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THE CURRICULUM DESIGN AND DEVELOPMENT PROCESS

A consideration of the curriculum  
process within a centralised-  
decentralised decision making frame.

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This dissertation is submitted  
to the Centre for Education,  
University of Tasmania,  
as part of the requirements  
for the degree of Master of Education.

1982

*(To be conferred 1984)*

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## ABSTRACT

The provision of school curricula is a continuing concern. There is debate on what form a curriculum should take, what it should contain and by whom it should be constructed. Recently, education systems have allowed curriculum decision making to be partially decentralised. This has forced upon systems and schools the need for a thorough analysis and understanding of the processes of curriculum development and evaluation, and of the effects of centralised and de-centralised decision-making on these processes. Moreover, there is a need to set the analysis outcomes within the centralised-decentralised decision making frame so that attendant resources and support requirements can be anticipated.

This dissertation seeks to develop such an analysis and to identify consequent requirements for teacher development.

## INTRODUCTION

The central focus of education is the school and the children in the school. Society, through the provision of schools, seeks to induct the young into the ways of the society of which they are a part and to equip them with such knowledge, skills and attitudes as will enable them to understand their society and to contribute to its future development. Key elements in this process are the teacher and the activities, intellectual or otherwise, which bring the teacher and child together in an interactive teaching-learning relationship. The basis for this interaction is the curriculum.

What is the Curriculum?

The curriculum...is really the entire program of the school's work. It is the essential means of education. It is everything that the students and the teachers do. Thus it is two fold in nature, being made up of the activities, the things done, and the materials with which they are done. (Rugg, 1936, 17-18).

Taking the curriculum description further...

Basically the curriculum is what happens to children in school as a result of what teachers do. It includes all the experiences of children for which the school should accept responsibility. (Stenhouse, 1975, 2).

This statement introduces the notion of school responsibility for the teaching and learning and the need for evaluation of what is done, how it is done and how effectively it is done.

But what form does the curriculum take?

...a curriculum is the formulation and implementation of an educational proposal to be taught and learned within a school or institution and for which that institution accepts responsibility at three levels, its rationale, its actual implementation and its effects (Jenkins & Shipman, 1976, 6).

This statement suggests the curriculum may be viewed as separate and distinct, yet cohesively coordinated, components of 'formulation', 'implementation', and 'evaluation'. Moreover, it leaves no doubt that it is the school which is responsible for all three components of the curriculum.

Further, a curriculum proposal entails an educational intention which may or may not be realised at the stage of implementation. This point is made by Stenhouse.

The central problem of curriculum is the gap between our ideas and aspirations and our attempts to operationalise them. (1975, 3).

In the broad sequential sense the curriculum components follow from 'formulation' to 'implementation' to 'evaluation'. Additional to this, the formulation of

the proposal positively guides both 'implementation' and 'evaluation'. Thus, it is reasonable to describe curriculum planning as translating learning intention into implemented action.

The processes of curriculum development involve a formal prescription as to what should happen in schools and the means whereby such a prescription is translated into action in the classroom (Evans, 1974a, 6). Inherent in the act of translation is interpretation of this prescription by the school and teacher or team of teachers aided, abetted or supported by resource agencies and curriculum materials (Evans, 1974a, 6). For this effective curriculum planning, variables need to be identified, relationships mapped, and ways of achieving objectives developed.

Of value in identifying such variables and relations is to consider "where" the formal curriculum prescription is formed. It may be, for example, drawn up by a group far removed from the seat of implementation, namely the school and classroom. Such is the situation where centralised curriculum groups operate within a system of schools to make formal prescriptions regarding curriculum for all schools in the system. This mode of operation will, in the course of this paper, be referred to as a centralised mode of operation. On the other hand the responsibility for drawing up the formal prescription could be given to

individual schools or to small groups of schools situated in geographic regions. This form of operation places the curriculum development near to, or even at, the point of implementation. This operation mode is broadly decentralised.

