CHAPTER IV

THE INTERACTIVE MODEL IN THE CONTEXT OF CURRICULUM THEORY

> The search for a single best way to make a curriculum is a hopeless quest. We need many ways to match the many circumstances in which curriculum development takes place and the many different patterns of educational value different people embrace.
>
> (Walker, 1975, p. 133)

Introduction

When one surveys the field of curriculum theory one readily finds a variety of approaches to curriculum development. Scrimshaw (1976) observes that behind every approach there seems to be a system of beliefs and values more or less conscious and coherent about the nature of human beings and what they have the potential to become as individuals and as groups. The view that values and beliefs guide curriculum development is widely held. Searles (1982) maintains that "curriculum designs are patterns of value judgements" (p. 128) and Apple (1979) confirms Scrimshaw's view in stronger terms when he states that

> ... the creating of educative environments in which students are to dwell, is inherently a political and moral process. It involves competing ideological, political and intensely personal conceptions of valuable educational activity.
>
> (p. 111)

This chapter attempts to indicate that approaches to curriculum development have an ideological dimension in the two senses mentioned in the previous chapter, i.e. decisions about the curriculum are ideological by virtue of being based on a system of values, beliefs and ideas held by the decision makers. Ideology here is used in a descriptive, anthropological sense as a component of culture which helps to organize and make sense of social reality "to guide group members in both their thinking and acting " (Smolicz, 1979, p. 37). They may be also ideological in the sense used by neo-Marxist political and social critics, as a system of values and beliefs abstracted from the material dimensions of social life and from historical process and thus considered to be false thought or false consciousness (Williams, 1976). This system functions to maintain existing social relations and to advance the interests of individuals and groups who benefit from the status quo and to sustain and conceal their interests.

The previous chapter indicated the nature of the values and assumptions underpinning the interactive model. The purpose of this chapter is to elucidate this model more sharply by comparing and contrasting it with other models of curriculum development and to examine to what extent ideology, in both senses, guides decisions in these models.

The relationship of the interactive model to three models of curriculum development will be examined: the centralized model, the centralized co-operative and the school-based model. The three curriculum development models will be discussed from the perspective of the procedures used in development, the location of the decision making, and the identity of the participants. The chapter also examines the nature of the products or outcomes of curriculum development which may be classified as curriculum designs focused on subjects, on society or on students.

Three Models of Curriculum Development

Centralized model

The interactive model is, in principle, incompatible with large scale centralized curriculum development projects conducted by subject area experts located away from schools. Such "project" work characterized curriculum development in the 1950's and 1960's in the United States and in Britain (Stenhouse, 1975, p. 198). These projects were established in response to Russian advances in science and technology which culminated in the launching of the first Russian Sputnik in 1957 and were thus concerned with updating the content of the curriculum in science and mathematics to better prepare students in these subject areas (Jenkins, 1980). Thus it could be argued that the incentive for initiating the early curriculum projects was a political one, to catch up and surpass the Russians in the competition for the conquest of space and technological superiority. As Fensham (1980) observes, curriculum development projects are "very much the product of social forces which, in practice, legitimate certain aspects of content areas and constrain others" (p. 204).

The American National Science Foundation and the British Nuffield Foundation were the first to fund projects in the areas of science and mathematics but "Eventually other subjects were funded and other agencies participated in the funding" (House, 1979, p. 138). Since the focus in development was on subject matter, the projects could be controlled by academics from universities, as, for example, Professor Eric Rogers from Princeton University, who became the director of the Nuffield Physics Project in 1962 (McMahon, 1976, p. 116). Both the purpose of the projects and the origin of the developers influenced the procedures used in development.

a) Development as a scientific process. These procedures have been characterized as systematic (Maclure and Becher, 1974), academic expertise (Nisbet, 1973), instrumental (Maclure, 1972) or as the R.D.D.A. model (Clark and Guba, cited in House, 1979), the letters standing for Research, Development, Diffusion and Adoption. All these terms have been used to designate an approach based on an apparently rational sequence of procedures used in science, technology and industry; that is, curriculum development as an empirical-analytic process rather than one based in the ethical and normative domain.

New knowledge was to be generated by basic research in selected subject areas or applied research in education. The development teams, consisting of academics from selected subject areas, would presumably have access to the results of the latest research which would then inform the development of new curricula. In the development of the project "Man: A Course of Studies" (M.A.C.O.S.), the development team included Jerome Bruner, then director of the Centre for Cognitive Studies at Harvard, Irven De Vore, professor of anthropology at Harvard and Asen Balicki, professor of anthropology at the University of Montreal. The influence of these researchers is evident in the content and form of M.A.C.O.S.

The emphasis in such projects is on the production of material in the form of textbooks, guides for teachers, information and activity booklets for students and various audio-visual media. The materials developed are tested in selected schools, evaluated and then revised where necessary. They are then published by commercial publishers or an educational agency and allowed to diffuse into the educational system gradually or they are disseminated by means of training programs for teachers. Through the use of the project materials and implementation of the recommended teaching/learning activities this approach to curriculum development is expected to lead to an improvement in education.

The task of teachers in schools is to understand and learn to use the published materials to the satisfaction of the central educational agency and the developing team. Thus teacher involvement is limited to trying out the curriculum materials before their final publication. The implementation of the materials is not usually the responsibility of the planners/developers. They thus do not have to be politically responsible in terms of anticipating and coping with the factors which might inhibit or obstruct implementation in schools.

The model holds out the promise that education will benefit from using the procedures of science and industry for initiating curriculum change. The curriculum projects of the 1950's and '60's offered planned curriculum change instead of "ad hoc" piecemeal or incremental changes. In using empirical and systematic methods the educational enterprise could become scientifically respectable.

The metaphor of a wheel has been used to represent the relationship of schools to the developers (Maclure, 1972, p. 44). The hub of the wheel represents the centre where the creative activity of development takes place. The rim, or the periphery of the wheel, represents the schools where the curriculum materials are implemented. Therefore, the term "centre- periphery" (Schon, 1970) seems apt for describing this approach.

Maclure (1972) observes that one of the assumed advantages of such a centralized approach to curriculum development is the "uniformity of standards" which may be achieved if all schools implement the same curriculum materials. The project teams produce complete "packages" or "teacher proof" materials based on the experts' views of the structure of the subject and of the most appropriate teaching/learning activities. Uniformity has practical advantages in that it enables teachers and pupils to transfer

from one school to another without much dislocation. It also makes the provision of books and equipment more economical. This would not be the case with the interactive model. Uniform standards are meant to ensure equal educational opportunity for pupils. However, in practice, this could only be obtained by a highly prescriptive curriculum in terms of content and teaching methods, backed up with a vigorous system of inspection and external examination to ensure uniform implementation. Such a highly centralized system has obvious disadvantages in that teaching to an examination and competition are encouraged. It discourages efforts to build on the resources of teachers, students and the school's community to develop a curriculum which is responsive to local differences whether in culture or pupil abilities.

One might suspect that justification for a highly centralized approach to curriculum development would be stronger on economic and administrative grounds than on educational ones. Centralized curriculum development projects, with their emphasis on the production of materials, provide a quick injection of rejuvenating ideas and resources which are cheaper than long-term basic reform in the form of

> ... the creation and support of a self-appraising, self-improving school-based community ... if for no other reason than the size of the overall system and the time necessary for such basic reform.
>
> (Hewton, 1979, p. 261)

Centralized projects requiring the input of specialists over a three year period (the usual life of a project) are expensive in manpower costs. Also, if the materials produced are to be technically sophisticated (include well illustrated texts and audio-visual materials) production costs will be high (Stenhouse, 1980). But it is easier to justify the cost of short term projects to politicians than long-term ones and it is easier to budget centrally administered programs than school-based ones (Maclure, 1972). To actually justify the

costs, centralized projects would have to be extensively used which would the reinforce the centre-periphery model and uniformity, instead of diversity.

The publishing industry has a stake in supporting a highly centralized, product-oriented approach to curriculum development and can influence decisions in a system on the degree of centralization to be maintained through the academics it recruits as consultants. To be profitable, commercially produced materials must be widely acceptable and this criterion may be conducive to the production of uniform, culturally bland and uncontroversial materials or materials which are sufficiently general to apply to a variety of local contexts. Economic values may also determine the use of commercially published project materials in schools even when they are no longer appropriate since their purchase may involve a large capital outlay by schools.

One advantage of the production of curriculum projects by federally funded agencies, such as the National Curriculum Development Centre in Australia, is that they can provide curriculum materials which may be appropriate for minority groups but which comprise too small a market to justify an investment by commercial publishing companies. National agencies can also fund controversial or highly innovative programs which involve a high degree of risk and are not cost-effective in the short run and thus not attractive to commercial publishers.

However, an emphasis on a centralized approach for uniform standards ignores the specific culture and social settings of schools, what Goodlad (1975) calls the "school-community ecosystem". It assumes that the various school contexts in which curriculum materials would be implemented would not raise any problems. Research funded by Rand Corporation in the United States on the implementation of federally sponsored programs in schools shows this assumption to

be false. It indicates that "Variations in institutional settings affected project implementation more than did differences among federal programs" (House, 1979, p. 141). Lundgren's (1977) research in Sweden also shows that the materials generated by large-scale curriculum development projects were not successfully implemented "because the structural conditions of the educational system had been neglected" (p. 56). Bidwell (1972) comments on the "characteristic structures of activity" (p. 19) that schools have which give meaning to all the activities they frame. One may therefore claim that the centralized curriculum development model is "irrational in the sense that it fails to take into account the realities of the context in which it is to be implemented" (Simon and Levin, 1973, p. 12). An attempt to change the curriculum should be based on knowledge of the existing structural conditions.

A decade of study of the impact and effects of centrally developed curriculum projects shows that they have failed to promote lasting curriculum change. One could argue as Morgan (1978a) does that their failure is not due to any inherent weakness in the R.D.D.A. model itself but to the practical circumstances in which the developers have had to work. For example, project teams may be constrained by the two or three year periods of funding for their work. During this time materials have to be developed and published which means that there may be insufficient time available for research (which is one of the strengths attributed to such project work) insufficient time for the evaluation of materials, and insufficient time and funds for training teachers to use project materials.

These practical constraints may indeed be factors in the failure of the implementation of these projects but the lack of success is also seen to be due to some invalid assumptions about the role of the teacher in curriculum change and a lack of appreciation of the significance of "within-school" factors operating to promote or prevent curriculum change.

The highly centralized approach tends to assume that teachers are passive consumers of materials produced, underrating their role and influence in implementing curriculum projects. Maclure (1972) notes how this model of curriculum development

> ... devalues the professional teachers' contribution, ignores their unique gifts (or rather expressly denies that they have gifts which are unique) and makes better education and training for teachers an unnecessary luxury.
>
> (pp. 46-47)

Certainly the work of the American research and development centres, established in the 1960's, seemed to provide few opportunities for input from teachers in the development work. This is evidenced by the observations of Chase (1971) on the work of such centres:

> Attention is given to all of the major elements in learning environments. The approach is one of creating systems that have as components instructional materials and media, physical settings and the development of relevant behaviours for teachers and other school personnel, family groups and community volunteers.
>
> (p. 145)

In other words, such projects left little for the teacher to decide.

