AN ANALYTICAL-CRITICAL STUDY OF THE KERALA PRIMARY CURRICULUM

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DECLARATION

I, A. Unnikrishnan do hereby declare that this thesis entitled "AN ANALYTICAL-CRITICAL STUDY OF THE KERALA PRIMARY CURRICULUM" has not been submitted by me fully or partially for the award of a Degree, Diploma, Title or Recognition before.

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CERTIFICATE

I, Dr. P. Kelu, do hereby certify that this thesis entitled "AN ANALYTICAL-CRITICAL STUDY OF THE KERALA PRIMARY CURRICULUM" is a bonafide study and research carried out by Sri. A. Unnirksihan. under my supervision and guidance.

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CHAPTER I

INTRODUCTION

INTRODUCTION

Education is in fact nothing other than the whole life of a community, viewed from the particular point of learning to lead that life. So the influence of persons upon one another must result in education of some kind good, bad or indifferent.

If education is described as a preparation for life or for complete living, we may say that the ancient Indian educators have fully accepted this doctrine. But it would have included preparation not only for this life but also for a future existence. The harmony of these two purposes in due proportions has always been a difficult task for educators.

The National Policy on Education (1986) has also described the role of the education as follows:

1. In our national perceptions education is essentially for all. This is fundamental to our all round development both material and spiritual.

2. Education has an acculturating role. It refines sensitivities and perceives that contribute to national cohesion.

3. Education develops man power for different levels of the economy. It is also the substrata on when research and development flourishes which is the ultimate guarantee of national self reliance.

4. In short, education is a unique investment for the present and the future. This is the cardinal principle of N.P.E.

One of the most characteristics of Indian education is the deep relationship between pupil and the teacher. There is no country in the world except only in India, where the responsibilities and opportunities of the teacher are really greater. Effective teaching requires critical thinking, understanding of situations, clearly identifying problems and exploring possible optional solutions.

A teacher should have a powerful grasp of the ways of teaching there by the subject can be taught effectively. Knowledge cannot simply be given to the learner. He must work to make sense of what is offered. In other words knowledge finds its usage through the application of skills.

There is no one way to teach but there are several factors which contribute to the success of a teacher. The purpose of teaching is to help pupil to learn. This is the major objective of school teaching.

Skinner (1968) found "Teaching is the arrangement of contingencies or reinforcement under when students learn. They learn even without teaching in their natural environments but teaching involves arranging of special contingencies which expedite learning hastening the appearance of behaviour which would otherwise be acquired slowly or making sure of the appearance of behaviour which might other wise never occur."

A teacher has an important role in learning of an individual. He can observe the individual and try to understand his present abilities and interests. He can also stimulate and encourage him to explore them further and help to provide further experiences of such a nature, as he can probably use in, satisfying the needs and curiosities which he feels at the moment of learning.

Good teaching is an extremely difficult job. It is exhausting and challenging even under the most helpful and ideal circumstances. Knowledge of subject matter along with the warmth of enthusiasm is an element for instructional effectiveness. Effective instruction needs the accomplishment of all the tasks. Mostly teaching takes place in class rooms. A classroom needs very careful and insightful management

if it is to work in support of learning. Teachers need to know how class rooms work. Teaching also include the measurement of learning experiences in classrooms.

Successful teachers like other artists should also develop their own ways and means of getting results that they aim at what is in common is the desire to inspire and to guide their students to the predetermined goal.

The role of a teacher is emphasized by various Education Commissions and Committees. Education Commission (1964-66) says "Of all the different factors which influence the quality of education and its contribution to national development the quality competence and character of teachers are undoubtedly most significant. Nothing is more important than securing a sufficient supply of high quality recruits for the teaching profession, providing them with the best possible professional preparation and creating conditions of work in which they can be fully effective."

According to Commonwealth Report (1974) "The teacher has a major role in educational development. Whether he approaches his work actively or passively, whether he can influence development adversely by opposing innovations or merely by remaining mute in

the face of a growing need for reform. On the other hand he can participate actively as an initiator himself or as an interpreter of the plane devised by others."

Since teachers are the members of an elite group who can truly change the world, they have to understand and effectively discharge the new roles in the educational system.

Students and teachers work very hard in class rooms but the work often doesn't promote learning. This is partially because children seem to see classroom work on a production line since their goal is to complete their quota on time. Because of their focus on work management they frequently miss the deeper conceptual purpose of their activities. Another reason for the above problem is that, a significant proportion of the syllabus is too easy or too difficult for the children. And some of it is poorly designed and does not require the sorts of efforts which teachers are intended.

The aim of secondary education is not to prepare the educational for higher education but to impart to him certain professional skills which he can employ in order to earn his livelihood, and then raise the standard of economic prosperity.

School is the sole agency of education. Even if an individual does not possess higher degrees he should have gone to school to gain fundamental knowledge of Mathematics and language which is the basis of education.

Schools all over the world are faced with the exacting task of optimising pupil achievement. In the absence of this objective, enormous expenditure on education cannot be justified.

Secondary Education Commission (1952) points out that "The educational system make its contribution to the development of habits aptitude and qualities of character which enable the citizen to bear the responsibilities of democratic citizenship and to counter act all those fissiparous tendencies which hinder the emergence of a broad national and secular outlook "It also points out that the defective techniques of teaching will hinder child's development.

We are now living in an era of knowledge explosion. By traditional methods of verbal instruction it is not possible to keep pace with the development of knowledge.

Good teachers should always adopt dynamic techniques of teaching in which the educand gets the greatest opportunity to be

active. Teaching techniques should be modified according to the intelligence level and psychological needs of the educand.

A teacher should have a basic information about the organization and use of educational technology. A judicious use of educational technology can bring about more efficient and effective learning skills.

Educational technology is the systematic blending, designing, implementing and evaluating the total process of learning and teaching in terms of specific objectives.

The objectives can be achieved through dynamic methods of teaching and application of instructional technology. For this the teachers need to be prepared with appropriate teaching and learning materials.

Now a days educational planners and policy makers, have laid more emphasis on the need for improving the quality of education. It need designing and implementing suitable curriculum at all stages of education and aim at intensive and extensive use of educational technology.

The rapid technological changes have brought about new educational problems. In order to arrest the deterioration in standards the quality of teaching methods should be improved. It is only through

research we can have better educational methods and make curriculum changes to meet the challenges of a highly technical and rapidly changing society.

All normal human beings are born with the hidden potentialities of acquiring language. From an early age, most children are aware that there are rules underlying the construction of what they say, but their ignorance of these rules, handicaps them in formulating new utterances to deal with novel situations. Thus the learning of language becomes an essential haphazard process. This indicates the importance of specific language teaching. Since the language is an essential aspect of every life and that the better command of it, the better our potential for operating effectively within that life.

Instead of learning subjects through languages, subjects are used to learn languages. Minimum competence in language must be a precondition to the study of subjects which in turn enlarge the scale of language learning.

So we can say that the language teacher is imparting a skill or rather a set of skills. Important thing is that language should be taught in a relevant and supportive way.

In the teaching process the achievement of instructional objectives depends on the methods of teaching. Teachers follow fixed ways such as Herbartian methods, demonstration, story telling etc. in the classrooms. But the teachings fail to achieve a variety of instructional objectives for which teaching is designed and performed. Pupils are with different learning style and multi dimensional personalities. This throws light on the fact that the teacher should use the strategies of teaching to match the objectives of teaching and student capacities. Here arises the need for models of teaching.

The perspective teaching strategies which help to realise specific instructional goals are known as models of teaching. Joyce and Weils (1972) transformed prevailing theories and theoretical knowledge into different models of teaching. According to them "Teaching is a complex activity which is a cluster of different roles and responsibilities. A teacher has to master multiple roles in order to become more professional. The professional competence can be expanded in two ways. Firstly increasing the range of teaching strategies that are needed to be employed Secondly by becoming increasingly skilful in the use of these strategies."

The models of teaching is the models of learning. The major role in teaching is to create powerful learners. Hence the duty of the teacher is to teach the students how to learn. For the effectiveness of instruction the teachers should adopt vide variety of teaching strategies.

Researchers have made efforts to identify the strategies or styles of teaching with the objectives of instruction and pupils learning styles. Dann and Dann (1979). Fischer and Fischer (1979), Ellis (1979), Joyce and Weil (1980) also believe that the strength in education resides in the intelligent use of powerful variety of approaches matching them to different goals, and adopting them to the student styles and characteristics

Eggen (1979) points out that a teacher considering the choice of a teaching model first identifies what is to be taught and then select a model in accordance with the goal. The model chosen is specifically designed to achieve a particular set of objectives and will determine the large part of the action of the teacher.

Radhakrishnan Commission, Muthaliyar Commission and Kothari Commission are land mark in education history of India and

worthy to be mentioned. All of them categorically emphasised the need for transforming education for National development. In a world based on Science and Technology. It is education that determines the level of prosperity welfare and security of the people. The educational system though developed and expanded by the British had innumerable inconveniences in the path of its progress.

Providing education facilities to a huge mass was the real problem faced by India at the time of independence. Changes all on a sudden was impossible. The task of educating the public was taken up step by step, stage by stage in a phased manner. The National Policy on Education 1986 is worthwhile to mention here because of the high importance it gave to primary education. Terms like Universal access to education, Universal enrolment, Universal retention and Universal quality at all levels of schooling came to be well discussed in the educational seen of India, even in the schools situated in remote areas after the advent of new education policy. The best formative years in one's life is childhood. That is why, the repeated expression catch them young. It is a known fact that the mind of the children are just like bees wax. It could be shaped and

moulded to the required shape easily. Teachers in primary classes influence the young minds to a very great extent leaving a lasting impression. Primary stage is of paramount importance for the development and building up of character in the earlier stages of education. Primary education plays an important and significant role in the development of youngsters with character and creativity. Education including elementary education in particular is an investment both to the individual and society at large, producing not only huge direct economic benefits but also an immense magnitude of externalities, economic, social, and political.

Curriculum in Primary Schools should comprise an exposure to work experience imparted through manual instruction to the students which will kindle creative impulses in them. According to George Bernadshaw 'imagination is being of creation'. The education being imparted today is purposeless. In devising the curriculum, it seems that the goals set out have been started so as to enable students to appear for examinations and not for their development as truly contributing citizens. While at the macro level it may take decades before one can hope for changes that are needed to bring about meaningful curriculum reform. Given the present

structures that support the system there is no scope whatsoever for innovation in education in the classroom. Innovative reforms commenced in many schools at the classroom level can demonstrate how effective and purposeful curricula devised by them can serve on building blocks for macro level. Curriculum planners to build with confidence on educational system which focuses on the needs of the future.

Opportunities for the development of variety, creativity and originality have generally been withheld primarily; it is suspected to prove a liability on the 'production' line not only in the works sport but also in the classroom. There have been made possible, to a large extent because of fragmented curricula, authoritarian methods and suffocating hierarchy of examination together with the sterile and limited objectives. Having taken stock of the present scenario and being aware that drastic changes are to be brought about if the citizen of tomorrow is to play a global role, effective changes have to be carried out the classroom.

The progress of a Nation depends on many things of which quality education is the most important. Government of India and

State Government have taken up this matter seriously years back. Though a number of measures have been taken up already for the improvement of the quality of education, the probable answer to a question "Are you satisfied with quality of education today?" Is usually a no from the public?

A number of measures were taken up by the government for the qualitative and quantitative expansion of education. The latest in this series is the new curriculum proposed for primary education enlightened and educated public of Kerala have welcomed this curriculum with a critical view. Naturally the curriculum was subjected to in depth studies from different concerns.

The new curricula is a box news in our dailies today since its implementation in 1996. Only a close scrutiny of curriculum will help the researcher to trace out limitations if any and to suggest solutions.

The Researcher is a faculty member of DIET who is very much interested in education especially at primary level. He has gone through the new curriculum being implemented at the primary level in detail.

The present curriculum is undergoing many criticisms public opinion and educational experts of Kerala are totally against the new curriculum. The investigator personally involved in the implementation of new curriculum was interested in comparing the achievement in the new curriculum. Only a close scrutiny of curriculum will help the researcher to trace out limitations if any and to suggest solution. In this circumstances the investigator has decided to evaluate the curriculum prevailing in primary education in the State of Kerala.

STATEMENT OF THE PROBLEM

The present study is entitled as "AN ANALYTICAL-CRITICAL STUDY OF THE KERALA PRIMARY CURRICULUM."

DEFINITION OF KEY TERMS

Analytical

Using methods that help for examine things carefully, especially by separating them into their difficult parts. Analytic approach expressing the elements of a proposition or complex notion by distinct words, instead of combining several with one word

resolving compounds in to their critical elements.

Critical

Given to judging, fault finding, involving or exercising careful judgement or observation, occupied with or skill in criticism.

Primary Curriculum

Concerning the education of children between five and eleven years old in the primary schools in Kerala State. Curriculum is an inclusive concept which refers to all the educational activities of the school in the widest possible sense.

OBJECTIVES OF THE STUDY

The following are the objectives fixed for the present study.

1. To critically evaluate the existing primary school curriculum in the light of its educational objectives.
2. To critically evaluate the contents of the existing primary school curriculum with reference to social and individual needs.
3. To critically evaluate the instructional strategies followed for curriculum transaction.

4. To critically evaluate the role of the teacher envisaged in the existing primary school curriculum.
5. To critically analyse the evaluational system followed in the existing primary school curriculum.

METHODOLOGY OF THE STUDY

In the present study it is proposed to document analysis in order to collect necessary data needed for the study. For this the investigator is proposed to analyse the following documents.

Personal data sheet prepared by the researcher. Frame work designed by the researcher, National Policy on Education Report, National Education Commission Report 1964-66, Secondary Education Report 1952, National Policy Report 1986-1990 and its revision developed in 1990 and 1992. The policy documents of MLL&DPEP.

The investigator also intended to analyse the curriculum frame work developed Government of Kerala and at the national level. As secondary source the investigator is intending to gather expert opinion from educational experts at National and International level. The investigator will also intending to hold discussions with

supervising teacher and other curriculum experts, subject experts, etc. for collecting the necessary data by using the appropriate tools developed for its purpose.

STATISTICAL TECHNIQUES USED

It is proposed to use the following statistical techniques for analysing the data collected.

1. Arithmetic Mean
2. Measures of Central Tendency
3. Dispersion
4. Test of Significance.

LIMITATIONS OF THE STUDY

It may not be a hand felt job to change the present trends in primary education scenario. Induction of teachers friendly handbook, child centred and activity oriented class rooms and scientifically arranged text books can make the job easy.

Instead of imposing managerial function motivational aspects through democratic means can mould the human resource in a substantial way. The study had been limited to Lower Primary Class

I to IV due to several constraints including time. The new curriculum had been implemented six districts with the aid of DPEP and eight districts without any special financial help and hence the researcher concentrated in the DPEP district of the State. As the programme is new the investigator found it difficult to collect related literature preparing to the subject. In spite of all these limitations the investigator will try his best to make the study comprehensive and objective as far as possible.

IMPLICATIONS OF THE STUDY

The present study is very useful in the field of education. This study help us to understand the need of curriculum change and the quality of primary education if any in the primary schools of Kerala state. This study is also designed to find out the present trend of primary education in Kerala.

ORGANISATION OF THE REPORT

In Chapter I Introduction, need and significance of the study, statement of the problem, definition of key terms, objectives of the study, brief methodology, sample, tools, statistical techniques, scope

and limitations, organizations of the report are presented. Chapter II deals with Curriculum: Theoretical Overview. Chapter III Review of Related Literature. Chapter IV refers to the details of Methodology intended for the study.

CURRICULUM A THEORETICAL OVERVIEW

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CHAPTER II

CURRICULUM: A THEORETICAL OVERVIEW

CURRICULUM - A THEORETICAL OVERVIEW

Curriculum, rather than helping define the nature and scope of schooling, has itself become a problem of definition. The standard text on curriculum has traditionally used schooling subjects to define the curriculum arena, or describe activities in the field. School personnel typically think of curriculum as Malayalam (Regional Language) English, Mathematics, Science, Social Studies, Foreign languages, Art and Music, and so on. The programme of studies for students has embraced what educators believe they should teach in a classroom, and what students should learn from texts.

This understanding, derived in part from the long illustrious legacy of the liberal arts, and in part from the formalization of programmes of students as schooling expanded to include all youth, has been consistently challenged in this century by both the numerical increase of formal education everywhere in the world and the accessibility of schooling. But large student population demand more flexible curriculum responses, not more uniformity. Moreover, students who in previous generations have been denied admission to schooling now seek extended schooling opportunities. Thus, girls, the working

class, the handicapped—to name a few—have in recent years been allowed to participate in the benefits of schooling.

Where schooling was once private, with the expansion of industrialization, it has become public. However, the general outline of the programme of studies, the curriculum, has not altered appreciably. The curriculum has persisted in form and content and remains relatively unchanged.

In fact, as schooling expanded in the developing world the industrialized western model of schooling was exported as one of the more desirable commodities. As former colonies and new independent countries acquired the structure of schooling, they also imported the same curriculum content in many cases the same textbooks. When it became apparent that the liberal arts as understood did not necessarily help resolve the problems of subsistence agriculture, the balance of payments, foreign trade, or any of the identified problems of national development, vocational schools, with the assistance of World Bank loans, became the alternative curriculum model for formal education.

The changing work conditions in the modern age should bring about some change in vocational attitudes towards the actual and

potential job market. Thus, vocational programmes should not be just training for specific occupations, but career orientation for a volatile and unpredictable labour force. Vocational programmes—too often viewed as a poor man's substitute to the 'academics' curriculum—should be a part of general education. They have varied little because the ideology for preparing students for the work environment has varied little. It is no longer feasible to expect schools actually to prepare students for long-term meaningful occupations as it once was. The hope has to be that schools orient students to a changing job climate in which, unless they choose a profession, there will be substantive technological advances that will alter jobs and hiring patterns. Vocational curricula also need flexibility in conception and execution.

Unlike medicine or science, where new experiments can dramatically improve life, experiments in curriculum that prepare people for adult intellectual life are generally viewed with suspicion. Under some social pressure, a new curriculum model may be temporarily installed. When it does not immediately improve school conditions, or improve gain scores in student achievement, or satisfy teachers, authorities revert quickly to the former complacency of the traditional design. The traditional curriculum is safe, everyone

seems to understand it, and it does not require uncomfortable adjustments.

Schools teach science, but they do not do science. They do not experiment with new ways for improving both the content and the delivery of the knowledge services. Few education see the inconsistency in teaching the importance of the modern scientific method, and the lack of its application to the curriculum and schooling process. It is not necessary that schools also be research organisations. But it is important that schools be the place where validated experiments can be practised. The curriculum has assumed a kind of diagnostic dignity, because schools do not experiment with curriculum. If the curriculum portends to be the heart of what civilization knows about its past, all available evidence points to the conclusion that graduates of secondary schools are less literate and knowledgeable than previous generations. Students today may be more ignorant about who they are, where they come from, what the world is, and where they are going than ever before. The evidence for this is distressing in the extreme. Schools may be losing the war against ignorance.

Curriculum is a conceptual scheme and a dynamic entity in the school setting. Therefore many educationalists attribute many things

to curriculum. In ancient societies need for curriculum was not acute, because the knowledge to be mastered was limited. But in today's context when the available body of knowledge is enormous and complex the curriculum has a vital role in the field of available knowledge. Educationalist give their own different interpretations of the content and functions of the curriculum. The first concept enunciated by Oliver (1968) refers to curriculum merely as the educational programme consisting of three important elements, namely studies, activities and guidance. The second concept described by Philip Phenin, is based on a carefully thought out scheme of values which constitute the aims and objectives or purposes of education. The third concept given by Taba (1962) looks at curriculum as the functions of the public school. She lists the three functions as preserving and transmitting of cultural heritage, serving as a instrument for transformation of culture and working as a means for individual development.

The many concepts of curriculum enunciated over the past half a century have been classified by many experts.

The curriculum field came to life as a self conscious area of speculation and inquiry early in the 1920's. It proceeded to evolve

and subdivide itself in an orderly way, for forty years. By 1955 it seemed clear that the curriculum consisted of the experiences carried on in school under the guidance of the school officials, that the principal problems had to do with the statement of clear cut, behavioural objectives, the integration of experience, and the question of social relevance and that the gap between the understanding and beliefs of the curriculum leaders and the practitioners was narrowing at a satisfactory rate. None of this was true by the mid 1960's. After 1955 the entire field came under such fundamental questioning that the discourse became scattered, old questions were being asked as if they had not been thought of before and the process of curriculum development had been largely restructured.

DEFINITION

The term "curriculum" had been defined on "all the experiences a learner has under the guidance of the school" (C. Kearney &Cook, 1960). This definition had stood unchallenged for a generation. But Scheffler (1960) representative of the Postwar analytic philosophers, subjected it to an analysis that indicated its severe limitations. He pointed out that the definition of the curriculum as activities in "programmatic", intended to "extend the school's responsibility, hitherto limited to its

so-called formal course of study, in such a way as to embrace the individual social and psychological development of pupils."

Dewey's learning through experience was both vulgarized and popularized. Even when slogans have been taken from formal theoretical statements, they often divert attention from major curriculum problems. Such as the interrelationship of knowledge and meaning or the reading problem it distinguishing between fact and value. They have upon occasion, led the useless dichotomizing "needs not interests" children , not subject matter," and the like.

HISTORY OF CURRICULUM

It can be said that curriculum has a long past but a short history (Tanner and Tanner 1980). Although the concept of curriculum is implicit in the earliest educational prescriptions and programmes of all civilized societies, curriculum as a field of systematic inquiry emerged only during the early 1920's (Foghay, 1989).

Dewey's laboratory school established at the University of Chicago in 1896, and practice demonstration school which opened at the University of Chicago in 1901 exerted a powerful influence in progressive educational thought and practice. The emphasis given to

curriculum unification and synthesis in both schools, consonant with the emerging findings in child development helped the ground work over the ensuing decades for child study and curriculum development as fields of university scholarship. A modern school, by Flexner (1916) orchestrated the theory of curriculum synthesis with the growing recognition of the need to modernize the curriculum in the light of developments in science industry, and aesthetics and the growing concern for democratic citizenship. Flexner's proposed curriculum gave rise to Lincoln school at Teachers college. Columbia University in 1901 through funds from the General Education Board of Rockefeller Foundation. Flexner envisaged the laboratory school as a centre for scientific curriculum research and development, an issue that was a plague the Lincoln school to the point of its demise thirty one years after it opened.

Unlike most works in educational history, which give incidental attention, to the curriculum, Brubacher's A History of the Problems of Education devoted two entire chapters to curriculum history. According to Brubacher, "the almost exclusive theory of the nature and organization of the curriculum from earliest times down to the end of the 19th century was based upon the logical classification of knowledge into subject

matter division under the premise that "objective reality had a logical structure which could be known and stated". Accordingly, "such a view of subject matter naturally made a procrustean bed of the curriculum. The curriculum was fixed in advance. As the child alone was pliable, he was made to conform to it (Brubacher 1966). Although this traditional view of subject matter had been challenged by scholars from the latter part of the eighteenth century through the nineteenth century, it was not until the Twentieth century that emerging knowledge in the nature of the learner, coupled with renascent development of democratic social theory produced systematic approaches to curriculum reconstruction, implementation, and evaluation.

History of curriculum changes from Nation to Nation. In the post war years, education was widely acknowledged to be a vital asset that would bring important benefits to individuals, society and nation as a whole. In particular the promise of secondary education for all held out by education Act of 1944, was accepted universally not as a burden or luxury but as a national investment. As a right shared by all boys and girls upto the age of 15, the new secondary education was an integral part of the welfare state.

CURRICULUM THEORY

Discussions of the definition of "Curriculum," except for Scheffler's have usually been undertaken in the context of attempts to build a theory of the curriculum. A renewed interest in curriculum theory grew out of the curriculum reforms and extension of research activity of late 1950s (Taba 1962, MacDonald, 1963, Bruner 1963). Much of this literature, however, discusses what a theory would be about, rather than actually attempting to state comprehensive curriculum theories (Herrick, Tyler, 1950, Beawchamp, 1960, Maceia and others (1963). This lack of actual theory construction has been attributed to a preoccupation with traditional orientations, means and ends, application of theory from other fields, a common with theory making itself and a preoccupation with language in the Oxford manner (Wann 1966).

CURRICULUM DESIGN

Although "curriculum theory" and "curriculum design" are sometimes used interchangeably, the term 'design' usually refers to the basic organisation and plan for action for developing the scope and the sequence of subject matter. Designs as proposed may reflect a theoretical position, but frequently they are based on a single unitary

principle, e.g.. the structure of the disciplines taken separately, or the nature of society, or the needs and interests of students, taken as clues to the various stages of human development, or the learning process itself. Despite repeated warnings against such single focus designs, they continue to be offered Taba (1962) pointed out once more that such designs tend to emphasize are element at the expense of others equal importance.

DEFINING CURRICULUM

The root meaning of the word curriculum comes from the Latin currare, to run, and refers to the Roman races, sometimes done with horses and chariots, and often in dangerous and life threatening conditions. Some students may feel that schooling, like running a Roman race course, is equally menacing. But in industrialized societies more than ninety percent complete secondary schooling without serious health impairments.

Curriculum writers and theorists are searching for meaning in the study of curriculum through definition. Curriculum has been defined as both content and process, as what is taught in schools, and as the process of deciding what to teach. Other cultural and social

determinants are frequently described under the unhelpful genre of "the hidden curriculum," or as "sources" or "conceptions." It is an unfortunate state for an intellectual pursuit when few can agree on what constitutes the boundaries of the quest.

Definitions range from a written plan to the whole schooling process. The curriculum is a document; a syllabus; a process for developing a plan it is the plan and the execution; it is a system; it is the structure of an undefined discipline. Its real meaning can only be found in social science concepts; society, culture, the nature of knowledge. Phrases like "planned learning experiences," or "a structured series of intended learning outcomes," emphasize either planning or teaching for what the student learns.

Curriculum, moreover, is often understood as synonymous with the organization of the delivery of knowledge: the planning to teach. Schooling knowledge closely parallels the academic disciplines. Curriculum is thus transmitted through the levels of schooling—primary, elementary and secondary—by loosely defined age and grade levels.

At one extreme, the curriculum is what is contained in school textbooks, with additions or deletions regulated by governmental

agencies. Domains of social consideration also assume curricular importance, like safety, sex, drug abuse or multi-cultural education. But in general, the textbook industry, the mandates of government intervention, the organization of the schools, all determine the curriculum, and fix, seemingly unalterably, the curriculum content and process.

Curriculum writers have conceptually separated what a teacher does from what is written. But what if there were no books in school at all? What is the curriculum under such a condition? Like the medieval alchemist, we are in a vain search for a substance which must be fired in a different kind of crucible.