The differing perspectives of participating groups associated with the centralised and decentralised modes of operation may result in different design group composition and different ways of going about the prescription design task. Moreover, the nature of the curriculum prescription and the articulated form which it ultimately takes may differ with mode of operation and resultant design group composition.

The formal prescription component of curriculum must be judged for adequacy in two broad senses. First, its adequacy to serve the purposes of the children for whom curriculum is designed. Second, its adequacy for implementation. It is the province of curriculum evaluation to judge curriculum adequacy in both senses.

## CHAPTER 1

### CURRICULUM DESIGN AND DEVELOPMENT

It has been said that a curriculum is an educational charter (Lett, 1973, 33). The fundamental feature of the curriculum in this sense is that it enunciates an educational proposal and suggests ways and means whereby the proposal may be realised. The drawing up of the proposal and the formulation of ways of translating its intention into teaching and learning is curriculum design. Thus curriculum design prescribes or anticipates classroom action (Johnson, 1967, 130). The notion of curriculum development is two-fold. Firstly, it is the process which encompasses curriculum design. That is, it is the actions and procedures envisaged to take design from theory into practice, culminating in implementation by teachers with children.

Secondly, it is the process of obtaining curriculum feedback and proposing curriculum modifications as required. This role is on-going and is closely associated with research and evaluation. It is the improvement of curriculum design.

Curriculum planning is an action term of value in curriculum discourse.

Curriculum planning goes on wherever there are people responsible for, or seeking to plan, an educational program (Goodlad & Associates, 1979, 27).



Thus curriculum design and curriculum development are examples of curriculum planning as are decisions of school organisation and lesson planning made by principals and teachers in schools. Curriculum planning may be as all encompassing as staffing and materials provision made by governments for schools in its care, or as situationally specific as a teacher deciding on work to be undertaken by students for homework (Goodlad & Associates, 1979, 28).

Broad curriculum planning can set the parameters within which curricula are designed and developed. For example, a State Education Department may decide that curriculum design and development should be centralised. This broad curriculum planning action has consequences for curriculum planning undertaken by other groups and individuals concerned in the curriculum process. In such consequential circumstances effective, like-intentioned curriculum planning by the groups and individuals involved is essential to carry curriculum design into practice. It is the role of curriculum development to bring about like-intentioned planning.

### Viewpoints of Curriculum

A curriculum may be categorised according to two fundamental viewpoints. These are:-

- (i) the knowledge base and teaching configuration model central to its design;

- (ii) the situation of the design group relative to the school, or schools for whom the curriculum is intended.

With respect to (i) the concern is for the epistemological basis of the educational proposal at the heart of curriculum design.

The focus of (ii) is on the notion of centralisation and decentralisation. The location of the design group within the authority structure of the education system can be marked, as it were, on a continuum the endpoints of which are "centralised", on the one hand and "school based" on the other hand.

Matters inherent in, and associated with, (i) and (ii) are of crucial significance in curriculum design, particularly with respect to design adequacy.

First, its adequacy to serve the purposes of the children for whom curriculum is designed. Second, its adequacy for implementation (Introduction, p. v).

The educational proposal of the curriculum has to be implemented. Teachers do the implementing, which means that teachers must be made aware of the proposal in such a way that they are able to operationalise the intention involved. That is the proposal must be so framed and articulated that it can be made operational by teachers. Either way, curriculum development and planning actions

are governed largely by matters concerned in (i) and (ii) as planning strives for adequacy.

The viewpoint of knowledge base configurations and teaching models in curriculum design will be discussed in this chapter. The influence of design group location on curriculum development will be considered in later chapters.

The school is the pivot of curriculum planning. As a public institution it carries out broad functions which society, in one way or another, approves. Further, the school is the setting in which curriculum operates. Schools are staffed by specialists in teaching the young (Jenkins & Shipman, 1976, 28). The curriculum, at least in terms of the educational proposal which it enunciates, is the overlap between interests and concerns of society and those of the community of "specialists in teaching the young" who staff the schools. Purposes and priorities as perceived by society, on the one hand, and teachers and educational theorists on the other hand, may not be always in agreement. Curriculum design and development must recognise this.