Pincus (1974) notes two other sources of problems, that of differences in focal interest of researchers and teachers and communication. He notes that:

> Researchers are more interested in disciplinary prestige than in problem solving in schools ... Researchers and practitioners often do not talk the same language because their operating style, perceptions of issues and professional priorities are so different.
>
> (p. 132)

A more fundamental problem perhaps is that noted by Schaffarzick and Sykes (1978):

> At the heart of the matter have been differences in fundamental convictions over issues of right, legitimacy, entitlements and control in educational decision making and over the goals and purposes of education.
>
> (p. 369)

A centralized approach does not - as the interactive model does - adequately take into account the diversity of goals existing between and within schools which a curriculum package would have to satisfy. Schools are assumed to be more alike than different by the development team, as if there were "some formula to be applied to each school throughout the system, irrespective of local conditions or the personalities involved in the educational transaction" (Stenhouse, 1980, p. 252). There is often insufficient account taken of differences between the values of the developers and the implementers (Simon and Levin, 1973; Lundgren, 1977; House, 1979). On the one hand, the developers bring their own values to bear on their development work (Walker, 1975; Fensham 1980). On the other hand, teachers as implementers bring their values to bear on deciding to implement, adapt, modify or reject the curriculum materials. It should not be assumed that teachers and developers share a common value system or that the teachers' values will not be a significant factor in implementation. Yet the development teams did not usually consider how the project's objectives and the methods advocated related to those of the teachers and students in particular schools or whether the projects complemented, interfered or conflicted with existing practices.

It is now recognized that the teacher is "actively engaged in a local complex-environment with a distinct subculture and set of values" (House, 1979, p. 139), and the values of this subculture and the social functions they serve

are not necessarily those of the developers, and may even be incompatible with them. A centralized approach which ignores this dimension, now seems rather naive and even manipulative in "attempting to shape the teacher's functions to their perception of what the teacher ought to be doing" (Connelly and Ben-Peretz, 1980, p. 98).

While conceptually strong and technically sophisticated materials could be produced by central developing teams which teachers in schools would not have the skill, time or financial resources to produce, it seems that such materials alone are not sufficient for affecting curriculum change. No matter how much consensus there may be about the value of the materials the external developers

> ... cannot imagine, let alone account for, the full range of teaching situations that arise. It is here that the teacher's experience and wisdom enter into curriculum planning in a way that cannot adequately be replaced.
>
> (Connelly, 1972, p. 164)

Eisner (1979) found this to be the case with respect to the Kettering Art Project and the problems encountered in the implementation of the project materials. As far as the development of the project was concerned, it was "accomplished by a small, exclusive, homogeneous group of former teachers and specialists in the teaching of art ... students, teachers and laymen played a negligible part in development" (Walker, 1975, p. 131). Eisner himself admits that "The student, although important, was simply too remote during the course of curriculum development to play a really central role in our work" (1979, p. 149).

The highly centralized approach, as illustrated by the Kettering Art Project, does not utilize the teachers' "experience and wisdom" or their creative activities since teachers are excluded from the development process. The concern

of the large scale curriculum development projects of the 60's with creating "teacher proof" materials seemed to deny the existence of these qualities in teachers and reduced them to technicians carrying out the plans of the developers.

While the interactive model is incompatible with the R.D.D.A. model it does not exclude a research role for the teacher, particularly the type of action research advocated by Stenhouse (1975), Elliot (1976), and Grundy (1982). Neither does it preclude the teachers' use of research findings as inputs to the curriculum although these may not be as recent as those available to academics in research institutes. Stenhouse (1975) argues that "curriculum research and development ought to belong to the teacher" (p. 142) because curriculum proposals have to be tested, verified and adapted in the classroom. What he is advocating in effect is a concept of the teacher's role which includes systematic self-monitoring or self-study, "a disposition to examine one's own practice critically and systematically" (p. 156). Such an attitude seems necessary for any professional person and the effective implementation of any curriculum plan.

b) Technological orientation. The use of experts in development and production, the use of a logical sequence of procedures from research to adoption, and the organization of content and activities around behavioural objectives, have been termed a "technological" or a "managerial" orientation (House, 1979; Giroux, 1981). This orientation is apparent in Tyler's (1949) influential work on curriculum and instruction where curriculum development is presented in terms of "ends" and "means" with ends expressed in behavioural form. The procedures Tyler prescribed and his justification of them still constitute a controversial issue in curriculum theory. Tyler's approach is frequently referred to as a systematic, instrumental or a rational planning model. The processes he describes for the planning of curriculum and instruction are in response to the following four key questions:

> (i) What educational purposes should the school seek to attain?
>
> (ii) What educational experiences can be provided that are likely to attain these purposes?
>
> (iii) How can these educational experiences be effectively organized?
>
> (iv) How can we determine whether these purposes are being attained?
>
> (Tyler, 1949, p. 1)

Tyler claims that a school is a purposive institution and he equates its purpose with certain objectives or goals. These are what must be first formulated, for objectives "are the most critical criteria for guiding all the other activities of the curriculum-maker" (p. 62). The objectives are to be formulated by considering studies of the learners, contemporary life, and suggestions from subject matter specialists. It is here that theorists identify a weakness in Tyler's rationale - that of oversimplifying a complex process. Kliebard's (1975) comment is typical of the criticisms when he notes that these three sources

> ... encapsulate several traditional doctrines in the curriculum field over which much ideological blood had been spilled in the previous several decades. The doctrines proceeded from different theoretical assumptions and each of them had its own spokesmen, its own adherents, and its own rhetoric. Tyler's proposal accepts them all, which probably accounts in part for its wide popularity.
>
> (p. 71)

In Tyler's view, the criteria guiding the selection of objectives from sources are derived from philosophy and psychology which thus function as screening devices. Since

education is defined as "the process of changing the behaviour patterns of people" (pp. 5-6) the selected objectives indicate the kinds of changes to be brought about in terms of behaviour to be developed. Once these changes are clearly identified they should be linked or associated with selected content areas. This linkage makes it possible to plan appropriate activities or "learning experiences" which may be expected to contribute to the attainment of the specified objectives. These learning experiences are to be organized in such a way so as to achieve sequence and continuity according to logical criteria pertaining to subjects and psychological criteria pertaining to learning. Evaluation, as the final step, enables determination of the extent to which educational objectives are actually being realized by the program of curriculum and instruction.

The whole process sounds sensible if one does not consider the role of values at each level of decision making - whether in selecting objectives, subject matter or learning experiences - which may complicate decision making. One may also argue that philosophy may serve as a source of objectives, not just a screen for them. Since there are many diverse and conflicting philosophies of education, each with its own set of values and assumptions, conflict and disagreement may arise in the decision making over objectives, content, and teaching methods, particularly if philosophical positions are not clearly and explicitly articulated. Differences may, for example, revolve around questions such as: What are the needs of the learner? What are the needs of society? The answers depend to a certain extent on one's ideals and value structure. Tyler urges curriculum developers to choose educational objectives which are consistent with their educational philosophy but this is of little help in choosing one's educational philosophy. Kliebard (1975) wryly notes that "this makes the choice of objectives precisely as arbitrary as the choice of philosophy" (p. 77). Goodlad and Richter (1966) argue that values are beginning points, not only screens, and thus they avoid the type of criticism levelled at Tyler's work.

Criticism of Tyler's rationale for curriculum development is also focused on the behavioural format advocated for the statement of objectives. These criticisms and their supporting arguments are well known and need not be fully detailed here. However, two consequences identified by the critics may be noted: that of a restricted role for the teachers and pupils, and the implied control function in the approach.

Sockett and Harris (1976) argue that the approach puts the teacher in the role of expert and instructor restricting other educationally valuable roles she may occupy; for example, those of chairperson or co-learner. Teaching based on behavioural objectives precludes an open-ended inquiry approach because the teacher, by specifying objectives, controls the learning process and restricts the course of inquiry (Stenhouse, 1975). It may also preclude the many ways education occurs through unexpected and spontaneous talk, questions and probings. The use of behavioural objectives in guiding teaching/learning activities also seems inappropriate for promoting originality and creativity because one could not pre-specify the outcomes of objectives having either of these qualities (Harris, 1976).

Apple, Giroux and Eisner point to the implicit control function in curriculum development based on behavioural objectives. Apple (1978a) argues that "behavioural objectives based programs tend to centralize control within institutions so that power is not shared to any significant extent" (p. 503). Giroux (1981) claims that education is influenced by a positivist, technocratic world view whose guiding interests are control, prediction and certainty (p. 9). He traces the origins of the ends-means model to the "culture of positivism" (p. 42) based on the assumptions, attitudes, interests, logic and methods of inquiry found in the natural sciences, logic and mathematics, and on their interest in explanation, prediction, control and technical progress. Giroux

argues that the curriculum field has endeavoured to become a science by developing " a rationality based on objectivity, consistency, 'hard data' and replicability" (p. 48). The ends-means model may be regarded as a manifestation of this rationality. Giroux also maintains that the:

> Calls for accountability in education, coupled with the back-to-basics and systems management approaches to education have strengthened rather than weakened the traditional positivist paradigm in the curriculum field.
>
> (p. 48)

Eisner (1979) notes that control may shift from the hands of teachers when the objectives approach is linked with "accountability" which he defines as "a problem of demonstrating that educational investments yield educational payoffs" (p. 68). The teacher then becomes accountable for results, and a failure to attain pre-specified objectives can be interpreted as an indication of inefficiency. Curriculum projects based on quantifiable and measurable objectives therefore enable the developers to prove the worth of curriculum materials in terms of gains in learning and satisfy the desire for control and certainty. Thus they are also able to justify the expense of a curriculum project to the project funders to whom they are accountable. Thus an objectives approach may be related to political and economic interests.

While in Tyler's framework objectives are to be selected with a view to meeting students' needs and interests they are not necessarily the students' <u>own</u> objectives. Thus the conscious co-operation of the learner, which is necessary for learning, may require an element of manipulation if not coercion. It is interesting that Tyler, when writing in 1977, tried to compensate for this neglect of direct student input by stating that "where possible and appropriate, the students themselves should participate in the planning and evaluation of the curriculum" (cited in Saylor, Alexander and Lewis, 1981, p. 7).

Planning based on objectives is not incompatible with the interactive model, but it does require taking into account the teacher's and students' objectives which means objectives are negotiated with the students in terms of significance, feasibility and other practical implications. Some students may feel that specific behavioural objectives might usefully guide their work while others might prefer to work from only content specifications. The use of behavioural objectives would have to be considered in relation to the type of work students would be engaged in. It may be open-ended in which case behavioural objectives would not be suitable.

Another argument opposing curriculum development based on objectives is that it is not compatible with the way teachers actually work, or does not give a realistic account of teachers, pupils and contexts as variables and not as constants (Stenhouse, 1975). Yinger's (1978) research on how teachers plan shows that decisions about content are the most frequent type. Clark and Yinger (1979) found that the most common form of plan was an outline or list of topics to be covered. Harrison (1981) found that teachers engaged in curriculum development began their planning by formulating and organizing the activities they were to offer, not with objectives or the outline of content areas. Furthermore, decisions about other aspects of the curriculum - e.g. its content, teaching methods, resources, assessment - "are made in an interactive, dynamic way, not necessarily in any regular sequence" (p. 49) and these decisions "are progressively modified in implementation" (p. 49). This indicates that even if planning is at the school level, all the factors which impinge on decisions cannot be anticipated.

It could be argued that teachers should plan by means of objectives because such an "ends-means" approach is an indication of rational action and planning should be a rational activity. The ends-means approach is the classical empiricist

view of rational action. This is, however, only one view of rational action and has its critics in the "conceptual change" view, exemplified by people such as Toulmin, Lakatos and Kuhn (Confrey, 1981).