If the curriculum were confined merely to written material, there would be no need for teachers. Schools would hypothetically only need to teach reading, pass out documents, and test for the results. Schooling is obviously more than this; therefore, the curriculum must include the teacher in its definition.

Donald K. Sharpes defines Curriculum as the teaching act. In this definition, the curriculum is not a plan, but the ;plan in action. The curriculum is not a body of knowledge, but someone knowing what to teach. This implies that curriculum is what the teacher does, and what

the teacher knows, and who the teacher is: the teacher's behaviour, knowledge and personality, instruction, how the teacher teaches, is one side of the coin; curriculum, what the teacher teaches, is the other.

The study of the curriculum, however defined, is definitely not a science, not a discipline in the traditional sense, and only possibly an art. It is a part of the study of formal schooling which has traditionally borrowed from other branches of knowledge—philosophy, sociology, anthropology, mathematics and statistics—to conduct its inquiries. Curriculum has no methodology of its own.

Every experienced teacher has examples of teaching a class unprepared, as it were. And yet, often the teaching turned out to be spontaneously good, the extemporaneous encounter proceeding supposedly without a plan. But how can teaching proceed without a curriculum? Or can it be that the combined experience of a teacher, brought to hear in an actual teaching act, is, after all, the curriculum? Donald K. Sharpes believe that it is, and that the leaning of the working definitions about the curriculum towards lesson plans is a misdirected study focus which ignores the crucial role of the teacher in the teaching, not the planning act.

Consider the case of Socrates, revered by educators, and whose phrase "know thyself" is much quoted as an example of Hellenic wisdom. Although we acknowledge his importance to western civilization, his method for eradicating ignorance is not universally followed. Socrates first premise is that most men do not even know what knowledge they lack. The uniformed person cannot give acceptable reasons for assumed knowledge. The first step is to let the individual see how little he understands, and to create a condition of perplexity and doubt. The last step is for the individual land here read, student to reconstruct experiences to justify belief.

It is continuous 'dialogue" which is the essential feature of Socratic thinking. It is the opposite of didacticism, the present schooling method, much maligned but still universally practised. Socrates emphasized the condition of doubt, not certainty. As an afterthought, he was also put to death by the Athernian authorities for corrupting youth with this method.

Now, given this Socratic method of philosophical and educational inquiry, which persisted for over 1500 years in Europe, what would be the curriculum? The plan, if you could call it one, is to eradicate

ignorance. The process is one of questioning, probing, discussing, clarifying. There is no preconceived structure, no set rules governing the discussion. There are questions. Socrates at work, plying his inquisitive trade, is my example of defining the curriculum.

The lack of acceptable or purposeful theory has led curriculum workers to generate goals and objectives, plans and schemes, collections of experiences, the exposition and treatment of subjects and disciplines, even lives to be lived, without benefit of common purpose in research. A curriculum has been considered successful if it delivered and fulfilled its mission on one or more of these practical dimensions. Why then is there not a commonly accepted departure for forming a theory or even definition of curriculum from which experiments might either validate or disprove hypotheses?

Part of the difficulty stems from acceptance of simple definitions rooted in theory. The defining of a curriculum has not been absent from curriculum theory. What is missing is mutual responsiveness to a definition from which experimentation can be conducted. The irony is that curriculum theorizers are running around the professional race course from different starting pens without stop watches, finishing lines or jockeys.

NO COMMON GROUND

James B. McDonald (1975) has perhaps stated the Logjam and impasse as well as anyone. "Curriculum theory and theorizing may be characterized as being in a rather formative condition for essentially there are no generally accepted and clear-cut criteria to distinguish curriculum theory and theorizing from other forms of writing in education.

Bruce Joyce (1971) notes that "...the curriculum field has forced itself to operate within parameters so restrictive that it has been unable to develop strong validated theory and it has been impotent to improve education.

Hilda Taba seemed saddened by what she considered to be the confusion in curriculum theorizing. She characterized chiefly ways of organizing what was to be taught, such as the core curriculum, the broad fields curriculum, and the life experience curriculum. What she proposed and developed in her classic work, Curriculum Development, Theory and Practice was a theory—not of curriculum—but of how to structure activities for learning development.

It is refreshing work, Hugh Sockett (1976), in Designing the Curriculum, characteristics those who develop master plans as utopian. But he does begin his inquiry with the question of what a curriculum is and ends by saying that it is whatever any curriculum writer wants to call it. "When you say, therefore, that this is what a curriculum is, you are simply stipulating a definition; you are saying, in effect, that for my purposes I will take a curriculum to be this. For you cannot say what it is."

For King and Brownell "the theory of the nature of the world intellect becomes the model for a theory of curriculum" (King, 1966). They state further: "There is a field of study in education termed curriculum, and there is a body of literature which might generously he termed theory. With few exceptions in the literature on curriculum, they has been loosely construed, vaguely "philosophical", and by no means "scientific". Saylor and Alexander note that the curriculum is "a plan for providing sets of learning opportunities to achieve broad educational goals and related specific objectives for an identifiable population served by a single school center" (Saylor, 1974).

Philip Phenix describes, in *Realms of Meaning*, essentially a philosophy of curriculum: "...philosophy of the curriculum is necessary. By such a philosophy is meant a critically examined, coherent system of ideas by which

all the constituent parts of the course of instruction are identified and ordered" (Phenix, 1964).

Many proponents, including Brownell, King and especially Phenix believe that the disciplines themselves are the curriculum. It is true the subjects contain meaning and order, and that orderly development and disciplined thinking is the purpose for their instruction. But order and understanding do not exist apart from a understanding mind.

Curriculum books for elementary and secondary schools are categorized nearly always by subjects such as vocational education or special programme like guidance. Inlow's book explores such topics as mentioned health in the schools, creativity and problem solving. Yet even Inlow concedes the supremacy of the subjects or disciplines, following nearly everyone else.

Firth and Kingston define curriculum as "an all inconclusive term with innumerable definitions" (Firth, 1973).

Bruce Joyce and Marsha Weil describe a curriculum as "an educational programme" (Joyce, 1972).

William Pinar has classified the curriculum field into the work of traditionalists, conceptual empiricists, and reconceptualists, relying on the

stimulating work of Jungen Habermas and Richard Bernstein as sources (Pinar, 1978).

Geroge A. Beauchamp in ***Curriculum Theory*** was forthright enough to state that "...in spite of language used about curriculum theory, we have no identified field of curriculum theory nor any basic framework for making one..." Elsewhere he says, "the function of theory in curriculum is a topic that has been neither fully nor carefully treated in curriculum literature" (Beauchamp, 1975).

"A curriculum is a written document.. But basically it is a plan for the education of pupils," states Beauchamp. In another place he notes: "Chief among the problems for the curriculum theorist, however, is the establishment of precise meanings associated with the basic concepts of curriculum... the important term for curriculum theory is curriculum. From a theoretical point of view, it is impossible to develop subordinate constructs, or relationships, with other components of education, until ground rules are laid down through meanings ascribed to the basic term curriculum" (Beauchamp, 1975). What makes the state of curriculum so fragmented is this universally acknowledged lack of a theory base from which to conduct research.

LEARNING THEORIES OF PHILOSOPHIES OF EDUCATION

But by and large curriculum has been descriptions of techniques for planning. Constructing the design or the plan according to a particular learning theory--for example the developmental needs of children--has constituted the bulk of what we know as curriculum theory, if in fact the learning base has been present at all. Alternative designs are said to be at work if students use different ways, like discussion and reading to satisfy a curriculum plan.

If design or development is the primary feature that distinguishes one curriculum theory from another, that it is not a curriculum theory that are agreeing upon, but a theory of learning or philosophy of education. It is one or the other that has generally characterised curriculum theory and development.

If learning theory, like contingency management strategies, is one of the primary foundations for curriculum development, as most readily acknowledged, then the question posed repeatedly is, what is the curriculum design for out-of-school experiences? Of course there is none that satisfies curriculum theory as presently known, and the dilemma serves as yet another reminder that there is no curriculum theory apart from subject knowledge or learning theory within a schooling context.

Curriculum also pressures certain value and cultural determination and, as Illich maintains, "the curriculum has always been used to assign social rank..." (Illich, 1970). He believes further that "most learning happens casually, and even most intentional learning is not the result of programmed instruction.:

Because of the acknowledged absence of a curriculum theory it has been natural to turn to other fields of inquiry for guidance in understanding something about the context and processes of what happens in curriculum development and transmission. John D.McNeil has noted that "Learning principles like those advocating feedback, appropriate practice, and reward, are now being dethroned as indicators of good practice" (McNeil, 1978). Anthropology, sociology, and political science have been the logical source for theoretical development. Curriculum has borrowed heavily from the behavioural and social sciences in an attempt to explain its functions.

SYSTEMS APPROACH TO CURRICULUM DEVELOPMENT

The transformation of civilized, industrialized society has made obsolete some disciples and subjects which were not useful in solving contemporary problems. Latin is clearly one. Consequently, such programmes as systems engineering, policy analysis, and operations research have become the new disciplines that prepare tomorrow's professional personnel. Such curriculum

divergence has not yet fully become a part of elementary and secondary school curricula, although developers have borrowed heavily on the language if not the substance.

If there is agreement in curriculum design and development it is that the blueprint changes. Curriculum is revised because the curriculum developers do not agree on a theory. The grand design approach to curriculum development understandably, is thus likened to the industrial-engineering model or the systems approach.

The systems approach has led to the setting of curriculum goals and objectives, perhaps the most common form of curriculum development. What predominates as an expression of curriculum thinking is the behavioural scientist's approach to conceiving the sequencing of behaviour. As a result, curriculum activities are the writing of instructional or behavioural objectives. The sources for this information come from concepts about society, the culture, learning theories, or the nature of knowledge. The trend is an attempt to redirect curriculum development away from traditional reliance on a single principle or subject like physics, English or mathematics. The widespread acceptance of the learning needs of students, at least conceptually throughout the profession, has spurred this movement.

But the behavioural approach to curriculum development helps standardize the concept that curriculum theory is no more nor less than the design of a glass and objectives model with its attendant activities and evaluation strategies and sequence. "Curriculum theory and curriculum design are almost inextricably related," say Saylor and Alexander (1974). Curriculum, then, has been anything more than the writing of the desired logical sequence of ways of learning. It is what we hope the students will learn or what the teachers might accomplish.

CURRICULUM IN THE SCHOOL STRUCTURE

Improbably and yet persistently, curriculum theory development, as opposed to the design of specific curriculums, has been hampered by the way in which schools are organised to deliver the curriculum. Over occasional lamentations, curricula are planned and staged in teaching subjects, fixed in time modules of uniform length, and prescribed in ritualistic fashion. The curricula have been embedded in the school's organization and are unrecognizable apart from the organization and the subjects which dictate their order.

Recall that in recent memory the manner of revising the curricula and rendering more flexible the alternatives for student learning was to

recognize curriculum delivery: team teaching, flexible scheduling, differentiated staffing, open spaces. The working hypothesis was that if time, staffing patterns, and organizational structure in general could be more adaptable and responsive to change in learning styles, then learning-- as an expression of understanding the curriculum--could be accelerated. Inconclusive and disjointed evidence resulted in further disillusionment, especially with the methodology controlling for the influence of the school as an organization and its changes.

Thus, rather than acting as a liberating agent, the curriculum has become a constraint. Once instituted as a plan, it becomes a part of the organizational structure of how learning is presumed to occur. Since so much has gone into the design, it cannot bear deviation without pain or anger from the logic of its order. The order of the design presumes and implies the sequence and the timing of what is to be learned.

TEACHER BEHAVIOUR AS CURRICULUM

The curriculum is not a plan to be followed, but teaching behaviours to be analyzed. Consequently, curriculum is not something the teacher needs to complete, to developing more detail, or even needs to understand. In its final form, the curriculum is not an intermediary through which learning is supposed to occur.

Purposefully omit what the student can learn without the teacher or from others. Reading, for example, a appropriate but not confined by the school. If a child is reading, he or she may indeed be following a plan, but the plan is really determined by the child's understanding of what is read. The reading matter may be chosen by the teacher, but reading is a series of organic patterns genetically and environmentally determined by the individual. Much of the curriculum relating to reading is explaining, reviewing and discussing what has already been read. These latter teaching behaviours, in this suggested definition constitute curriculum--the actual performance of the teacher. "If I am reading, I am instructing myself. I need neither a teacher nor a curriculum. If I do need instruction about reading, I learn from the behaviour of the instructor" (Illich, 1970).

Illich would like to broaden the concept of teacher to whomever serves in an instructional capacity. "Teacher" is thus anyone from whom one learns Ivan Illich writes that "many young teenagers, if given the proper incentives, programmes and access to tools, are better than most schoolteachers at introducing their peers to the scientific exploration of plants, stars and matter, and to the discovery of how and why a motor or a radio functions" (Illich, 1970).

It seems appropriate, also, to define education and schooling as concepts associated with curriculum. Education define as how and what people learn. Schooling define as the management of selected activities for learning together with techniques for promoting it. Curriculum is teaching behaviours. Instruction is how the teacher manages teaching behaviours. The teaching act is the curriculum.

The postulation of a definition is not a theory, nor do they pretend it to be. But defining curriculum as teaching behaviours does place limits on investigations to follow. The chief criterion for a theory is that it is testable against information from the world. Explaining away any data without a theory because they have experienced it first hand is not admissible in view either, because the law governing experience may not have been understood. Witnessing failing fruit did not lead men initially to the law of gravity. To say that they have "done" curriculum is not to say that they knew what they were doing, or what they understand the laws regulating what they were doing when they were doing it.

Defining curriculum as teaching behaviours is not meant to detract from the importance of what the students do. However, there already exist several theories of how people learn, but there is little about how people teach, apart from techniques which help in the process of experimenting with a learning

theory. We have to effect been testing learning theories with teaching behaviours. We have not been testing teaching behaviours with a curriculum definition based on what teachers do. Because we have been testing learning theories to determine whether or not curricula were successful, all of our experimental designs have had to include the learner who has been nearly impossible to control experimentally. And so the reasoning has been that we cannot control students' learning, so we can never validate empirically our curriculum designs.

Two further issues are essential to this proposed definition. The first is that curriculum defined as teaching behaviours must be sensitive to the requirements, for improving teaching behaviours with increased knowledge and technical skills. The second is perhaps the most important, and that is that a curriculum definition, such as the behaviour of teachers, must be joined with an appropriate learning theory in order to evaluate learning achievement.

There is a further, perhaps more fruitful area of investigation: the achievement of the teacher in the teaching act. A curriculum definition which couples itself with the teaching act allows for the development of learning while teaching. Who can say that the acceleration of one quantifiable unit of either learning achievement of technical skill development on the part of one

or more teachers might not be more desirable than the quantifiable unit of learning achievement on the part of one or more students.

If curriculum is the totality of teaching behaviours, then the answer in this context is that teaching is the doing of the curriculum. Correspondingly, curriculum is the performance of teaching acts. Behaviours are characterised by their intention, even though they may appear to be random and arbitrary. Teaching behaviours intend to appear to be random and arbitrary. Teaching behaviours intend to demonstrate the curriculum even in the broadest of interpretations. It seems important to know whether or not specific acts are intentionally teaching acts. The student does in fact learn from what is perceived from teacher behaviour, despite teacher volition.

If a teacher opens a window, collects money for lunches, reprimands a child, smiles or glares at another, stares at a book-these may not normally be considered teaching actions. Yet they contain all the elements of the transmission of the culture and the personality of the teacher. They are not always part of a plan. Even if a teacher decides consciously not to teach one day at all, what studies in fact learn that day, however, minimally considered in the traditional sense from the teacher, is in this context the curriculum. Indeed, how can it be otherwise?

Has any curriculum been done if, hypothetically, a student has learned nothing? According to this statement, a suggested curriculum definition is not based on whether or not students learn, crucial as that is to the schooling process. It is based on whether or not teaching behaviours occurred.

A curriculum definition does not have to include a learning theory. After all, a learning theory does not necessarily include a curriculum definition. A learning theory does not demand the presence of a teacher.

What is the test of a theory? Strong, empirical, validated data. Without precision or agreement in definition about curriculum, what can possibly constitute the empirical case for support of a curriculum theory or definitions?

Whatever we "do" to the curriculum--make it more moral, more humane, more responsive, more germane--depends on how we understand it. If, as Glenys Unruh explains, curriculum "means a plan for achieving intended learning outcomes...a plan concerned with purpose, with what is to be learned, and with the results of instruction" (Unruh, 1975) then the question must be--whose plan? If it is the plan of someone other than the teacher (even another fellow teacher) and the teacher decides not to follow the plan exactly, the theory that the curriculum is a plan crumbles because it is not testable. It therefore seems that one empirically testable theory is actual teaching

performance (that is the plan), whether or not it conforms to known and performed prescription. It is the demonstrated activities of the collected teachers in any given location that become meaningful to students, not necessarily the presumed plan of what should occur at any given time in any given place with any given body of knowledge.

TEACHER PLANNING AND CONTENT

Is teacher planning and preparation a part of curriculum content? Other questions which distinguish definitions have to be asked first. Is teacher planning an organizational activity where by the teacher arranges subject content for presentation? Or is teacher planning an information quest, to acquire more knowledge about what to present? Is it a combination of both of these processes?

It may seem clear that if the teacher, as part of the planning process, is attempting to acquire new information to present, then that is a part of a learning, not a teaching, function. It may be argued that the teacher must indeed learn in order to teach. Such learning may also be preparatory to teaching, but is it essentially a part of curriculum planning? In my view, both learning more about what to teach and better organizing how to present it are necessary components in planning the teaching act, but they re preparatory to

curriculum not the curriculum itself. Although the planning for the content may be logical, coherent systematic and stimulating, it is strategically useful to the teacher but only hypothetically useful to the learner. The teacher planning function is helpful to the teacher, but its purpose is usually associated with a group, not an individualized, scheme for presentation.

To understand this curricular planning function we have only to look back at how curriculum planning was conceived and developed in the past. Recall that in the late 1950's and early 1960's the curriculum planning function was rediverted from teachers to experts in fields of knowledge taught in schools. Comprehensively conceived and developed texts emerged, especially in the physical and natural sciences and mathematics, which still characterize secondary school curriculums.

Because teachers needed instruction in the new content and methods, extensive teacher training programmes also emerged. It became clear, however, after extensive research investigations, that, like the language laboratories introduced for foreign language use, the mere introduction of new content was not useful unless it went hand in glove with instruction in how to use it. The profession learned that it was better in the long run to teach teachers themselves how to develop curriculum rather than to have someone plan it

for them. Today, the consensus seems to be that curriculum planning has returned *part passu* to the teachers who are more proximate to the instructional processes.

Harnischfeger and Wiley have proposed a comprehensive model, provocative in its treatment of many of the school variables, but primarily a teaching and learning model for elementary schools (Harnischfeger, 1976). The fundamental principle of the model is that what the pupil does is central to the way he or she learns, an undeniable fact often overlooked in other models. The models suggested by Harnischfeger and Wiley is an attempt to specify how students spend their time and the amounts of time they are exposed to learning.

The function of time takes on an added dimension because teachers not only present curriculum, they allocate the resources on how students will learn, in what time frames, and under what conditions. It is these conditions, according to the model, that determine pupil learning. The model has significant implications for the time teachers allot to student learning pursuits. The attractive new feature is the way in which the model relates teacher and school characteristics through the intervening variable of pupil pursuits of learning.

Students learning is, after all, what the school is all about. The purpose, therefore, of any curriculum model must ultimately be to help explain student achievement. Yet any curriculum model has to consider the role of teachers, although, as Cooley observes, research on teacher effectiveness has produced little policy change. The major reasons for the lack of results on research on teacher effectiveness are: (a) the classroom situation has been oversimplified; (b) the relationship among pupil, teacher and curriculum has been ignored..." (Cooley, 1976).

Clearly, the Harnischfeger-Wiley model has opened new conceptual understanding in bridging empirical studies and theoretical insights. It does not, it seems to me, incorporate new information about the curriculum, apart from time spent by pupils in learning activities. Moreover, the teacher's behaviours are not as clearly defined as they might be; they are reduced largely to planning activities. Cooley notes: "There are only a few hints as to what specific teacher activities may or may not be important, and they tend to direct attention to what the teacher does out of the classroom rather than in the classroom. As everyone knows, there is many a slip between plan and execution: (Cooley, 1976).

DEFINITION OF CURRICULUM

All the learning which is planned or guided by the school, whether it is carried on in groups or individually inside or outside the school (John F. Kerr).

That is the curriculum consists of content, teaching methods, and purpose may in its rough and ready way be sufficient definition with which to start. These dimensions interacting are the operational curriculum (Philip H.Tailor).

A programme of activities designed so that pupil will attain as far possible, certain educational ends or objectives (Paul Hirst).

The contrived activity and experience--organised, focused, systematic--that life unaided would not provide . . . . it is properly artificial, selecting, organising, elaborating, and speeding up the processes of real life (Frank Musgrove).

CURRICULUM PLANNING

It is stating the obvious to assert that education has changed drastically in the last twenty or thirty years. Both in the United Kingdom and elsewhere the provision of educational opportunities has been extended and many resultant modifications have become necessary to all aspects of the education system. Nor is it surprising that the nature and structure of our education system should have been changing so extensively at a time when we have been experiencing

social change of an equally dramatic kind, much of it prompted by rapid technological advance. The education system is a social institution which should be expected to change along with other such institutions. It would be more surprising, not to say disturbing, if the education system were to stand still while all else changed and it is this that tenders incomprehensible the efforts of those conservatives who wish to see educational change arrested or even advocate a return to former systems, the suitability of which even to the times that spawned them is often difficult to discern.

Amidst all of this change, nothing has been more significant nor as fundamental as the major modifications that have been made to the curriculum. The significance of this lies in the fact that it has manifested itself at all levels of educational activity, from the nursery school through to the university, from the education of the least able pupils to that of the most educationally gifted. Its fundamental nature derives from the fact that the curriculum is the very foundation of any education system and no amount of tinkering with the structure of the system, the organization of schools or the selection procedures to be used will have more than a peripheral effect unless accompanied by a rethinking of the real substance of education--the curriculum itself.

And so, while changes to the structure of the system (such as the introduction of comprehensive schools and of mixed ability classes) have attracted the main attention of the man in the street, it has rightly been the curriculum itself that has been the focus of attention for the professional teacher, since without an understanding of what has been happening in that sphere the other changes make little sense and, indeed, have little point. Most of these changes, for example, have been directed towards the attainment of educational equality and a fairer distribution of educational provision, but it is only through the curriculum itself and not through more organizational changes that this will be achieved.

One feature that has characterized this curriculum change of recent years and which must be realized at the course of this discussion is the increased incidence of planning and preparation in curriculum development. Most of the curriculum change that we have seen in the past has been of a kind best described as unplanned 'drift' (Hoyle 1969a) and a good deal of this still goes on. Recently, however, educationists have begun to see the need for planned innovation; to recognize that if educational change is to keep pace with and match changes in society, it must be deliberately managed rather than merely left to happen. To recognise this

is not, of course, to be committed to a totally revolutionary approach to curriculum development. The advantages of evolution over revolution are at least as evident in education as elsewhere. It is, however, to acknowledge that the process of evolution can be smoother, quicker and more effective, if it is not left to chance best implemented according to carefully thought-out strategies. It is this that makes the kind of understanding of curriculum development that can come from a deep study of Curriculum Theory the most essential item in the armoury of the modern teacher.

It is the aim to identify what is involved in this, to outline some of the essential ingredients both of the study of Curriculum Theory and the practice of curriculum planning. Almost all of these points will be examined in greater detail, but an overall framework, a rationale, a cognitive map offered at the outset may help to establish and maintain the interrelationship of the many factors involved in curriculum development. For not the smallest problem facing the teacher as he recognizes the responsibility for curriculum planning is the range of interconnected factors that he must constantly keep in balance. Like a juggler he must not only keep many balls in the air at the same time, he must also maintain the proper relationships between them if disaster is not to ensure.

The first need is to achieve some clarity over what we are to understand by the term 'curriculum'. It is a term which is used with several meanings and a number of different definitions of it have been offered, so that it is important that to establish at the beginning what it should be taken to signify in the curriculum.

To begin with, it will be helpful if we distinguish the use of the word to denote the content of a particular subject or area of study from the use of it to refer to the total programme of an educational institution. Often, of course, conflicts do arise as we try to reconcile the competing demands of these two aspects of curriculum planning and it may be that some of the inadequacies of previous attempts at curriculum planning can be attributed to the fact that it has tended to proceed in a rather piecemeal way within subjects rather than according to some overall rationale, so that the curriculum can be seen as 'the amorphous product of generations of tinkering' (Tiba 1962). Both of these dimensions of curriculum development are, of course, important, but it is the rationale of the total curriculum that must have priority since it would seem that once that is established on a firm basis, the curriculum of individual subjects should fall into place. At the very least, then, the total curriculum must be accorded prior consideration

and it may be claimed that the main task that currently faces curriculum planners is to work out a basis on which some total scheme can be built.

Since it seems that this should be the main concern, this will be the focus of discussions will understand by the term 'curriculum' this overall rationale for the educational programme of the institution, and these general features of curriculum change and development, although much of what is said about curriculum development in this sense will, of course, be of relevance to the problems of developments within individual subject areas.

A further question that needs to be resolved is whether we are to place any limit on the kinds of school activity that we will allow to count as part of the curriculum. Again, the word can be found in use in a number of different contexts and again we need to distinguish these clearly.

For example, some educationists speak of the 'hidden curriculum', by which they mean those things which pupils learn at school because of the way in which the work of the school is planned and organized but which are not in themselves overtly included in the planning or

even in the consciousness of those responsible for the school arrangements. Social roles, for example, are learnt, it is claimed, in this way, as are sex roles and attitudes to many other aspects of living. Implicit in any set of arrangements are the attitudes and values of those who create them, and these will be communicated to pupils in this accidental and perhaps even sinister way.

Some would argue that the values implicit in the arrangements made by schools for their pupils are quite clearly in the consciousness of some teachers and planners and are equally clearly accepted by them as part of what pupils should learn in school, even though they are not overtly recognized by the pupils themselves. In other words, teachers deliberately plan the school's 'expressive culture'. In such instances, therefore, the curriculum is 'hidden' only to or from the pupils. If or where this is so, the values to be learns clearly from a part of what the teachers plan for their pupils and most therefore, be accepted as fully a part of the curriculum.

Others, however, take a less definite and perhaps less cynical line on this but which nevertheless to insist that teachers do have a responsibility here. They accept that the values and attitudes learnt

via the hidden curriculum are not directly intended by teachers, but believe that, since these things are being learnt as a by-products of what is planned, teachers should be aware of and accept responsibility for what is going on, for what their pupils are learning in this unplanned way (Barnes 1`976).