It is the accommodation of societal and educational professionals' concerns for curriculum which is the basis for the grand design approach to curriculum design (Sockett, 1976, 15). The fundamental feature of such an approach is that a thorough analysis of all factors

relevant to the situation is made and a master plan for curriculum development is drawn up (Sockett, 1976, 16). The analysis is typically carried out around four questions (Tyler, 1949, 1).

- (1) What educational purposes should the school seek to attain?
- (2) How can learning experiences be selected which are useful in attaining these objectives?
- (3) How can the experiences be organised for effective instruction?
- (4) How can the effectiveness of the learning experiences be evaluated?

Given that due recognition is paid to societal and professional concerns and various sectional expertises, such a design rationale has the potential for adequate curriculum design.

What are these concerns, in what ways can they be articulated and upon what bases can they be framed to allow for periodic re-appraisal in changed circumstances?

According to Stenhouse, a major task of the school is to

make available to the young a selection of society's intellectual, emotional and technical capital (Stenhouse, 1978, 6).

Two questions arise from this statement. Firstly, what features might such a selection have and, secondly, from which standpoint would selection be made? That is, should the selection process arise from society's notions of what is worthwhile in the long term for the child or should selection begin from a base of relevance or interest of the child with the teaching-learning process carrying towards achievement of what society feels as being worthwhile ends?

In selecting curricula schools emphasise

- (i) bodies of knowledge;
- (ii) experience in arts;
- (iii) skills relating to craft, vocation and leisure;
- (iv) languages;
- (v) knowledge of, and experiences with, societal conventions and values (Stenhouse, 1975, 10-12).

Priorities and forms of consideration change from circumstance to circumstance. What can be stated is that the bodies of knowledge, by and large, are derivative of the 'disciplines of knowledge' or 'academic disciplines' and the arts experiences develop from the visual arts, music and literature. Within the framework of the school and its operation the knowledge, skills, attitudes and values associated with the disciplines and the arts become 'subjects'.

In curriculum design scholars within the various disciplines, experts in associated applied fields, creative artists and critics in the arts and in literature can be involved. Such involvement, as an ideal, could result in capturing the ethos, unifying actions and human dynamism characteristic of the various disciplines from which the subjects derive. This is not to say that such experts alone develop the curriculum through making content selection or specifying teaching action. Rather, it is to suggest that they, and the 'specialists in teaching the young' work cooperatively to design and develop the curriculum.

Likewise, the other curriculum features such as languages, and skills development in crafts, vocations and leisure, are developed through interactions between groups and individuals within society and the schools themselves. Use of such interaction will more adequately identify educational purposes which the school should seek to attain. Moreover, cooperative activity at this level will help the identification of learning experience patterns as they relate to societal functioning, thus increasing the potential for more adequate specific learning experiences for children to be developed. But it needs to be recognised and acted upon, that the design and development of specific learning activities must increasingly take the teaching and learning factors into account. That is, teaching (and teachers) and learning

(and learners) need to be central. Put another way, the focus of design moves from a consideration of 'public knowledge', 'disciplinary expertise', and 'knowledge configuration' to that of teaching.

There are dangers in the subject based curriculum design which must be guarded against. The most pressing concern is that the subject may be treated as an isolated end, becoming "invested with a mystique and with powers that are totally unjustified" (Wheeler, 1967, 179). Subject matter mastery can become the implied aim of education (Wheeler, 1967, 180). The protective action against this possibility is to require that subjects be interwoven strands in the fabric of school purposes, paying heed to the findings of studies concerned with "the learner and the learning process, and analysis of the nature of knowledge..." (Taba, 1962, 10). This can be taken further from principle of intention to a planned action for practice by indicating the sorts of steps which design and development must incorporate. Hughes (1973, 7) does it in the following manner:

<u>Steps in Curriculum Making</u>	<u>People Involved</u>
1. An agreement on aims and objectives.	Widest possible participation.
2. A selection of content.	Teachers, subject specialists.
3. A selection of learning experiences.	Teachers, psychologists, sociologists.
4. The organisation of content.	Teachers.