The conceptual change view is the one taken by Oakeshott (1974) who argues that the ends-means account of rational behaviour is a prescriptive theory of behaviour and not a true account of rational conduct. For Oakeshott human actions are governed by traditions and the observance of implicit ways of doing things and by one's knowledge of certain activities rather than by ends. In his words:

> All actual conduct, all specific activity springs up within an already existing idiom of activity. And by 'idiom of activity' I mean a knowledge of how to behave appropriately in the circumstances. Scientific activity is the exploration of the knowledge scientists have of how to go about asking and answering scientific questions; moral activity is the exploration of the knowledge of how to behave well.
>
> (p. 101)

Rational action is shown in "faithfulness to the knowledge we have of how to conduct the specific activity we are engaged in" (pp. 101-2). Rational thought in decision making from this point of view means selecting a course of action on the basis of knowledge and experience rather than on the basis of ends. This view does not imply that one does not formulate ends which one aspires to attain and to which one attaches value, but that the rationality of efforts to attain these ends is defined by their relation to one's knowledge and experience of how to act in the circumstances and not by their relation to the ends themselves. It also means that we can only imperfectly attain our goals.

Flexibility can also be regarded as a criterion of rational action (Dewey, 1916), flexibility to change one's objectives as they interact with the means rather than sticking

irrevocably to pre-specified objectives. The means employed to attain objectives are often determined and limited by available resources. Therefore it would be irrational to insist that ends and means be specified before resources are allocated (Simon and Levin, 1973). Striving inflexibly to attain pre-specified objectives does not acknowledge the fact that the means used to achieve objectives may affect and shape the final results. Skilbeck (1976) notes this when he indicates that "what appears as means or instruments, have their own inbuilt ends-structure" (p. 43). He cites the example of physical punishment which may be considered as a means of changing behaviour and also an expression of values. Joyce, Weil and Wald (1972) make a similar point about various teaching models. They maintain that particular teaching methods may have a direct instructional effect (or outcome) and an indirect nurturant effect. The result of using a particular method to produce a desirable instructional effect may be an undesirable and unintended nurturant effect which may be compared to Jackson's (1968) view of the hidden curriculum. The nurturant effects are a result of being in the environment created by using a particular set of teaching methods. In their words:

> High competition toward a goal may spur achievement ... but the effects of living in a competitive atmosphere may alienate one from his fellows. Alienation would be, in this case, nurtured by an instructional method.
>
> (p. 385)

c) Development as deliberation and as artistry. The findings of empirical studies on the actual work of curriculum developers on centralized projects are in contrast to the theoretical models discussed above. Walker's (1975) and Eisner's (1979) reports of work on the Kettering Art Project indicate that the dynamic interpersonal processes advocated for interactive curriculum development - that of social interaction,

deliberation, collaboration and negotiation between teacher and students - are important components of the work of professional curriculum developers and this work is by no means an orderly and certainly not a scientific process.

Walker (1975) notes that this American project for art education was funded for a period of two years. The project team consisted of fourteen people: Eisner as project director, eight doctoral students in art education, a student in product design and four teachers as consultants whose classrooms were used for the initial testing of materials. Work on the project began with Eisner's ideas on art education which were widely known through previous publications and were accepted and used in the project's early work. They comprised what Walker designates as the "project's platform", functioning like the platform of a political party. They were clarified, refined and extended by the team members but few were abandoned. The team did not work from stated objectives. The only guiding principles for the development work were those contained in the project's platform.

In analysing the team's work Walker observes that "more time was spent in the early months on discussion than on production, while the reverse was true in later months" (p. 98). Also, initial attempts at production "always gave rise to scores of questions, large and small, on which agreement among members of the Project team was essential" (p. 98). Decisions were reached by consensus and if a consensus could not be attained on an issue, the decision was postponed.

Walker characterizes the nature of these discussions as "deliberation" which he defines as "Talk that is directed toward ... substantive problems" (p. 110). To distinguish the concept from an exchange of opinion he further characterizes it as talk which involves:

> Stating and evaluating problems;
>
> Stating and evaluating proposals;
>
> Stating and evaluating arguments;
>
> Weighing and comparing conflicting arguments; and stating and evaluating instances.
>
> (p. 127)

Deliberation seemed to follow a pattern of a team member posing a problem, followed by proposals for its solution, accompanied by arguments for and against the proposal. Other proposals would be offered and argued with references to specific objects and situations as illustrations. The rationality of the deliberation seemed to consist of considering the merits of the things proposed and created.

Eisner (1979) in his acount of the project notes that it was not empirical data from research but "beliefs about what is desirable from an educational point of view ... and beliefs about the ways in which such learning can be fostered" (p. 145) which played an important role in providing direction for the practical work of the team. These beliefs became shared and internalized by the team members. He also confirms that deliberation became important in arriving at decisions. Deliberation involved "trying to anticipate the likely effects of taking one course of action rather than another" (p. 147), exploring possible consequences of action, and a variety of perspectives on a problem - for example, educational, practical, psychological and social. Eisner notes that the decision reached was usually dependent on social and political criteria, i.e. on "which group member has been the most persuasive in the decision making process" (p. 147). He compares this process of deliberation to that undertaken by a jury when weighing evidence, but maintains that the curriculum deliberator does more than this, "he assigns values to these facts" (p. 148).

Walker's (1975) more detailed and analytical account of the same project is of interest because he compared the

processes used in this project with those used in two other science projects where one would expect the procedures used to be less subjective. His analysis and comparison of the content of recorded deliberations in the three projects showed that more than half of the arguments were based on the participants' judgements rather than on empirical data; that of the judgements based on observation, more than half were not firsthand and most were incidental. A similar pattern was found in the sample of science curriculum project deliberations analysed belying a possible claim that the nature of the deliberations would be strongly influenced by the subject area.

These findings seem starkly inconsistent with the rational scientific ideal for curriculum development which rules out student participation and entails

> ... that arguments should be based on observations rather than judgements; that the observation should be of students in school and thus external; that they should be made firsthand, although reported data should be acceptable if it reports scientifically defensible observations; and that the observations should have been made purposefully rather than obtained fortuitously. Judged by this ideal, the data on which these projects based their deliberations were far from satisfactory.
>
> (Walker, 1975, p. 122)

Eisner's (1979) observation of how decisions reached in planning a curriculum depend upon the persuasive arguments of a team member is also of interest, because it points to the political dimension of the curriculum development process, a dimension absent in the scientific, technological view. The process may be considered political in the sense that "the essence of the political process is interaction between groups of people" and the essence of its outcome is a reconciliation of conflicting interests and "a commitment towards upholding the

settlement or carrying out the action agreed upon" (Levin, 1975, p. 30). This perspective on the process may help to explain some of the conflict over decision making which various writers note (Eggleston, 1975; Walker, 1976; Becher and Maclure, 1978). Walker, in particular, notes that the ideal of change as planned and rational, which has dominated the curriculum field, is at odds with the political aspects of change. Decisions, particularly about policy, are subject to the influence of the competing interests of many groups and agencies and they are often made by negotiation rather than a systematic design process. Becher and Maclure (1978) point to the rivalry between teachers of various subject areas and maintain that this rivalry "reflects the fact that academic subjects enjoy a socio-political entity in their own right. They represent powerful interest groups" (p. 97). A curriculum change therefore means that a new balance of power has to be negotiated. Therefore, interaction, accommodation and compromise characterize the curriculum development process (Shipman, 1972).

What this literature indicates is that the processes advocated for the operation of the interactive model seem to be closer to the way people actually work than are those in linear models of curriculum development. Potential opponents of the interactive model would, therefore, have weaker arguments for rejecting it on the grounds of processes than on the grounds of participants.

Those theorists who focus on the artistic dimensions of curriculum development (Harris, 1976; Eisner, 1979) feel that scientific and technological perspectives and procedures do not exhaust all the ways one might deal with educational issues. Artistic forms of understanding and activity may also provide unpredictable and desirable innovations and the artistic process may explain the successful practice which is not explainable by science and technology.

Eisner (1979) focuses on artistry from a recognition of the role of subjectivity and values in education. He defines curriculum development as "a process of transforming images and aspirations about education into programs that will effectively realize the visions that initiated the process" (p. 108). He admits that he uses the terms "images" and "aspirations" intentionally to communicate his sense of the rather fleeting, vague and ineffable qualities of the conditions which initiate curriculum development. In his view, these conditions "are seldom clear-cut, specific objectives; they are, rather, conceptions that are general, visions that are vague, aspirations that are fleeting" (p. 108). The definition above is congruent with his view of teaching as an art "guided by educational values, personal needs and by a variety of beliefs or generalizations that the teacher holds to be true" (p. 153). So too, curriculum development is guided by the values the curriculum developers "aspire to and cherish" (p. 109).

The notion of artistry tries to capture the quality which is demonstrated by the teacher who can somehow suggest the most "fitting" activity for her pupils, one which surprises, challenges and stimulates them to learn, but she cannot explain how she does it. Critics commenting on her activities may attribute success to experience, to caring, to imagination or to an understanding that is somehow more than knowing.

Eisner maintains that teaching can be regarded as an art in four senses: (i) it can be performed with such skill and grace that the experience has aesthetic qualities for both teacher and students; (ii) it is not dominated by prescription or routines but (iii) dependent on perception and judgement and qualities that unfold largely in the course of action; (iv) and finally, its ends are achieved and often created in process (1979, pp. 153-55).

Curriculum development demonstrating artistic qualities would not follow a prescription, for the work of the artist is

unpredictable and therefore not amenable to prescriptive theorizing. (The artist is a "rule breaker"). As Gordon (1961) notes, "Learned conventions can be windowless fortresses which exclude viewing the world in new ways" (p. 92). In Eisner's view, the artistry of the developer may be manifested in the imaginative ways goals and content are transformed into events which have educational consequences. Eisner points to the numerous options the developer may choose from and the role of values in resolving differences in views about what kinds of events have greater or lesser educational significance. One might expect that both processes and outcomes would be idiosyncratic, expressive of the predilections of the participants.

Features of artistry may be manifested in the use of the interactive model if the teachers and students are open to ideas from all sources, are willing to play with ideas, explore implications, combine ideas in innovative ways and defer judgement which might preclude these processes. One may expect them to entertain ideas which to others may seem audacious, risky and even absurd. The teacher would be concerned with a curriculum for a particular unique group of individuals in a particular situation, not with an abstracted, generalized group or situation.

Centralized co-operative model

Fensham (1980) observes that in as much as curriculum development projects are the products of social forces, in the same way social forces operate on their implementation in schools. He reviews a number of studies on the implementation of curriculum innovations in science in Australian schools which highlight the pressures for subject maintenance and political control from tertiary institutions as impediments to curriculum change. For example, he refers to a study on the nature of the changes in chemistry courses in Victorian schools which shows

> ... that the selective needs of the political and economic functions of schooling and the interests of subject maintenance combined in practice to produce a distortion of the curriculum package that all but excluded the hopes of these science educators.
>
> (Fensham 1980, p. 198)

Fensham argues that if curriculum developers ignore these social constraints "they are then likely to find that the social realities will destroy, or distort, much of the educational potential in their material" (1980, p. 204). If, however, "they can recognize and identify with the social realities and try to design materials accordingly" (p. 204) then curriculum development becomes "a more complex task that cannot be undertaken by a central development group isolated from the real loci of educational decision and implementation" (p. 205). In Fensham's view, "Development will need to find modes of operation that much more nearly coincide with the locus of the decisions for classroom use" (p. 205). A movement towards centralized co-operative curriculum development which emerged in the 1970's was a step in this direction, indicating a recognition of the power of the teachers' influence and a concern with the factors which impinged on the implementation of curriculum projects.