There is no doubting the importance of this notion of the hidden curriculum nor the need for curriculum planners and teachers to keep its implications constantly before them. To use the term 'curriculum', however, to denote such kinds of learning is to render the planning of a total curriculum impossible since the term is being used here to include experiences than by definition have not been deliberately planned and which cannot be so, at least without ceasing to be 'hidden in the sense used. It would seem better therefore to confine the use of the word curriculum to those activities that are planned or are the result of some intentionality on the part of teachers and planners, and to deal with these other kinds of learning as the hidden results or by-products of the curriculum rather than as part of the curriculum itself.

Much the same point emerges when we consider the distinction that has sometimes been made between the official curriculum and the actual

curriculum. By the official curriculum is meant what is laid down in syllabuses, prospectuses and so on, the actual curriculum being what is covered in the practice of the school. The difference between them may be conscious or unconscious, the cause of any mismatch being either a deliberate attempt by the teachers or others to deceive, to make what they offer appear more attractive than it really is, or merely the fact that, since teachers and pupils are human, the realities of any course will never fully match up to the hopes and intention of those who have planned it.

Both of these distinctions are important and we would be foolish to go very far in our examination of the curriculum without acknowledging both the gaps that must inevitably exist between theory and practice and the predilection of some teachers for elaborate 'packaging' of their wares. If, however, we are to achieve a definition of the curriculum that will offer a firm basis for curriculum planning, we should probably confine ourselves at least initially to what teachers and others plan with the serious intention of carrying out. At the same time, we must not lose sight of the fact that curriculum study must ultimately be concerned with the relationship between these two views of the curriculum, between intention and reality, if it is so succeed in linking the theory and the practice of the curriculum (Stenhouse 1975).

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

The reasons for this, however, are difficult to discern unless they are those that derive from the time of the day or week when they take place or the nature of the voluntary participation that usually characterises them. For activities of this kind are usually seen to have as much educational validity and point as any of the formal arrangements of the school. Indeed, some would even argue that in certain cases they have more point than many such arrangements. It was for this reason that the Newsom Report recommended that they ought to be recognized as an integral part of the total educational

programme and that to this end they be included in the formal timetable of an extended day. It is also for this reason that educationists such as Charity James have suggested that they be regarded and planned as one element of the curriculum (James 1968). The inclusion of this kind of activity in the formal provision made by the school is also a major feature of the philosophy of many of those concerned with the present development of community schools (Cooksey, 1972, 1976a, 1976b).

Again, it would seem that, if we are concerned with curriculum planning, it would be foolish to omit by our definition of the curriculum a whole range of activities which teachers plan and execute with deliberate aims and intentions. In looking at curriculum planning, therefore, there would appear to be nothing to be gained from leaving out of consideration any planned activity.

There is a more subtle way, however, in which definitions of the curriculum can exclude some of the activities that teachers and others plan for their pupils. Some of the definitions that are offered contain a very clear and loaded 'value' element; they are prescriptive rather than descriptive and they thus encourage the omission from our consideration in curriculum planning of a good many activities we

ought in no way to be ashamed of including in our curriculum nor encouraged to forget or place lower down the scale of priorities. Thus a definition of the curriculum such as that offered by Paul Hirst who tells us. The term curriculum would seem, from its derivation, to apply most appropriately to the programme of activities, to the course to be run by pupils in being educated (Hirst 1969) excludes from our consideration all activities that do not contribute to the education of pupils. Since Hirst himself offers us a very clear view of what shall count as educational, this definition, taken as it stands, would prevent us in planning a curriculum from including a whole range of activities and experiences that we might well wish to include in our programme on grounds other than their educational value. Vocational preparation of various kinds, for example, might be excluded by such a definition. The term 'educational' contains a 'value' element that renders such a definition prescriptive rather than merely descriptive and therefore preempts certain kinds of discussion within the overall planning of the curriculum.

The same sort of difficulty results from the acceptance of a definition such as that offered, albeit with qualifications and a promise of subsequent modification, by one of the Open University course on

the curriculum, which tells us 'A curriculum is the offering of socially valued knowledge, skills and attitudes made available to students through a variety of arrangements during the time they are at school, college or university. The limitation of the scope of the curriculum planner to knowledge that is socially valued clearly introduces a prescriptive 'value element that will preclude, in some societies more than in others, the consideration of certain kinds of activity and experience.

It may be argued that such a definition can be interpreted descriptively, as saying no more than that the content of any curriculum will in fact always consist of socially valued knowledge, skills and attitudes. Such a description may well be perfectly valid, although it is then little more than a truism. However, to define 'curriculum' in this way is to say that it must only consist of such content, so that its effect is to prescribe the inclusion or exclusion of certain kinds of content on grounds of their social value. Thus, since this is far from being an objective criterion of selection, it introduces from the outset the question of who is to decide what is socially valued, a question which should be left for later decision.

An implicit prescription in our definition can cause as much difficulty, then, if not more, than the explicit exclusion of certain categories of school activity.

What is needed is a definition that is both value neutral and all embracing to provide us with a framework which makes possible the joint planning of all the school activities. Hence we will find it better to seek for a definition such as that offered by John Kerr, who defines the curriculum as 'all the learning which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school (Kerr 1968). Such a definition provides us with a reasonably secure basis for planning all the organised activities of a school.

This, however, is only a beginning since we have done no more than specify what our curriculum planning is to be concerned with. Before we can get down to it in any detail, a further analysis of what we mean by the curriculum is necessary, an analysis based on the nature of curriculum planning itself.

RATIONAL CURRICULUM PLANNING

All rational activities are characterized by having both purposes and procedures, aims or goals and devices for achieving those aims or

goals. Curriculum planning as a rational activity is no exception to this. Hence no attempt at curriculum planning is likely to be profitable unless it includes consideration both of the aims of the activity and the means by which it is hoped those aims will be realized. In fact, it has been suggested (Tyler 1949; Hirst 1969) that the curriculum has to be seen as consisting of at least three elements and curriculum planning, therefore, as having at least three dimensions--objectives, content or subject matter and methods or procedures. In short, we must distinguish in our curriculum planning what we are hoping to achieve, the ground we are planning to cover in order to achieve it and the kinds of activity that we consider likely to be most effective in helping us towards our goals. Some, such as Tyler himself, would add a further element--evaluation, an assessment of how successful we have been in attaining our ends. This is obviously an important and sensible addition and clearly has implications for the other three. In fact, as we shall argue it is an essential element in curriculum development. However, it would seem to be a contingent rather than a logically necessary element of rational curriculum planning, since, although it might be unwise, it would surely not be irrational to make no evaluation of the extent to which we have succeeded in our intention.

Certainly many major curriculum innovations have not accepted formal evaluation as an essential requirement.

This, then, it is claimed, is the logic of the curriculum and the only proper basis for rational curriculum planning. The force of the argument is increased also when in the light of this analysis one examines earlier forms of curriculum development. For it does seem true, as Hirst suggests, that the concern of the traditional curriculum with content only, with subjects and subject matter, and the obsession of the progressive curriculum with methods, with such things as projects and discovery learning, both reveal the inadequacies of any attempt at curriculum planning that does not pay due regard to all three of the elements outlined, and especially to the need for objectives of some kind, a need which appears to have been ignored by everyone.

This analysis, then, if taken just as it stands, would give us a very simple model for curriculum planning, a linear model which requires us to specify our objectives, to plan the content and the methods which will lead us towards them and, finally, perhaps to endeavour to measure the extent of our success. It is, however, too simple a model

for many reasons, most of which will become apparent when we consider the problems of prespecified objectives.

One reason why it will not suffice, which must be mentioned here, is that it does not make sufficient allowance for the interrelatedness of the separate elements. At the very least we must allow for the fact that the results of our evaluation processes maybe used to modify our planning. Thus it has been suggested that we should employ a cyclical rather than a lines model and link up evaluation with the framing of objectives to create a continuous cycle (Wheeler, 1967).

This would seem to be a step in the right direction but many would claim that the influence of evaluation on curriculum planning should be a continuous process rather than being delayed until the exercise is over and, if we accept that, then we must expect such continuous evaluation to result in regular modifications of our planning. In fact, we must go further than this and acknowledge the interrelationship of all four elements, since the practical experience of most teachers suggests that every one of these four elements is constantly being modified by every other and that the whole business of curriculum planning must be seen as one of constant interaction between the

elements. A more suitable model might therefore be derived from the idea of a permutated entry on a football pool with every possible kind of combination allowed for, or the physicist's notion of 'dynamic equilibrium' where stable progress is made possible by the balanced interaction of a variety of forces.

So much for the logic of curriculum planning, but, as Hirst rightly reminds us (Hirst, 1969),. logic of itself cannot take us very far and what we still lack is any kind of basis or set of criteria upon which we can make a selection of either our objectives or our content or our methods. It is to meet this difficulty that the more sophisticated models of the curriculum that we are offered have been designed. Some of them are highly complex, so much so that it is difficult to imagine their being of any real use to a practising teacher or a planner of real curricula. It does seem possible, however, to produce a model which retains some of the simplicity of the model that logical considerations have led us to but which also draws our attention to the importance of factors deriving from other sources. This is the aim of the model that Denis Lawton offers us which brings in certain philosophical, psychological and sociological considerations, as well as reminding us that we would be foolish to ignore the practical aspects and implications of any programme (Lawton 1973).

Lawton suggests that in planning a curriculum rationally we should frame our objectives and decide on appropriate content and procedures by reference to three main kinds of consideration. Firstly, we must take note of those considerations that derive from the nature of knowledge itself. It has been suggested that certain questions about the curriculum can be answered for us by an analysis of what know ledge is, the different forms of knowledge and the different kinds of logic that are said to exist (Hirst, 1965). This is a view to which we must later give closer consideration, but it is enough if we acknowledge here the claim that the curriculum planner must pay due regard to this kind of argument. Secondly, it is claimed, we must take full account of the nature of the child or of the individual children for whom the curriculum is being planned. Some programmes have been put together without any reference to anything other than what knowledge was thought to be. Indeed, it was this feature of 'traditional' education that led some thinkers to that emphasis, perhaps even overemphasis, on the child himself that has characterized the 'progressive' or 'child centred' movement in education. No adequate curriculum plan can emerge unless due regard is paid to what we know about cognitive growth and child

development generally. Thirdly, Lawton suggests that our curriculum must take full account of the social situation, the pressures and the needs of the society of which the school is a part. It is this kind of consideration that has led to recent demands for relevance in the curriculum and, although the concept of relevance needs careful elucidation and analysis, few would wish to deny that a curriculum planned without reference to society would have little hope of achieving success, no matter how success was to be gauged.

Such a model, then, takes us considerably further towards an understanding of what is involved in curriculum planning. It has the real merit of recognizing that choices and selection have to be made and of suggesting some of the factors that we will need to keep in mind when we come to make these choices. But that is as far as it takes us and indeed it is as far as any model can take us. It leaves the most fundamental question of all unanswered. For it offers us a series of factors some of which will be in conflict with each other. Among the many kinds of consideration it draws our attention to we must decide which are to have priority and we need some basis for balancing and evaluating the inevitably competing claims that we will discover, for example, between the demands of the individual child and those of society.

In engaging in rational curriculum planning, therefore, we need to be clear about the logic of the process and we need to take full account of all those other factors that appear to have some relevance to our enterprise, but we also need some basis upon which we can make the necessary choices and selection, a set of criteria, a framework of values within which to work.

The model that Lawton offers us, however, does have the merit of recognising that curriculum planning cannot go on in an intellectual vacuum, cut off from contact with the society and the culture in which it is being practised, that the curriculum planner must be aware not only of the logical constraints of the activity in which he is engaged but also of the social pressures to which he and the curriculum development he is trying to foster are subject. These pressures take a number of forms and it is as well to be aware at the outset of the more influential of them, so that we are not misled into believing that curriculum planning is merely a matter of the application of rationality and logic.

OTHER PRESSURES ON CURRICULUM PLANNING

It is perhaps worth noting first of all that the factors we are about to consider will have their impact on curriculum development whether

we like it or not. Indeed, it is these factors that were at work in the past and still and at work in situations where curriculum change is the result of the kind of unplanned 'drift' we have already referred to. If teachers and others do not plan their curriculum, these are the forces that will control the direction and form of curriculum change. On the other hand, if curricula are to be planned realistically and planned change effected smoothly, these factors must be taken into account in the planning process. Again, evolution is to be preferred to revolution, which is often not only painful but also ineffective.

Curriculum development, then, is subject to a great many social pressures. These pressures are often subtle and it is not always easy to justify what they may lead to, but their presence and their influence must be recognized and acknowledged.

Firstly, we may note the pressures on the curriculum that derive from economic sources. There is no way which we can or should ignore the economic function of the education system. As the Crowther Report reminded us, education has to be seen, at least in part, as a national investment from which society is entitled to expect some return. For the most part, that return will take the form of the output of a sufficient

number of young people who have acquired the knowledge and skills that society needs to maintain and extend its development. From this source, therefore, will come pressures for the introduction of certain kinds of subject into the curriculum, such as reading, mathematics, sciences and technological subjects, and perhaps the inclusion of certain kinds of objective to govern the way in which we approach all or most of what we teach. A good example of this is the transmutation of handicraft into design and technology which recent years have witnessed, a development which has been in part prompted by and is one instance of the wave of interest in and enthusiasm for 'creativity' that followed the launching by the Russians of Sputnik I, the first space probe, in 1957. Technological change, especially on the scale we have witnessed in recent years, must have very serious consequences for the planning of the curriculum, for it results in major changes in the kinds of knowledge that society wants its children to be given. Indeed, the whole of the development of state provided education can be seen as the result of exactly this kind of economic pressure.

It also results, however, in demands for changes of a more fundamental kind, changes in the manner in which we encourage children to learn as well as the content of that learning. For once of the

clearest lessons of the technological change of recent years, again well brought out by the Growther Report and its notion of 'general mechanical ability',. is that if the citizen of the future is to be able to adapt to the changes he will continue to experience, his education must provide him with the flexibility of kind necessary for this. The emphasis will therefore need to be on the development of understanding rather than on the acquisition of knowledge in any lesser sense, and the consequences of that for curriculum planners are far reaching.

A similar point emerges when we consider a second, and perhaps more important, consequence of technological change--the social changes that it brings in its train. For technological change leads to changes in the values and norms of a society and thus to another source of pressure on the curriculum. As man discovers that he can do more, that he can influence more and exercise more control over his physical and social environment in the widest sense of those terms, he also realizes that there are important questions to be asked about what he ought to do, how he ought to influence his environment. Technological change raises new moral problems over such issues as birth control, abortion, organ transplantation, pollution and the ecological balance of nature.

The rapid technological change of recent years has therefore been accompanied by equally dramatic changes in the very fabric of society and these social and moral changes also have their impact on the development of the curriculum, as will quickly be apparent from an examination of what has been happening within religious education in recent years and the advent and development of such areas as moral education and social education.

Again too the very fact of such continuous change creates demands for changes in the manner of learning, a fact which explains why we are increasingly concerned that pupils should learn to solve their own moral problems rather than to accept prepackaged solutions which are unlikely to be adequate when they come as adults to cope with moral issues that have not yet arisen and cannot yet be foreseen. Teachers cannot predict the sorts of problem with which pupils may be faced, so that they must educate them in such a way that they learn to work out their own solutions as and when it becomes necessary. The relationship between social change and curriculum change needs a good deal more careful analysis than it has as yet received, but that there are important considerations here for the curriculum planner cannot be doubted.

Lastly, we must note a point which leads on naturally from the one we have just considered. We must take full cognisance of the ideological pressure to which the curriculum planner is subject. In short, we must not ignore the political function of education. In sociological parlance, ideologies are value system competing for power within a society. The very fact that several such ideologies can be discerned in most contemporary societies, that they are pluralist societies, has in itself implications for the way in which we plan a curriculum since it suggests that we should develop in children the ability to cope with competing systems rather than initiate them into any one such set of beliefs of values.

However, what is important here is that we recognise that such ideologies are and have always been a major influences on curriculum development from the days of the 'aristocratic' ideology, which perhaps lingers on in certain places, to more recent attempts to champion the cause of the 'lower orders in education. A good many curriculum changes of recent years have been prompted by a concern over problems of social class differences, the social mobility function of education, and this continues to be a major source of pressure on curriculum planners not least through the work of those sociologists

who have recently come to recognize that one major source of social inequality is the curriculum itself (Young, 1971).

The general influences make their impact on the curriculum not only through the effect they have on very one's thinking but also more directly through several kinds of agency. Some of these are completely overt and attempt to exert a direct influence on the development of the curriculum. Organizations such as the Schools Council in the United Kingdom have been set up with the deliberate purpose of exploring certain aspects of the curriculum and of developing new schemes or projects that it is hoped will lead to improvements in the quality and relevance of what is offered to pupils at all levels and in all aspects of their work in schools. From time to time also Consultative Committees, Royal Commissions or other committees of inquiry are set up quite formally by a government to look into certain aspects of education and to advise on changes that might with profit be effected. Often, of course, the published reports of these committees are largely concerned with question of organization and administration but seldom can they ignore curriculum issues completely, since any attempt to do so or any failure to achieve a full understanding of these issues will vitiate any recommendations they make concerning the

organizational and administrative matters themselves, as the James Report on Teacher Education, for example, made apparent. Thus some of these reports have led to quite dramatic changes in certain areas of the curriculum in some schools. The changes, not all of them for the better, brought about in the provision made in secondary schools in the United Kingdom for the 'less able' pupil as a result of the recommendations of the Newsom Report and the similar impact of the Plowden Report on the work of the primary schools should provide sufficient evidence of the degree of influence that such reports can exercise.

In considering overt attempts to contribute to curriculum change and development we must also remember the role that it is intended should be played by the inspectorate, now significantly coming to be known as the Advisory Service, at both central and local government levels. These bodies are explicitly employed to advise educational institutions on the development of their curricula and to disseminate experience and ideas between institutions. A good deal of this work is now done also by Teachers, Centres, some of which act not only as institutions for the in-service training of teachers in the new skills required of them by some curriculum changes but also as centres for the interchange of ideas between teachers from different schools.

In addition to these agencies that have been established with the express purpose of contributing to curriculum development, these are other agencies whose impact on curriculum change is less overt but none the less influential; indeed, they may well be more important because their influence is indirect. If we can ignore the influence of certain commercial agencies such as publishers, these would seem to fall into two main categories which we might call the political or financial and the academic.

In some countries political influence on the curriculum is quite direct and decisions about curriculum content, method and even balance of subjects and allocation of time are made centrally, leaving the individual school very little discretion. There are examples of the same kind of direct central control to be found in the history of the development of education in the United Kingdom also and proposals for the reintroduction of such control in some areas of the curriculum are currently being made. At present, however, the only legal requirement that any school in England and Wales must adhere to in planning its curriculum is the inclusion of religious instruction and a daily act of worship in its programme. It would be naive, however, to assume that each school is completely free to make its own

arrangements in all other areas. Managing or governing bodies have to be satisfied that the school is fulfilling its role in the community as they envisage it and these bodies consist largely of people with particular political interests. Finance too is a crucial factor. The way in which the moneys allocated to a school are spent is a matter for the governing body to determine and the granting of additional money for specific projects is at the discretion of local government, so that, in the ultimate whether a school can or cannot pursue any particular line of innovation is a decision that rests with those who hold the purse strings.

The second main source of indirect influence on curriculum planning is the academic influence exercised by universities, college of education and other institutions of higher education. There are several aspects to this.

In the first place, what is done in schools depends very much on what the teachers in the schools have been prepared for by their initial courses of training, so that the kind of course offered by the institutions of teacher education will have an important impact on curriculum development. The teachers themselves, of course, can exercise some

control over the content of these courses through their involvement in the planning and constructing of them, although in the United Kingdom this is likely to become more difficult or at least to require new machinery now that the Area Training Organizations have been broken up.

Secondly, institutions of higher education will continue to exercise a degree of control over what is taught, at least in secondary schools, through the entry requirements they set for admission to their courses. It would be quite wrong of any school to ignore these in planning a programme for pupils who are likely to want to go on to courses in other institutions, whether of higher or further education.

Thirdly, this influence is felt most obviously through the control exercised by the universities over the content of examination syllabuses. Indeed, it is the public examination which is recognized by all teachers as the most obvious source of external control over the curriculum. More often than not they see its effect largely as an inhibiting one, preventing them from effecting changes that they might otherwise bring about to improve the quality of what they are offering pupils. That the public examination can also initiate change, however,

and encourage teachers to develop their work in directions that they might of themselves not have envisaged, can be seen from work that has been done in a number of areas, and perhaps particularly through the changes already referred to that have been brought about in the very concept of craft teaching in secondary schools by the new syllabus that the University of London has set up for design and technology at both 'O' and 'A' levels of the GCE (Hicks 1976).

Both of these aspects of the influence exercised by public examination syllabuses highlight the close interrelationship of examination and curriculum and the need for the planning of both to be done jointly. This in turn suggests that it is important that teachers be more closely involved in the planning and conduct of public examinations. Indeed, an acceptance of this point was part of the rationale for the introduction of the CSE examination in the United Kingdom as a result of the Bloe Report of 1960. The various modes of assessment made available to teachers by this examination and the real involvement of teachers in the examining processes have done much to show how teachers can be given increased control over this particular source of influence on curriculum development. The lead

thus established has been followed by some GCE Boards in certain subject areas and, indeed, in some cases joint GCE and CSE syllabuses have been approved and established, thus paving the way for the possible introduction of a single public examination at 16+ in the near future, a significant feature of which may well be extensive teacher involvement (Schools Council 1971a).

CURRICULUM DEVELOPMENT AND THE TEACHER

This brief discussion of the influence of the public examination on curriculum development brings us to a consideration of what is emerging as the most crucial factor in curriculum development, the role of the individual teacher and the individual school. The last, but by no means the least important factors we must consider in our brief initial survey of curriculum planning and development are those that derive from the local considerations operating in any given school or classroom. These are the factors that will in the end determine what the outcome shall be, in terms of the actual curriculum of the individual school, of the influences and pressures that we have been listing. To be effective, any particular curriculum innovation must take with the school and become fully institutionalized (Hoyle, 1969b) and it is

becoming very clear that the extent to which any project will take will depend on a whole range of local factors within each individual school. Thus it is increasingly apparent that real and effective curriculum development must go on within individual schools rather than by the creation of projects or other innovations batched out in some central place detached from the realities of any actual school situation. The theory and practice of curriculum development must go hand in hand from the outset of any piece of planning, they cannot effectively e married up at a point when each has developed too far to e readily adapted to the other.

Several factors within the school are likely to be important here, local industrial and employment conditions, the social origins and interests of the pupils and their parents, the expectations the community in general has of the school, and so on. Quite the most significant of these factors, however, as has become apparent from a number of different sources in recent years, is the attitudes of the teachers within the school, since these will be crucial in determining the realities of what goes on at the level of the individual classroom, which, after all, is what ultimately decides the actual curriculum of the school.

The positive role of the individual teacher in curriculum development is still not clear and this needs to be given more attention that it has hitherto had and to be more thoroughly explored. That the individual teacher has a 'make or break' role in relation to the attempts of any outside body to bring about curriculum change, however, is now indisputable, nor is this surprising since, as we have just said, it is the individual teacher who has the task of bridging any gap that might exist between curriculums theory and curriculum practice.

It is clear that many teachers can and do sabotage attempts to introduce changes into the curriculum. Teachers are often accused of conservation, of too great in attachment to tradition, to tried and trusted methods. Such an attitude is understandable when one realizes that their standing often depends on the maintenance of those areas of knowledge and experience in which they have a recognized expertise. This emphasizes the need to improve in-service opportunities so as to enable teachers to become rather less dependent on the skills and expertise they acquire in their initial courses. While such opportunities do not exist, however, the traditionalism of some teachers will remain a factor that we ignore at our peril in attempting to change any aspect of the curriculum of any school.

The converse of this is equally important. The degree to which any change that we attempt to introduce into a school is likely to be effective will largely be determined by the extent to which individual teachers become committed to it. There is simply no point in a Schools Council project team, a head teacher or even an enthusiastic group of teachers attempting to introduce some new scheme in to a schools programme unless it has the support at least of all those teachers who will need to be involved in the implementation of it and preferably a good many other teachers as well, since saboteurs can work from without as well as from within. In particular, of course, it is vital that a project has the support of the head teacher and other senior staff, such as heads of relevant departments, heads of sections within the school, such as year groups and so on.

Nowhere has the truth of this been so manifest as in the attempts of some secondary schools in the United Kingdom in recent years to introduce mixed ability forms of grouping. This kind of innovation involves major change of method and approach so that its success hinges on the willingness of individual teachers to adapt their methods and approaches to the requirements of the new situation. Unless teachers are willing to undertake this, and in the first instance to do so

with a good deal of enthusiasm, or at least tolerance of the initial difficulties that must inevitably be experienced, it is better not to attempt to make the change at all. The importance of the individual teacher to the success or failure of this particular innovation in primary schools was one of the most significant findings of the major research project undertaken by the National Foundation for Educational Research in this field (Barker-Lunn 1970).

It will be clear, then, that if the role of the teacher is as central as this to successful curriculum development, no attempt to establish innovation derived from outside agencies will e successful unless the teachers are won over to them, unless there is a change in their ideology. The prime needs are that they should both understand the reasons for and should be committed to the values of what is proposed, so that in-service backup and every kind of support that is offered must be attuned in achieving both of these ends, and not merely to providing them with the new skills and techniques that will be required of them.

CURRICULUM OBJECTIVES

If curriculum planning is to be seen as a rational activity it must consist of at least three elements--choice of objectives, decisions about

content, and selection of appropriate procedures. In practice these three elements will be inextricably interrelated with one another and in particular cases it will not be possible, at least without risk of serious distortion, to treat them separately. Indeed, it may well be that the most important area to be explored by curriculum theorists is the interrelationships between them. In looking at general problems of curriculum planning, however, if we are to achieve any real conceptual clarity, we must endeavour to separate them, to look at the particular difficulties associated with each in turn. It is the intention of this report to begin this process by considering some of the difficulties that surround discussions of curriculum objectives.

A concern with objectives has been one of the most striking features of the recent move towards deliberate curriculum planning. It is not the case, of course, that educators were not concerned with objectives before this. It is probable that people have had aims and goals for any instruction or teaching they have engaged in almost from the beginning of time. Certainly many of the Greek and Roman educationists display a concern with goals. From the beginning of the present century too, one can see, especially in the work of American educationists, a desire to examine questions of how educational

objectives can best be specified (Popham 1969). It is also the case that for many years teachers and student teachers have been expected by those responsible for supervising their work to begin the preparation of their lessons with statements of their objectives.

