insulated subjects or courses to some relational ideas, which blurs the boundaries between subjects will result in far reaching changes in the social settings.

When subject boundaries are sharply maintained the organization of the institution remains firmly in the hands of the head and the heads of the subject departments, indivual staff members are for the most part only involved professionally within their departments. Thus strong subject loyalties are maintained. A move towards an integrated code will challenge this loyalty, threaten the department base and therefore materially alter the relationship between teachers, since they must now learn to work together across subject departments. This in turn is likely to lead to changes in the hierarchy of the institution and a major shift in its power base as Bernstein [17] (1977) argues :-

> "Now the integrated code will require teachers of different subjects to enter into social relationships with each other ... this changed basis of the relationships, between teachers or between

> lecturers, may tend to weaken the seperate hierarchies of collection ... Thus a move from 'collection' to integrated codes may well bring about disturbances in the structure and destruction of power."

Bernstein's analysis on how the selection and transmission of educational knowledge can affect the authority of the system in school and society is the main factor that has influenced my opinion in favour of a subject-based curriculum. The fact that the society in general and the school in particular is organized on a hierarchical pyramid of authority relationship in Bahrain together with the centralized system of education we have, forced its way on the direction and the shaping of curriculum.

However, with a process model of curriculum it is unavoidable to adopt relatively 'weak framing' curriculum. Thus this suggested 'Process Model' will be a 'Subject-based, inquiry method' approach, This shift from the traditional approach to inquiry based also has its consequences on the teacher, but this should be tolerated within a certain limit in the interest of achieving meaningful learning process.

Bernstein[18] (1977) has alerted us to the shift in the new authority relationship between teacher and taught :-

> "Now for the change in pedagogy. There is a shift from a pedagogy which was concerned with learning of standard operations tied to specific context - to a pedagogy which emphasizes the exploration of principles. From schools which emphasizes the teacher as a solution-giver to schools which emphasize the teacher as a problem-poser or creator, such a change in pedagogy ... alters the authority relationships between teacher and taught ... The pedagogy now emphasizes the means whereby knowledge is created and principles established, in a context of self-discovery by the pupil. The act of larning itself celebrates choice".

However, this new shift in the social relation of education, i.e. the shift to the new authority relationship between teacher and taught is much likely to extend beyond the schools boundary to correspond to the social relation of production i.e. to factory and to society at large. Thus the new social relation would tend to be less subservient to strict authority orders. The new product of education (i.e. students), now are expected to be able to think for themselves, offer alternative solutions to a problem and therefore would be less dependent in others for their decisions and subsequent action.

So, unless the society at large is sympathetic with the new generations way of perceptions, a conflict may arise between the social relation of education and that of production. Thus the fundamental question is whether the Bahrainy society would accomodate this new social relationship.

The Historical Background of Bahrain :

Before attempting to discuss the educational climate in Bahrain it is important to give a brief review of her historical background, as this is directly related to her present civilization.

The State of Bahrain consists of six small islands, the largest is Bahrain itself, which is about 30 miles long from 8 to 10 miles wide. The total inhabitance of the State is 250,000 (in 1971)[19] which makes it one of the most densely inhabited countries in the Middle East ;

> "The 1971 Census showed that some 22 nationalities were living in Bahrain. The Bahraines themselves represented (82%)[20] of the population"

Lacking the vast wealth of some oil-producing neighbouring states with the availability of man-power and the educational standards have made

Bahrain the most socially advanced state in the region, and a logical centre for many of the industrial and educational plans devised for the region as a whole.

Although newly admitted into the United Nations organization as a fully independent state (1971), Bahrain was not herself a new country as James Belegrave[21] wrote :-

> "She had existed for thousands of years as an identifiable unit and had an impressive civilization at a time when the Americans had not been discovered and when the British Isles were mystry - shrouded islands on the perimeter of the known world whose inhabitance lived in extremely primitive conditions".

The democratic nature of the new independent state is reflected in its consitution which was debated by the constituent assembly whose membership included elected and maintained members together with the members of the cabinet who served ex officio.

> "The elections for the constituent assembly were held on 7th December, 1972 and the assembly held its first meeting on 16th December, 1972 and completed its discussion in the Summer of 1973"
>
> (James Belegrave,1975,p.18)

The extent of democracy enjoyed by the people of Bahrain is stated in her constitution[22] :

> "The system of government in Bahrain is democratic under which sovereignity lies with the people, the source of all powers."