In the centralized co-operative approach opportunities are provided for <u>teachers</u> to work with subject area experts to contribute to development but there are very few reports of projects which have sought the participation of students in decision making. The Nuffield Schools Council Modern Languages Project, which was established to produce curriculum materials for the teaching of French, German, Spanish and Russian, involved the establishment of four development teams which included linguists, artists <u>and</u> teachers from each of the countries concerned (Schools Council, 1973, p. 28). The secondment of teachers to work on curriculum projects has been more a feature of British curriculum (and recently of

Australian) projects than American ones because the Schools Council was concerned that curriculum projects have practical value and should be used by teachers. Hence teachers were involved in project development and the Schools Council put more emphasis on the dissemination of projects and the training of teachers than did some American agencies.

The involvement of teachers in the development work clearly indicates that a value is placed on their practical knowledge. It also indicates sensitivity to the fact that the curriculum has to be implemented in a given "system" which has its own characteristics and constraints. Through the involvement of teachers information becomes available about "the range of environments in which the program will eventually be located" (MacDonald and Rudduck, 1972, p.41), and about the demands the curriculum project may make on the school in terms of roles, relationships, resources and management. A concern with these factors also indicates that more attention is being paid to promoting the implementation, not just the production, of curriculum materials.

Teachers are also involved in curriculum development projects in the belief that "there can be no effective far-reaching curriculum development without teacher development" (MacDonald and Rudduck, 1972, p. 41). Thus, for example, the team of the Schools Council Humanities Curriculum Project (H.C.P.) was concerned with helping teachers learn to use project materials in the context of their own schools and to interpret and make judgements about the feedback they received from their own work with the materials. The H.C.P. team also tried to develop teachers professionally by involving those who trialled the materials in research on an inquiry-based approach to teaching and learning (Stenhouse, 1975, p. 221).

Another objective in such co-operative work is the avoidance of the development of a potentially harmful tendency of "intellectual dependency in teachers" (Connelly and

Ben-Peretz, 1980, p. 98) which the highly centralized approach seemed to foster. In the latter, teachers tended to "invest the development team with the kind of authority which can atrophy independence of judgement in individual school settings" (MacDonald and Rudduck, 1972, p. 41). Stenhouse (1975) too notes that "There is a continual emphasis on the use of expertise by schools to solve specific problems rather than to generate their own expertise in problem solving" (p. 220).

As a consequence of these concerns and emphases the goals of centralized co-operative curriculum development projects changed from the production of complete courses which are designed to be used in a certain sequence to the production of guidelines and flexible packages of resource materials. The role of the central team includes supporting teachers by helping them select materials, providing them with examples of materials, information and strategies, broadening the range of choice open to policy makers (Stenhouse, 1975) and making "intelligent, but provisional, lines of development accessible to those whose responsibility it is to make decisions about educational practice" (Stenhouse, 1975, p. 215). Clearly the intention is to support and assist rather than to engineer change by intervention.

The Australian Social Education Materials Project (S.E.M.P.) is a clear example of a co-operative approach but it is also one which attempted to involve students and community in the development work (Madin, 1978). The assumptions underlying this co-operative approach are clearly stated by Madin (1978) who was the leader of one of the development teams. Curriculum development is regarded as an ongoing process and not one which ends with the development of materials or a course. The materials are a start. It also involves a partnership of teachers, students, parents and community members; it is not the activity of an exclusive group. Since curriculum development is regarded as value based the curriculum reflects

the values of the participants. The project offers "a wide range of open and flexible resources" and implicitly supports "the notion of do-it-yourself planning and materials collection, adaptation and production" (Madin, 1978, p. 164). Such projects recognize that schools and classrooms are unique and that materials or guidelines have to be tested, applied and adapted to particular contexts.

A major problem with a centralized co-operative approach (as with a highly centralized one) is the pressure to produce tangible evidence of the developmental work in the form of curriculum materials in a limited time. This pressure was experienced by the S.E.M.P. teams and "came to dominate the life of the project in the final stages" (Madin, 1978, p. 149), in spite of the project's other objectives of teacher involvement, teacher development and community involvement. The consequence of this pressure is that less time may be spent in supporting the work of teachers in developing and trialling plans and materials than in the actual production of materials. This was also the experience of the team of the Schools Council Integrated Studies Project (S.C.I.S.P.) where the development team soon felt the pressure "To finish the trial in time and produce publishable materials and guides for integration" (Shipman, 1972, p. 150). This meant that more work had to be done at the centre rather than in schools and more time spent on administration and negotiation with publishers.

A further problem is that the position of a central team (whether it consists of teachers or of teachers and academics) as the focal point for development (whether of materials or guidelines) may still engender a feeling of dependency in teachers even though a co-operative approach may develop self-reliance. As Dale (in Stenhouse, 1975) reports, "It is all too easy for exploratory ideas and suggestions from the central team to become authoritative statements in the eyes of the trial schools" (p. 161). It therefore seems that self-reliance and a

critical attitude to project guidelines and materials do not develop merely from the opportunity of choosing materials; they are the result of experience as developers.

Another difficulty which may arise in such co-operative work is a conflict in the priorities of the central team and the co-operating teachers. While this was not apparent in the work of S.E.M.P., it did occur with S.C.I.S.P., where the project included a mix of teachers and tertiary people whose priorities were not always compatible. Shipman (1974) found that many teachers involved with S.C.I.S.P. did not receive what they felt was useful. The orientation of the project team was towards the development of theory (that is, a theory for integrating subjects), whereas teachers were concerned with practice first and with theory developing from practice. The result, in some cases, was the development of a "them-us" complex, leading to a dropping out of participants and low co-operation.

The rationale implicit in the co-operative model is closer to that of the interactive model than is the highly centralized one, however, in neither of them does the initiative for development come from individual schools. It comes from government agencies such as the C.D.C. or the Schools Council, from committees, associations, commissions and individuals in research institutes submitting proposals. Thus the materials produced may not have a direct correspondence to local concerns and may not be implemented.

One approach to this problem is to improve the dissemination of centrally developed programs through training programs for teachers (Morgan, 1978b). But an emphasis on more effective dissemination ignores two dimensions of educational innovation which have been the focus of research in the last decade. These are the political and cultural dimensions. Research on the political dimension draws attention to the "conflicts and compromises among factional groups, such as

developers, teachers, administrators, parents, Governments", the role of "advocacy" groups (p. 140), and the problems involved in "receiving the co-operation of others" (p. 147). Studies by the Rand Corporation in 1975, for example, on the effects of federally funded programs on schools indicate that:

> Only when a local need was perceived was commitment generated, as indicated by local support and interest. Projects designed by outsiders failed to gain support. 'On-line' project planning was best and the most effective training was concrete 'how-to-do-it' workshops given by local personnel. Outside consultants were not effective ... Projects were more successful when participants formed a 'critical mass' to provide mutual support.
>
> (House, 1979, p. 141)

Research on the cultural dimension emphasizes the importance of the contexts in which development and implementation occur and the cultural differences in these contexts. In studies of the cultural dimension:

> Separate parts of the system are seen more different than alike ... Not only do the separate groups not share values (for example, developers and implementors) they cannot be certain what other groups' values are ... One must be concerned about the anticipated effects of an innovation in an unknown culture. Action becomes difficult.
>
> (House, 1979, p. 147)

These factors need not arise as obstacles with the interactive model since it is designed to respond to local needs through participation.

An emphasis on more effective training programs to disseminate centrally developed projects seems to indicate a technological orientation to curriculum development and reinforces the functionary/technician image of the teacher which is in contrast to the professional image implied in the view of

the teacher as curriculum developer. The interactive model is responsive to local concerns and necessitates a view of curriculum development as a continuous process which is more likely to develop professional qualities required of teachers than the implementation of centrally developed curriculum projects. As Shipman (1973) concludes in his study of the implementation of S.C.I.S.P. materials, "The successful organization of planned curriculum change may depend more on mobilizing teachers into planning and implementation than on getting schools to accept packaged materials" (p. 52).

School-based model

The interactive model is closely allied with what Skilbeck (1975) terms a "movement" advocating a school-based model of curriculum development which is

> ... a new name for an old idea. The idea is that the best place for designing the curriculum is where the learner and teacher meet.
>
> (p. 91)

School-based curriculum development means that curriculum plans and materials are developed at the school level by teachers, invited specialists and/or community members following either a centrally developed curriculum policy (as may be the case in state funded schools) or a policy developed at the school level (which may be the case with private or independent schools). The scope for participation and the roles of various groups would depend on which situation prevailed. The developers may focus on the total curriculum in the school or only a selected subject area.

One of the claims cited by Skilbeck in favour of school-based development is of particular interest. He states that:

> The curriculum is, for the learner and the teacher, made up of experiences; these should be experiences of value, developed by the teacher and learner together from a close and sympathetic appraisal of the learner's needs and his characteristics as a learner.
>
> (p. 90, emphasis added)

He does not explore all the possible implications of this claim being more concerned with outlining the tasks which the approach implies for the teacher. He does, however, suggest that the learners be involved in discussion, but not decision making, at each step of the suggested model. This is a significant difference between his model and the interactive one. It is of interest that in Australia very few writers who have discussed and explored the implications of this model for teachers and the educational system have been concerned with even the suggested role for the learner (as being consulted) and very few have attempted to identify the implications of student participation for curriculum development.

Skilbeck maintains that the curriculum developers begin their work not with given objectives or with objectives derived from sources external to the school, but with a critical appraisal of the context or the situation as it exists at the school level. This is what is implied by his term "situational analysis", the first box in Figure 4.1 representing the model Skilbeck advocates. Skilbeck does not intend a linear progression from one step to another, in spite of the arrows. In his view, any step "can be the starting point of developmental thinking" (p. 97). It would seem, however, that situational analysis may function as a prerequisite for the decision making involved in the other steps, but its scope may depend on the amount and quality of information needed for a particular decision. Neither does he advocate an ends-means analysis but encourages curriculum developers "to take into account different

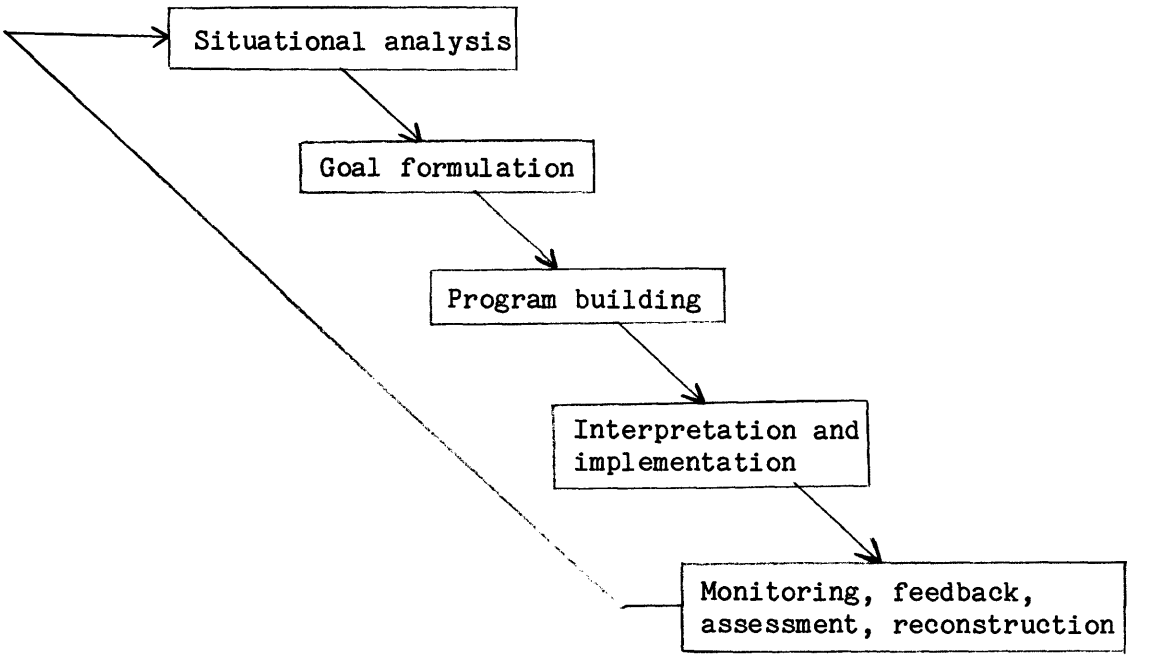

Figure 4.1 Skilbeck's model of curriculum development (1975, p. 97)

elements and aspects of the curriculum development process, to see the process as an organic whole" (p. 97).