For a long time, however, little real attention was given to this issue of specifying objectives in curriculum planning, nor was it taken as a serious exercise by most teachers in planning their work. Perhaps this can be explained by the spread of the romantic view of education at the level of younger pupils with its reluctance to appear to interfere too extensively with their freedom and natural development and conversely, an undue concern with subject content in the education of older pupils, in other words, the faults suggested were associated with the progressive and the traditional approaches to curriculum planning. Whatever the reasons, little attention was given to the problems raised by the prespecification of curriculum objectives until recent times. Neither the publication in 1949 of Ralph Tyler's work which offered a model of curriculum planning which commences with the specification of objectives nor, even more surprisingly, the publication by Benjamin Bloom and his associates in 1956 of what is still the most detailed and penetrating attempt at an analysis of educational objectives, the

Taxonomy of Educational Objectives, had very much immediate impact on either the theory or the practice of curriculum planning.

Recently, however, this situation has changed and there has been revived a genuine interest in the problems involved in specifying educational objectives and a concern to pay due regard to them in curriculum planning, so that this has been the starting point, for example for many curriculum projects developed under the aegis of the Schools Councils.

At the same time, there are still those who positively eschew such an approach. The Humanities Curriculum Project, for example, has taken this line and indeed, has suggested that prespecification of objectives is not appropriate within the humanities generally. Interdisciplinary Enquiry (IDE), as propounded by goldsmiths College Curriculum Laboratory, has also deliberately and consciously rejected an objectives approach (James 1968), regarding it as unsuitable to attempt to state in advance what the result of pupil enquiry should be.

Thus two points of view can be taken on this question, so that it is important for teachers and curriculum planners to be aware of the

issues involved it they are to be able to decided on which approach is appropriate in their particular situation.

Prima facie, the arguments for the prespecification of objectives are strong. To begin with, it would seem to be a necessary part of any activity that is to be called rational that it should be geared towards some recognized purpose and should not be aimless or without direction. We have already referred to the criticism made of traditional and progressive curricula that both lack a proper recognition or identification of objectives and therefore, becoming obsessed with questions either of content or of procedures, fail to offer a proper perspective for rational curriculum planning. It would seem difficult to contradict the basic point that in planning a curriculum, as in any other rational activity, we should have some idea of where we are going and equally difficult to deny that it has been the lack of such a clear purpose that has constituted the main weakness in the practice of many schools, whether characterised as traditional or progressive. Where objectives are prespecified, both teachers and pupils have a clear idea of what they are working towards so that it becomes possible for both to select and organize their work in the light of the criteria deriving from the stated goals of the activity.

A further and connected point emerges when we consider the fourth element in curriculum planning--evaluation. For it is quite clear that evaluation will be much easier when one has stated in advance what one is hoping to achieve. Only then, perhaps, does one know with any degree of clarity what it is that is to be evaluated, since until one knows what outcomes were intended it might be felt that it is difficult to know how to assess what has been attained or achieved.

Why, then, have some people deliberately rejected this kind of approach to curriculum planning? The answer to this will perhaps begin to emerge if we look more closely at the nature of curriculum objectives and attempt to get a clearer view of what a curriculum objective is.

Begin this exploration by noting a generally accepted distinction between objectives and aims (Taba 1962). Aims are usually seen as very general statements of goals and purposes, such as to develop critical awareness or to promote understanding. Aims by themselves, however, have often been regarded as too general and lacking in specificity to provide clear guidelines for planners or teachers, so that curriculum planning has been seen as a process of developing more precise

statements of goals from these general aims. It is these more precise statements that are normally termed objectives. Indeed, some writers have even suggested that we should recognize three or more levels of specificity (Kratwohl 1965) - general statements of goals that will guide the planning of the curriculum as a whole, behavioural objectives derived from these which will guide the planning of individual units or courses, and a third level of objectives appropriate in some cases to guide the planning of specific lessons, to use Wheeler's terms, 'ultimate', 'mediate' and 'proximate' goals, the latter providing specific classroom objectives (Wheeler 1967).

It is further argued that the quality of the instruction schools often will continue to be low until we escape from our present wooly-mindedness and learn how to plan our work as teachers in this kind of detail. We must begin by stating clearly in advance the behavioural changes we are endeavouring to bring about. A satisfactory instructional objective must describe an observable behaviour of the learner or a product which is a consequence of learner behaviour (Popham 1969). The observable behaviour might take the form of something like skill in making impromptu speeches on performing gymnastic feats (Popham 1969). Product might be

an essay or an omelette from the home economics class (Popham 1969)

This being so, a properly stated behavioural objective must describe without ambiguity the nature of learner behaviour or product to be measured (Popham, 1969. For example: When given a description of a research design problem, the student can select correctly from the twenty statistical procedures treated in class that one which is most appropriate for analyzing the data to be produced by the research. Having been given a previously unencountered literary selection from nineteenth century English Literature, the student will be able to write the name of the author and at least three valid reasons for making that selection. This being so, a properly stated behavioural objective must describe without ambiguity the nature of learner behaviour or product to be measured (Popham, 1969.

Thus we are offered a hierarchy of goals, the main focus of which is the prespecification of behavioural objectives, intended learning outcomes defined in terms of the kind of behaviour the pupil is intended or expected to display through his thoughts, actions or feelings if we are to be able to claim the our objective has been achieved.

This classic statement of this kind of hierarchy of goals is to be found in Bloom's taxonomy of educational objectives. (Bloom et al. 1956; Kratwohl

et al. 1964). The notion of the hierarchical nature of the interrelationship of these objectives is fundamental to the taxonomy itself as is apparent from the gradation of objectives in the cognitive domain from the acquisition of the knowledge of specifics, through such higher level cognitive abilities as classification, comprehension, application, analysis, synthesis and so on to the making of evaluative judgements. Similar gradations are offered within each of the categories, comprehension, for example, being broken down into translation, interpretation and extrapolation.

However, Bloom also offers us another important distinction within this range of objectives since he divides them into three clear domains: the cognitive, the affective and the psychomotor—the head, the heart and the hand—the first two of which are fully worked out in the two volumes of the taxonomy. Thus he is suggesting that in framing our objectives we need to be clear not only about the sequential nature of the activity but also about the different categories of behaviour we might be concerned with. For the cognitive domain is defined as comprising objectives which emphasize remembering or reproducing something which has presumably been learnt, as well as objectives which involve the solving of some intellective task for which the individual has to determine the essential problem and then reorder given material or combine it with ideas methods or procedure previously

learned (Kratwohl et al., 1964). The affective domain, we are told, comprises objectives which emphasize a feeling tone, an emotion, or a degree of acceptance or rejection (Kratwohl et al. 1964). Finally, the psychomotor domain consists of objectives which emphasize some muscular or motor skill, some manipulation of material and objects, or some act which requires a neuromuscular coordination (Kratwohl et al.1964).

Thus these two dimensions Bloom and his associates offer us enable us to prespecify our objectives at varying levels of specificity in order to outline in great detail the kind of behaviour which are the objectives of our curriculum. It is easy to see why this approach has proved so attract to some curriculum planners.

Conversely, however, it is when we are offered this kind of highly detailed statement of how a curriculum is to be planned in terms of objectives that we begin to see what it is that other people have found unacceptable in this approach, or at least we begin to become aware that it is not such a straightforward matter as it may at first have appeared to be.

The results of Bloom's work, therefore, have been two fold. On the one hand, recent years have seen a proliferation of curriculum projects which have been diligently with detailed statements of their objectives on the other

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hand, we have also witnessed a developing movement away from the idea of prespecified curriculum objectives, a reaction against what has begun to appear to some as an undue limitation on the scope of the teacher as an educator.

A good example of the former would be the elaborate table of objectives given by the Schools Council's Science 5-13 project team (Schools Council 1972) which begins by listing nine broad aims focused on the central goal of developing an enquiring mind and a scientific approach to problems and then proceeds to break these broad aims down into a detailed list of shorter term behavioural objectives, grouped in such a way as to be closely linked to the children's stages of conceptual development. Thus at the second part of Stage I, the early stage of concrete operations, the broad aim of developing interests, attitudes and aesthetic awareness is broken down into four objectives.

Another example is the statement of the objectives of the teaching of home economics as outlined in Schools Council Curriculum Bulletin No.4. These are given under the general headings, Development of personal qualities, Intellectual development, Discrimination and aesthetic appreciation. The needs of the adolescent, Future needs, Skills and knowledge, and they include such things as to develop a sense of responsibility and service towards other pupils and towards the home and school communities, to cultivate an intelligent attitude towards home making, including the social, financial, nutritional and

practical aspects, to develop recognition and appreciation of craftsmanship, quality and good design, to encourage the constructive use of leisure time, to give the girls an awareness of their potential as women, wives and mothers of the future, to teach pupils to understand the topics which we consider most important, eg basic nutrition, budgeting, hygiene, home safety, to encourage enjoyment of the subject and the development of particular interests and talents, to train girls to act sensibly in an emergency (Schools Council 1971b).

Even the most cursory reading of these examples drawn from the stated objectives of one area of the curriculum will make immediately apparent some of the difficulties that have been identified in this kind of approach to curriculum planning and will explain why other projects, notably the Humanities Curriculum Project and the more recent Bruner sponsored project, Man a Course of Study (MACOS) have deliberately eschewed the idea of prespecifying their objectives. We must now, therefore, look in rather more detail at some of the problems inherent in this approach to curriculum planning.

SOME CRITICISMS OF BLOOM'S TAXONOMY

The two main criticisms that have been levelled at the taxonomy of Bloom have been, firstly, that it sets out to be far too precise and specific and, secondly, that it lacks a clear concept of education and, as a result offers us

no criteria for the evaluation of objectives, no basis upon which we might make a choice of what are the most appropriate objectives in a given context. Let us consider these two criticisms in turn.

There are obvious attractions in the idea of a fairly precise prespecification of objectives and these attractions derive not least, as we have seen, from the fact that they lead to a relative ease of evaluation procedures. The more clearly we state our goals the easier it will be to assess whether we have attained them or not, although teachers have been aware for some time of the dangers of allowing evaluation procedures to rule their curriculum planning, in particular the danger of restricting themselves to those activities which lend themselves most readily to the forms of assessment available to them - a problem that maybe inherent in an approach that sees all objectives as behavioural objectives.

However, the main point of the criticism that this approach is too precise and specific derives from the fact that in practice, and perhaps at a theoretical level too, it is not possible to distinguish objectives in such a detailed way. Every activity in which a pupil engages will have a range of objectives both within and between the three domains. This is brought out very well in the general statement of the traditional objectives of craft teaching offered by the

architects of the Schools Council's Project, Education through the use of materials, as developing motor skills, such as sawing, planing and filing, and appreciation of design and craftsmanship in furniture and engineering, with all the satisfaction that attainment in these activities can bring to some pupils and which for so long have been the brad and butter activity of workshop (Schools Council 1969a). It is also well illustrated by the assertion already referred to that one objective of the teaching of home economics should be to encourage enjoyment of the subject and the development of particular interests and talents. The Science 5-13 project too has stated quite clearly that a teacher will have many objectives for her children in mind and any one time, and in general there is potential for working towards several objectives through anyone activity (School Council 1972a). At one level this may seem to amount to no more than saying that in practice every activity will embody a range of objectives, involving some intellective task, a degree of acceptance or rejection and probably some manipulation of materials and objects too.

At a deeper level, however, it might be claimed that what this implies is rather more than a gap between theory and practice, since it draws attention to a fundamental feature of education, namely that it does violence to the notion of education to suggest that even at a theoretical level the development of knowledge and skills of any kind can be divorced from the simultaneous

promotion of a feeling for standards of truth and beauty which are part of what it means to have knowledge and to be educated (Pring 1971) It has been argued therefore, that not only in practice but also at the conceptual level objectives are much too closely interrelated to be capable of being developed into this particular kind of detailed hierarchical taxonomy that Bloom is offering.

To look at this from a different point of view and in more detail, the real thrust of this criticism is that the relationship that exists between educational objectives is too complex to be reduced to an unsophisticated model of this kind which sees that relationship as a hierarchy of simple to ever more complex objectives (Hirst 1975). The relationships existing between the many things that teachers are endeavouring to achieve with their pupils are far more complicated than such a model supposes. Furthermore, such a model assumes that all educational objectives are behavioural objectives, attempts to modify or change the behaviour of pupils, the results of which can be readily assessed by observation of pupil behaviour and, although some statements of objectives, such as those we have already referred to, are framed in such a way as to make such an assumption not unreasonable, a moment's observation of any teacher's classroom practice will reveal that not only are the relationships between objectives highly complex, but the objectives themselves are too

varied and sophisticated to be reduced to one type or category. This is a point take up later.

Lastly, we should note that little practical help is given in the matter of curriculum planning by a taxonomy which offers us only general categories of objective. We need to know more about the relationships existing between particular sets of objectives in the individual context in which we happen to be working. Such a taxonomy assumes that the only factor to be taken account of in the framing of objectives is that of the logical relationships between them. In the reality of any practical situation the logic of our objectives is only one consideration that we must keep in mind. The actual planning of any piece of work will require that we take full account of many other factors of a psychological sociological and educational kind (Hirst 1975).

In short, Bloom's taxonomy, in being very precise, takes too naive a view of educational processes and this provides an over simplified model for curriculum planning which must inevitably, if pursued too slavishly, lead to bad educational practice.

This is one aspect of a greater weakness in the taxonomy, namely that it gives no account of the view of the nature of knowledge on which it is grounded, it has no clearly worked out epistemological basis (Pring 1971).

Such a basis would seem to be an essential prerequisite for any taxonomy of educational objectives, since, whatever else education is concerned with, it is certainly concerned with cognitive development of many kinds, with the acquisition of knowledge of many forms. We have already noted one result of this lack, namely the difficulties it creates when one tries to isolate the affective from the cognitive domain. The second problem that it raises is more germane to our present discussion, since, in making distinctions within the cognitive domain like those between knowledge and other intellectual abilities such as comprehension, application, analysis, and so on, the taxonomy again fails to recognise the interrelatedness of these intellectual abilities. As has been pointed out (Pring 1971) it does not make sense to attempt to bring children to know and then to comprehend and then to apply their knowledge. Understanding is not something we aim at after knowledge has been acquired but something we seek simultaneously with its acquisition. Even the most elementary examination of what knowledge is would reveal this, as would the most superficial consideration of what education is.

This leads us on naturally to an examination of the other major criticism that has been levelled at Bloom's taxonomy, namely that it lacks any concept of education and, therefore, provides no basis for the selection of objectives or the evaluation of one against another (Gribbe, 1970). The taxonomy is

deliberately neutral and offers no criteria by which we can decide what will count as an educational objective. It might be argued that any hierarchy must be based on some system of values, that no hierarchy can be value neutral but, as we have just seen, this particular hierarchical structure endeavours to avoid issues of value by basing itself solely on the considerations of which objectives are logically prior and prerequisite to others and perhaps the psychological consideration of which simple objectives must have been achieved before children can be taken on to the more complex ones. To emphasize this future is to start from the assumption that one's job is merely to describe the kinds of objective teachers can be seen to be pursuing, school objectives rather than educational objectives, and the logical and psychological factors that suggest that to be effective they should be tackled in a certain sequence. It does not commit itself on the question of whether such objectives should be pursued by teachers, or whether they are part of what we mean by education.

This is an inevitable feature not only of Bloom's taxonomy but of any behavioural objectives model of curriculum planning. For by seeing education as the changing of behaviour this model attempts to avoid such questions as the directions in which it is desirable to change pupils behaviour or what kinds of behaviour are worth promoting and leaves those issues to the person

using the model (Sockett 1976). The result is that teachers and other curriculum planner are offered no grounds on which to evaluate competing claims against one other—the problem we saw to be crucial to curriculum planning—not any grounds upon which to evaluate the suitability of their objectives either before or during or after a particular project or piece of work.

Again the result of these weakness in the taxonomy will be difficulties or even dangers for anyone attempting to use it in a practical situation. It will be either misleading or useless. Furthermore, the failure of this attempts at setting up a taxonomy of educational objectives as a basis for rational curriculum planning must cast doubt on this approach to curriculum planning in general, not least because, as we have just seen, some of the criticisms made of it will apply equally to any scheme that begins by specifying behavioural objectives and proceeds to plan those activities and experience that appear most likely to lead to the attainment of these objectives. In short, it must lead us to question the validity of this kind of model of curriculum planning.

A number of people have, therefore, rejected the whole approach to curriculum planning through the prespecification of objectives and we must now turn to an examination of some of their more cogent reasons for doing so.

CURRICULUM PLANNING WITHOUT PRESPECIFIED OBJECTIVES

The first points that must be made in listing reasons why many people reject this approach to curriculum planning are those that derive from practical considerations. In the first place, there are a good many difficulties in measuring the attainment of behavioural objectives. What sorts of evidence would constitute proof of the fact that we have brought about the behaviour changes we have been striving for? Pupils can very easily go through the motions they know we require of them and it is very difficult, if not impossible, to distinguish with any degree of accuracy occasions when this is happening from those when a genuine behavioural change has been brought about. Such an approach, therefore, perhaps invites the generation of inert ideas (Whitehead 1932) or at least makes it difficult for us to ensure that real understanding is achieved.

A second issue that we must not ignore at the level of the practicaliities of curriculum planning is that, while the theorists argue the case of or against the prespecification of curriculum objectives, the teachers themselves in planning their courses seldom begin from this standpoint but from considerations of a much more practical and mundane kind (Taylor 1970). Mentioned earlier that for many years the notion of curriculum objective

was slow to gain hold even at the level of curriculum theory. It has still failed to establish itself in the practice of most teachers.

As they suggested earlier, teachers and student teachers have for a long time engaged in the game of stating the objectives of their lessons when this has been required of them by inspectors, head teachers or college tutors. To a large extent, however, the main results of this has been to establish at least to their own satisfaction how fatuous an exercise this can be, so that they have learnt from it not to plan their work in this way but rather to reject this approach as having little direct bearing on their practice, since the realities of any teacher's lessons will always have only the losses links with any objectives he may have set himself in advance.

It may be that they have thus come to realize, long before the curriculum theorists got onto it, that to state one's objectives in advance in terms of intended behavioural changes and to stick rigidly to such a plan or programme is to fail to take account of the complexities of the curriculum and of the importance of the individual context in which every act of teaching occurs (Sockett 1976).

One major reason, then , why some people have recently wished to argue against the prespecification of objectives is the conviction that education is a

most sophisticated activity and curriculum planning as a result a more complex process than this simple theoretical model suggests. This is a point they have not several times already. The model of curriculum planning as a straight linear progression from prespecification of objectives via decisions about suitable content and procedures to evaluation of intended learning outcomes is far too unsophisticated and inadequate for the planning of any educational activity. They suggested then that the continuous interaction of all the elements involved in curriculum planning was important and had to be allowed for by the adoption of a model that was at the very least cyclical resulting in modifications of our objectives in the light of the evaluation made, or, preferably, one that allowed for constant modification of objectives in the light of continuous evaluation.

They must note now that this latter kind of model accords more closely with the practice of teachers in most kinds of educational situation. Sensitive teachers do make constant adjustments to their procedures and to their objectives in the light of the continuous feedback they get from their pupils as any piece of work progress. This is true even of those teachers who do begin by setting out their terminal objectives very precisely. They have already noted too that factors other than prestated objectives will influence their decisions about content and procedures and these factors in turn will also result in modification to these objectives.

Furthermore, they must recognize that, as they have just suggested, all such modifications will be made according to the individual teacher's interpretation of the values implicit in the originally prespecified objectives (Stenhouse, 1970) and his own reaction to the response of the pupils to the work and any other factors which he regards as relevant. In short, they will be made in relation to the individual context of each teacher's work. It is for this reason that the results of any educational programme will always differ from the expectations of its planners (Stenhouse 1970) and this is one factor in the recent move towards seeing curriculum development as essentially a matter of local development within a particular school rather than in terms of the generation of projects to be disseminated nationally.

Any model we adopt for curriculum planning must allow for the personal and professional autonomy of the teacher, especially in relation to the framing and modification of objectives, as the experience of a number of curriculum projects, such as the Schools Council Project on History, Geography and Social Science 8-13, has revealed (Blyth 1974). If we do not allow for this, then we create constraints on the activity of teachers and their scope for exercising their professional judgement on the spot. This is clearly a very real danger with too simple an objectives model.

This approach also creates similar constraints on the freedom of pupils. As Charity James has argued (James 1968) both teachers and pupils tend to accept objectives as in some sense given and unquestionable and thus both lose the opportunity to be active participants in the educational process. Thus it is argued tat the prespecification of intended learning outcomes to an educational process denies autonomy not only to the teacher but also to the pupil and anything that does not take account of the incipient and developing autonomy of the pupil cannot be accurately described as educative (Pring, 1973) . If education is seen as a continuous, ongoing, open ended activity, then the idea of constant modification and reassessment must be endemic to it, so that any approach to the planning of an educational activity that starts with a clear specification of objectives will be based on a misunderstanding of what an educational activity really it.

This point, of course, rises some much more fundamental theoretical issues concerning the nature of education and, indeed, the nature of man. To place this kind of emphasis on the developing autonomy of the individual is to make certain profound assumptions both about what education is and about the sort of being man is. For to see the activities that the teacher plans for his pupils in terms of closely specifiable learning outcomes is to take a totally behaviourist view of human psychology and to adopt a passive model of man,

seeing all or most of human behaviour as explicable in terms of causes rather than purposes. In other words, it regards the teacher's task as being to condition pupils into certain kinds of behaviour and in doing so it does not allow that man is an active creature some of whose behaviour must be seen as the result of those purposes that he frames for himself as an autonomous thinking being and who requires, therefore, not to be conditioned into certain kinds of response to certain kinds of stimuli, but to be educated to think for himself and to frame his own purposes for his own autonomous behaviour. If one takes this view of man as active rather than passive, and of man's behaviour as explicable in terms of reasons and purposes as well as in causal terms, then one must accept that there is a vital distinction between education and conditioning or training and, therefore, some consequential difficulties for the statement of educational goals in terms of behavioural objectives.

In fact, there arises a further conceptual problem from this very notion of educational goals. For it has been claimed that one of the things that characterizes education as opposed to other activities that involve teaching and learning, such as training or instruction, is that education is essentially concerned with activities whose value is intrinsic to them (Peers 1965). Such a notion of education as consisting of certain activities that are regarded as intrinsically worthwhile is clearly at odds with the idea of activities planned

according to extrinsic behavioural objectives, goals extrinsic to the activity itself. It was John Dewey who first drew the attention to this feature of education when he asserted that education can have no ends beyond itself, since it is its own end. This view has subsequently been developed more fully by Richard Peters (Peters 1965, 1966, 1973a) who claims, for example, that to be educated is not to have arrived at a destination; it is to travel with a different view. What is required is not feverish preparation for something that ahead, but to work with precision, passion and taste at worthwhile things that lie at hand (Peters 1965). On this kind of analysis not only does the notion of prespecified behavioural objectives run counter to the very concept of education but the broad aims of education must also be seen from a different perspective, not as what education is for but as what it is, so that to assert that education is concerned with the development of personal autonomy, understanding, a cognitive perspective, a recognition of the value of certain kinds of activity and so on is not to state extrinsic goals for education so much as to identify features that should characterize any process that is to be described as educational. This is a point we must take up again later.

On this kind of argument what is fundamentally wrong with Bloom's approach and, indeed, with any approach to the planning of a curriculum that begins from a careful and detailed prespecification of objectives is that it

adopts an overtly means/end view which causes us to lose sight of a basic principle of education. One further important aspect of this is that it reduces the role of the content of our curriculum to an instrumental one (Stenhouse 1970), thus introducing a utilitarian element into the pupil's view of what he is being encouraged to learn with all the unsatisfactory consequences of that (MacIntyre, 1964). For in a wider sense, it was this feature of the traditional view of education, derived from Plato and adopted uncritically within Christian educational theory, as a means to the achievement of extrinsic ends, as an instrumental process, that led to many of the inadequacies of educational practice with which we are familiar and invited the reaction against it that is sometimes, and perhaps misleadingly, described as progressive education. The traditional view saw the child as a man in the making and the aims of education as statements about the sort of man education should be concerned to make—whether the obedient citizen or the cultured gentleman or the philosopher king. The reaction against this began with Rousseau's demand that we view and treat the child as a child and let him grow naturally. Whatever the difficulties of this counter view—and they are many—it has she merit of drawing our attention to the danger of taking an instrumental view of education and of seeing the content of our curriculum purely in terms of its suitability for the attainment of certain

goals, a feature of Plato's theory of education that has perhaps not been hitherto sufficiently recognized.

The third major difficult of the objectives approach to curriculum planning follows naturally from this. Once we adopt a model that allows us to see content as instrumental, we immediately risk slipping into some kind of indoctrinatory process, as an examination of Plato's theory of education will again quickly reveal. For there are many areas of the curriculum which involve content of a kind which is highly controversial and to approach these areas with a clear prespecification of intended learning outcomes in behavioural terms is to abandon education altogether for what must be seen as a much more sinister process. In the teaching and learning of music and the fine arts the prime concern is to elicit an individual response from the pupil; it is clearly not appropriate to decide in advance what the response should be (Eisner 1969). How can you put on the blackboard the mysterious internal goal of each creative person? (Pring 1974). In literature too the whole purpose of introducing pupils to great literary works is lost if it is done from the perspective of intended learning outcomes (Stenhouse 1970). Again that purpose is to invite the pupil to respond in his own way to what he is introduced to. To approach a reading of Hamlet, for example, in any other way is either to reduce it to an instrumental role, as we have just seen, designed to promote

an understanding of words, poetic forms, even philosophy, or to attempt to impose one's own subjective interpretation of the play and response to it on one's pupils. If appreciation of literature or any of the arts means anything at all and has any place in education, it cannot be approached by way of clearly prespecified objectives.

This is one of the major reasons why the Schools Council's Humanities Curriculum Project has deliberately eschewed any kind of statement of objectives and indeed, has gone so far as to make teacher neutrality its central principle. Being concerned to introduce older pupils in secondary schools to some of the controversial issues that fact modern society, issues like those of relations between the sexes, race relations, war and so on, and being aware that these are issues upon which a number of different value stances can be taken with equal validity, it has recognized that the involvement of pupils in these issues cannot be undertaken justifiably with clear objectives as to what the outcome of their learning and discussion should be, but only according to certain procedural principles that will allow them to reach their own informed opinions on them. To do anything else would be to indoctrinate rather than to educate.

For some areas of the curriculum, then, certainly for those areas that comprise the expressive arts and the humanities, there is this further strong

argument against planning in terms of prespecified objectives. Indeed, it may well not be limited to the expressive arts and the humanities. Certainly there is a similar argument that can be adduced for the teaching of science. For it might be argued that even in the sciences to prespecify the outcome of an experiment, for example, is to go against one of the fundamental principles of scientific method namely that every scientific hypothesis is problematic and subject to modification or even rejection, so that whether evidence an experiment produces must be seriously evaluated against currently accepted hypotheses (Sockett, 1976) If we are really concerned as teachers of science to get our pupils to think scientifically therefore, we will not begin by asserting what the results of their experiments should be, we will let them evaluate the results of their own experimentation of themselves.