Democracy is well represented in the decentralization of power in the country which means that more and more people have a share in government. Top administration is as much in the hands of department directors as ministers and they represent wide sectors of the population, it is indeed from a

democratic point of view that I took this initiative to suggest a process model in Bahrain. This initiative is further supported by Stenhouse who emphasizes that under the traditional approach to teaching, the sheer emphasis on acquisition of knowledge teaching becomes non-democratic because students are inhibited from their creative thinking. Stenhouse[23] (1977) argues) -

> "Democracies cannot justify the suppression of knowledge and if they consider doubt to be the beginning of all knowledge, they must positively encourage occasions for doubt. A reliance upon knowledge rather than hallowed belief, becomes the central, all-embracing value".

The Educational Climate for a Process Model in Bahrain :

The longest established and most sophisticated educational system in the Gulf has made Bahrain the powerhouse of intellectualism in the region's rapid development process.

Appendixes 'A', 'B' and 'C' show a brief chronology of the educational system.

The first primary, Madrast al Hidaya-alKhalifiya was opened in 1919 by a voluntary educational committee which received annual grants from the government. Nearly half a century before formal education was introduced into neighbouring states ;

> "The Hidia Khalifiya School is famous throughout the Gulf for not only did it provide schooling for the first generation of educated in Bahrain but also for their contemporaries from Kuwait, Saudi Arabia and elsewhere in the Gulf, who came to Bahrain to study".
>
> (James Belegrave,1975, p.24).

The (I.H.T)[24] Europe's daily newspaper wrote :-

> Many senior government officials throughout the Gulf States - including Ghazi Ghosaibi, minister of Industry and electricity in Saudi Arabia and Issa bin Ghanem al Kuwari, minister of Information in Quatar - received their basic schooling in Bahrain

Until 1971, (68.5%)[25] of the Bahraini nationals between the age of 10 to 29 years had had their basic education. Today (95%)[26] of eligible children regularly attend school

> "In 1975-76 there were 99 primary and intermediate schools with a total enrolment of 5,284 pupils and 13 general sec schools with an enrolment of 7,154 students. The two secondary technical schools train 711 students, in addition to ordinary Sec.Schools with an enrolment of 934 students in 1975-76"
>
> (Educational Planning, Restricted Terminal Report UNDP/BAH/73/011, p.5).

In 1977-78 a third technical school was created to cater for 500 students. The four commercial sections were also amalgamated in a unified commercial school in 1977.

Higher Education in Bahrain was provided until 1977 by two teacher training institutes which used to offer courses of two years. These two institutes were amalgamated in 1977 into a University College of Arts, Science and Education. Until 1975 (73%)[27] of primary and intermediate school teachers had received teacher training either through teacher training institutes or through in service training.

By 1977 (90%)[28] of the primary and intermediate school teachers for boys schools were Bahraini. The percentage goes even higher in girls schools of which 98% of female teachers were Bahraini. The percentage in intermediate schools for male and female drops only minimally. In Secindary Schools however the proportion of the Bahrain teachers to

to non-Bahrainy is nearly reversed, with high proportion of non Bahraini teachers. This is mainly due to the drop-out to qualified Bahraini teachers from the teaching profession. This ratio is constantly improving since the cadare of payment for all teachers has been improved.

To contain the problem resulting from a shortage of teachers in Secondary School the Ministry of Education has adopted a long-term policy for employment. This kind of policy has provided schools with a very stable and successful manpower supply.

From the preceding analysis of Bahrain's historical and educational background, it appears to be quite obvious that Bahrain has a most appropriate climate to adopt and adapt the process model under current discussion.

A sense of history, coupled with the longest established educational system in the gulf region has endowed Bahraini people with flexibility and adaptability unique in the region. Bahrain now is the centre for education, business, industry and various economic developments for the whole Gulf states. Furthermore business people of different nationalities working in the Gulf area seem to prefer Bahrain for their residence. The social life in Bahrain together with the geographical position Bahrain enjoys are among many others factors that contributed to their preference. This new social development in Bahrain is likely to push the Bahraini society furthermore toward an open society which is characterized by Bernstein as organic solidarity - one in which the form of social integration is organic that is a society which is pluralist, tolerating many different value systems, in which social roles are achieved. The positive response by Bahraini people toward more open society however, does not conflict with our Muslim beliefs. On the contrary Muslim religion suits all the

ages, and has wide interpretations. It is obviously the people who must learn how to interpret it correctly.

Bernstein has further argued that a move toward more open society should be accompanied by a move toward more open schooling, so that the change in the society is adequately reflected in school curriculum.