Skilbeck also argues for a systematic approach which for him implies "a carefully worked-out role for the school as a creative, developmental agency" (p. 94), supported by a teacher-education system and other educational agencies providing guidelines, advice and assistance and teachers' resource centres enabling the production of materials of high quality. In other words, an assisting and supporting network is needed to make effective school-based curriculum development possible.

For Skilbeck, thinking systematically about the curriculum also means planning for curriculum change whether the change is concerned with the "what", the "why", or the "how"

elements of the curriculum. Planning entails conducting a situational analysis which takes into account factors both external and internal to the school; for example, value and belief systems, the social and institutional context, knowledge of the pupils' learning processes, of social relations and trends; the changing nature of subject matter, school ethos and political structure, perceived and real problems, and the flow of resources into the school (p. 96). He therefore sets curriculum decision making in a much broader context than the other models, widening the sources of influence on the curriculum and heightening the complexity of decision making. In so doing he eliminates some of the procedural and conceptual neatness implied by Tyler's rationale.

Skilbeck's model implies that decisions about the curriculum are not made in a social vacuum; they are situationally governed - that is, arrived at under specific conditions which constrain and frame the decisions which may be taken. These may, for example, include previous decisions, teachers' beliefs and values, systemic requirements, and legal obligations. Situational analysis does not, however, require the degree of interaction with the students suggested in the interactive model; Skilbeck's model is not as sensitive to the students' point of view.

The rational dimension of Skilbeck's model lies in its concern with accounting for the framework within which teachers should approach curriculum development and in its concern with recognizing the contingent nature of decisions on the social context in which schools are located and in which teachers work. While acknowledging the significance of this context Skilbeck also argues for the freedom to make decisions. That is, the situation cannot be totally determined by constraining factors if any significant school-based curriculum development is to occur. In Skilbeck's words, "Freedom for teachers and pupils is a necessary condition for the full educational potential of these experiences developed in the school to be realized" (p. 91).

In bringing decision making about the curriculum into schools the school-based model puts control into the hands of teachers but still denies students the opportunity to share control over their educational programs. Teachers are able to develop programs on behalf of the students but need not do so with the students. The model enables teachers to be more responsive to students and enhances the status of teachers, but it does not empower students to participate in decision making and to eventually share control of their education.

a) Democratization. The arguments on behalf of teacher participation in the school-based model may be also employed to justify student participation. One of these is the appeal to the value of democratic procedures and the other is job satisfaction.

Andrews (1978) has been an advocate of democratic decision-sharing in schools, putting more emphasis on the role of parents than on students. He argues that the personnel of the state Departments of Education in Australian States are not elected but appointed and are not directly accountable to the electorate. People in schools, at the periphery of decision making, are only able to endorse or reject very general policies rather than voice specific opinions on the more important decisions before they are made, decisions that affect them at the local level. Also, while teachers are represented on departmental curriculum and planning committees, these representatives are either invited or appointed to present the views of their organizations, e.g. the Teachers Federation, which may have only a distant relationship to individual members. Since the number of people eligible to be represented by these organizations is larger than their membership, the power of the non-members to influence decisions is negligible. Furthermore, the fact that many people, in Australia at least, are unaware that these consultative procedures through committees exist suggests that they are not a very effective

means of promoting participative curriculum decision making. There is need, therefore, for a more direct form of participation.

This argument can be used to support both the school-based and the interactive models. Direct participation can be achieved if major decisions at the school level are shared by the key people in the educational process, the teachers and students. Their participation is further justified on the grounds that decisions should always be made with as full knowledge of the consequences as possible. This is best assured by involving in the decision-making process all those influenced by the consequence.

Middleton (1979) effectively argues the strengths of the participative school-based model in comparison with the centralized one. He maintains that in a society characterized by rapid social change, a centralized decision making model with its hierarchical pyramid structure, if it is to be democratic, would be too slow to respond effectively to changing needs. Such organizations must either

> ... persist with an acceptable level of democratic participation and risk lagging increasingly behind the needs of the society they serve, or they must limit participation and adopt an autocratic mode of management in order to produce efficient and swift adjustments to the changing needs.
>
> (p. 2)

Therefore, both solutions are undesirable.

Middleton sees the fundamental educational task as one "of helping people to develop the skills which enable them to share in the decisions of their community" (1979, p. 9) and move towards greater control of institutional structures. Such a decentralized model, where appropriate structures are developed from the "bottom up" and not from the "top down", seems to

satisfy a basic human need, that of belonging to a group, being identified with it and sharing its decisions.

Not only is society rapidly changing but it is also characterized by diversity in ethnic groupings, cultural norms and educational expectations. It is not politically defensible to ignore the needs of these groups and a centralized curriculum decision-making model is not able to effectively satisfy the variety of demands made on it. That is, social diversity, in a multicultural and multiethnic country makes it difficult to dictate curriculum policy from a central agency.

Research studies from industry show that participation in decision making promotes commitment, responsibility, high morale and productivity (Richardson, 1983). Centralization of decision making and the specialization of labour decrease the control of employees over their work and increase feelings of stress and alienation. To counter this, people try to increase their power in the workplace often by disruptive means such as working to rule, "go slows", and malingering. Case studies suggest that similar reactions occur in schools (O.E.C.D., 1974). Where schools belong to highly centralized systems or have autocratic principals, teachers tend to experience an undermining of their control over their work environment and the social relations within that environment.

The school-based and the interactive models use the teachers' practical knowledge which is "something dynamic, held in active relationship to practice and used to give shape to that practice" (Elbaz, 1981, p. 81). This knowledge is used in both development and implementation. The approach thus shifts the role of the teacher "from implementor to decision- maker and independent developer" (Connelly and Ben-Peretz, 1980, p. 101). It extends the teacher's professional decision making beyond what Hanson (1976/77) has identified as the "protected pockets of autonomy" which teachers have enjoyed in relation to decision

making in their classrooms about the teaching process. In schools organized along bureaucratic lines where the boundaries of decision making are clearly defined for teachers and administrators, the teacher's professional judgement may be restricted to instruction. This is the "pocket veto", to use Hanson's term, which teachers hold and can use to obstruct the implementation of curriculum projects. What the school-based and interactive models imply is an extended autonomy but also greater responsibility and professionalism.

In a centralized model, career patterns which involve movement upwards in the hierarchy direct competent teachers away from the local community. The centralized model also provides a haven for incompetent people because it is possible for them to blame "the system" for their mistakes since wrong decisions can be blamed on those "above" in the hierarchy and "In this sense accountability does disappear within the structure" (Middleton, 1979, p. 4). In the school-based model, decision making would be accountable to students and community. Decision making and competence would become more visible.

Kemp (1978) maintains that a value of school-based curriculum development is that it induces co-operation and interaction and "is likely to stimulate self-evaluation, demand thoughtfulness in planning and provide greater opportunity for sharing experiences and opinions" (p. 91). Andrews (1978) also maintains that a school based approach "promotes commitment and responsibility" to the teaching task and to the implementation of decisions (p. 3). Other studies of decision making support this claim (Sharma, 1955; Johansen, 1967; Duet, 1972). Obviously some of these arguments are also relevant to the interactive model and the benefits seen to accrue to teachers may also accrue to students as a result of their participation.

b) Professional service. The advocates of the school-based model assume that the function of schools is to provide a professional service, that of educating the young people of a

community. A professional service, whether it is an educational, a medical or a legal one, is defined as being responsive to the needs and wishes of its "clients" and be accountable to them (Andrews, 1978). If students are the "immediate clients" of the school, then it is to them that teachers are responsible.

A centralized model of decision making is not regarded as suitable for delivering a truly professional service because it is too far removed from the school and its community to respond effectively to their needs and wishes. Therefore, if a school's policy and operation is guided by a remote central authority it too will be unable to provide a professional service.

Schools vary a great deal in the size and make-up of their student populations, in location and in resources. The teachers in them are, therefore, perceived to be in the best position to determine the optimum use of the school's resources and the teachers' expertise. Since pupils are diverse in their social and cultural experiences, in their motivation, ability, learning styles and interests, teachers are also best placed to perceive the differences and to respond to them. If they are to respond to them effectively, curriculum development cannot be perceived as a "one off" process in the style of large-scale curriculum projects. It must be a continuous process of modification and adjustment and this is most practically done at the school level. The participation of students in decision making, as proposed in the interactive model, would enable teachers to be more aware of their needs and values.

This line of argument is not, however, entirely compatible with the interactive model. Emphasis on "delivering" a service objectifies education, making it a thing which can be produced and packaged by the experts in the classroom rather than a process to be experienced. While the image of the

professional is a responsive one, the emphasis on professionalism puts a distance between the teacher and students. The professional teacher diagnoses problems, assesses needs and provides the appropriate program and the students may be relegated to a passive, recipient role. The use of the term "client" reinforces the idea of dependence. Thus the argument enhances the status and power of the teacher but does not encourage students to use their talents and energies to develop programs which deal with problems they too consider important.

What is needed for the implementation of the interactive model and what the literature on the school-based model seems to lack is a new concept of professionalism, one which includes assisting the students to discover their strengths, to make the most of their abilities, and to become self-critical and reflective about their own actions and which supports more collaborative and self-directed modes of learning.

Summary of comparisons

As a summary of the models discussed, Figure 4.2 indicates that the interactive model is aligned with, but to the right of, the school-based model on a continuum of decision making. A move from a highly centralized system of curriculum development towards a school-based interactive one provides students with the opportunity to share in the responsibility for decision making. In the other models this responsibility lies with the teachers or with specialists outside the school or the school system. The interactive model is supported by arguments in favour of decentralization of decision making in the educational system and greater autonomy at the school level.