Again they are reminded of the point we have made several times that this is all a result of being too ready to accept as our main tasks as teachers those things that can be easily prespecified and therefore equally easily evaluated. Curriculum development must involve much more than just those things. If it does not then it will be a very blinkered activity.

They are thus faced by a dilemma. On the one hand, it would seem that all rational activities must be characterised as having clear purposes and

intentions; on the other hand, if what they plan for our pupils in schools has such clear purposes and intentions, it is likely to fall short of being educational in the full sense and may even appear to be something sinister. What then is the solution.

ALTERNATIVE MODELS OF CURRICULUM OBJECTIVES

The first point to be made in answer to this question is that there ought not to be any fundamental contradiction between the idea of rational curriculum planning and that of promoting the process of education. In other words, the fact that we are faced with this dilemma is more likely to suggest that our thinking has gone wrong somewhere than that a real impasse exists. For this reason it has been suggested that it is not the specification of objectives in itself which causes the troubles we have listed but rather a misunderstanding as to the kind of thing an educational objective is (Hirst 1975). In short, it is said that we must look for another model for curriculum objectives, since the behavioural model of curriculum objectives is unsatisfactory. Firstly, it is unsatisfactory precisely because it is behavioural and, therefore, loses sight of the fact that educational objectives must of their very nature be concerned with much more complex forms of personal and mental development (Hirst 1973). Secondly, it is based on a misunderstanding of the relationship between

objectives. Thirdly, it leads to a view of curriculum planning as a kind of engineering or computer programming, which fails to understand how curriculum objectives come to be framed. Lastly, it operates at too general a level, assuming that curricula can be planned in a Utopian, carte blanche manner rather than recognizing that curriculum development must be seen as a piecemeal activity taking place in specific contexts (Hirst 1975).

It is not the idea of having a purpose to our planning that is at fault. It is the way in which we view that purpose and its relations to the activities that will embody it. Given that the engineering or computer programming model is inadequate and accepting that a horticultural model of largely undirected growth of the kind that Rousseau seemed to advocate is equally unsatisfactory, we must set about the search for a more suitable model rather than reject the idea of specifying objectives altogether.

On the other hand, it is difficult to know what an educational objective would be if it were not to be seen as a statement of the intention to change or modify behaviour, unless it were a general statement of principle, a long term aim. Any short term goal must be expressed in terms of the behaviour changes we hope to bring about. Certainly the only way in which we could measure the achievement of a short term goal would be by examining the behaviour of

our pupils. Thus, even if we attempted to express the goals of a lesson in terms of educational objectives such as "to develop habits of enquiry, rather than tight behavioural objectives or intended learning outcomes, our intention would still be to change behaviour and our success of failure must still be evaluated by observation of pupil behaviour. Any short term goal, therefore, must be behavioural in nature, although this does not need to be interpreted from the perspective of the behavioural psychologist.

It is for this reason that we are now being encouraged from a number of sources to adopt a much looser approach to the framing of objectives so as to avoid a tight computer programming approach to pupil activities. It has been suggested, for example, that we do begin by stating course objectives but that we avoid the temptation to frame them in highly specific behavioural terms (Hoghen 1972) and that we should not be afraid to state long term objectives, since many important educational outcomes may not be achieved except after many months or years of effort (Hoghen 1972). It is further suggested that we be on the alert for unexpected or unintented outcomes (Hoghen 1972) and that we do not reject or discourage these merely because they do not conform to our prestated short term goals. In short, we should regard our objectives, certainly those of a short term variety, as provisional, mutable and subject to modification in the light of the continuous experience both of ourselves as

teachers and of our pupils once a course or piece of work has got under way. This continuous adaptation to new data is after all a perfectly normal feature of most or all rational activities including that which has often been regarded as the paradigm of such activity, scientific exploration. Only thus can curriculum planning properly become curriculum development. This was the experience, for example, of those working on the Schools Council Project on History, Geography and Social Science 8-13 to which we have already referred which found that in order to allow for the autonomy of both teachers and pupils the objectives framed for both had to be regarded as provisional and open to constant reinterpretation (Blyth 1974). For the same reason, the planners of the Nuffield 'A' level biological science project introduced the notion of mutable objectives (Kelly, P.J. 1973). In short, objectives are developmental, representing roads to travel rather than terminal points (Taba 1962). Another way of putting this would be to say that the objectives moded is useful but has its limitations or that at least its role in curriculum planning has been overstated (Stenhouse 1970).

He goes on to suggest further that it is this kind of objective that teachers have more often than they have instructional objectives of a behavioural kind and that this is particularly so in the most sophisticated modes of intellectual work (Eisner 1969). This is a point we must take up later. It is sufficient if we

note here that to use the term objective to signify this kind of approach to educational planning is slightly odd and misleading, since it is to use a term with connotations of extrinsic goals to denote a notion the essence of which seems to be a concern with processes.

It is as a result of this kind of consideration, therefore, that others have gone further and advised that we turn from this search for objectives of any kind and devote our attention instead to achieving agreement on the broad principles that are to inform the activity or course we are planning and in the light of which all on the spot decisions and modifications will be made.

Lawrence Stenhouse, for example, has suggested that 'in mounting curriculum research and development, we shall in general...do better to deal in hypotheses concerning effects than in objectives. To attach the value laden tag, objectives, to some of our hypotheses is an odd and usually unproductive scientific procedure (Stenhouse 1970). Such an approach, he is claiming, will encourage us to be much more tentative, less dogmatic and more aware of the possibility of failure and the need for corrective adjustments than statements of objectives which may lead us to feel we know where we are going without fear of contradiction. He has also suggested that we should begin by defining the value positions embodied in the curriculum specification or specifications

(Stenhouse 1970). Again to do this will provide us with a clear view of the principles upon which the original planning was founded which can act as a basis either for later changes in our procedures or for modification of these value positions themselves in the light of subsequent experience.

This is a point that Richard Pring has taken up in urging teachers and curriculum planners to seek for agreement on the principles of procedure that will guide the conduct of any particular curriculum project and to concern themselves nor with prespecifying goals but with statements of the norms and principles that will inform the activity of both teachers and pupils (Pring 1973). Only thus, it is argued will it be possible for us to reconcile the idea of rational curriculum planning with that of education as a continuous life long process to which terminal goals cannot be attributed.

It was on this kind of base that the Schools Council's Humanities Curriculum Project was established, making no attempts to specify learning outcomes but stating quite clearly the principles to be adhered to in the classroom. In fact this has been the practice of most curriculum projects. For where objectives are stated these are seldom really short term, but usually have a kind of middle ground appearance and are stated in general procedural terms. In other words, they are often neither very broad educational aims nor

immediate intended outcomes but rather statement of the general principles that the project term felt should underlie the work of a particular subject area. If they are to be called objectives at all, they resemble Eisner's expressive objectives rather than instructional objectives framed in behavioural terms.

This is the only interpretation that can be put on a statement of objectives such as that of the Schools Councils Working Paper No.24—Rural Studies in Secondary Schools, which set out the following five objectives.

Such a statement clearly does not offer a programme of behavioural objectives but it does provide a set of guidelines for teachers to refer to in the planning of their own particular performances or the work of individual pupils.

What has happened seems to be that people are very confused in their thinking about objectives, so that they call what they are doing framing objectives but then proceed to make these of such a general kind that they are not objective in the instructional and behavioural sense of the term at all, but rather expressive objectives or principles of the kind we have been discussing. Thus even the Schools Council's Science 5-13 project which sets out a programme of objectives with a very taxonomous look to it is at pains at the same time to stress that all of these objectives are at a level of generality such as to give both teachers and children a good deal of freedom over choices of

activity, material experiments and so on (Schools Council 1972a). Indeed, the experience of that project points up precisely the problem we have been endeavouring to air, since its objectives could not be tightly framed without being in conflict with the enquiry approach to science that it was also at pains to promote.

Most people do seem in fact to accept that an educational curriculum must be viewed in terms of processes rather than content or behavioural outcomes. One might express this by saying with Richard Peters that it is the manner rather than the matter of learning than we must look to in defining an educational activity (Peters 1965). Or one might claim with Paul Hirst that to be initiated into the several forms of thought is more important than to acquire the ability merely to perform certain intellectual feats (Hirst 1965), the ability to think scientifically, for example, being what the notion of education requires rather than the mere display of certain behaviours recognisable as regurgitating statements of scientific fact. Or one might argue with Alfred North Whitehead that education is the art of the utilization of knowledge and not the acquisition of inert ideas (Whitehead 1970). Again one might accept John Dewey's clam that all knowledge is to be seen as the developing experience of the individual. One might even take the line of those sociologists who argue that education, to be meaningful to the pupil must be a development of the knowledge he brings to the school with him (Keddie, 1971).

It all comes down to the same thing fundamentally, namely that education and, therefore, the curriculum has to be planned in the light of those processes it is seen to comprise rather than in terms either of the subject content it is claimed it should contain or include or a set of behavioural outcomes it is designed to promote or achieve. Aim and processes cannot be separated, the aims are reflected in a processes and processes cannot be separated, the aims are reflected in the processes and the processes are embodied in the aims.

The difficulty arises when the framing of short term goals is seen as a tight deductive process from these broader statements of aims, processes or principles. It is the relation of our short term objectives to these longer term aims that is the crucial issue. The model that is unacceptable for all the reasons we have listed at length is that which offers us a hierarchy of goals, beginning, for example, with the ultimate goals of all education, deriving from these mediate goals for different stages of learning, deducting from these proximate goals for shorter term activities and finally drawing from these specific classroom objectives (Wheeler 1967). It is infinitely preferable that after agreement has been reached at the level of general principles, teachers and pupils should be given the autonomy to interpret these principles in their own way in the planning of their varied and continuing activities. In practice, this

seems to be what most project in the last analysis do any way, so that once again it seems that we have a problem created for us by the theories. There are, of course, dangers here that teachers and pupils will either fail to use or will misuse their autonomy (Blyth 1974) but unless this risk is taken and they are given this freedom, nothing that can be characterized as education is likely to take place and no curriculum development will be possible. This looser model is the only acceptable model for both the rational planning and the continuous development of an educational curriculum.

This brings us to a final point which must be noted here, although it has already been referred to. It may well be that we need to seek different solutions to this dilemma over objectives in considering different areas of the curriculum or the work of different age ranges, although, as we suggested earlier, it may equally well be the case that at a fundamental level no such differences should exist. Certainly, however, we should note here the difference between education and schooling and recognize that the problems we have been discussing relate to the planning of educational activities in terms of prespecified goals.

Education, however, is not the only process that involves teaching and or learning, nor is it the only thing that schools are responsible for and need

therefore to plan. Schools are also responsible for a good deal of training and the teaching of physical skills, sometimes as a preliminary to some educational activity but sometimes, as with some vocational training or games coaching, as a totally separate activity; they also concern themselves with such things associations and other activities whose goals are clearly specifiable. A tight behavioural objectives model might be the right model for the planning of programmes of work in these areas and we should not allow what has been said about the unsuitability of such a model for the planning of educational activities to cause us to abandon it for all purposes.

Indeed, this may point us towards what begins to seem to be a fundamental feature of educational objectives, namely that in some strange way they are concerned with means rather than with ends. If they have any place in the educational process at all, it is as statements of immediate and short term pieces of learning that are to be undertaken, skills to be attained or facts to be acquired as staging posts on the road to the achievement of an education which can itself be defined only in terms of broad principles and not in terms of specific and prespecifiable behavioural changes.

It is precisely, therefore, because many people feel that there is much more to schooling than can be expressed in terms of such short term objectives

and are committed to the view of education and of the nature of man we discussed earlier, that we have directed our main attention to what the entails for curriculum planning.

SOURCES OF PROCEDURAL PRINCIPLES

We have argued that the only way in which we can make sense of the idea of objectives within a context of educational activities is to view them as procedural principles rather than terminal goals. We must now consider briefly the question of where such principles will derive from or of the kinds of consideration upon which they might be framed. We saw when criticising Bloom's taxonomy that it was at fault not only in its too precise specification of learning outcomes but also in being value neutral, in merely describing what teachers do rather than attempting to evaluate what they do and to suggest what they ought to be doing. We said then that if we profess to be concerned with educational objectives, we need some concept of education in the light of which we can decide which objectives are to count as educational. The same must be true of any statement of the procedural principles that are to inform our curriculum. These cannot be merely plucked out of the air not made up in an off the cuff manner. They must be firmly rooted in a concept of what constitutes an educational activity.

A lot will hinge, therefore, on the view one takes of education. This would appear perhaps on the surface to open up the whole issue to the subjective judgements of individuals and to raise all the problems of values. However, at the level of ultimate educational principles the situation is unlikely to be as open as this. For, as we have seen, to be faced with this problem in the first place implies that one is committed to a view of education as quite different from those activities that can be defined in means/end terms; in other words that one has a concept of education as an activity distinct from training, indoctrination socialization and son on. This in turn will imply a view of education, such as that so thoroughly analysed and explicated by Richard Peters (Peters 1965, 1966, 1973) as an activity characterized by such general features as the intrinsic value and valuing of its content, the development of understanding or a true cognitive perspective rather than the mere acquisition of knowledge, a respect for standards of truth and the promotion of individual autonomy. The recognize that problems exist over the planning of educational activities in terms of clear objectives or intended learning outcomes is in itself to be committed to a view of education as embodying these principles, and these principles are surely enough to be going on with.

It is in the interpretation of such principles in terms of specific activities, subject content or shorter term goals that the difficulties arise, as we suggested

earlier. It is clear that what happens in practice is that those concerned with curriculum planning at different levels each make their own interpretations, albeit in interaction with each other. Thus a project team will formulate provisional objectives after a detailed analysis of the area of the curriculum with which it is concerned and usually in dialogue with educationists in Colleges and Departments of Education and with teachers concerned with the area (Blyth 1974). The statement of objectives for Rural Studies given in the Schools Council's Working Paper No.24, for example, which we have already quoted was reached in part as a result of a survey of the schools teaching the subject and of the aims they acknowledge. The objectives outlined by the project team will then in turn be revised and reformulated by the teachers in the individual schools in relation to the peculiarities and idiosyncrasies of their own teaching styles and contexts. Again we have already stressed the importance of this personal and professional autonomy of the teacher. Lastly, the pupils themselves will make their own revision, their own interpretations of what is being offered to them and again we have suggested that it is right and proper that they should be able to do this. There will also be further modifications made by teachers in response to such pupil reaction. Thus any project team must plan in such a way as to allow for reinterpretation of its objectives at a number of levels as different agent in the educational

process exercise their rights to decide on the form that process will take, although the item must also assume that its own efforts will in turn influence the kind of interpretation that others make (Blyth 1974).

It is thus at the level of short term or even middle ground goals that the value problems and differences referred to earlier are most likely to arise as different decisions are reached and different interpretations are made as to the most effective and appropriate means of satisfying these broad procedural principles. However, it is surely right that these differences of interpretation should be accepted and even encouraged, since, as we have seen, the greatest danger derives from seeing the process of interpreting broad principles in terms of immediate decisions as a tightly deductive one. What is crucial, however, is that all of the interpretations that are made should individually and collectively reflect the original broad principles they are intended to implement (Hoghen 1972).

CURRICULUM CONTENT

Many factors enter into decisions that are made about curriculum content, not least those factors that derive from the social pressures which are extend on curriculum planners and demands that the schools should at least to some extent or for part of their curriculum seek to meet what appear to be the needs of the

society they serve. However, we must also recognise that many fundamental decisions about the content of the curriculum have been made and continue to be made in the light of views that are held about the nature of knowledge. The history of education in the western world, from at least as far back as ancient Greece, reveals, for example, a concern to distinguish those areas of learning promoted by teachers in order to attain certain social goals from those aspects of learning that have seemed to have some independent and intrinsic right to inclusion in the curriculum and which, therefore, not only do not seek but positively eschew justification in instrumental terms. This was the point of the attraction felt and expressed in the ancient world for the idea of a liberal education, of the later concern with the education of the cultured gentleman and the resultant contrasting of liberal and vocational forms of education, a conflict which can still be discerned in the practice of the present day and which has led to some very clear and overt hierarchical distinction between certain kinds of school subject. The same kind of thinking also expresses itself in modern theory through the differences that are now stressed between education as such, a term which it is suggested should and can only be appropriately applied to those activities that can be viewed and justified as intrinsically worthwhile, and other processes that also involve teaching and that schools also concern themselves which, such as socialization, training, instruction and the like (Peters 1965, 1966, Hirst and peters 1970).

On the whole, such dispute as there has been over the inclusion of vocational or utilitarian learning in the curriculum has centred on the issue of whether this is an appropriate concern of schools at all or whether it should be their concern only in relation to the needs of those pupils who cannot cope with the intellectual demands of those subjects that have been felt to be intrinsically valuable (Bantock 1968, 1971). No one has felt it necessary to challenge their justification beyond that point, since if one accepts the ends to which they are instrumental it must follow that, other things being equal, one accepts the means to those ends.

There has been much disagreement, however, over the question of what is to be included in the curriculum for its own sake. Indeed, this question has been the local point of educational debate since such debate began. It continues to be a highly controversial issue, since it is by no means a straightforward matter to identify those areas of knowledge that have value in their own right or that are to be seen as intrinsically worthwhile nor, indeed, even to demonstrate that there are areas of knowledge of which this is true.

This fundamental problem reveals itself today in a number of issues that loom large in current debate about education, questions such as those about the extent to which the content of the curriculum should be chosen in relation

to the needs of society or the needs and interests of the pupils, questions about the nature of knowledge itself and whether there are considerations there that may resolve this issue for us, questions concerning the merits and defects, the possibility or impossibility of curriculum integration, not to mention the fundamental issue, to which we referred of finding any acceptable framework of values for curriculum planning. These are all current examples of this continuing debate and all of them are issues to which we must devote some detailed attention.

CULTURE AND THE CURRICULUM

First, then, let us consider the case for basing decisions about the content of the curriculum on an analysis of the nature of society.

It must be reorganized that schools exist in advanced or sophisticated societies as agencies for the handling on of the culture of the society, so that at least in part their purposes must be seen in terms of socialisation or acculturation, attending to that induction of children in to the ways of life of society which is achieved in more primitive societies by less formal methods. On this basis it has been argued that a good deal of what is to be taught in schools can be decided by reference to the culture of the society they are created to serve. This

has been one of the root justifications of those who take a hand line on the question of curriculum content, since it has been argued that a major task of the school is to hand on to the next generation the common cultural heritage of the society (Lawton 1975).

Even if one accepts the force of this claim in principle, in practice it creates more difficulties that it resolves. To begin with, difficulties arise because the term 'culture' has several different meanings. In particular, confusions are created by the fact that the term is used, by anthropologists for example, to denote in a purely descriptive sense all aspects of the ways of life of a particular society, as when we speak of the cultural patterns of a primitive community, while, on the other hand, it is also used too denote what is regarded as being best in the art and literature of any particular society. Thus a cultured gentleman is not one who knows his way about the ways of life, the habits and beliefs of his society, he is a man who has been brought to appreciate those works of his fellows that are regarded as being among the finer achievements of the culture. When people talk them of basing the curriculum on the culture of the society, some of them are suggesting that we socialize the young, while others are encouraging us to frame the curriculum in terms of what is regarded as being best or most

valuable among the intellectual and artistic achievements of the society. A learning towards the latter interpretation, even when the problems of definition are recognized and a clear definition as offered, is likely so lead to a view of two or more cultures, a high and a low, or an upper class and a folk culture (Eliot, 1948; Bantock 1968, 1971) and this has serious implications for curriculum planning and the practice of education generally which we must later examine. In particular problems of both the theoretical and a practical kind arise when the distinction becomes associated with social class differences.

A second problem arises from the difficulty of establishing what is or should be the relationship between schools and the society in which they function. We have spoken so far as if the function of the schools is to transmit the culture of society, but there are those who would wish to argue that they exist rather to transform that culture, to act as positive agents of change. Do schools change society or do they themselves change in response to prior changes in society? These are nice questions. Even nicer are the issues we raise if we ask whether schools ought to be attempting to change society or merely to adjust to social changes. In reality, and perhaps in ideal terms too, it may be sufficient to recognize that both are interlinked and subject to many of

the same influences and constraints so that changes occur in both pari passu, and this perhaps is how things should be.

Whatever view one takes of this issue, a further difficulty arises for those who wish to base decision about the content of the curriculum on considerations of the culture of the society when we attempt to state in specific terms what that culture is. For it is clear that in a modern advanced industrial society no one pattern of life that can be called the culture of the society can be identified. Most modern societies are pluralist in nature, that is, it is possible to discern in them many different, and sometimes incompatible, culture or sub cultures. It does not follow that we must regard such sub cultures as hierarchically related to each other but it is necessary to recognize them as being different from each other and it is also important to appreciate that most individual members of a society will participate in more than one of these sub cultures at different times or in different aspects of their lives. Thus not only do most modern societies contain different ethnic groups, each with its own traditions, habits, beliefs, customs and so on, but they also contain different religious groups, different social groups, artistic groups, group held together by many different shared interests, each of which will have its own norms, its own culture.

The question as to whether schools should endeavour to promote a common culture or help divers groups to develop their own different cultures in a vexed one, not least in relation to those minority ethnic groups that are to be found inmost societies. What concerns us more directly here, however, is the implication that even if we believe that the content of the curriculum should be based on due culture of the society. It will be impossible to assert with any real expectation of general acceptance what that culture is and therefore what the content of the curriculum should be. All that this line of argument will achieve is so bring us face to face with age old issues concerning the appropriate educational provision for different social and ethnic groups.

The problem is aggravated too by the fact that most societies are far from static entities and this implies that one feature of their culture is that it is changing, evolving, developing. Furthermore, western cultures are characterised not only by rapid change but also by deliberate change (Taba 1962). Technological change must also lead to changes in the norms, the values, the beliefs, the customs of a society, in other words, it must lead to a fluid culture. Moral change too is more difficult in many ways to handle. It is slower to take effect, since people shed or change their values more slowly and more reluctantly

than they exchange their cars or their washing machines. Thus there is a time lag between the technological changes and those that follow in the norms, customs and social institutions of the society (Taba 1962). Furthermore, moral change always requires much more careful and deliberate thought.

There are several aspects of this that have serious implications for education and the curriculum. Firstly, it makes even more impossible the task of deciding which aspects of the culture schools should initiate their pupils into. Secondly, it raises again the question of what the role of the school is or should be in relation to the culture of society, in particular whether it is there to transmit that culture or to transform it. Thirdly, it raises questions about what schools should be attempting to do for their pupils in a society that is subject to rapid changes.

A recognition of the rapidity of social change and of the need for people to be equipped to cope with it and even to exercise some degree of control over it suggests that schools should in any case go beyond the notion of initiation of pupils into the culture of the society, beyond socialization and acculturation, to the idea of preparing pupils for the

fact of social change itself, to adapt to and to and to initiate changes in the norms and values of the community. This requires that pupils be offered much more than a selection of the culture of the society as it exists at the time when they happen to be in schools, even if this could be identified and defined clearly enough for adequate educational practice.

Furthermore, if we are right to suggest that this is the only viable role the school can take in a rapidly changing society, if it can only equip pupils to take their place in such a society by developing in them the ability to think for themselves and make their own choices, then the question of whether the school is there to transmit or to transform the culture of society has already in part been answered. For the adoption of this kind of role takes the school well beyond the mere transmission of knowledge--a role that in a changing society would seem to be in any case untenable. If the school is not itself to transform the culture, it is certainly there to produce people who can and will transform it.

This is one source of a further problem that arises if we attempt to establish as the content of our curriculum those things which we regard

as being the essential valuable elements of the culture. Recent practice has revealed very clearly that this can lead to the imposition on some pupils of a curriculum that is a lien to them, which lacks relevance to their lives and to their experience outside the school and can ultimately bring about their alienation from the rejection of the education they are offered. This is probably the root cause of most of the problems that the educational system is facing today and it is certainly a real hazard if not an inevitable result of this kind of approach to curriculum planning.

These last points lead us on to a much more general weakness of this line of argument. For it will be apparent that even if we see it as the task of our schools to initiate pupils into the culture of the society, it will not be possible to offer them the whole of that culture, however it is defined. A selection will have to be made and, since this is so, any notion of the culture of the society, no matter how acceptable in definition or content, will in itself not provide us with appropriate criteria of selection. We will needed to look elsewhere for justification of the selection we do make so that the arguments for a curriculum content based on the culture or cultures of society will not in itself take us very far towards finding a solution to our problem.

This bring us lastly to the realization that attempts to base decisions about the content of the curriculum on a consideration of the nature of society are, if interpreted in this way, essentially utilitarian arguments, they seek a social or sociological justification for curriculum content and therefore imply that the justification is to besought outside the activity or the knowledge or the content itself, a procedure which we have already suggested is incompatible with the notion of education as such.

This charge can only be avoided if they go further and argue that what is valuable in the culture is valuable nor merely because it is part of the culture but because it has some intrinsic merit which justifies its place not only on the curriculum but also in society itself. Thus some curriculum theorists, such as Paul Hirst, argue for the inclusion of certain areas of knowledge in the curriculum on the grounds that these are those forms of knowledge that constitute rationality itself, that they represent what it means to be rational, so that without them nothing that can be called education is possible since education is seen as essentially concerned to develop the rational mind (Hirst 1965, 1969, Hirst and Peters 1970).

If this is what is being claimed, it is of course a completely different argument from that which seeks justification in the culture itself and it does bring us up against the whole issue of the nature of knowledge and whether any body of knowledge has or can have an intrinsic, objective, absolute value or status. The focus of the question, therefore, continues to be the nature of knowledge and any attempt to seek for a justifications of curriculum content in terms that are not instrumental or utilitarian must start with an examination of what knowledge is.

KNOWLEDGE AND THE CURRICULUM

The question what is knowledge can be interpreted in several ways. It can be taken as a psychological question about bow people come to have knowledge, about the psychological and behavioural changes that occur when learning takes place. It can equally be interpreted as a philosophical semantic question about what it means to know something, what kind of behavioural changes are to count as evidence of the acquisition of knowledge, rather than of, say, the development of habits or fixed responses to certain stimuli. It is in this sense that it is often argued that the term knowledge can only properly be used of that kind of learning that involves understanding, that

knowledge that something is the case must always be accompanied by knowledge why it is the case, since only if we insist on this can be distinguish knowledge from belief, opinion or mere guesswork.

It is this latter point that leads us on to the question that is central to our discussion of curriculum content. Once again we must note the interrelatedness of these questions, but the questions that are most relevant to our immediate concerns are not those about the knower but those about the nature of knowledge itself and, in particular question about what will constitute grounds for the claim that we know something to be the case rather than merely believe or guess it to be so. In other words, what is it by virtue of which we can assess the validity of knowledge? Interpreted in this way, the question what is knowledge? Becomes almost synonymous with the question what is truth? And its central relevance to decisions of curriculum content will be clear, since it will be impossible to justify the inclusion of certain areas of knowledge in GCE curriculum for their own sake unless evidence can be produced as to their truth content, objectivity or intrinsic value.