A process model for Bahrain thus becomes a necessity to prepare the young to cope with social changes in Bahrain.

The Need for Deliberate Change :

In fact the move toward less strict authority relationship has already taken place in schools in Bahrain, but this initiative has come largely from students themselves. The new generation have shown very strong resistance to the Authoritarian method of teaching and insisted on more affective and personal type of education. This fact has been reflected by students in many primary and secondary schools where teachers and head-teachers have been heavily attacked and in some cases been beaten up by their students. Furthermore, most educated parents in Bahrain feel strongly toward their childrens demand for more affective and more personal types of education. For example, there were some instances in my school (where I was headmaster) when parents have strongly condemed the school for punishing their children. This new parental attitude towards their childrens' education is very different than that adopted by their ancestors, it reflects the new authority relationship between parents and their children at their homes. The strict authoritarian method of keeping discipline at home has given way to more flexibility based on confidence. Parents in Bahrain now tolerate and even encourage their children to be more free and less subservient to strict authority systems. Bahrain people are now aware

that strict authority systems may have very serious consequences on their childrens way thinking, it can damage their spirit of innovation and leads to failures in self competence. However, this parental attitude toward more open schooling is not a new one. In fact it is inherited from generation to generation throughout the Arab history. Ancient Arabs used to encourage their children to be more courageful and more brave in facing the reality of any situation. Arabs were very famous for their philosophical, psychological and sociological understandings. Their famous poems which were written two thousand years ago have reflected their deep understanding in those fields of knowledge. Furthermore the great prophet Mohmed urged his followers to be less authoritarian in their approach to their subordinates. This recommendation is well emphasized in out holy book the Koran that Muslim religion is based on democratic systems :

"Your matters must be debated among you"

It is therefore clear that docility and obedience to strict authority orders was not originated in 'Islam', rather it has been imposed by force on Muslim societies by foreign agents.

Further support for the creation of alternative approaches to the present curricula comes from the work of the Ministry of Education itself.

In 1978, the Ministry of Education formed a sub-committee (of which I am proud to be a member) to obtain relevant information about the recent curriculum from all the people concerned (i.e. students, teachers and parents). when the received information was analyzed, it revealed much of the weakness of the present curriculum

Teachers, students and parents have unexceptionally expressed their concern about the weakness and irrelevance of both the content and the methods used in present curriculum in meeting with the demands of the new age.

Table 1 shows some of the chosen results from a questionaire which was put to secondary school students :

TABLE 1[29]

| Statements No | Students responses% | | |
|---|---|---|---|
| | yes very much | yes a little bit | Not at all |
| 1 | 35 | 59 | 6 |
| 2 | 37 | 46 | 17 |
| 3 | 31 | 51 | 18 |
| 4 | 34 | 46 | 20 |
| 5 | 36 | 50 | 14 |
| 6 | 23 | 43 | 34 |

Statements readings (translated) :

1 : Secondary education prepares me to acquire continuous learning.

2 ; Secondary education endeavours to help me achieve committment in my Moslem belief.

3 : The present curriculum contains up-to-date modern knowledge.

4 : The present curriculum is relevant to social and cultural needs.

5 : The curriculum suits my stages of development and interests.

6 : The curriculum is packed with non-useful knowledge.

Parents were also asked in a similar questionaire, whether the present curriculum contributed toward committing the students to : their Moslem belief, their continuous learning, to proper conduct and acquisition of skills.

However when the mathematical mean to those questions were calculated it was found that only (46%)[30] of the parents thought positively toward the present curriculum.

Further and the most convincing evidence for the necessity of an alternative approach to curriculum development derives from the criticism made by Al-Muhry the Director of General Education (primary, intermediate and secondary general education) on the present model of teaching.

In his paper 'Problems in Education in Bahrain' (1973), Mr. Al-muhry heavily criticised the present model of teaching when he[31] wrote :- (translated)

> "under the present model of teaching, the teacher is reduced to the status of worker with little control over the curriculum, his creativity is completely frozen and teaching has become an act of depositing, in which the students are the depositories and the teacher is the depositor - the sole aim of teaching and learning becomes acquisition of specific information in specific time. No regard is being paid either to students understanding or to the acquisition of new experience".