The values, assumptions and social practices associated with these models reflect certain outlooks on the world or "modes of rationality" (Giroux, 1981). The highly centralized

Degree of Decentralization

	Highly Centralized	Centralized Co-operative	School based	School-based interactive
Responsibility for decision making	Selected group of specialists	Specialist group and representative teachers	Teachers, invited specialists and community members	Teachers and students

Figure 4.2 Responsibility for decision making in models of curriculum development.

and the centralized co-operative models are oriented towards a "technocratic rationality" (Giroux, 1981, p. 9), one concerned with control and efficiency. They are product-oriented and directed towards a general context, with the development period being of a relatively short duration. The highly centralized model in particular puts control in the hands of experts, academics and researchers, and not the teachers. Habermas (1971) suggests that reliance on expertise is a form of political domination in industrialized societies. Faith in expertise is also characteristic of the "liberal" outlook, along with acceptance of non-violent but coercive means of social control (Karier, 1976).

In contrast, the school-based and the interactive models are oriented towards a practical and a critical rationality, which may be linked (Habermas, 1971) with an interest in understanding patterns of interaction, with negotiation and interpretation of meaning and with an interest in self-reflection and emancipation. The school-based model

implies greater reliance on the teacher's knowledge and skill to diagnose curricular needs and to satisfy them. The interactive model relies on co-operation between the teacher and the students. It is process-oriented, continuous and directed at a specific context. It implies putting control in the hands of teachers and students, a position compatible with "libertarian" thought in education (Spring,1973) with its emphasis on individual autonomy. For libertarian educators "Freedom depends on the content and the method by which the learner receives knowledge" (Spring, 1973, p. 230). The interactive model may be also characterized as radical in the sense that:

> All modes of radical pedagogy presuppose a critical education in which students will be given the opportunity to validate their own experiences.
>
> (Giroux, 1981, p. 31)

Interactive Model and Curriculum Designs

The product of curriculum development whether highly centralized, centralized co-operative, school-based or interactive is a curriculum plan or design, usually in the form of a document and/or various materials. Designs may be distinguished by their structural components and sources of justification. These categories were derived by Piper (1979) and implemented by him in a study of curriculum designs for social education in Australian schools.

Piper differentiates curriculum designs by their "formal focus" and their "generic focus". Those differences which can be attributed to differences in structural components are designated as the "formal focus". Thus on the basis of formal focus he identifies three types of curriculum designs: one in which the principal focus is on the content of learning; one in which it is on the process of learning; and one in which it is on the context in which learning takes place. He also distinguishes curriculum designs on the basis of the sources

used to justify the form and substance of the curriculum. These differences are designated as the "generic focus" (p. 91). He thus distinguishes between curricula whose principal source of justification and substance is the student, a subject or an academic discipline, or society/environment (p. 93). Using these two dimensions one can construct a typology for characterizing curriculum designs on the basis of formal and generic focus as illustrated in Table 4.1. One can, for example, identify a curriculum whose formal focus is on the content of learning but whose generic focus is on the disciplines or on society or on the students. An analysis of curriculum designs in terms of focus does not as Piper emphasizes "necessarily imply exclusiveness ... but it does point to the principal source of decisions concerning both the form and the substance of the curriculum" (p. 93). The following discussion compares and contrasts three common designs in curriculum theory - classified in terms of their generic focus - with the likely product of the interactive model.

Formal Focus	Generic Focus		
	Subject/Discipline	Society/Environment	Student
Content	*	*	*
Process	*	*	*
Context	*	*	*

Table 4.1 Curriculum designs classified in terms of formal and generic focus (adapted from Piper, 1979, p.92).

Focus on subjects

A curriculum design with a generic focus on subjects could be the outcome of centralized or school-based curriculum development but not of the interactive model. The subject-based design is recognized to be the traditional and still the most common form of curriculum design for secondary schools (Saylor, Alexander and Lewis, 1981, p. 206), and the product of many centralized curriculum development projects (McMahon, 1976). When this design is implemented teaching staff are allocated to and the curriculum is organized into subject-based departments - for example, English, History, Science - which tend to correspond to the subject area divisions in universities.

Although the generic focus is on subjects, curriculum designs may differ in their formal focus. Where the formal focus is on the content, the curriculum will be concerned with knowledge of the concepts, facts and principles associated with that subject. Where the formal focus is on the process of learning, the curriculum will be primarily concerned with the methods of inquiry used to generate knowledge - that is, the skills involved in collecting data, arriving at conclusions, making decisions, solving problems and interpreting findings. Where the formal focus is on the context in which learning takes place, the choice of subject is rationalized on the basis of the subject's contribution to the context being emphasized; for example, the community context or the international context. All three types of curriculum designs derive their substance and justification from the established disciplines of knowledge and thus have a common generic focus.

There are persuasive arguments in the literature advocating this generic focus and the values and assumptions linked with the subject-based design may be discerned from them. The key points in these arguments as presented by educational philosophers and curriculum theorists may be stated as follows:

* the aim of education is the development of knowledge and understanding, of a rational mind, i.e. intellectual development;

* the academic disciplines or the public forms of knowledge are the basic reference points for making decisions about what should be learned;

* the disciplines are a source of reliable and valid knowledge and their logical analysis yields the significant concepts, theories, methods of inquiry and research, and tests for establishing truth;

* forms or disciplines of knowledge are not only the objects of knowledge they are also the instruments of thought;

* a liberal education should initiate students into all the forms of knowledge to acquire understanding "from the inside" and to use knowledge creatively and critically;

* compulsory programs of education based on selections from the forms of knowledge or on derived subject matter are in the interests of individual students and of society.

King and Brownell (1966) and Schwab (1975) are among those who maintain that a disciplined theory of knowledge is the only sound foundation for a curriculum which is to emphasize intellectual development or intellectual values. The curriculum content should consist of the fundamental ideas in a discipline and "the fundamental can only be established by thinkers in the discipline" (King and Brownell, 1966, p. 158). Thus the

curriculum developer must be a specialist in the discipline. It is assumed that a study of those subjects which have been carved out of the historically developed or newly emerging disciplines of knowledge will provide the learner with an orderly cognitive framework with which to interpret experience, answer questions and check the validity and reliability of knowledge through tested procedures. From the teacher's perspective, understanding the content and structure of a discipline equips her with a logical substantive base from which to plan the curriculum content and teaching methods.

Phenix (1962) also argues in favour of a discipline based curriculum on the grounds of its utility and power to develop intellectual capacity and imagination. In his view, three features of disciplined inquiry contribute to this process: (i) analytic simplification, which depends on the argument that learning takes place through a process of simplifying concepts since conceptualization involves a process of abstraction which aims to reduce complexity and ease comprehension - therefore knowledge does not become more difficult the deeper one goes into it but is, on the contrary, simplified with analysis; (ii) synthetic co-ordination, the supporting of one concept by another in the discipline and their synthesis into more comprehensive patterns, which enable us to recognize the relatedness of concepts; and (iii) dynamism, a principle of growth referring to the power of one concept to generate other concepts leading to further analysis and synthesis and thus to educate by leading one onward and outward.

Bruner (1960), too, emphasizes teaching the structure of a discipline, that is, the fundamental ideas, the concepts, the organizing principles and the modes of thinking and inquiry which characterize a discipline. Learning the structure of a discipline is seen to enable students to understand and remember the subject and to transfer their understanding to related knowledge and experience.

Hirst and Peters (1970) argue that education should be concerned with developing the rational qualities of the mind. They claim that this is best achieved by developing in pupils a basic level of competence in the wide range of public forms of knowledge and understanding ("public" in the sense of being generally accepted as valid and testable against experience). The assumption is that the organized study of a broad spectrum of subjects is an effective way of becoming "educated" and of acquiring a "balanced", liberal education. In their words, "education is understood as developing desirable states of mind characterized by knowledge and understanding" (p. 66). Opting out from the study of mathematics, for example, means limiting one's intellectual development. Further intellectual attainments depend on knowledge and understanding in these public modes.

Hirst (1974) claims that the basis of a non-arbitrary and non-political program can be worked-out from a logical analysis of the nature of knowledge. He maintains that there are seven basic conceptual schema, distinguished by their central concepts, logical structure and tests of validity, that a liberal education should make available to students: mathematics, physical sciences, human sciences, moral understanding, religion, literature, the fine arts and philosophy. His view of a rational mind is that it is constituted by these forms of knowledge, each of which represents a way of interpreting one's experience of the world.

Peters (1966) presents a case similar to that of Hirst but in terms of "worthwhile activities", distinguishing intrinsically good from extrinsically good activities. He argues that initiation into serious intrinsically worthwhile activities based on the disciplines will give the learners sufficient insight into concepts and varying modes of inquiry to show them how they work and to develop critical appreciation which will enable them to discriminate among activities and choose "the good life."

Other writers share a similar concern with basing educational programs on the distinctive modes of understanding, inquiry and interpretation which have been developed: Broudy, Smith and Burnett (1964) identify five groups of concepts and skills which should be included; Phenix (1964) delineates six "realms of meaning" which in his view "cover the spectrum of significant human experience, and each of these can be analysed into constituent disciplines" (p. 12); White (1973) identifies five essential elements of a common curriculum in which one must engage in order for understanding and Lawton (1975) indicates six core areas.

Hirst and Peters (1970) maintain that in addition to acquiring knowledge and understanding, being critical or being creative also

> ... presuppose mastering a mode of experience and being trained in techniques. Both also presuppose a mastery of some body of knowledge.
>
> (p. 31)

Bruner (1970) also emphasizes subject matter as inquiry or as a mode of thought as evidenced by his claim that "physics is not so much the topics it is the mode of thought, our apparatus for processing knowledge about nature" (p. 18). Strike (1982) argues that intellectual freedom depends on intellectual competence for which the resources reside in the intellectual heritage. Becoming educated means internalizing concepts and values in the disciplines and being initiated and instructed in disciplined inquiry. One must be initiated even to be critical of knowledge because

> ... criticism usually functions as the means whereby current ideas are brought to bear to assess new ones ... It points out proposed ideas can be inconsistent with something else we know, that they can fail to consider some important and relevant matter.
>
> (Strike, 1982,p. 24)

Proposals for the study of a compulsory "core" curriculum of subjects, such as the one proposed by Harvard for its undergraduates (Rosovsky, 1978), are based on a set of beliefs about the essentiality of the study of various subjects for becoming an educated person. The concept of a "core" curriculum is used to designate that part of the curriculum which is deemed to be essential for all students and is distinguished from the optional or supplementary part. The core is not meant to characterize the total curriculum and it is usually accompanied by optional or elective offerings to provide for students' special interests and abilities.

Compulsory core programs may also be rationalized on the basis of "public interest" which is seen to "override" the rights of students to make decisions about their studies. The argument on public interest assumes that education of individuals benefits the entire society while incompetence can harm others. It is in the public interest to promote through education the development of abilities which permit people to function harmoniously with others and to work for establishing and maintaining a just society.

In confronting these arguments an advocate of the interactive model has recourse to a number of critical responses. One can accept the view that education ought to be concerned with the development of knowledge and understanding yet question how knowledge is selected and made accessible to students, and question the view that intellectual development only occurs through the study of established forms of knowledge and that education based on the forms should be compulsory for all students.

The first obvious task of designing a subject-based curriculum involves choosing the subjects or aspects of a subject to be taught. Becher and Maclure (1978) maintain that this type of development "has been relatively easy for both the

developer and the system to handle" (p. 168). In their view it makes possible the involvement of large numbers of professionals in choosing, deciding and negotiating new guidelines for the selection and organization of subjects which are then eventually given to schools in the form of alternative examination syllabuses for the subjects in question. This view, however, seems to underestimate the complexity of the process. The choice of subjects to include presents difficulties since a wide variety is available. Searles (1982) discusses the problem of wide variation in the content of science textbooks for high school students "supposedly covering the same subject matter at a particular grade level" (p. 144), posing uncertainty within one subject area about which knowledge is most worthy for inclusion and which best exemplifies the various modes of human understanding.