This question has been a major concern of philosophers since the time of Plato. Indeed, it could be argued that this is the local point of

philosophy itself since all branches of philosophy--ethics, aesthetics, politics and son on--can be seen as centrally engaged in a search for what will constitute knowledge in each particular field. Inevitably a number of different theories about the nature and structure of knowledge have been offered, all or most of which are still in vogue and it would be for many reason desirable that we should consider these in great detail, firstly, because particular theories about the nature of knowledge are implicit in or assumed by all theories that are proposed as bases for curriculum development and planning and, secondly and more importantly, because the assumptions about the nature of knowledge that such theories make are often left unquestioned and accepted uncritically. In other words the epistemological bases of the curriculum are too little understood by curriculum theorists and most theories about the curriculum need to be looked at very critically and rigorously from this point of view.

However, we must content ourselves here with a brief survey of the main issues, a procedure that may be more acceptable since it begins to appear to me that the most important point for curriculum theories to understand is perhaps not the details of particular epistemological theories, although clearly they should grasp them if they intend to base

their own theories on them, but rather the variety of theories that have been offered and the fact that each of them is inevitably sensitive and hypothetical and fails to offer an account of knowledge that is generally acceptable.

Two main kinds of theory have emerged during the development of Western European philosophy, those rationalist views that take as their starting point the supremacy of the intellect over other human faculties and stress that true knowledge is that which is achieved by the mind in some way independently of the information provided by the senses, and those empiricist views which have taken a contrary stance and maintained that knowledge of the world about us can only be derived from the evidence that the world offers us through the use of our senses.

This dispute reflects a distinction that has characterized Western European philosophy from the beginning between the idea of the fallibility of the senses as sources of information and views that some have held of the infallibility of the intellect. Thus such philosophers as Plato, Descartes and Kant have offered various versions of a rationalist epistemology which have shared the basic conviction that

the evidence of our senses is misleading but that the rational mind can attain true knowledge independently of the sense by apprehending what lies beyond those sense impressions or in some way introducing a rational structure to our understanding of them.

Such theories, seeing knowledge as essentially independent of the observations of our senses, inevitably lead to a view of knowledge as in some sense of God-given, 'out-there' and independent of the knower, having a status that is untouched by and owes nothing to the human condition of the beings who possess the knowledge they are concerned with. Thus for Plato, and especially for Aristotle, the act of contemplation of the supreme forms of human knowledge is a godlike act, through which man transcends his human condition and achieves, albeit momentarily, the supreme bliss of the life of pure intellect perpetually enjoyed by god. For Kant too, at a more mundane level, the task of establishing a critique of knowledge is essentially one of discovering those elements of knowledge which owe nothing to our nature as human beings, those which are derived from pure reason and have nothing to do with human feelings or passions.

The other main kind of epistemological theory, empiricism, can be seen as a reaction to the mysticism of these rationalist views. Its

fundamental tenet is well expressed in the claim of John Locke, the founder of the empiricist movement, that no knowledge comes into the mind except through the gates of the senses. The mind of the new born child is seen as a *tabula rasa,* a clean sheet, word of all characters, without any ideas. Such knowledge as it acquires, it acquires through sensation and reflection, that is, by what its senses tell it and by its own reflective introspection and interpretation of its perceptions.

A basic position such as this leads inevitably to a less confident view of knowledge and to a greater awareness of the tentative nature of human knowledge since it is agreed by everyone that the rationalists are right in claiming that the evidence of our senses is unreliable. Indeed, one of the earliest and most ardent exponents of the empiricist view of knowledge, David Hume, came to the conclusion that no knowledge was possible at all or, at least, that we could have little certainty in our knowledge of the world about us. If we believe that fire warms or water refreshes itis only because it costs us too much pains to think otherwise. It is not perhaps necessary to go as far to the other extreme as this, but it is necessary, if one takes such a view, to recognise at the very least the hypothetical nature of knowledge, as present day empiricist theories do (Ayer 1936, 1946).

Thus a number of recent theories of knowledge and theories of education have begun from the conviction that human knowledge has to be treated in a far more tentative way than many who take a rationalist view would concede and that, in relation to curriculum planning, we are in no position to be dogmatic about its content. The whole pragmatist movement, as promoted by John Dewey, which has been highly influential in the recent development of educational practice, has been founded on a view of knowledge as hypothetical and therefore subject to constant change, modification and evolution. Such a view requires us to be hesitant about asserting the value of any body of knowledge or its right to inclusion in the curriculum and encourages us to accept that knowledge is to be equated rather with experience, so that what it means for a child to acquire knowledge is that he should have experiences which he can himself use as the basis for the framing of hypotheses to explain and gain control over the environment in which he lives. In other words, we cannot impose what is knowledge for us upon him, we must assist him to develop his own knowledge, his own hypotheses, which will be different from ours if the process of evolution is to go on.

This certainly results in a view of education as a much more personal activity than any rationalist could acknowledge. It may also

suggests that knowledge itself is personal and subjective. This, however, is not a view that Dewey himself subscribed to. He believed that the proper model for all knowledge is that of scientific knowledge, where hypotheses are framed and modified according to publicly agreed criteria, so that while such knowledge has no permanent status it is objective in so far as it at least enjoys current acceptance by everyone.

Others have gone much further than this, however, and have suggested that knowledge cannot be seen as having even a current universal acceptance. This is the main thrust of the recent dramatic developments in sociology towards the generation of a sociology of knowledge. For it has been argued here not only that knowledge is a human product but that it is the product of particular social groups, a product of the informal understandings negotiated among members of an organised intellectual collectivity (Bloom 1971). On this view, of then, knowledge is socially constructed and since socially constructed knowledge is ideology, any attempt to make decisions about the contentthe curriculum that are based on some views of what kinds of knowledge are valuable has to be seen as an attempt to impose one particular ideology on children and thus to achieve some kind of social

control over them either deliberately or merely as a by-product of one's practice. Debate about the content of the curriculum is thus seen as dispute between conflicting ideologies.

Others have gone even further than this and stressed the phenomenological on existentialist claim that all knowledge is personal and subjective, that every individual's knowledge is the result of his own completely unique perceptions of his own worked. As a result of arguments of this kind, we have demands from people like Illich, Freire and others that society should be deschooled and the process of education made less formal, and from others that we should merely consider again the content of the curriculum and endeavour to base it on the common sense knowledge of the pupil rather than the educational knowledge of the teacher (Keddie 1971). In this way it is suggested we will avoid the alienation we referred to earlier which, it is claimed, is experienced by children who see no point or meaning in the content of what is presented to them and we will also repudiate the charge that we are endeavouring to gain control of them by indoctrinating them with the values, the ideology, of one dominant section of the community.

We have thus come full circle, since we are back with the problem of conflicting sub cultures and we seem to have drawn a blank in our attempts to find a solution to our problem. For we were attempting to discover some criteria within the nature of knowledge itself which would enable us to choose between conflicting cultures or to make a selection from what seemed to be the common culture and this we have failed to do. There is no universally accepted theory of knowledge and the theories that appears to have the strongest claims on our acceptance are those that tell us that they cannot establish the kind of objective status for knowledge that we require in order to make decisions about the content of the curriculum entirely on the basis of this kind of consideration.

In fact, our brief survey of the major features of what philosophers and others have said about knowledge has suggested that epistemological considerations in themselves can provide no positive help to curriculum planners, since one can find no clear, hard and fast theory of knowledge upon which any firm choice of curriculum content can be based. Similarly, as we shall see later, they offer no clear cut basis for the development of an objective framework of values within which such decisions can be made.

This also highlights a fundamental tension, or even a contradiction, in Denis Lawton's model of curriculum planning. We saw there that he is suggesting that in making decisions about the curriculum we look to both philosophical assertions about the nature of knowledge and to sociological considerations about such things as social and technological change and that we balance these against each other. It should now be apparent, however, that if those philosophical assertions are such as to promote a view of knowledge as having a God given status, then they must also require of us that we do not, or even cannot, modify or compromise this God given status by reference to mundane sociological considerations of the here-and-now of particular societies. If, on the other hand, these philosophical considerations do not lead to this view of knowledge, then they must lead to a view of it as socially constructed in some way, so that they are not fundamentally different kinds of consideration from the sociological considerations themselves.

Again, therefore, either epistemological considerations of a purely philosophical kind must dominate curriculum planning, no matter how socially irrelevant the curriculum is that they lead to, or it must be accepted that they are of no real help in curriculum planning at all.

If epistemology is of any value to the curriculum planner, that value derives only from the fact that this kind of enquiry can illuminate and introduce some clarity into our discussion of the curriculum, since such excursions into the theory of knowledge do help to point up some of the difficulties that curriculum planners face in this area and to bring out the assumptions implicit in some theories about the curriculum. They also provide some negative evidence as to where solution to these problems are not to be found and suggest therefore, both that we look elsewhere for solutions and that there are real dangers in expecting these solutions ever to be so conclusive that we can be dogmatic about them. For they also reveal that some of the difficulties that we meet in curriculum planning are a direct result of the adoption of one particular theory of knowledge on the assumption that it can not only help to solve our problems but that it can in itself provide a final answer in them. In other words, too close an adherence to any one theory of what knowledge is or of what is knowledge is likely in itself to generate problems, some of which, such as the problem of curriculum integration that we shall consider might not otherwise have existed.

If no justification is to be found in epistemology, then, and if at the same time an appeal to the nature of society reveals as bewildering

a variety of demands as we have suggested, there remain only two possibilities. Either we must look elsewhere for a basis for our choice of curriculum content, to the nature of the child, for example, to his needs or his interests, or we must find some basis for a framework of values which will enable us to make a choice among bodies of knowledge or among the cultures and subcultures of society. If we do the former there is a distinct possibility that we will come up with not one curriculum but many--as many perhaps as there are pupils--and this will in turn raise difficulties of its own. We must now consider therefore, firstly, the suggestion that a consideration of the many aspects of child nature be used as the criterion of choice, and secondly the problem of establishing a framework of values within which choice of curriculum content may be made.

CHILD-CENTRED EDUCATION

The idea that in seeking answers to our questions about what should be taught we look to an examination of the nature of the child is not new: it is certainly not a product of the twentieth century. The revolt against the traditional view of education as concerned with the purveying of certain kinds of abstract knowledge and the development

of rationality was begun by Rousseau in the eighteenth century and carried forward by others, perhaps more influential, educators, such as Froebel and Montessori in the last century. The main thurst of that revolt was against the idea that we plan our educational practices by a consideration of knowledge and that we begin to look instead to the children who are the objects of those practices and plan according to what we can discover about them. It is for this reason that this general movement has been termed 'child centred'.

What is recent is the rigorous examination of what this entails, since for many years, while admittedly encouraging a more humane approach to education and requiring a more careful consideration of the child's feelings and his reactions to educational practices, it was highly suspect theoretically, leading more to the generation of a romantic reverence for childhood and of beautiful thoughts about children than to any rigorous analysis of what education fundamentally is or should be. It is one thing to claim that education should be planned according to what we know about the nature of children; it is quite another to spell out precisely how our knowledge of children should be reflected in our educational planning. Thus some of the early theories seemed to suggest that no planning should be

done at all, since they advised us to leave the child alone to develop naturally, to grow like a plant in a garden, free from the corrupting or confining influences of adults.

With theories such as these it is very difficult to decide what practical provisions they should lead to. They may be helpful in our attempts to decide on appropriate methods but they offer no criteria by which we can make choices of suitable content. It is largely because of this ambivalence that attempts have been made in more recent times to produce more coherent accounts of the practical implications of this fundamental view of the central role of child nature in curriculum planning.

Three related kinds of answer have been offered to this question--claims that our main concern should be the needs of the child, attempts to give a coherent account of the nature of growth and assertion that the content of the curriculum should be decided by reference to the interests of the children. We must look at each of these briefly in an attempt to assess whether they will offer us the yardstick we are looking for.

The idea that we should begin our curriculum planning by attempting to discover what children need is an attractive one that

appears at first sight to dovetail naturally into a theory of education that takes as its main focus the nature of children and suggests that that should be our first concern in planning educational provision. The whole thrust of the naturalist child centred movement, as we have seen, is away from the view that education should be planned by reference to the nature of knowledge or the needs of society towards claiming that the main, perhaps the sole, concern should be with the nature of the child and, therefore, with his needs. This whole movement gave great impetus to the development of the study of child psychology, since clearly if we are to pay heed to the nature of children we need to discover as much as we can about that nature and the translation of this into the idea of needs was one attempts by educational psychologists to spell out what kind of educational provision this concern with child nature should lead to. In fact, the concept of need has been an important one in psychology generally and was therefore a popular and attractive notice to educationists when education theory was dominated by the results of psychological researches.

Like all of these theories, the idea of needs does lead to important changes in our methods and approaches in education but it is not one that will help us with decisions of content, since it is not a concept

that wil l hold up to any depth of analysis (Dearden 1968; Wilson 1971).

In the first place, the argument that we can resolve questions of what any one ought to have by reference to what they are seen to need involves an illicit process from 'is' to 'ought' which can never constitute sound reasoning and which amongst other things, begs a good many questions of a moral and social kind. For it may be claimed that the whole fabric of society is held together by the ability of most people to go without some of the things they might feel they need in the interests of social cohesion.

`Furthermore, even if this were not so, the problem of identifying needs still remains. It may well be that much human behaviour, and especially the motivation for that behaviour, is explicable in terms of the reduction of needs through their satisfaction or part satisfaction (Maslow 1954), since clearly if a felt need is reduced in some way the pattern of behaviour associated with that reduction will be reinforced. But to characterize all learning as being of this type is to go too far and in any case, even if this were the model for all learning, we would still be left with the problem of evaluating between needs, of deciding which

patterns of behaviour should be reinforced by these processes of need reduction, since the notion of need in itself, as we have just seen, does nor provide us with the criteria of evaluation, with a framework of values, with grounds for asserting what ought to be done.

This becomes apparent when we consider the detailed accounts of human needs that the psychologists offer us. Maslow, for example, identified three kinds of need--primary needs for food, air, sleep and so one, emotional needs for such things as love and security and social needs for acceptance by one's peers and suchlike (Maslow 1954). However, the further we move up this hierarchy of needs, the more problematic our acceptance of them becomes and even greater difficulties arise over questions of whether, and in particular how, these needs are to be satisfied. A moment's consideration will reveal this.

In short, the term 'need' does not offer us a straight objective description of certain features of human nature that we can use as a basis for planning any kind of social or educational provision. At all but the very basic levels it is impossible to distinguish what we need from what we want or, worse, what someone else thinks we ought to want or ought to have. We still have to choose between the things that

people need or think they need and again the notion of need in itself will not provide us with the criterion by reference to which we can make such choice.

Much the same problem arises when we attempt to explicate the demand that we our curriculum planning on a consideration of the nature of the child by reference to the idea of natural growth. For the idea of natural growth in itself is of little real help to educationists since what they really want to know is how, when and where they might be justified in interfering with that growth. Similarly, analogies drawn from gardening are not very helpful since the main need of the gardener is to know when to interfere with the natural development of his flowers, tomatoes or hops. The notion of growth in itself cannot enable us to distinguish education from maturation and, therefore, cannot provide us with any of the criteria we are looking for (Dearden 1968).

To speak of guided growth, as, for example, John Dewey does, is to do no more than push the question one stage backwards. For we now have to ask what criteria we should appeal to in deciding how to guide children's growth. Again we see that the idea of growth is helpful

to us in reaching decisions about appropriate methods in education, since it suggests that these should be such as to ensure that the development of children involves fundamental and permanent changes and that their learning should not be superficial, that it should not consist of 'inert ideas' (Whitehead 1932) that remain as outward manifestations rather than becoming inner transformations, but should involve understanding and knowledge in the full sense. Thus it has led to claims such as that of the Hadow Report of 1931 that the curriculum should thought of in terms of activity and experience rather than knowledge to be acquired and facts to be stored. We have noted already the central role played by the notion of experience in Dewey's educational philosophy. There is also support for this view of education in the work of people such as Piaget and Bruner who view education as a process of cognitive growth and see the main concerns of the teacher as being to assist pupils to acquire those concepts which will enable them to interact successfully with their environment.

Some choice must be made, however, of the particular concepts we are to help children to acquire, so that again we see it is not sufficient even to define growth in terms of conceptual development. Nor does the notion of guided growth help us in decisions of content. The idea

of guidance in itself implies direction, a guided activity is an activity with an end or aim in view. To stop a man in the street and ask him to guide you without knowing where you want to go is to invite psychiatric help or perhaps something more violent. However, neither the notion of growth nor that of guidance can in themselves offer answers to this question of direction.

`Dewey's own answer to this problem is an interesting one. He is aware that growth must be directed and he is also aware that this implies the existence of some kind of goal. On the other hand, his view of knowledge, as we have seen, will not allow him to produce any theory that implies that teachers, parents, adults generally or even society as a whole have the answers to this question of goals, since, as we have seen, for him knowledge must be allowed to develop and evolve and this cannot happen if the knowledge of one generation is imposed on the next, no matter how gently this is done. His answer is to assert that the only criterion we can use in attempting to evaluate one kind of activity, one body of content, one set of expediences in relation to others is an assessment of the extent to which each is likely to be productive of continued experience and development. Thus he speaks of an experimental continuum (Dewey 1938) which is for him

the essence of education as a continuous lifelong process and which offers us the principle by which we can reach decisions concerning the content of each child's curriculum, that principle being always to choose that activity or those experiences likely to be most productive of further experience.

There is a good deal that is of value in this concept of the teacher as one who keeps constantly open the opinions available to each pupil and tries to ensure continuous development and progress, for ever widening horizons and steering pupils away from any experience that will have the effect of closing them down. The idea is an attractive one and as a principle to underlie all of our educational practice it would appear to be of great importance.

As a practical criterion by which we can pronounce upon the competing claims of different activities or bodies of knowledge for inclusion in a curriculum, however, it does not take us very far, as any teacher will know. Furthermore, it does not help us to decide where or how this continuous process is to start, what experiences we are to offer pupils initially to get them started or, perhaps more importantly, which experiences we should steer them away from. Nor is it enough

to suggest that this kind of decision can be felt to the evidence the psychologists offer us concerning ages and stages of development. Again this is not enough, because again it is merely the argument from needs in a slightly more sophisticated guise. We still require a framework of values to enable us to make choices among the many possibilities that exist for pupil activity both at the beginning of and throughout this process of education by means of continuous and productive experiences. There are many directions in which growth can be guided and many of these will be an productive and as praise worthy as each other, just as there are many different ways in which I can train up the roses in my garden. We still need to be able to assess which of these directions is the most appropriate or likely to be not prolific, and the idea of continuous experience offers little if anything more than the idea of continuous growth itself. It will not provide us with the practical answers we need.

It is partly for this reason that we have been offered a third device by which it is suggested we can implement at a practical level the idea that education should be based on the nature of the child--a recommendation that we should base our decisions concerning the comment of the curriculum on a consideration of the interests of the

child. Again this was a feature of John Dewey's philosophy of education and this theory has recently been developed more fully in an attempt to resolve some of the difficulties that a child centred approach to education presents (Wilson 1971). Briefly, it is suggested that we plan our curriculum not in the light of what we think to be the nature of knowledge nor by reference to what appear to be the requirements of the society or culture in which we live, but in response to what we can find that is actually of interest to the children themselves.

As one level such an approach has obvious advantages. For there is no doubt that children do work better and learn more effectively when they are interested in what they are being required to do. Conversely, it is a lack of interest in the work that teachers require of them that is responsible for the failure to learn and the ultimate alienation and disaffection of many pupils. Every good teacher appreciates this elementary fact of child psychology and all teachers endeavour to make their lessons and the work in which they are engaging their pupils interesting in as many ways as possible--by using all kinds of visual aids, for example, or by incorporating practical work and sometimes even organising outside visits. We all know that children will learn more in our visit to a museum, provided that visit

is properly organized, than in ten lessons offering them oral descriptions of what could be seen there. Again we note therefore that this kind of approach will lead to an improvement in our methodology; we will be better teachers for taking account of children's interests in planning how we will present our material to them.

Interpreted in this way, this approach to educational planning through a consideration of children's interests, therefore, is no more than a methodological device for improving our teaching of what we want them to learn, by making them interested in what we feel they should be interested in or by starting from their interests and leading them on to what we want them to do.

However, it has been argued (Wilson 1977) that this use of children's interests trivializes them by using them as means to the achievement of our ends rather than recognizing them as having for the child an intrinsic value. It is certainly the case that such an approach will not solve the problem we are concerned with here, it provides us with no criteria to decide what we should encourage children to be interested in or how we should develop the interests they already have. We have to look elsewhere for a basis upon which we can build our

curriculum content, if we interpret the idea of using children's interest in this way.

However, there is a further and deeper level at which we have been offered this idea of children's interests as a basis for our curriculum planning. It has been suggested (Wilson 1971) that we should actually decide on the content of our curriculum by reference to the interests of children and that we should plan our work, nor in order to use these interests to achieve our own purposes, but to help the children to pursue their interests more effectively and with more description and to organize their experiences in such a way as to extend and deepen those interest and gain a dearer view of their intrinsic value.

If education is concerned with activities that have an intrinsic value rather than with those that are instrumental to the achievement of ends beyond themselves and if, as we have argued, it is not possible to identify certain activities as being characterized in some way as having this intrinsic merit, then we must accept that intrinsic value, like beauty, is to be found not inhering in objects or activities but in the eye of the valuer, that those activities that are intrinsically valuable

are those that the children do actually value in themselves and that, as a result, a curriculum can only be truly described as educational if its content consists of those things that pupils are interested in.

In brief, then, it is argued that a consideration of the interests of children is central not only to an effective methodology but also tot he educational content of our curriculum. It is further argued that only an approach such as this will enable us to avoid the problems that arise when a curriculum is planned by reference to other consideration and as a result, lacks relevance, becomes reified and leads to the total alienation of pupils from their education.

What is being recommended here is very clear. If we are to avoid all the ills that it is said follow for many pupils when we as teachers decide for them what they shall learn and thus impose our values on them, we can only do this by letting them decide what the content of their education will be by revealing to us what they are interested in. Such an approach creates many practical problems for teachers and others in matters such as the organization of work in the classroom, the planning and setting of public examinations and so on. None of these, however, would be insuperable if we were convinced on

theoretical grounds that this was the only proper approach to the planning of curriculum content. There are, however, several difficulties of a more theoretical kind with this view and we must consider some of these now.

In the first place, the identification of children's interests is not the straightforward matter it may appear to be at first glance (White 1964, 1967' Wilson 1971). Distinguishing in abiding interest form an inclination, a passing within or a temporary fad, even at the conceptual level, is not easy and clearly we must first know what sorts of thing interests are if we are to use them as the basis of our curriculum planning.

But even if we sort that question out there still remain many difficulties in actually recognizing what we are looking for and identifying children's interests. It is clearly nor enough to think only in terms of what children enjoy doing since pursuing an interest is nor necessarily always a pleasurable activity, as I have often found as I have worked on this boom. Some interests which people pursue with enormous devotion and enthusiasm are of a kind that appear to be characterised mainly by being 'nice when you stop.' Nor is it merely a

matter of asking children what their interests are, since they cannot always tell us, and their behaviour can often be misleading, an appearance or show of interest not always being a reliable indication of the existence of a real interests in the full sense.

Secondly, we need to know more than we do about the origins of children's interests and we need to give some thought to this before too readily accepting them as the basis of their education. A child whose home background is a very limited one is unlikely to have a very wide range of interests and we may not be doing him the greatest of favours by underwriting those limitations. For all children there are likely to be areas of understanding they will miss if we only attend to what they are already interested in and, even though the dangers of reification and alienation will immediately again rear their heads, there will be occasions when teachers will need to stimulate interests in children where they do not already exist. If this is not so, then we run the risk of depriving some children of large areas of experience that they might otherwise have profited from--a problem we shall need to consider again when we look at the issues of the common curriculum. If, on the other hand, this is so, then again the presence or absence of an interest will not in itself constitute the central criterion for deciding

whether a particular activity or body of knowledge should be included in our curriculum or not.

The same difficulty also arises when we consider the question of selection of interests. It is likely to be the case that some of children's interests will appear to be of a trivial kind, unless we define interest in such a way as to exclude all such. Certainly not all interests will appear to be equally valuable or important and some may even seem to require discouragement on moral or social grounds. In this context we are always given the example of the child whose interest lies in pulling wings off insects--I have never met this child myself, although have often wanted to--and clearly in such cases the interest is not to be encouraged on the mere grounds that it is an interest. Furthermore, even child will have many interests and it will not be possible, even if it were desirable, for him to pursue them all, so that again choices need to be made among these interests and decisions taken as to which of them should be developed. Again, therefore, we need some criterion of choice other than the fact that certain interests are believed to exist. As we have seen already, to say that education should be child centred, in whatever sense we use the term, cannot be to be advocating complete freedom of activity for the children and, if the teacher is to play any

part at all in the child's education, he must select the activities that he will encourage and promote. He must also decide on the directions in which he will promote them since there are countless ways in which an interest can be developed and not all of them will appear equally valuable or desirable. We might appeal here to the idea of the experimental continuum that we have already considered. It may appear that our solution lies in suggesting that the interests of the child should be seen as the starting point for the continuous experience of which Dewey speaks and the choice of interests and decisions as to the direction in which they are to be developed made in the light of the single criterion of how continuously productive and fertile they appear to be. However, as we saw when we considered the idea of the experimental continuum itself, it does not provide us with the criterion by which we can make the choices it creates for us. Nor does the notion of interests take us very much further. This idea in itself, therefore, will not provide us with the criterion we are looking for to decide on the content of our curriculum. We still need something else to appeal to in reading real practical decisions.

As we have seen throughout this discussion, this is the difficulty with all so-called 'child centered' theories. All attempts to base decisions

concerning the content of the curriculum on a consideration of the nature of children are seen on closer analysis to offer us useful advice on our methods, our approaches to teaching, our attitudes to children; they offer us no more satisfactory solutions to the questions facing us, no more adequate a framework of values for choices of content than considerations derived from the nature of knowledge or the needs and nature of society.

We must finally turn, therefore, to a consideration of whether it is possible to find any framework of values within which a choice of curriculum content can be made, whether it is possible to establish any criteria by which different kinds of knowledge can be evaluated against each other or upon which claims can be based for the inclusion of some rather than others in the curriculum.