Statistics indicate that the drop out among primary and intermediate schools students is considerably high. In 1975-76 the number of boys were (660)[32] i.e. (2·8%) of the intake. The main reason behind the drop out as was emphasized by (75%)[33] of School Headmasters was due to failure in examinations. The fact that when students fail their examination they have to chose between leaving school or repeating their class, has contributed to the high drop out in schools. Those who repeat their classes are usually labelled as failures and in the long run may leave school as well. This problem is faced by (20%)[34] of students every year, worse still in the present education law in Bahrain which insists on the dismissal from school of students who fail for two successive years. This inhibits students from the benefits of education.

In the process model of teaching however students especially those in the Primary school are not threatened by grades or by the anxiety of passing certain specific tests, when learning is not viewed as a means towards an end it becomes more productive because the anxiety felt by students and the limitations imposed by examination are removed. Education thus becomes an open-ended activity which promotes a desire for learning to learn. This is infact the sole aim of Education. John Dewey[35] (1966) wrote :-

> "The criterion of the value of school education is the extent in which it creates a desire for continued growth and supplies the means for making the desire effective in fact ... The educational process has no end beyond itself, it is its own end."

Thus a Process Model, subject-based inquiry method approach can be a major reform in the Bahrain system of education. It will contribute significantly to the development of its people. Since the progress of a nation depends first and foremost on the progress of its people, progress in one is limited without the progress of the other. Unless it develops their spirit and human potentials it can not develop much else - materially, economically, politically or culturally.

Progress and modernization demands from school more than knowledge and technical skill, it demands developing a new spirit of adventure and innovation as Hanson[36] (1964) asserts :-

> "First and foremost, the schools of the nation must foster a spirit of innovation in their students - a desire to try out, to experiment to create. Progress is never made by standing still but by developing the new".

Education must help the citizens of Bahrain meet these demands. That education must take place in a realistic setting, full of actual problems and meaningful educational experience.

Formal education must now shoulder its share of the work of national development. It can not stand apart, educating people for a world which really no longer exists, it must lead, pointing youth to the new attitudes, skills and competencies which are required in this new age. Most of these qualities are found in the proposed model which aims to create intelectuals who have great desire for learning to learn and and continuous improvement.

# C H A P T E R  111

## CURRICULUM DEVELOPMENT

The Process of Innovation :-

Before attempting to discuss the factors that are involved in implementing the proposed model of curriculum it is important to analyse the situation in which the new model is expected to work.

Bahrain has a centralized system of education vested in the Ministry of Education which has formal control over all decisions regarding the curriculum.

The official working programme which all schools are supposed to follow goes into fairly descriptive details which prescribe syllabuses, number of time-table hours to be devoted to each subject, textbooks, visual aids to be used and all other responsibilities that are connected with educational matters. The headmaster or head teachers is expected to manage his school according to these prescribed rules and regulations laid down by the Ministry.

When minor changes are desired say in the syllabus or the number of periods needed for a subject, these have to come from the top down and not from the bottom up. Furthermore the head teacher of a school is not expected to ask for such changes in a direct manner.

In this educational system, examinations play a major role, schools and their staff compete for the highest student pass rate in the end of the year examinations. Examination is seen by the Ministry of Education as the control mechanism and schools are expected to conform to strict methods and procedures in order to fulfil the requirement laid down by the Ministry. The success of the school will depend mainly on student achievement in the end of year tests. This notion has made the scope of evaluation much narrower than the scope of educational objectives.

However, the creation in 1975 of the post of Assistant Undersecretary, for planning curriculum and cultural relations has contributed significantly to the development and improvement of traditional schooling. Examinations now sample the whole year's work and emphasize more understanding than before. Efforts to improve the present curriculum are still continuing on all sides with the help of UNESCO experts and advisors.

Factors Involved in Innovations :-

Ray Bolam[1] (1975) has distinguished four major factors that are involved in any curriculum innovation process, namely, the change agent, the innovation, the user system and the process of innovation overtime. The first three factors interact with, change and are changed by each other during the process of innovation over time.

i) In general terms the change agent or change advocate may be apart of the user system i,e. individual teacher, head-teacher or advisor in the same school. The most important characteristic of the change agent as far as innovations are concerned is its authority relationship with the user system i.e. administrative status or otherwise. However in this specific situation the change agent would initially be the proponent of the proposed model later on, when it is accepted by the Ministry, the Ministry itself will assume the role of change agent.

(ii) The user : this is the system which is either inventing or adopting an innovation or is being aimed at by a change agent, i.e. schools or colleges etc.

The second dimension of the conceptual framework is a time dimension. A number of writers have stressed the notion of innovation as a dynamic, social process which takes place over a period of time during which the innovation may be redefined and modified as a result of that social process.