Philosophy of education has a role to play in justifying what is to be included or excluded, as well as ethics about what is of value. Efforts have been made by educational philosophers to reduce the diversity to a few major categories which may then be used as a basis for selection (Phenix, 1964; Hirst, 1974). But the criteria used to justify categorization and reduction have been questioned (Pring, 1976b; Jenks, 1977), as well as the criteria used to justify selection from a reduced number of categories.

A subject-based core program like the Harvard core focuses on quantitative criteria (how much of which subject) rather than on improving the curriculum in terms of the quality of the learning experiences. It ignores the fact that some individuals may need more of one than another subject for their education. It also suggests a technological orientation to the extent that it assumes that educational problems are better solved on the basis of quantitative criteria than by considering the needs of the individual student. It speaks more to faculty politics and administrative efficiency rather than education because the emphasis is more on what is learned than on why it is learned from the individual's perspective.

A purely logical or objective means of working out the content of an educational program seems illusory. Logical analysis does not account for what is to be selected from knowledge. Values are also operative, e.g. in conceptions of what kind of curriculum will produce an educated person, raising the question of whose values are to prevail in decision making. If the students are excluded from decision making and if the program is compulsory and not interesting to them then the relationships between teacher and students will involve some sort of coercion or manipulation (Wilson, 1976, p. 155). The moral objection to compulsion is based on the principle of respect for persons. The psychological objection is that one cannot compel another person to learn in a meaningful way. If the outcome of the use of the interactive model should be rejection by students of the serious study of <u>any</u> subject matter derived from a form of knowledge or some aspect of culture, then this rejection would be a symptom of alienation from the culture and the cultural values the subject matter represents, or alienation from the school and teachers. Neither form of alienation would be overcome by compelling students to study a subject-based program nor would it be grounds for denying them a say in decision making. Indeed, participation could be the route for overcoming alienation.

Philosophers of education do not agree upon which form of knowledge should be included and how much from each should constitute the subject matter of an educational program as the minimum amount essential for everyone to know. This lack of agreement weakens the case for a discipline-based program. For example, Phenix (1964) maintains that educational programs should be based on "fields of disciplined inquiry", yet he notes the emergence of new disciplines such as cybernetics, parapsychology, game theory, astronautics. He does not, therefore, claim that the disciplines provide "a complete basis for the construction of a curriculum even of general education" since account should be taken of "many other factors relating

to particular personal and cultural situations" (p. 13). D.C. Phillips (1971) takes issue with the criteria used by Hirst to distinguish forms of knowledge and maintains that Hirst's divisions are culturally determined not inherent differences. New conceptual systems are being formulated periodically reflecting the flexibility and limitlessness of the human mind.

Peters' (1966) view that activities based on the disciplines are worthwhile in themselves and thus participation in them is somehow morally binding is refuted by Beck (1971). Beck maintains that Peters invests "worthwhile curriculum activities with an aura of moral importance by introducing a categorical imperative at points where a categorical imperative is irrelevant" (p. 6) and argues in terms of the naturalistic fallacy of "is" to "ought". In a tightly developed argument Beck concludes that Peters fails to establish a convincing argument for the greater value of activities based on mathematics or science over a game of golf or chess. Beck maintains the view that

> ... question-asking or truth seeking or participation in public discourse are the only forms of activity to which we can seriously look for implications of what ought to be included in curriculum activities, does not appear to find support in Peters' argument.
>
> (p. 9)

As previously argued, decisions on what subjects are to be included in the curriculum are value-based, political and negotiated by curriculum developers. As Pines (1982) observes:

> Those with the influence, the power, the resources, or whatever it takes to provide one with political decision-making status, are those who ultimately dictate what is to be included and what is to be excluded from the curriculum.
>
> (p. 89)

schooling and social organization and economic production in capitalist societies, the relationship of the culture which the school transmits (for example, in a subject-based curriculum) to the culture of the dominant classes in society, and the reproduction - through the form and content of the curriculum - of the existing forms of social control and class structure (Young, 1971; Young and Whitty, 1977; Bowles and Gintis, 1976; Bernstein, 1977; Apple, 1979; Bourdieu, 1977; Bourdieu and Passeron, 1977).

The term "transmit" seems a deceptively neutral and technical term which obscures the fact that schools select what aspects of culture they will transmit and, in the view of these critics, play a basic role in reproducing the dominant culture in the form of the academic curriculum. Giroux (1981) maintains that curriculum content, pedagogy and evaluation are all based on "a selection, organization and distribution of meanings based on ideological considerations" (p. 75).

These writers argue that different modes of inquiry are developed in a social/historical context and promoted, sanctioned, legitimated and distributed by social institutions (for example, various professional organizations, associations, research institutes and communication networks). Such institutions determine the hierarchical organization of knowledge (into high and low status), determine what counts as valid knowledge (legitimating certain views through their examination and certification systems), limit access to knowledge (for example, entry to universities and research institutes), promote a corporate entity (for example, philosophers, historians) and maintain boundaries (for example, faculty and departmental structures). The status of these institutions in society and the power and influence of their members determine the content and status of subjects in the curriculum. Therefore the subjects which comprise the curriculum are

Since students have no political clout by virtue of status or expertise they therefore have little say in the context of a subject-based curriculum.

The argument in terms of public interest can be used to support rather than deny participation in curriculum decision making. Strike (1982) notes that

> ... the state has a significant interest in the moral agency and autonomy of children. These traits are properly seen as components of citizenship ... Moreover, a free society requires people to take responsibility for their own lives if it is to remain a free society.
>
> (p. 163)

Coercion, which is involved in compulsory programs, seems incompatible with autonomous moral thought which is bound up with free choices and the opportunity to pursue interests which one values. As Bonnet (1978) comments

> ... the necessary and sufficient conditions for autonomous action are that one rationally ... chooses for oneself between the options as they are believed to be ... it requires that one's choices are truly one's <u>own</u>.
>
> (p. 54)

If it can be shown that the experience of the interactive model may contribute to these characteristics, as it has already been argued, then it is in the individual's and in the public interest to provide students with the opportunity to participate in curriculum decision making.

Recent sociological critiques of education, particularly those with a Marxist orientation, debate the view that distinctions between subjects are based on logical and epistemological differences only and focus attention on the social/historical factors which influence the distinctions and the selection and organization of the curriculum. They also draw attention to the links between the social relations of

> ... a choice from a much larger universe of possible social knowledge and principles. It is a form of cultural capital ... that often reflects the perspectives and beliefs of powerful segments of our social collectivity. In its very production and dissemination ... as books, films, materials ... it is repeatedly filtered through ideological and economic commitments. Social and economic values, hence, are already embedded in the design ... of curriculum, in our modes of teaching, and in our principles, standards, and forms of evaluation.
>
> (Apple, 1978b, p. 19)

These values work through the teacher who is a product of these social institutions. Esland (1971) and Bernstein(1973) argue that her professional identity is established through a process of socialization towards accepting and using a specialized "uncommonsense" knowledge, a language and a mode of inquiry. This socialization also determines her choices of problems for study and influences her relationship with her students.

The teacher's task in turn, involves socializing her students to the particular view of reality her own socialization has produced, or to put it in more neutral terms, "initiating" students into various aspects of knowledge. This may imply the adoption of a passive or deficit view of the students and a banking model of education. The teacher will know more than her student about the subject matter and this expertise, plus her status in the institution, give her the right to choose the problems deemed relevant for the subject and to judge as acceptable or not ways of tackling them. In this context the students are likely to be "strangers" to the activities and knowledge deemed appropriate for them, as Esland (1971) observes, and they have "to come to terms with, to interpret and to adjust to, the knowledge which the teacher defines as

relevant" (p. 71). Thus the teacher-student interaction is "the meeting of different realities, one of which is institutionally supported while the other is not" (p. 72).

Bernstein (1975) argues that the teacher's "reality" is based on knowledge that is abstracted from the local and the particular, from the reality of the daily life of the pupil. This everyday reality may, nevertheless, be very real, immediate and important to the pupil. The pedagogical problem then, which Dewey also raises, is one of making connections between the abstracted reality and the everyday reality which the pupil experiences outside the school. This becomes problematic if this everyday "commonsense" reality is not deemed legitimate for inclusion in relation to the specialized knowledge included in the curriculum. By excluding it, the teacher can exercise control over what should be learned and this control is institutionally supported.

In emphasizing the learning of subjects, sufficient account may not be taken of the interests of pupils, their previous experiences and level of understanding. The teacher may fail to care sufficiently for the pupil as a person. It may be impossible to accommodate practical and interdisciplinary concerns because they cannot be confined by the boundaries of a particular area. Links between subject matters may not be made, producing a fragmented and compartmentalized view of subject matter. The pupils' initiative in organizing their own studies may be discouraged. Schwab (1975) notes a tendency to teach the disciplines in a dogmatic, inculcative way, ignoring the controversies and debates about substantive content and a tendency to treat the disciplines as if they were all theoretical, neglecting their practical orientations. Pring (1976b) also comments on a tendency to teach the products of inquiry in various disciplines and the neglect of teaching the procedures, skills, activities and rules followed by the practitioner, that is, the "tradition" of inquiry which

generates new knowledge in a particular area. Giroux (1981) points to positivist assumptions in regarding knowledge as impersonal, objective, produced independently of human beings, of time and place and of a political and cultural context. He argues (after Habermas, 1971) that these assumptions are ideological in that they obscure the relationship between knowledge and social interests and undermine reflective thinking by overwhelming students with facts. They militate "against the use of social relationships that generate meanings from the perceptions and voices of different cultural actors involved in the 'learning' process" (Giroux, 1981, p. 155).

In Bernstein's view,the structural principles underlying curriculum organization are based on the modes of social control found in the wider society, for example, the maintenance of boundaries in the division of labour in the wider society. Society is able to reproduce itself in the consciousness of individuals through education. A similar view is held by Bourdieu (1977), Bowles and Gintis (1976) and Apple (1979). All these writers tend to seek the source of the curriculum and of relations in schools in the wider social context and assume that the particular form of social order found in schools is dependent upon and serves the social conditions found in the wider society.

The view that the disciplines of knowledge are the only valid basis for an educational program and that they should be learned from the "inside" as they are practised (Peters, 1966) is, therefore, a problematic issue among curriculum theorists. It is Schwab (1975) who, although noted for emphasizing the logical, conceptual and syntactic structure of the disciplines, draws attention to the revisionary character of knowledge and to the fact that its reformulation goes on all the time. This reformulation, resulting in the emergence of new disciplines, may involve the use of methods of inquiry developed in one discipline by another, or the recognition that two disciplines

share a common area of concern and that knowledge of one provides illumination for understanding the problems of another. The proliferation of knowledge, particularly in the sciences, and the complexity of problems facing societies today, are incentives for some attempt at identifying interdisciplinary links or integrating the curriculum and helping students acquire a "relational" understanding (Apple, 1979) of contemporary problems.

An interdisciplinary approach may also involve breaking down the boundaries between subjects, new forms of co-operation between teachers and between teachers and pupils, and horizontal power relationships instead of vertical, hierarchical ones (Bernstein, 1977). Such changes will not occur without difficulty. As Bernstein (1977) notes, they may well "bring about a disturbance in the structure and distribution of power, in property relationships and existing educational identities" (p. 63). Since students in teacher training institutions are taught by subject-based academics, their influence is likely to perpetuate a subject-based curriculum, not an interdisciplinary one. Therefore, the study of personally or even socially significant problems which do not conform to conventional categorizations is difficult in the subject-based design.