VALUES AND THE CURRICULUM

It is only relatively recently that doubts have been expressed about the validity of the claim that certain kinds of knowledge are inherently more valuable or more important than others. For Plato there was no doubt that there was a very clear hierarchy of knowledge with philosophy at its peak and this, along with so many of the fundamental assumption of Platonism, went unquestioned upto the time when the empiricists offered the challenge of a completely new approach to the question of knowledge. The fundamental

principle of that hierarchy was that the greater the level of abstraction the more status a particular kind of knowledge had. Thus, in addition to the claims we examined earlier for the superiority of intellectual knowledge over sense experience of the phenomena of the physical world, Plato also asserts that gradation must be recognized within the realms of intellectual knowledge according to degrees of abstraction, with philosophy, or dialectic as he call sit at this point in his argument, as a form of knowledge that he sees as totally abstract and not hypothetical in any way, at the pinnacle or as the coping stone (Plato, Republic).

The influence of that kind of thinking on curriculum development, or non-development, over the years should not need to be spelled out to anyone who has spent any time teaching in our schools or colleges or universities. It is also worth noting here that another of the arguments Plato uses to support his claim for the superiority of philosophy over all others forms of knowledge is that all philosophers believe this to be so and they are the only people who are in a position to know. Further, in his ideal society all other citizens will have been brought up to accept this and to obey the philosopher-kings without question. In other words, this is a view which, as we suggested earlier, leads to the generation of two or three levels of culture, two or three kinds of curriculum, and two or three classes of people within society.

We have already noted that an empiricist view of knowledge destroys this reified out-there status of knowledge and, once that has gone, there is no basis for any such hierarchy. It was as a result of the empiricist movement, therefore, that the existence of qualitative differences between knowledge and types of human activity came first to be challenged. The full implications of this became clear in the doctrine of Utilitarianism as developed by Jeremy Bentham.

Bentham's main concern was to establish a moral principle for legislation and he found that principle in the notion of social utility—the greatest good of the greatest number. Thus, in his *Theory of Legislation*, he tells us, the end and aim of a legislator should be the HAPPINESS of the people. In matters of legislation, GENERAL UTILITY should be his guiding principle, and again. The *Principle of Utility*, accordingly, consists in taking as our starting point, in every process of ordered reasoning, the calculus of comparative estimate of pain and pleasures, and in not allowing any other idea to intervene.

Such a comparative estimate of pleasures and pains, however, results in the greatest good being conceived in terms entirely of social utility and not by reference to some metaphysical notion of quality. The only kinds of difference that he will allow between pleasures and between pains are

quantitative differences, those to be found in their degrees of purity, intensity, duration and so on; he does not see any basis upon which we can make qualitative distinctions by claiming that certain pleasures are better or more worthwhile than others or upon which we can distinguish between good and bad taste. Thus John Stuart Mill in his essay on Bentham quotes him as saying, quantity of pleasure being equal, push pin is as good as poetry.

The implications of this view for education are clearly serious and it was as much because of his concern to promote education as for any other reason that John Start Mill endeavored to reframe the whole doctrine in such a way as to introduce or reintroduce the notion of qualitative differences between kinds of pleasure and kinds of human activity (West 1965). There is of course a fundamental tension between Utilitarianism itself, which takes at root an instrumental view of value, and the notion of intrinsic value, so that inevitably this resulted in its becoming a totally different doctrine as a result of Mill's work. Nevertheless, this is the point of Mill's often quoted assertion that It is better to be a human being dissatisfied than a pig satisfied, better to be a Socrates dissatisfied than a fool satisfied. (JUS. Mill, *Utilitarianism*) However, the argument he produces to support this claim is remarkably weak for a case that is so crucial and also very reminiscent of Plato's argument for the superiority of philosophy. For he goes on to say. And if the fool or the

pig, are of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides.

This particular battle still rages, especially in relation to the curriculum (Wilson 1967. Peters 1967) and clearly it is of crucial importance. It has resulted in a questioning of the content of education of a kind which at one time would have been unthinkable. For as long as the view of values as fixed and unchangeable held sway, the model of education that it gave rise to remained virtually unquestioned. That model is the Platonic model of the slow ascent of the individual up the ladder of knowledge towards grater degrees of abstraction or, to use his own metaphor, the gradual emergence from the dark cave of ignorance into the light of the sun and finally to the contemplation of the sun itself. This is a view that can still be detected today as much in the unquestioned assumption of some people's thinking about education as in certain explicit statements about it. Even the metaphors are similar, the child being seen as the barbarian at the gates and education as the process of gradual admission to the citadel of civilization (Peters 1965) The arguments too have a familiar ring to them since the superiority of certain kinds of human activity is still argued in terms of such things as cognitive content, seriousness and intrinsic values (Peters 1966). The means/end aspect of the Platonic model has been rightly criticized and rejected but all else remains fundamentally much the same.

However, the difficulties have been revealed of establishing the claim that any kind of activity has an intrinsic value over and above the value that individual human beings place on it or that value in some way inheres in certain kinds of activity. Values are not entities that have some kind of existence of their own even in some metaphysical sense. Valuing is an activity; it is something people do. Only confusion can result when we allow such activities to become reified because the vagaries of English grammar allow certain verbal functions to be perfumed by the use of nouns. This is a fallacy common to a number of philosophical problems. Valuing can only be an activity and as is the case with all activities, different people do it differently.

Furthermore, such a view of values as objective is based on a view of knowledge as 'out-there' and God given, a view that we saw earlier is at the very least highly questionable. If knowledge is not seen as having this sort of objective status independent of the knower, it is difficult to know what basis there could be for claiming that some activities have an intrinsic value independent of the value place don them by individual human beings, and even more difficult to establish what these activities are.

Several further points must be made which derive from this basic fetter of values. In the first place, it is perhaps worth taking up again a point when

discussing behavioural objectives. For a view of values as deriving their validity from the actual choices made by individuals is another essential feature of a view of man as an active rather than as a passive being, a creature whose behaviour is the result of his own choices and purposes and not merely of the causal effects of external events. Such a view of values, therefore, follows naturally from the idea of the autonomy of the individual and must lead to the rejection of any study of education or planning of the curriculum that is based on a behaviourist model of man.

It is worth going further too and stressing again that it is this which makes it possible to distinguish education from other activities such as training or conditioning. We have several times had cause to refer to the development of autonomy as an essential feature of any distinctive concept of education (Peters 1965 1966). We are here faced with one of the implications of that . Such a concept of education must acknowledge that autonomy for the individual implies his right to do his own valuing and not merely to be brought to recognise certain values for which, in Platonic style, objective status is claimed.

On the other hand, the need to make choices in the absence of any criteria of choice presents us with the archetypal dilemma of the existentialist and is

conducive to nothing so much as the nausea that Jean Paul Sartre and others speak of. We must not, however, assume that it implies that we must accept all knowledge as being of equal value. To say that qualitative differences between kinds of knowledge and kinds of human activity cannot be argued for is not to say that we must accept them all as being of equal merit. Of course, we will all make distinctions of this kind.

Nor does making choices become a matter of just 'plumping' for this or that, sticking a pin into a list of tossing a coin. A good many choices will be made by reference to factors of an empirical kind, since many will involve a selection of means rather than ends. There is clearly difficulty, however, in arguing for ultimate values or even stating to one's own satisfaction the grounds upon which one adheres to them. It is the justification of these ultimate values which, as we have seen, must always be offered at a subjective level.

This raises, of course, the thorny question of who is to make the choices, who is to decide on the content of the curriculum Shall it be left to the pupils themselves, the teachers, the parents or should society decide through some kind of centralised control? These are questions which we have touched upon already and which we must take up again in later chapters.

One point must be made here, however, which is crucial. Whoever does take these decisions or does contribute to them must be encouraged to realize the slender nature of the foundations on which any system of values or set of criteria he is using will be based. His choices should therefore, be tentative and of such a kind as to avoid dogmatism. Furthermore, they should be open to continuous evaluation and modification since that is the essence of curriculum development. II knowledge were God given and it values enjoyed a similar status, then curriculum development could have only one meaning as the slow progression towards perfection that Plato had in mind. Such a notion is surely no longer tenable.

THE TRADITION OF PHILOSOPHY

The methodological principle of Greek philosophy was a questioning strategy, a dialogue between two or more people. It was known as the Socratic method. As a youth Plato came under the influence of Socrates who was using the discussion method to challenge any one who would listen how mistaken were conventional beliefs on morals. Socrates directed his listeners to something he called wisdom. The Athenian politicians had Socrates put to death on the charge of corrupting Greek youth.

In 387 BC Plato established his Academic in Athens and incorporated dialogue as the chief form of instruction. The instructional form determined

the curricular content. According to Plato the discussions already had innate ideas and only needed articulation to become real. Dialogue was only a way of drawing out the ideas already known. Plato's Dialogues were a literary device using conversation and questioning between a master and pupils. Aristotle studied in Plato's Academy during Plato's last 20 years.

It was Plato who catapulted the world into modern thought. He had originally held, with Heraclitus, that all things were experiencing change and in a constant state of flux. Socrates had concluded that definitions governed the behaviour of men. Plato accepted Socrates teachings on definition but held that a common definition was needed. Because things that were sensible, that is known through the senses, are always changing, the common definition cannot be a definition of a sensible thing. The common definition, for Plato , was Ideas. Ideas are forms of sensible things that exist elsewhere in a pure form. The forms of ideas were the causes of all things.

Plato's common definition thus became universal ideas. Things change, decay, and die. But the idea of beauty continues and is therefore immortal. The common quality running through the essence of things constitutes the world of ideas.

PRINCIPLES OF CURRICULUM DEVELOPMENT

In the field of curriculum studies several writers use several forms to refer to the job of making the curriculum. For instance Sayler and Alexander (1972) use the term 'curriculum development' for referring to the above job. But, Albert Oliver vouches that "curriculum improvement is the correct term to be used to refer to the above idea. Nevertheless, we may use the term 'curriculum development as the appropriate term.

Curriculum development is the result of several pressures such as the economic pressure, the pressure of knowledge exploration, the pressure of research findings etc. This fact indicates that the curriculum must undergo periodical revisions in order to accommodate the periodical change in the nature of above pressure.

Next the "curriculum process" which consists of five phases, is discussed. These five phases remind us of the different stages in teaching, and they include the formulation of objectives, the selection of learning experience and content, the integration of learning experiences with content and evaluation.

The curriculum process consists of the following five phases.

-- Formation of objectives.

-- Selection of learning experiences to attain these objectives.

-- The selection of content through which learning experiences may be offered.

-- The organisation and integration of learning experiences and content with respect of the teaching learning process.

-- Evaluation of all the above phases.

The teacher, the pupil, teaching methods and organisation, the purposes of education and evaluation all play a vital role in the curriculum development.

PRINCIPLES OF CURRICULUM

-- Curriculum is dynamic

-- Curriculum is related with the aims and objectives.

-- Curriculum development implies a scientific process of education.

-- Curriculum involves evaluation

-- Curriculum is a broad and comprehensive process

PHILOSOPHICAL FOUNDATION OF THE CURRICULUM

Philosophy is the study of man to give meaning and purpose to human life through the development answers to basic problems of life through the development of answers to basic problems of life.

Under philosophical foundations we have to consider three important philosophies which have influenced the educational system--Idealism Realism and Pragmatism.

Idealism started with idea of Plato--Idealism holds that the nature of Universe is an idea in the mind of some supernatural being or God. One of its important features is the attempt to solve the problems through the use of reasoning. The nationalistic approach makes use of deductive reasoning and tries to solve the present day problems by providing deductive answers. Truth must be discovered by our efforts. Once the truth is discovered, it must be considered to be absolute. Idealism pays more emphasis to the intellectual aspects of life and less emphasis to the physical aspects." The curriculum of the school under idealism revolves around ideas. The philosophy of idealism can be better understood by studying the contribution of Plato, Descattes, Spiniza, Berkely and Kant.

Realism is the philosophical position which acknowledges the existence of the real world. This position assumes that the real world exists exclusive of the perception and interpretation of the perceiver. Realism developed as a reaction to idealism. The realists believe that the Universe is a matter of niton. To them the real world is the physical world.

The purposes of education under realism are to induct the learner into the culture, to keep him understand and adjust to the natural order of things over which he has little or no control. The realists believe that because of natural laws society and its institutions must operate in the ways, that are consistent. The school is the social agency to transmit this knowledge to the learners. The curriculum under realism consists of the physical and social sciences that explain natural phenomena. Less emphasis is placed on language. More emphasis is given to mathematics of which is the symbolic language found to be essential for describing the Universe accurately.

This philosophy depends on science for answers to man's problems. It suggests the ultimate meaning of an idea is determined by the consequence of its being put into practice.

Pragmatism is considered to be the major philosophy developed primarily by American influence. According to pragmatists, education is a process of experiencing on the part of the learner. It is a mean of recreating, controlling and directing experience. The goal of education is to aid the learner to solve his problems and seek solutions to them and arrange the environment to provide experience for learners. According to John Davey "Education is the reconstruction of experience which adds to the meaning of experience and which increases ability to direct the course of subsequent experience."

SOCIOLOGICAL FOUNDATIONS OF CURRICULUM

Social groups may be defined as the human relationship and structures by which the society exists. The discipline which is involved in the study of social relationship is called sociology. Social foundation is the study of groups living in our culture. The institutions and forces that make up the culture come under the social foundations. The influence of these institutions and forces on the school programme constitute the social foundations or social foundations determines the curriculum to a considerable degree. Even the government controlled schools in the democratic countries may be said as controlled by society,

as the society makes the government in a democratic country. As the schools are mentioned by society, the education imparted in school contribute to the benefit of the society.

Hilda Taba mentions that the school performs three functions, which are: (1) Preserving and transmitting the cultural heritage, (2) transforming culture, and (3) development of the individual.

PSYCHOLOGICAL FOUNDATIONS OF CURRICULUM

The ideas gained from psychology which have a bearing on the learning process are called the psychological foundations of education. Psychological foundations consist of the accumulated knowledge which guide the learning process and allows the teacher who is executing the curriculum to make intelligent decisions regarding the behaviour of the learner.

There is relationship between the physical condition of the body and learning. This applies to size, shape and the psychological make-up of the individual. The nervous system also comes under physiological make up of the body. Hence, physiological psychology has to decide what detailed items may be included in the curriculum designed for different age-groups.

There is reliable evidence to indicate that the mental development of the learner takes place along with physical development. Therefore, a requirement in the curriculum of the making of a concepts. When the child has not reached the stage of being able to generalize to understand concepts would be an unrealistic requirement.

CONTEMPORARY PERSPECTIVES OF CURRICULUM

The word theory often conjures terror, fright, and avoidance behaviour among many teachers. Why is it that a new perspective for obtaining knowledge should be so ridiculed by society's dispenses of traditional knowledge? Root meaning is uncomplicated enough. A theory is the "act of viewing . " It once meant an imaginative contemplation of reality, like poetry. In education, its more common meaning is a principle or a plan of action.

A theory is also a causal system, an attempt to construct a framework for understanding natural forces. Each theory is given additional credibility by accumulated evidence which appears to confirm the theory's explanation of how a phenomenon occurs. However, over time, many theories fail to explain some unusual occurrence, recently discovered, and the search is on for a new set of

guidelines, a new hypothesis, upon which to confirm or deny similar occurrences. A theory is mankind's perpetual striving for rules which predict or explain events.

Theories of human behaviour tend to follow the same pattern as theories of natural science. But they are somewhat different in that theories of human behaviour try to encompass organic development and the full range of human behaviour under all conditions. Educational theories attempt to describe and explain human behaviour as it influences the process of education in schools.

The contemporary education theories, partly rooted in psychology, focus on 'stages' of human development, like Piaget's stage of mental development, Erikson's stages of affective growth, and Kohlberg's stages of moral development. No one theory seems to offer a complete explanation for human development in all its multifaceted dimensions.

A theory doesn't begin from nothing. It builds on traditio. But all theories are born of the first principle of scientific investigation-observation. Theories about human behaviour are less resistant to change because people seems to resist falling under someone's theory when they act the way they do. Similarly, theories about education,

about knowledge, about curriculum are distrusted even more because the research evidence is often contradictory and unconvincing. Sometimes the study of a theory in education appears to be a detached exercise for educators.

In the final analysis, theories of education and curriculum have likely been unimaginatively taught and probably imperfectly applied. Moreover, theories of curriculum do not evoke passionate interest or intellectual excitement, nor do they seem to demonstrate much relevance to classroom instruction. This is partly because so educators--George Beauchamp and the neo-Marxists are some of the exceptions--have articulated the arena of concern and the critical issues. But Beauchamp's conclusion in 1961 in his book *Curriculum Theory* was that curriculum theory was nonexistant, and his concluding remarks were a challenge to develop models and procedures for erecting a theory.

Theories or models of curriculum, moreover, have suffered from over simplification. Many of these conceptions of the curriculum have been reduced to popularization, and are description of either what schooling is about, or what the curriculum should be accomplishing .

The contemporary conceptions of the curriculum are frequently reduced to three: the knowledge-centred, the child-centred and society-centred.

KNOWLEDGE AS CURRICULUM: ORGANIZING THE CURRICULUM

Unquestionably, schools are in the knowledge business, transmitting the distillations of the past to the young. Proponents of the knowledge based curriculum, like Hirst and Phenix, believe that the mind is the most important faculty. According to the traditional view, espoused by those in the tradition of the literal arts, the essence of the curriculum should consist of what has always been taught in schooling, like the structure of grammar and Euclid's theorems. The argument is that these subjects are timeless, true, always will be true, and form the backbone of educated thought.

On the other hand, some curriculum writers believe that new knowledge can be generated through discovery techniques, or inquiry approaches. The idea is a popular one, but strangely unpractised, supposedly because it presumes uncertainty, and there is risk and some anxiety to not knowing what is expected. The ultimate goals should never be in question, and many avenues should be provided for

achieving terminal objectives. That is the accepted posture. But inpractice, discovery, as a demonstrated technique for learning, is observed more in the omission.

So then is knowledge impersonal and abstract, something once known by great minds, but now confined to chillingly dull texts? Or is the encounter with the great ideas of the known past a unique reconstruction of the world, a personal experience, that helps in putting into perspective contemporary concerns? The world will be different for today's students than it was for yesterday's. Will the general education background equip them for living in that information technology environment? The pertinent question is: Is yesterday's curriculum sufficient preparation for tomorrow's realities? Will the liberal arts, as we know them, be as relevant in the future as they have been in the past, or should we be designing a new liberal arts formula?

What passes for general education requirements in secondary schools is a pale reminder of what were the liberal arts. Philosophy the faded queen of the sciences, is no longer taught. Few teachers have even had a philosophy course in their training. Mathematics is taught as if there have been no developments since Pythagoras, and geometry

as if nothing was new since Euclid. Knowledge, like the whole of the curriculum, is indeed tentative. But the knowledge based curriculum of secondary schools follows no conceptual rationale except the teaching of the traditional academic subjects: mathematics, science, English, social studies (a sort of poor man's excursion through history), physical, education, and perhaps a foreign language. There are always more electives than requirements.

The trend in modern sciences is towards interdisciplinary studies, towards areas of problem solving that merge fields of inquiry. Biochemistry as a field was unheard of until recently. It is the emerging knowledge fields--engineering, to name a few--that will shape how educated people conceive of the world in the future.

In the early 1960s Jerome Bruner in The Process of Education proposed that a curriculum be developed based on the structure of academic disciplines. Subsequently, major national curricula--for biology, chemistry, physics and mathematics--were developed by experts in the US. By the mid 1970s based on the results of the nationally developed curricula, Bruner revised his thinking to include feedback based on students and teachers. The curricula developed by leading

academicians were well organised, but not always suitable for certain groups of students. Moreover, teachers had not been consulted in this massive project, and were understandably miffed. Teachers, who had never behaved as a scientist or investigator, had trouble leading students to discovery. The structure of the discipline as perceived by the scientist did not fit well into the structure of general education.

In 1964 Philip Phenix's *Realms of Meaning* offered a logical formula for the general education curriculum. Phenix argued that the highest good of education was to help the individual realize all the distinctly human capabilities, and that this consisted mainly in a life of meaning. Meaning was to be shaped by fulfilment in mastery, belonging to a community, many sidedness, integrity and quality of understanding. The general education curriculum provides these meanings through Symbolic (language and mathematics); Empiric (the sciences); Ethics and Synoptic (the social sciences, including history, religion and philosophy).

Teachers in secondary schools have traditionally been hired as subject matter specialists, and consequently hiring practices have perpetuated the continued dominance of the academic subject curriculum.

Perhaps what the general education curriculum needs most is a new synthesis of the major concepts that shape the world of knowledge and science, not just a new taxonomy for existing subjects. Ideas like the origin of man and the universe will always engage our best thinking, and have never been idle questions to be solved only by philosophers, theologians and astrophysicists. The concept of force involves a partial knowledge of physics but perhaps also psychology. The biological process of development now has well established theories and a research base, but there is so much unknown.

Thew general education programme proposed in many reform statements for undergraduates in higher education follows a similar pattern of development, but could serve as a model for a new conception of general education for secondary schools. The subjects are Language, Art, Heritage, The Social Web, Nature, Work, Identity. These global and multidimensional themes permit both amplification and contraction of curriculum units and help both the curriculum planner and student better perceive relationships.

Judson, in *The Search For Solutions*, proposes nine central concepts that propel modern thinking, not just in science. These are:

investigation, pattern, change, chance, feedback, modelling, prediction, evidence, theory. Similarly, these themes could form the basis for a general education core.

Lord Kelvin at the turn of the century as reported to have announced that physics was a finished science, needing only tidying up in a few areas. When he didn't foresee was quantum physics. X rays, and relativity. Suddenly, the whole discipline of physics was up for grabs, and had to begin investigation of its central purposes again. Most sciences are at that pint: of rearranging their proven premises, and starting from an untested viewpoint. General education, as a premise, should begin with the notion that what is known today will likely be discarded tomorrow, because that is the hard lesson of human knowledge...that we aren't even close to having it right at all. We must teach the young that what is generally accepted as true now will quite possibly be laughable in a few years.

Strict adherence to the discipline doctrine of curriculum development came into question even by its staunchest advocates in the US during the student protests of the war in Vietnam. Political activity galvanized social consciousness. The formal schooling curriculum had no fail back position, no curriculum for coping with student affective processes. The curriculum

had no corresponding line of inquiry into social dilemmas, personal or moral problems, as it did for structured domains of knowledge. Even Phenix's concept of personal meanings consisted of the structure of history, religion and philosophy—hardly the intellectual stuff necessary for a young man considering to be a conscientious objector in a time of war for his country, and a time of personal agony for himself. It isn't develop intellectual ability, but that the disciplines allowed for little variation based on student level of development.

In fact, a few of the major proponents of academic curriculum, such as Schwab, Phenix and Bruner, later in their careers argued for more social relevance in the curriculum. As a result, the literature on the academic disciplines ran cold, and a new wave of curriculum reform began calls for more attention to the personal needs of students. What has come to be known as a wave of socalled permissiveness began, until it too, as a movement, declined a quickly as did the national test scores. A call for 'back to backs' reemphasized rudimentary skills.

The contemporary child centered approach to the curriculum originally rose in the early part of the 20th century because of the inhumane treatment of children, from the extremes described by Dickens in his novels, to the

passage of child labour laws restricting working hours for children. Its most devoted and illustrious exponent was John Dewey who proposed that the curriculum be built on life experiences.

In fact, Dewey believed that a person's interest was synonymous with the concept of self. He says in Democracy And Education: "In fact, self and interest are two names for the same fact the kind and amount of interest actively taken in a thing reveals and measures the quality of selfhood which exists."

Emphasis on the child centered approach does not allow teachers or curriculum planners to neglect student interest. On the other hand, few educators believe that an entire curriculum programme can be developed around student interest although the alternative school movement points to both the strengths and weaknesses of such attempts.

Advocates in learning theory, in research on achievement, and relations between the home and schooling environments clearly point to individual differences independent of traditional beliefs about the curriculum. Recent evidence in brain studies has broadened the base of understanding about how peóple think. The child centered theory of curriculum stresses the belief that learning occurs best under conditions the learner values.

Children's interest, however, may not be an adequate index of their developmental needs. For example, lack of interest may reflect an imperfect curriculum, or lack of readiness skills prior to the learning experience and not just a maturational deficiency. As McNeil says, there should be no 'tyranny of fixed age level norms". Large individual variations in learning are possible under variable learning conditions. A uniform curriculum, offered to all equally, may not immediately reveal these truly individual differences.

Developmental psychologists believe that the curriculum, however defined, should approximately parallel the developing mental processes of the student. According to the developmentalists, the teacher should see to it that each teaching activity matches the ability level of the intended students. Assuming, then, that students will be operating at varying levels nearly always, the curriculum should have enough flexibility to allow for different stages of growth towards the established criteria.

There are at present no recognised measuring strategies for discerning when any individual student is at a particular learning stage. The domain still falls with teacher intuition or best guess. The relationship between theories of learning, stages of cognitive growth, the curriculum and teaching practices, is very ambiguous indeed. The next area of applied research is to base a set of teaching and learning activities on stages of mental growth.

SOCIETY AS CURRICULUM

Find books with "society" in the title and usually the discussion within is on social class, cultural subgroups, ethnic or schooling achievement differences, but not specifically about society as a concept. The root meaning comes from the Latin *socius* - a companion and this is still the first meaning. But the other common meaning is a group of people sharing common interests, a community. Thus, from a sociological point of view, the community, not the child or the tradition, determines the foundation of the curriculum.

The most central questions to be considered in this approach concern the boundaries of the community. Is the society limited to the neighbourhood school? The country? The political unit? The nation? The culture? The continent? The world? In point of fact, all curricula are circumscribed by national or political boundaries and hence determined by the national emphasis. Educators may believe that they are apolitical, but the multiple intersections of schooling and politics belie that assumption. Schools, and by implication the curriculum, may be unconnected with political parties, but they are nonetheless agents of government which administer the curriculum to youth who are compelled by law to attend. Except for the neo-Marxists and Wirt and Kirst, there has been little analysis of the political perspective in curriculum research.

Thus in one sense, to pose the question, does society determine the nature of the curriculum, is irrelevant, because the nature of the political bounding means that the sate controls the curriculum of those schools in the public domain.

There are, of course, non governmental agencies whose collective power sometimes exceeds even national government. In the US the power of national and regional accrediting agencies and testing organizations, like Educational standards and develop uniform curriculum procedures. In the US unlike other industrialized nations, there is no national curriculum. But the private, national testing agencies create an influence on curriculum that functions in much the same way as a nationally mandated curriculum. The desire for local schools, parents and students, to take part in nationally administered tests demonstrates the power of the testing agencies control over curricular decisions.

The compulsion for standardization is also a principal reason why schools choose published text and rarely allow teachers to write their own materials. Consequently, the publishers of school books have a disproportionately powerful effect on curriculum. On the other hand, publishers will not try to outwit a community and slip into text units that are controversial.