The preceding analysis of the four major factors (the change agent, the innovation, the user system and the process of innovation overtime) helps us to appreciate the complex problem involved in the innovation process. This complex problem has been recognized by Stenhouse[2] (1977) when he argued :-

> The central problem of curriculum study is the gap between our ideas and aspiration and our attempt to operationalize them."

It is this complex problem that unless it is well planned and well studied will result in the division between the official and the actual curriculum, the ideal and the real, the formal and the operational.

This is a problem which occurs nearly everywhere because the educational system differs greatly from any other industrial or commercial profession as Raymond Williams[3] (1971) pointed out that :

> "Education is not a product like cars and bread but a selection and organization from the available knowledge at particular times which involves conscious or unconscious choices".

The nature of work of schools is very different from that of industry. The goal or desired end which the school aims for is far more complex in terms of input - output considerations. Education as suggested earlier, involves change in students : morals, attitudes, values and understandings all of which are not measurable in an absolute sense. Predicting in advance the

committment of teachers and students to their respective work is far more demanding than predicting say the quantity or quality of out-put in industry.

Barriers to Innovation :

Perhaps the first question likely to be asked by members of a user system (initially the Ministry and later sub-school systems) about an innovation would be to do with its relevance. Their attitude or response to the innovation will depend upon thee extent to which they consider it to have some relative advantage over their current practice (Rogers and Shoemaker[4] 1971), upon its competitive strength against other innovations or activities requiring less resources and finally, upon its feasibility within a particular organizational context.

The answer to all these questions may well turn upon considerations of the magnetude of any particular innovation. This dimension would include several sub-dimensions : the scale of change involved i.e. major or minor change, the extent to which it can be experimented with on a limited basis, the extent of its complexity and its observability i.e. the extent to which others can observe it in action or observe its results and ideas.

Other critical factors to be considered by the user are the normative factors like the perceived compatibility of an innovation with the existing values and practices in a user system.

Consideration of the above factors by the Ministry will have direct bearing upon whether it decides to accept or reject the proposed model.

At the school level the barriers to innovation would be in the extent to which teachers and head-teachers perceive their new roles. Curriculum change is one aspect of social change and as such it experiences that tendency of all institutions to resist innovation. The reason that schools resist the change is quite obvious, teachers and head-teachers have been trained in certain ways to teach certain subjects or by certain methods, so that there is a strong tendency for them not to welcome changes which are so great that they will be required to start from scratch to learn new techniques and in addition to this they may lose the security of working within a subject or a set of techniques with which they are familiar and in which they are confident of their knowledge and abilities. The same is true especially in centralized systems of education, Of those who leave the classroom and the school to join the ranks of the inspectorate or other advisory bodies. Great changes in the curriculum or in the approaches to teaching mean that they will know less about what is going on and have less relevant experience than those whom they are supposed to inspect or advise.

Furthermore change from the objective model of teaching to a process model would be conceived by the user system as a major change toward more open schooling with its consequential effects on all participants i.e. the Ministry itself, the school and its staff, the students and parents and finally on employers.

In the past the role of education has always been seen as solely within the context of integrating youth smoothly into the society, this function is refered to by Giintis and Bowles[5] (1977) as the corresponding principle. However the role of the process model would assume more than correspondence or smooth integration into the society this new model

is likely to introduce the students to a new way of thinking together with a new way of behaving. Thus at the ministry level the use of examination as an appraisal system for controlling the working procedure has to be reconsidered and a new appraised system must be found. More freedom for the teacher has to be granted and more complex evaluation of students or school outcome has to be introduced. These new demands on the ministry of education may be perceived by some members as not in their favour. Therefore negotiation among all those involved has to take place before authority is granted to vary the standard curriculum.

At the school level the process model will demand a different authority relationship between the teacher and his student than that familiar in the objective model. As it has been poised by Bernstein moving from a 'strong framing' curriculum to a weak framing curriculum is moving toward a more symmetrical authority relationship between teacher and taught - a relationship between two equal active partners each seeking meaning. This new situation is likely to upset the teacher who will be responsible for implementing it.

It follows that unless teachers are committed to the innovation, the gap between the formal curriculum and the operational one is inevitable.

Furthermore this new pattern of authority relationship between teacher and taught is likely to extend beyond the boundary of the school to other spheres of life i.e. to family and employment relationships. Hence employers are also important members of the user system, their opinions regarding the impact of innovation on their businesses have to be taken into consideration. The answer from employers will depend perhaps on their perception of the advantages and dis-advantages resulting from such innovation. They will probably weigh the major variables like students initiatives and

understanding against docility and respect for authority.