Focus on society

The product of centralized or school-based curriculum development may be a design with a generic focus on society. Reynolds and Skilbeck (1976) argue for a curriculum whose formal focus is on the process of learning but whose generic focus is society and culture to provide all students a basic understanding of modern society. The means of delineating the range of important cultural elements to be studied by all is not necessarily one of logical analysis but a form of "culture mapping" which means selecting from culture on the basis of

appropriate criteria. This curriculum is to function as a "bridge between the learner's experiences and the processes, focus and substance of contemporary culture" (p. 100). Culture mapping is expected to yield the major themes, topics or areas of experience which are to comprise the basis of the curriculum. Thus academic subjects are resources, not the determinants of the curriculum. The integration of subjects is seen to make possible the study of culturally significant topics, and of complex issues. The authors conceive culture as including:

> (1) the systems of symbolic and expressive forms of language, art, myth and ritual, science, etc., which enable us to focus experience;
>
> (2) the processes of social interaction and control, which enable us to share and co-ordinate experiences;
>
> (3) the complexes of beliefs, values, customs, skills, etc., which further define and differentiate symbolic forms and social processes.
>
> (p. 122)

Skilbeck's influence is evident in the 1980 publication of the Australian Curriculum Development Centre, which he directed, on the "core" curriculum. The publication eschews a view of core as a set of subjects and instead recommends a set of <u>principles</u> for selecting core learnings in terms of eight areas of knowledge and experience and seven learning process, comprising a very broad description of what ought to be included in a core curriculum. In addition, the document provides a set of "Aims for Australian Schools" (pp. 10-11) which are meant to provide a basis on which the recommended core learnings may be developed. The document assumes that there are aims on which there may be "fundamental agreement" in Australian society (p. 11).

The problems associated with designing a core curriculum which is broadly society-oriented hinge upon a question of values, not just about aims but about the translation of aims into an actual curriculum. For example, the C.D.C. document states that the core ought to

> ... acknowledge the plural, multi-cultural values of our society and seek a form of cultural-social integration which values interaction and peer communication amongst diverse groups and sub-cultures.
>
> (1980, p. 15)

It is then suggested that the core areas of knowledge and experience should include the study of diverse sub-cultures and common cultures within Australia and elsewhere (p. 19) and should ensure that "all Australians should become competent users of the English language" (p.18). The committee which formulated the document could not make up its mind about "How far the core should and could extend to include any language other than English" (p. 18). This particular aspect of the document illustrates the difficulty of conducting an "objective" analysis of the culture and the difficulty of formulating a curriculum that would be acceptable by all. Australia is a multicultural and multiethnic society but there are differences of opinion on how the various cultures may be integrated. There are those who would strongly wish to sustain and perpetuate its multicultural multiethnic elements and see the school as performing a very significant function in this process. Smolicz (1979), for example, argues that "Ethnic education (or the teaching of specific ethnic languages and cultures) should be recognized as an integral part of the curriculum in Australian schools" (p. 250). While he does not argue that all students become bilingual, he does, however, claim that "In the case of ethnic-Australians, the provision of ethnic education is not only an urgent need, but an educational, cultural, civic and moral right" (pp. 250-51). The C.D.C. document certainly does not express this view or a commitment to sustain cultural diversity through education.

Underlying various notions of core, whether focused on society or on subjects, is usually an egalitarian principle: that similar learning opportunities should be provided for all students so that no individual is disadvantaged or stigmatized in relation to others by virtue of an inferior or specialized education. But it is difficult to equate a standard core curriculum with equal opportunity for all. The core concept may be oppressive not emancipating. A program based on an analysis of a selection from culture assumes a consensus on cultural values which is questionable in multicultural and multiethnic societies. A compulsory core program is bound to represent the interests of some groups more than those of others. If imposed, it may well be a political victory for some groups and a loss for others (Kelly, 1977). Rapid social change and the increasing diversity of knowledge also appear to defy an attempt to identify a body of knowledge of most worth to all. In the context of an uncertain and changing world, the core curriculum idea represents a striving for certainty.

In terms of Bourdieu's (1977) theory of cultural reproduction, if the core curriculum is not broad enough to include more than the culture of the dominant groups in society then only the latter will be transmitted by the school rather than a collective cultural heritage, and those students who do not originate from these groups will be seriously disadvantaged. To further develop this idea, building on Bourdieu's thesis, one may argue that the notion of core curriculum assumes an equal distribution of "cultural capital" in society, that is, it assumes that all pupils are equal in their linguistic abilities, modes of thinking, and able to understand the core curriculum. This assumption overlooks individual differences in cultural values, in aspirations, and in socio-economic background, factors which have a relationship to learning. A standard curriculum for all suggests one path for the many, irrespective of differences. Bourdieu maintains that cultural capital, like economic capital, is <u>unequally</u> distributed in society and the ultimate source of this

inequality is the class structure and the family's position in it. If the core curriculum legitimizes only the culture of the dominant class (or ethnic group) it exerts "symbolic violence" on the dominated classes (and minority ethnic groups) by imposing a selected definition of social reality. Students, who cannot cope with the core and fail, may, therefore, be relegated to special remedial classes, vocational or occupational classes which only prepare them for working class positions in society's occupational hierarchy.

To provide real equal opportunity for all, the core curriculum needs to include the collective culture or the school would have to provide more assistance, not less, to those whose family upbringing does not enable them to acquire the prerequisite cultural capital.

Focus on students

Only the interactive model of curriculum development yields a curriculum design with a generic focus on the student - that is, a curriculum whose source and justification is mainly the students and their interests and concerns.

The product of the interactive model is a student-based curriculum design in the sense that its source and justification are the students and their interests and concerns. This type of design has its roots in the educational theories of Rousseau, Froebel, Pestalozzi, and as indicated in Chapter III, Dewey and the Progressive Education Association. Despite its long tradition, its predominant influence in conventional secondary schools is in the provision of optional or elective courses to satisfy students' interest, in the selection of teaching methods rather than on the subject matter of the curriculum, and in consulting the students rather than collaborating with them.

Optional courses are usually planned by teachers and the students are consumers of the end product rather than collaborators in their planning. Selection is often determined by the students' timetables rather than actual choice (Eisner, 1979, p. 61). Independent study courses (Alexander and Hines, 1967) offer more scope for student input. Such courses are options in some senior secondary schools and involve a student planning a course of study with a teacher. Its planning and operation is usually independent of a class or group and thus students do not benefit from group discussion and the resources of other students.

The linking of students' interests with the subject matter the teacher wishes them to learn implies the use of these interests as a pedagogical device to achieve the teacher's purposes. There is a manipulative element to it and it is not in the spirit of the interactive model.

The most recent examples of schools implementing a genuine student-based approach are the "free" or "alternative" schools of the 1960's and early 1970's, and documentation on their operation (which will be discussed in Chapter V) provides valuable lessons for the implementation of the interactive model. However, the laissez-faire approach adopted by many of these schools and the ambiguous role of the teacher are two factors which contributed to their decline in popularity. In contrast, the interactive model provides the teacher with a definite role. It is more accurate to say that the product of the interactive model is a plan whose generic focus is the interaction between the students and the teacher since interaction may cause the students to make curriculum decisions they might not make if acting independently. The outcome of the interaction is a curriculum plan which may vary in terms of formal focus as illustrated in Figure 4.3.

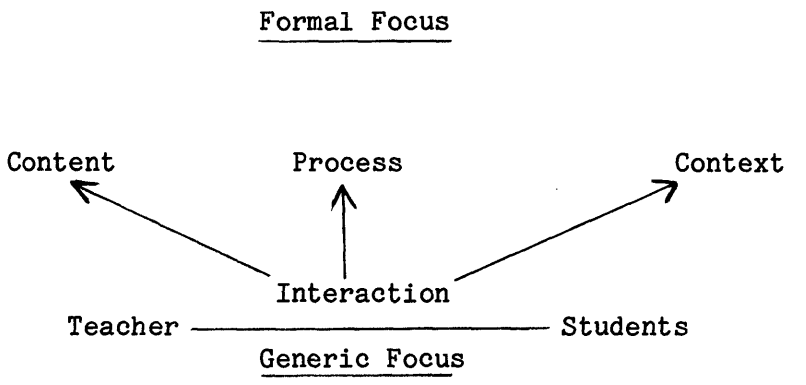

Figure 4.3 Curriculum design with the generic focus on students/ teacher interaction

Where the formal focus is on content, this is the content based on the expressed interests of students. Where the formal focus is on the process of learning, the curriculum would emphasize those skills and techniques of inquiry which the students feel they need and wish to learn. Where the formal focus is on the context in which learning takes place, the emphasis would be on finding or developing the type of environment which gives rise to learning experiences valued by the students both within the school and out in the community.

When the formal focus is on content the curriculum plan is not solely determined by the logical structure of subjects. If epistemological factors are allowed to become overriding they also become one of the means of denying students a share in decision making over the educational task. Social and psychological factors assume more importance in determining the outcomes of planning in the interactive model as the problems and projects of study would have their origin in the experience of the participants.

One might argue that because of this generic focus, differences among students in knowledge and skills may be increased as the interactive model may favour students who

already have developed interests, confidence and skill in decision making. As a consequence it may disadvantage those who do not possess these attributes in the competition for further education or employment opportunities by depriving them of the "educational capital" needed to negotiate their entry to tertiary institutions or their position in the workforce.

Those who present this point of view ignore the suggested role for the teacher and the gradual implementation of the model. They would also have to substantiate the claim that the subject-based academic curriculum enhances the life chances of working-class youth. If the sociological critiques of contemporary education (e.g. Connell et al., 1982) present an accurate analysis, then the subject-based curriculum does not serve the interests of the working class but only those who already have power in society. It is the selecting or sorting mechanism for eliminating working-class students from contention for further education, professional training or white collar employment.

The report of the Commission of Inquiry into Poverty (1978) clearly indicates that working-class youth do not lack aspirations "to be someone", or that their interests are trivial and superficial, unworthy of reflection or of intellectual pursuit. What they may lack are academic aspirations. The interactive model does not, however, prevent students from acquiring the cultural capital required to gain entry to tertiary institutions or compete for employment. But it does not resort to using compulsion to ensure some measure of equality in outcomes. Neither does it devalue the cultural capital students have already accumulated.

If the interactive model with its goal of personal development enables students to develop self-direction and critical thinking ability then it should not disadvantage them. The model may well encourage students to stay in school long

enough to complete their secondary education and to earn the necessary certificate for further education or employment. Experience of the interactive model may also lead students to question an uncritical belief in the importance of academic qualifications, and the values of a society where learning is measured not in terms of personal development but in terms of its exchange value for occupational or social mobility.

Summary

This chapter attempted to further clarify the interactive model by comparison and contrast with other models, to complete the theoretical part of the study before turning to the practical matters of implementation. It tried to show that models of curriculum development and curriculum design have a bearing on the content of the curriculum, the roles of the techer and of the student. They are not neutral but have an ideological basis including a complex of values, assumptions and interests which affect the choice of procedures, of participants, of priorities and the outcomes.

The following chapters will examine both the general conditions required for implementing the model and the likelihood of implementation in a specific context.