Should schools exist to brain people to change the nature of society, as the Social Reconstructionists and Marxists suggests? Should the nature of

the technological society (really the economic basis) determine the nature of the curriculum? Based on the idealised sate, should schools as we know them exist at all, as Ivan Illich and Paulo Preire have postulated? How relevant is even general education when so much of the world is illiterate?

One method for deciding the extent of society's influence on curriculum is to compare differing societal approaches in the same phenomena. The American Revolution may stand as an example. What might be the differences in two standard school texts on this topic in British schools and in American schools? Such differences translated into objectives, content, attitudes and learning activities, will reflect the differences, societal differences on the same topic and by implication, the influence of society on the curriculum.

Plato believed that education should create in children a kind of government which would allow them to enter society. He says that the guardians of the state (they are of course the philosophers) establish their rule through education. Thus, for :Plato, entrance into society as a free person means enduring education which purges unhealthy instincts by creating a rule of interior law. Children have to have their souls ordered to be permitted to be free in the state or society. Plato didn't have much faith in the character and ability of most humans, as they could not live their own

lives. They had to be guided by the philosopher rulers. Society was not democratic.

One view of the curriculum is challenged by a new wave of social reconstructionists. As Henry Giroux states: "The foundation for a new mode of curriculum must be as deeply historical as it is critical...as an extension of historical consciousness." For many of these curriculum critics, the value of the curriculum is a form of cultural capital, and needs to be emancipated. The purpose of emancipation is to free the individual ultimately from the conditions that bind them to exploitation and oppression. This approach stems historically from the German philosophers Hegel and Fichte, and thence from Marx and Engels and contemporary neo-Marxist exponents. History, and the so called predetermined cycles that govern it, is the focal point of the proper study of society and the curriculum according to this view and the politics and economics of class struggles.

Neo-Maraxist political thought views schooling as exerting a hegemony over the consciousness of individuals that completely saturates and dominates their social experience. Thus, the curriculum is a form of cultural hegemony, not merely a manipulation of the individual. Neo Marxist economic though is ruled by analyses that show the unequal processes in schooling, in the division

of labor, mobility, the processes of selection and other economic determinants created by the school. Such analysis of the curriculum reveal, according to this line of thinking, "competing conceptions of social and economic power and ideologies, as Michael Apple says.

Dwayne Huebner makes a fascinating comparison between Max and Piaget both of whom he says, ground their theories in human activity. Marx focusing on labor and Piaget on biological development. Marx characterized labor as alienated productive activity because man did not receive the full benefits of capital for this labours. Marx developed the production, capital, commodities, and similar concepts, Piaget, on the other hand, emphasizes the operations that both determine and condition human activity.

To the extent that the child becomes alienated, walled off, from the adult world, the child's isolated activity is a distortion of the social reality. The life of the child needs to be measured, not against the curriculum, but against adult life.

Franklin Bobbitt, in his classic study: The Curriculum published in 1918, may appear a bit quaint when he discusses the nature of a good citizen and the development of civic consciousness. But he deplored the creation of a nation state which raised antisocial behaviour to the level of patriotism, and

decorated with honour those who killed in the name of duty, Europe and America had just completed World War I and received an introduction into the horrors of modern mechanized warfare. Nevertheless he espoused "learning through living" and for him that included teaching students to relive wars so they could learn about conflicts. Bobbitt saw this kind of curricular experience as a way of teaching youth how life contends with opposing forces.

Although Bobbitt's curriculum foundation learn towards student interest his focus is large 'human nature and human affairs; is his point of departure. Bobbitt saw civic training as experience in a large group, and civic consciousness as involving the student in the life of the community, the nation, even the world. On the subject of societal consciousness, Bobbit has 45 pages. As a contrast, he has only 6 pages on moral and religious education.

There are advocates who maintain that the proper study of society and its role in schooling is in the future, and critics who hold that society doesn't have much future unless it concerns itself with the biosphere and the immediate problems of over population, despoliation, environmental waste, and - the ultimate concern- the possibility of total nuclear annihilation. The arguments here are that the young land hence the curriculum by implication cannot be ignorant of what the future of the

race and the planet portends. It is an argument for the possible future, not just the past in the curriculum.

Tradition, the child, the society—should one predominate over the other, or should there be a proper balance? A healthy mix of curricular conceptions is preferable to excessive intake of only one.

THE CURRICULUM AND THE PUPILS

Self realization through curriculum activities. Schools exist to aid pupils in self realization, a process which takes place whenever an experience grips an individuals attention with sufficient forces to draw out and lead to an expression of his capacities. As the term is used here, self realization reefs only to the stimulation and development of capacities which are defensible in the light of educational objectives. As a result of the study of science, one may, for example, display self realization of one's capacity for understanding natural laws, or, as the result of the study of art, one may display self realization of one's capacity for creating original design.

Self-realization, or education, does not take place unless certain conditions are met. Some of the general principles which govern these conditions are well known. It is known that the educand, to be most effectively

influenced by teaching, must be in a state of readiness as to maturity and attitude. It is known also that some teachers possess greater ability to induce favourable attitudes than others do, and that there are great differences among teachers in their abilities to impress education experiences upon their pupils. Differences among schools, their equipment and management, are known to be reflected likewise by differences in results among learners. In keeping with these general principles, it is known that subjects, parts of subjects, or forms of organization of subjects, call forth varying responses from different pupils. Finally, it is known that, in teaching, each pupil must be accepted as he is and, from his stage of development, be led to fuller self-realization by the best possible combination of the forces and capacities of the teacher, the school, the curriculum, and the pupil himself. For purposes of discussion, the equipment interest, and needs of pupils are here treated in separate chapters. It is recognized of course, that they are not actually separate, and in the succeeding discussions, certain topics which might well be treated in any of the three chapters will be found for example, vocational aptitudes, interests, and equipment could be treated in this or the following chapter, but this topic will be left for final treatment.

The relation between pupil equipment and self-realization through curricula. curricula are valuable only as they foster the attainment of

educational objectives. This is equivalent to saying that all curricula are valuable only as they generate self realization in pupils. Leaders in the several fields of secondary education have adopted the principle and have attempted the reconstruction of their subjects which reference to it. The report of the National Committee on Mathematical Requirements, for example, opens with a chapter on the aims of mathematical instruction. In the terms of the report, the pursuit of mathematical studies educates a pupil only when it yields fairly definite practical, disciplinary, or cultural results. That is, if a pupils equipment is such that he can be trained to think 'in terms of and about relationships' he can derive 'one of the most fundamental' disciplinary values from mathematical studies, otherwise, elf-realization in this respect will not be effected. Or, if a pupil's equipment enables him to be trained to 'appreciate' the significance of formulas' and 'to work out simple problems by setting up and solving the necessary equations' he can derive one of the essential practical values of mathematical studies, otherwise, self-realization in this respect will not be generated. Each of the other values of mathematical studies can be considered in the same manner, only those pupils whose equipment enables them to realize themselves in these desirable ways can profit by such studies.

DIFFERENT TYPES OF CURRICULUM

The subject curriculum organisation is traditional, the most schools organise their work near that pole on the continuum. What is a subject? The amount of knowledge, in the world, relative to man's ability to handle it, has been tremendous. This knowledge, being enormous has been classified into bodies or branches called "a subjects". The subjects are found to be fundamental to the learner, and help him with a basis to proceed further.

THE STUDENT CENTRED CURRICULUM

In its extreme form, this idea held that education is life, and since life is changing, there could be no fixed curriculum. This curriculum is centred around the learners. The emphasis is upon promoting the all round growth of learners. The subject matter is selected and organised co-operatively by all earners during the learning situation. The emphasis on meanings which will function immediately in improving living.

CORRELATED CURRICULUM

In the correlated curriculum it is assumed that there are some possible points of contact between any two subjects in the curriculum,

although there is no apparent relationship between them. In some cases these points of contact are 'natural' for eg. problems in mathematics are needed for problems in Physics, between Social Studies and other subject fields. There is adequate evidence to prove that personal problems, home problems, development problems, physical problems, etc. influence the learning of children. The planning of learning experiences must be done, therefore on the basis of which takes into account the individual psychological problems of learners. Psychology tells us that the interest of the learners are crucial in determining the effectiveness of learning. While planning the learning experiences of students needs of learner should be kept in mind.

THE INTEGRATED CURRICULUM

The integrated curriculum is also known as Fused Curriculum. The "Integrated" or fused curriculum (also known as Broad Fields) occupies the mid-position on the continuum, and is pouring together to subjects and students. The basic consideration here is ways to bring in to a broad organisation those subject matter elements which have certain relationship. The form that emerges depends upon what is used as the basis for unification. Three kinds of fusions can be

attempted. They are several courses, formerly separate, have been merged into one. Instead of blending the subjects some unifying ideas such as principles and generalisations could be used for fusion. Real life problems, or aspects of life democratic society may serve as the basis for fusion.

THE CORE CURRICULUM

The core curriculum was introduced with rather ambitions aim. This type of curriculum was supposed to develop integration, to serve the needs of students and to promote active learning and significant relationship between life and learning.

Core relies more on structuring. The plan is to develop unified studies based upon the common needs of the learners and organised without restriction by subject matter. The key words are unified common needs and without restriction.

REVIEW OF RELATED LITERATURE

A. Unnikrishnan “An analytical-criticalstudy of the Kerala primary curriculum” Thesis. Department of Education, University of Calicut, 2000

CHAPTER III

REVIEW OF RELATED LITERATURE

REVIEW OF RELATED LITERATURE

INTRODUCTION

The related studies and literature have a vital role in planning and preparing the whole programme of research. The researcher must be thoroughly familiar with previous theories and researches. It helped the investigator in the intelligent understanding of the problems under study. It provides ideas, theories, explanations and hypotheses valuable in formulating the problems. It also gives the way to identify the originality and reality of the research study. The term 'review' means to organise the knowledge of the specific area of research to evolve an edifice of knowledge to show that his study would be an addition to this field.

A careful review of the research journals, books, dissertations, theses and other sources of international on the problem to be investigated is one of the important steps in the planning of any research study.

Review of the related literature, besides, allowing the researcher to acquire himself with current knowledge in the field or area in which

he is going to conduct his research, serves the following specific purposes.

The review of related literature enables the researcher to define the limits of his field. It helps the researcher to delimit and define his problem. It brings the researcher up to date on the work which others have done and thus to state the objectives clearly and concisely. By reviewing the related literature the researcher can avoid unfruitful and useless problems areas. Through the review of related literature, the researcher can avoid unintentional duplication of well established findings. It also gives the researcher an understanding of the research methodology which refers to the way the study is to be conducted. It helps the researcher to know about tools and instruments which proved to be useful and promising in the previous studies. The final and important specific reason for reviewing the relatted literature is to know about the recommendations of previous researchers for further research which they have listed in their studies.

"Survey of related literature helps to show whether the evidence already available solves the problems adequately without further investigation and thus to avoid the risk of duplication" (Good, 1970).

"The review of related literature promotes the greater understanding of the problem and its crucial aspects and ensures the avoidance of unnecessary duplication (Mouley, 1963).

"An effective research is based upon past knowledge. It is essential that the researcher studies and authoritative writing related to the problem under investigation" (Best, 1959).

It is a crucial step which invariably minimises the risk of dead ends, rejected topics, rejected studies, wasted efforts, trial and error activity oriented towards approaches already discarded by previous investigators and even more important erroneous findings based on faulty research design (Mouly, 1959).

In this chapter the researcher presents a few contexts which were found to be helpful in the study. They are explained hereunder with suitable subheadings.

STUDIES ON CURRICULUM

Acharya (1984) in his study "compulsory primary education in Andra Pradesh a policy analysis" observes that no serious step was taken for the qualitative improvement of education by the government

of Indian provinces during the pre-independence period immediately after the second world war. A conspicuous change in primary education was noticed due to the return to power of the National Congress. Constitutional directive to provide education to all in the age group 6-14, mid-day meal programme and assistance to economically weaker sections of the society helped in the enhancement of the enrolment and retention of children especially in the rural areas.

The role of the rural elite and village people in the compulsory education programme in providing all required provisions for universal education was not encouraging.

Cottoel (1956) in his study revealed some reasons for the failure of in-service education programme.

They were:

(i) Failure to identify the real problems of faculty.

(ii) Inadequate supervision pre-publicity, poor timing facilities provided in the programme.

Chand (1984) investigated "effects of personalized system of instruction and Blooms Mastery Learning Strategy on the relations of high school students on a segment of science.

The objectives were:

To compare the immediate retention, two weeks retention and six week retention measured in the term of performance in the summative criterion test on the statement through Bloom's mastery learning strategy and conventional method of teaching.

The major findings were:

The immediate, two weeks, and six week retention measured was found to be superior to that of the group following conventional method.

Caramer Alanera (1962) conducted a study of in-service education programme for public elementary school teachers in the division of Rizal and submitted a thesis for his master degree in education.

Chopra (1982) made an investigation to study the overall job satisfaction of teachers working in schools having different organizational climates. The tools employed were Sharma's School Organizational Climate Description Questionnaire and Wali's Teacher Job Satisfaction, followed by the autonomous, familiar, controlled, closed and paternal climate schools respectively and also there is no

significant relationship between teachers job satisfaction and student achievement.

Dave (1988) conducted a study on the pupil achievement at the primary stage. The objectives were to study enrolment, retention and stagnation in the project schools and to ascertain how competencies were developed in the pupils.

The findings were--the achievement in language was excellent in class, good in class II, and gradually decreased in classes III and IV. Achievement in Mathematics and environmental studies were found to be excellent in Classes I and II and good in Class III.

Das (1969) made a study on the incidence and rate of wastage and stagnation at the primary level of education in Assam. Grade wise global enrolment figures from the year 1951-52 to 1966-67 were used for the study. The term 'wastagnation' was used to mean wastage and stagnation combined. The causes of wastage and stagnation were analysed.

Some of the findings are the rate of wastagnation at the primary stage was high while the variation in various classes was significant.

The expansion seen in primary education during the post independence period is continuing. The rate of wastegenation was higher among girls than that of boys.

Das (1974) investigated the impact of the physical conditions of primary schools on the retentivity and regular educational process of children. Data were collected by computing the product-moment correlation coefficient. Association between physical facilities and wastage in education was also tested by applying the Chi-square test. The investigator revealed there was notable relationship between efficiency in education and physical facilities in schools. Better facilities increased the attractive and retentive power of the school and reducing wastage in education.

Gupta (1984) designed a study to explore the dimensions of effective teacher behaviour and evolve hypothesis for effective teaching methods. It was a survey type to co-relational study. A seminar was conducted to arrive at a Consensus of teaching objectives. A random sample of 180 class nine pupils was drawn from four average schools. The sample comprised equal number of boys and girls and eight attitude scales were developed. One scale comprised general teacher

behaviour and the rest were teaching subjects. Cluster analysis was used to isolate the various dimensions of teacher behaviour.

Gakhar, Markanda and Phutela (1984) conducted a study to analyse and compare job satisfaction among primary, middle and secondary school teachers of private and government schools according to their sex. Srivastava's job satisfaction scale was employed to collect the data. They concluded that significant difference existed in job satisfaction of teachers belonging to different types and levels of educational institutions and sex.

Hooda (1984) made study on the effect of mastery learning states of students achievement in mathematics and their self concept and attitude towards mathematics.

The objective of the study were:

-- To study the effectiveness of MLL and the conventional teaching method in relation to student achievement in mathematics.

-- To study the effect of MLL and self concept of students.

-- To study the change in attitude of students towards mathematics due to MLL.

The mastery learning strategy affects the achievement of students in mathematics. The experimental and control groups are very different in terms of mean levels of achievement in Mathematics. They were relatively small differences between the experimental and control students on the measures of effective characteristics.

David Craig (1993) a study was organised to determine the relationship between organisational climate and teacher job satisfaction in the Gwinnet Country (Georgia) public school. The organizational climate description questionnaire and Minnesota satisfaction questionnaire were employed for the study. The major finding of the study was that a significant relation existed between organizational climate and teacher job satisfaction.

Bhatnagar Asha (1988) communication between teachers, parents, and the community strategies materials and the media has shown that the home has an enormous impact on the developing child and the school has the second most important influence on him, and that a pastorship between home and school is supportive of the developing child right from the pre-school stage through the senior secondary stage.

Strategies for working with parents. The logical outcome of effective communication with parents is their understanding and appreciation of the school activities and their willing co-operation and active involvement in the school programmes.

Phase I Laying the foundation for positive teacher parent relation.

Phase II Expanded teacher-parent contacts.

Phase III Parents orientation to school.

Phase IV Parent assistance and involvement in school.

Singh Amar Kumar (1988) developing national identity in Indian children. The highlights of this paper is there have been two broad explanations of social tension and intergroup conflicts in India and else where. The psychological socio-economic.

Sen Anina (1988) preparing children for future citizenry. This paper emphasizes certain considerations that should be kept in mind while planning education such as socio-cultural milieu and also the socio-economic strata of the pupils. The paper makes out a case for extension of education beyond school years and also that this responsibility of ensuring fullest development of the child should be

shared by all; home, school, community, government, voluntary, social and political organisations.

Singh (1984) studied mastery learning strategies on certain non-cognitive variables of high school students. The study compared the effects of programmed instruction, Bloom's mastery learning strategy and the conventional method of teaching on self concept, achievement, motivation and test anxiety of students often taking instructions in social studies.

The findings were:

Progrmmed instructions, Bloom's mastery learning strategy and the conventional method of teaching did not significantly affect the self concept of high school students after taking instruction in the subject of social studies. There was significant increase in the achievement motivation of high school students after taking instruction in social studies through Bloom's mastery learning strategy in comparison with those students who received instruction through programmed instruction. However there was no significant difference in achievement motivation of the groups of students which took instruction through Bloom's Mastery Learning Strength and the

Conventional Method of Teaching. But did not significantly affect the test anxiety of high school students after taking instruction in the subject of social studies.

Srivastaga, Misra, Sumithra and Kundu (1988) use of computers and educational technology with reference to child centred education. A significant point putforward in their paper was that the educational technology helps to stimulate the right hand side of the brain which is responsible for creative thinking process development of which is being imparted today, the left hemisphere gets primarily focused with the excessive emphasis on verbal skills, memory, reasoning and comprehension etc. Through educational technology the attempt is to trigger off the right hand side of the brain.

Sinha, Rath and Misha (1988) Child centred education--future perspective talking about the future perspectives, one of the speakers started that child-centred education has to be visualised in terms of the child in the eco-cultural setting. Elaborating the idea an example was quoted about an African town Losetho where the economy of the country depends upon the cattle herd and the teachers follows the students along with herd, thus teaching them in the context of their

ecology and community. It was emphatically stated that one has to visualize the child centred-education in terms of not only the child but his total environment.

Other points put forward in views of the tetralogy of child-centred approach to education were related to changing the context and methodology of the curriculum and the examination system in the perspective of learner centred approach, strengthening the communication technology and the interaction between family home, and community, etc.

Verma (1983) conducted a study on the child development curriculum on its relevance on job competencies.

To identify the nature of jobs taken up by alumni of the department of child development, MS University of Baroda and the competencies required in the jobs.

To evaluate the extent to which the curriculum of the department had helped the alumni in developing these competencies and

To make necessary modification in the curriculum with the aim of increasing its relevance in based incompetencies expected in the field.

Six hundred and three Alumini were identified from the enrolment registers since 1950, among which address of 440 alumini were produced. 197 responded to the initial questionnaire. Based on the formation received from these alumni, as well as from additional contact address obtained from them, 215 alumini who had been employed at some period other after graduation, were contacted through a second questionnaire out of these, 107 responds a sample of A1 experts in the field of child development.

Pillai Sivadasan (1968) has aimed in his investigation the content and scope of primary and secondary school curriculum in Kerala. His study focused the origins of social studies as a school subject. He has pointed out a harmonious blending of several subjects in the syllabus of school studies for high school classes. Topics included in the syllabus of social studies are very helpful to the children in understanding the world and discharging their duties as true citizens.

Amita (1997) in her paper ' child centred approach in preschool education implications for primary education" examines some of the key concepts of the child centred approach including development of total personality of children, activity based programme with alternative

teaching strategies, discipline through guidance, non directive teaching, nondirective teaching, maintenance of positive human relationships and above all the central theme the play way method. The second part of the paper explores the modifications required at the primary school levels in order to consider a child centred approach at the levels. Modifications are required in terms of curriculum development, physical setting and classroom organisations, methods and materials, teaching strategies, and teachers attitudes, preservice and inservice teacher training and evaluation of children's performance.

Baquer in his paper 'Psychology of the child and the primary school teachers" claims that psychological factors play an important role in learning. The teacher often face to take note of them while teaching in the classroom with the result that a child face to respond to his efforts. The child is a thinking, feeling and willing organism who is constantly interacting with the environment in which he is placed.

Bhalachandra in his paper the efficiency of child's learning is dominated by his home work it is an integral part of the classroom

teaching. For educational psychologists, the home work is an essential activity to make a child develops some qualities like, self reliance, independence, to organise time to improve study skills and to make use of leisure time effectively. It should be ability based. For teachers home work is a tool to see the outcome of their teaching and feed back and to achieve wider end results.

Pande in his paper highlighted the importance of systematic emotional (affective) education which has witherto, failed to receive the attention of educational psychologists it observes. The paper not only trusts the need and importance of emotional education but also shows how it can be made feasible by incorporating it in the regular school curriculum.

Thukral (1997) in his paper the specific objectives of the learner centred approach at the lower secondary and secondary stages are : a) to assist the pupils to understand their strength and weakness, (b) to enable them to secure information about educational and vocational world, (c) to help them to make realistic choices both educational and vocational, and plans based on considerations of all relevant factors, (d) to assist them in secondary solutions to their problems of personal and social adjustments in school and home.

Filmer, Land, Pritchett (1997) in their study shows that in India there are large gaps in enrolment between the rich and poor. Wealth gap in enrolment varies widely within India across the states, from 9 per cent in Kerala to 56 per cent in Utterpradesh. Gender is also plays a lot, but also variable role across the state.

Nair (1998) in his article on 'Teacher Education for the 21 century Perspective' has pointed out that certain inadequacies in teacher education in India as our obsession in the past stereotyped programmes and our failure to indigenes the systems as a major weakness of the present teacher education system. He points out certain precautions to be taken in future in the selection of teachers.. He also pointed out the needs to restructure of the present system to make it competency based teacher education.

Soman (1998) in his article he points out that any programme for compensatory education will have to suit sceptic problems, conditions and solutions. This includes scientific planning, consolidation of inputs, formulation of strategies etc. the could be integrated to give shape to a comprehensive programme

METHODOLOGY

A. Unnikrishnan “An analytical-criticalstudy of the Kerala primary curriculum” Thesis. Department of Education, University of Calicut, 2000

CHAPTER IV

METHODOLOGY

METHODOLOGY

This chapter deals with methodology proposed to be used for the conduct of the study. It also presents a detailed description of the manner in which decisions have been made about the type of data needed for the study and the tools and devices used for their collection. "The secret of our cultural development has been research, pushing back the areas of ignorance by discovering new truths, which in turn, lead to better ways of doing things and better products" (Best 1995). This is no alternative to truth and therefore to research. To research is to get near the truth. Educational research must be squarely aimed at finding solution to unsolved problems, at creating ways and at devising new media to meet certain functional needs which have never been met before, at finding better process and content them those currently in vogue.

Research per se constitutes a method for the discovery of truth which is really a method of critical thinking. It comprises defining and redefining the problem, formulating hypotheses or suggested solution, collecting, organising and evaluating data, making deduction and reaching conclusion, and at last carefully testing the conclusion to

determine whether they fit for formulating hypotheses of education, philosophy of the nation, psychology of learning and instruction and various other dimensions which are vital to the society..

METHODS ADOPTED

The methodology adopted for this study is document analysis in order to analyse the document namely primary school curriculum.

Documents are an important source of data in this investigation. This study describes and interprets, what is, it is covered with conditions or relationship that exit, opinions that are held, processes that are going on, effects that are evident, ora trends that are developing. This study is primarily concerned with the present, although it often considers past events and influences as they relate to current conditions. This study will restate those similarities and differences in this discussion of descriptive studies.

Descriptive research involve hypothesis formulation and testing. They use the logical methods of inductive deductive reasoning to arrive at generalizations. They often employ methods of randomization so that error may be estimated when inferring population, characteristics

from observations of samples. The variable procedures are described as accurately and completely as possible.

When document analysis is used as descriptive research current documents and issues are the farce. The analysis is concerned with the explanation of the status of some phenomenon at a particular time or its development over a period of time. The activity may be classified as descriptive research, for problems identification, hypothesis formulation sampling and systematic observation of variable relationships may lead to generalization. It serves a useful purpose in adding knowledge to fields of inquiry and in explaining certain social events.

In documentary analysis the following may be used as sources of data-records reports, printed forms, letters, diaries, compositions, themes or other academic work, books, periodicals, bulletins, or catalogues, syllabi, court decisions, pictures, films and cartoons.

In document analysis the investiture proposes to analyse the following aspects:

- To describe prevailing practices of primary education in Kerala.

- To discover the relative importance of primary curriculum.

-- To discover the level of difficulty of presentation in text books or in other publications related to primary school curriculum, the vocabulary level of language text books, abstract concepts found in Mathematics and Environmental Studies curriculum.

-- To evaluate bias, prejudice or propaganda in text book presentation.

-- To analyze types of errors in students.

The investigator proposes to analyse the document namely Primary School Curriculum mainly based on the objective already fixed for teaching of mothertongue, English, Mathematics and Environmental Studies. The details of objectives of teaching various subjects at Primary level are presented below:

The language skills namely listening, speaking, reading and writing.

The mastery of language elements, speech sounds, words, phrases, sentences, and discourse as well as their structuring.

The development of communication skills involving accuracy, fluency and appropriacy.

The inculcation of "literacy skills, such as the ability to understand, interpret and enjoy poems, stories, dramas and conversations.

The development of study skills like the ability to the dictionary, reference books, other reading materials like, newspaper, children's library books, radio, television, newsboard, advertisement board.

To develop imagination and creativity.

To develop the skill of observation.

To enable the child to classify, categorise, and synthesise the results of observations and to find out new relations.

To enable the child to understand about the surroundings, to utilize it and to conserve it.

To enable the child to develop the basic skills to live in the society.

To solve the simple mathematical problems in day to day life using mathematical facts.

To develop the competency to solve the mathematical problems quickly and accurately.

To enable the child to synthesise the facts using the relation.

To develop reasoning power.

To cultivate the skill to guess the measures.

To develop the ability to find out the order pattern.

The investigator also proposes to analyse critically the primary school curriculum based on the National objectives of primary education like the following:

-- The curriculum reflects the philosophy of nation.

-- Psychological aspects of children.

-- Principles of child growth and development.

-- Environmental factors.

-- Needs of the society.

-- Documents of competency based learning.

-- Core and hidden Elements of curriculum construction.

-- Suitable onward education.

-- Vocational/Pragmatic.

-- Child Centred.

-- Activity Oriented.

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