Thus, unless the society at large is well prepared to move concurrently into this new relationship, the school work and pattern of social atmosphere will conflict sharply with the demands of the society.

Nevertheless, as I have mentioned earlier in this paper that Bahraini society is moving toward a more open society, toward more pluralist society which embraces different class levels among its population - the educated, the middle class and the working class. Educated people may be found in upper and middle and working classes. Now everyone of these classes of people will view the innovation differently. For example the educated will think positively toward the innovation, while the working class may view it with indifference to their life style. The working class usually prefer stricter control over their children's learning. This view is supported by Giintis and Bowles[6] (1977) when they argue :

> "working-class-parents seem to favour stricter educational method is a reflection of their own experience".

This view however has helped us to identify the locations where the process model can be given the initial trial. The most conducive places where this model can be given its initial trial would therefore be in localities where the educated people form the majority. Their support and encouragement through public media would be most vital for its initial success. Two or more schools in various localities should experiment with this model for the purpose of cross evaluations of the results. Furthermore this experiment has to be evaluated by more than one seperate team of evaluators to insure a wider perspective from the point of view of its workability and its effectiveness.

Where two or more innovatory schools are working in parallel, opportunities exist for the innovators to share with one another ideas about details which might be included in the innovation, in this way each helps the other to improve the quality of its own innovation.

Once the initial trial has achieved some success the model would be introduced gradually at a national level. At this level of implementation however, a fundamental tension will arise between the pace at which the innovation takes place and the stability of the institution in which it is implemented. Thus unless a sensitive balance between those two factors has been maintained, a conflict will arise which may significantly disrupt either of them.

Innovation Strategies :-

According to Benne and Chin[7] (1969) the change agent may have access to a number of innovation strategies namely :-

a) Power-coercive strategies which involve the use of legal or administrative powers to implement the change. This strategy can only be used by government officials.

b) Empirical-rational strategies which assume that men are reasonable and will respond best to rational explanation and demonstration. Typically they involve the use of education training and publication to disseminate knowledge and research findings.

c) Normative-re-educative strategies assume that effective innovation involves changes of attitudes relationship values, and skills and, therefore the activation of forces within the cleint system. They typically involve a constant change agent who works in co-operation with a client system and uses behavioural skills. The 'T' groups are one characteristic of the many techniques used in this strategy.

These strategies are however only arbitrary and rarely exist in their pure form in any attempt at innovation. This is because innovation frequently requires changes in both curriculum and organization and innovators frequently employ a combination of all the three strategies to achieve their task.

Miles[8] (1965) notes that one-shot innovations are unlikely to be effectively adopted in schools if the schools are not receptive to innovation by being in a good state of organizational health. In summary the organizational health of the school is to a large extent the function of the manner in which the head teacher performs his role.

The head teacher is then in a strong position to initiate innovation, but he has at his disposal only his own skill in using administrative strategies, with the persistent danger that he will inhibit the acceptance of innovation or achieve the form without the substance, if he mis-perceives the situation or lacks appropriate leadership skills. Therefore innovation will need to be planned by the change agent before it can be implemented.

Eric Hoyle[9] (1970) has argued for two main requirements before the change can be implemented. First technical organization which involves the concurrent change of people. Secondly, there is a need for social units, intermediate between the research and development unit and the target system (schools) which would be concerned with improving receptivity to innovation.

Changing people means re-training the school staff to the requirements of the new mode. Training will include :

a) Knowledge e.g. about curriculum methods, pupils, aids, etc.

b) perceptions, e.g. of the expectations of colleagues administrators, parents i.e. the new relationship between and within the user system.

c) Attitudes, e.g. towards educational objectives, organizational means, proposed change.

d) Aspiration, e.g. with respect to future status, salary, professional qualifications.

The function of change agent is to clarify these for the individual, convert them into data for group discussion, point out discrepancies etc.

Further support from the change agent will include :

a) Temporary systems geared to problem solving such as a weekend conference.

b) Role workshop in which the incumbents of a particular role meet to discuss problems attaching to the role.

c) Courses, lectures, seminars, tutorials and workshops, which provide the organization member with knowledge which is relevant to proposed changes in the curriculum method, techniques or organization.

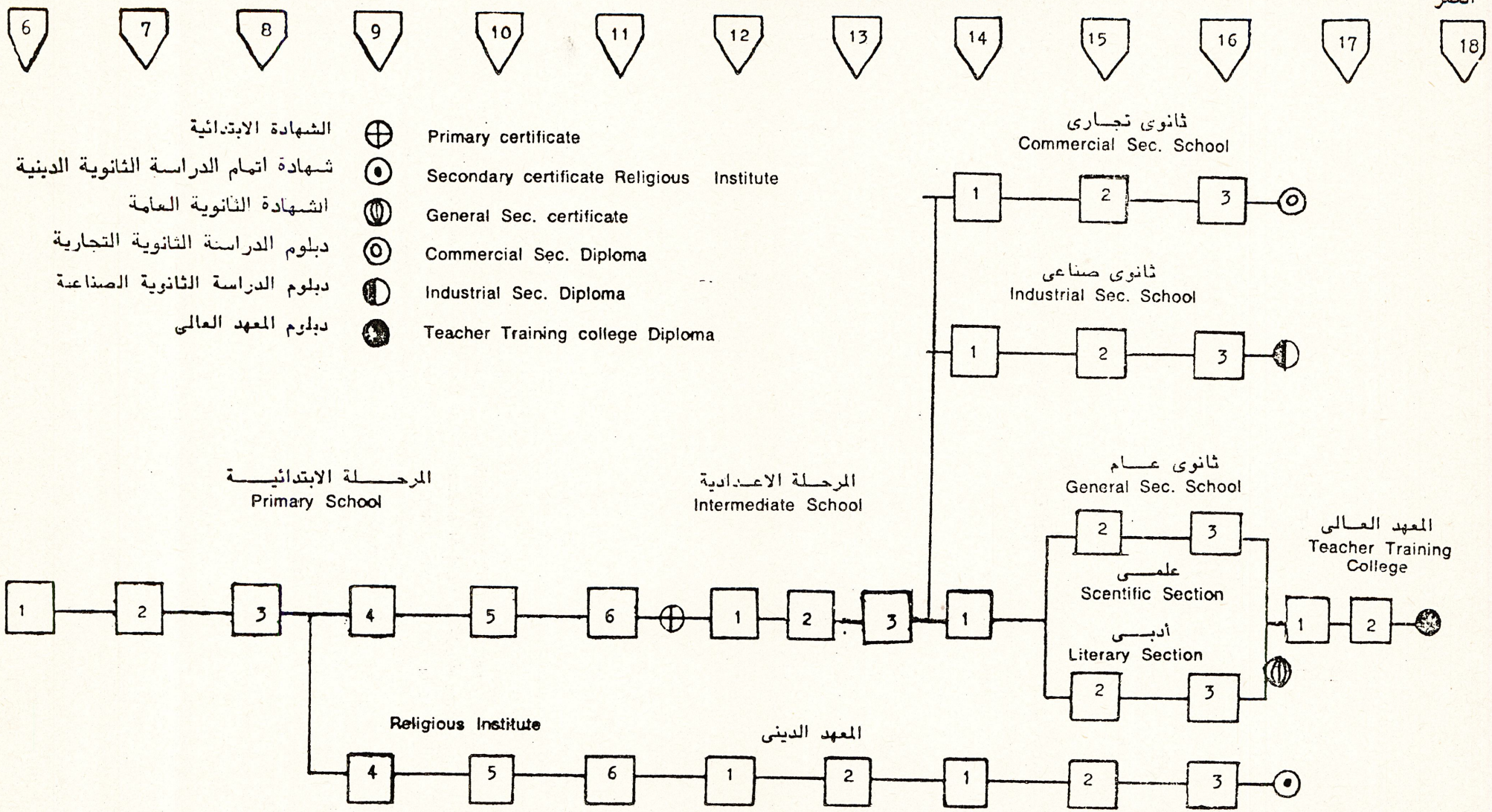
d) Programmes of reading designed to provide knowledge relevant to proposed changes in the above areas.

Finally the change agent has to provide the skill and re-sources needed by the innovation.

# A P P E N D I X E S

## 'A' 'B' 'C'

# السلم التعليمى فى البحرين
# EDUCATIONAL LADDER IN BAHRAIN



## EDUCATION

### BRIEF CHRONOLOGY :

1919 the first primary school for boys was started.
1928 The first primary school for girls was started.
1928 The first group of students left Bahrain for higher education on Government scholarships. (to A.U.B.).
1929 Schools were put under direct Government supervision..
1936 The first industrial school for boys started.
1936 Adult education was started.
1939 The first secondary school for boys was started.
1943 The first religious school for boys was started.
1951 The first secondary school for girls was started.
1961 Separate intermediate schools were started, between primary and secondary levels.
1966 The first teacher-training college for men was started.
1967 The first teacher-training college for women was started.

### SYSTEM :

Education is free in all its four levels; primary, intermediate, secondary, and higher education. Adequate places are being prepared for all new students who have reached the school age, normally six plus.

Organisational Structure of the Ministry of Education:

Educational is administered and planned by the Ministry of Education. The Administrative Organisation structure of the Ministry of Education included the following units:

1. Directorate of Educational Planning.
2. Directorate of Curriculum, School Books and Audio-Visuals.
3. Directorate of Cultural Affairs and Scholarships.
4. Directorate of Evaluation and Examinations.
5. Directorate of General Education.
6. Directorate of Technical and Vocational Education.
7. Directorate of Physical Education and Scouts.
8. Directorate of Financial and Administrative Affairs.
9. Directorate of Museums and Archaeology.
10. Super-intendancy of National Libraries.
11. Super-intendancy of Public Relations.

Each of these units consists of several specialized divisions to carry out the varlous aspects of educational administration.

### EDUCATIONAL LEVELS :

**A — Primary Education:**

The legal age of admittance is six plus and the level extends to a study period of six years. The first three are spent in learning elementary subjects, and promotion from one class to the next one is determined by a minimum attendance percentage of 75. In the remaining three years, wider subjects are introduced including the school language (English) together with Geometry, History, Geography, Scienced and Hygiene. According to the results of the final examinations, promotion or repeating is determined.

APPENDIX 'C'

**B. Intermediate Education:**

The Duration of Study is 3 years . The Curricula includs general Subjects, theorotical and Practical . After completing this division, of Student has the choice to enroll in the general, the commercial and the technical sections at the Scondary level.

**C. Secondary Education:**

Here, students spend three years majoring in their desired fields. It is divided into:

(1) **General:**
Arts, science, and mathematics are taught in the first year while in the remaining two, students are grouped by choice in two branches: scientific, and literary. Both lead to the Secondary General Certificate. Top students are granted Government scholarships for further education abroad.

(2) **Commercial:**
It was originally founded to meet the needs of the Government departments and the commercial sector of the economy. Beside the general subjects of Islamic Religion, Arabic English, Mathematics, Geography and Physical Education; Commercial subjects of Book-Keeping, Commercial Arithmatic, Economics, Business Training (Arabic and English) and type-Writing (Arabic and English), are taught.

(3) **Industrial:**
Theoretical and Practical subjects are taught here. Students major in one of the following fields of specialization: Blacksmithing and Welding, Foundry and Pattern Making, Carpentry, Radio and T.V., Electricity, Fitting, and Machine-shop, Auto-Mechanics, Refrigeration and Diesel Engines. Top students are granted Government scholarships for further education abroad to fulfil the need for local technicians.

**D. Teacher-Training College:**

Two exist, one for men and the other for women. The curriculum aim at preparing teachers for the primary and the intermediate levels. Holders of the Secondary General Certificate, Scientific of literary section, can enrol upon a selective basis. However, the need for teachers in the different parts of the country is taken into consideration when choosing new candidates. The duration of studies is two years divided into four seperately-Valued semesters. The curriculum embodies three Main parts:

(1) **General Education:**
Covers the subjects of Islamic Culture, Arabic and English languages, Arab world, Arts. Physical education, Hygiene and Society. These subjects are taught in both the scientific and the literary sections.

(2) **The study and practice of education:**
This is the students field of specialization during the two years of study. It is science and mathematics for science students; and Arabic language and Islamic religion, or English language and literature, or geography and history, or physical education and hygiene, or art, for arts students. Girls can also major in domestic science. Students may major in science or arts according to the Secondary General Certificate they hold, whether it is literary or scientific. Men from both sections however, are eligible to specialize in physical education and hygiene provided they are fit. The same applies to women as regards domestic science.

**RELIGIOUS EDUCATION :**

This is a special type of education and it is embodied in the Religious Institute which has all the three primary, intermediate, and secondary levels. The curriculum of the Institute follows that of Al-Azhar Asharif (in Egypt) with the addition of English language.

**HIGHER EDUCATION:**

Bahrain started sending students abroad as early as 1928 when 6 scholarship students left for the American University of Beirut. In 1977/78 the number of Bahraini students studying abroad was about 2712 students.

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