This is carrying the "grand design" pattern of curriculum design from the 'school purpose' stage into the subjects which have arisen from due consideration of this stage. The clear message is that the 'steps in curriculum making' are embedded in, and arise from, the 'school purpose' stage and do not exist isolated or detached from the considerations of this stage. That is, the subjects are for the realisation of educational purposes which acknowledge both the cultural bases from which they stem and the students being inducted into that culture.

Safeguarding this notion of curriculum integrity should be one of the key concerns in curriculum planning in all its aspects. But it becomes critical in both curriculum design and curriculum development. Design, interpretation, modification and implementation actions with respect to curriculum, should be set within an awareness of an integrated meaning of curriculum, on the part of those professionals concerned with curriculum. Such awareness would seem to be a desirable, if not necessary, condition if, in practice, the curriculum is to have an integrated meaning for the learners for whom the curriculum is proposed.



## CHAPTER 2

### CURRICULUM EVALUATION

The design and development of an educational program requires the making of many decisions. "Evaluation" involves "the collection and use of information to make such decisions" (Cronback, 1963, 672).

Hence it is concerned with the collection of information for decisions relating to the educational proposal of the curriculum and the actions and performances of all concerned in the implementation and realisation of the proposal. "What one really wants to know about a given curriculum is whether it works" (Gagne, 1967, 29). Knowing this enables necessary modifications to the curriculum to be made. That is, evaluation has an important role in the shaping of a curriculum (White, 1971, 101). In this sense evaluation leads to review and feedback into various stages of the curriculum process (Campbell, 1969, 62).

What is accepted as an adequate program of evaluation is very much dependent on the view taken of the curriculum process inherent in a particular curriculum design. Stenhouse (1971, 51) describes two curriculum outlook models, based on different process logics. The models are:

- (1) the output model;
- (2) the input model.

The logic of the output model is that curriculum is intended to produce learning and learning involves a change of behaviour in the learner. In the words of Stenhouse:

It should be ultimately possible to analyse any educational aim in such a way as to specify what student behaviours would count as having achieved that aim. Such intended student behaviours are generally called "behavioural objectives" or "intended learning outcomes" (i.l.o's).

Given an aim translated into i.l.o's it is possible to design content and methods expected *prima facie* to produce the required i.l.o's and then, by testing in schools, to adjust content and method empirically to obtain maximum output.

Within this model, evaluation is summative (White, 1971, 51) and centres on the attainment of the intended learning outcomes.

The logic of the input model is that starting from an educational aim, however complex, it is possible to devise a teaching process, coupled with teaching materials, which are consistent with the aim. As Stenhouse (1971, 51) says:

In this case the aim is analysed into learning process or input, rather than into intended learning outcomes or output.

This model aims at a curricular description or specification with a range of possible learning outcomes. Such outcomes are made possible by differing learning process suggestions. Thus the design actions involve practical situations and case studies with classes and teachers resulting, as it were, in the hypothesising of effects. Put another way, the style of curriculum enunciation is:

If you follow these procedures with these materials with this type of pupil, in this school setting, the effects will tend to be X (Stenhouse, 1971, 52).

Much of evaluation associated with the input model is formative in that there is a concern to understand how various course effects are produced (Cronbach, 1963, 674). Summative evaluatory actions are also involved, but these tend to claim less precision than for the output model. The forms of gathering information tend to be more varied than with the output model. As well as "measurement", "observation" and "impression" would be forms used (Campbell, 1969, 61).

It is clear that the outlook models are very different. The output model, whilst appearing less complex, requires that all the knowledge treated in the curriculum be reduced to expressable learned behaviours - this is a philosophically doubtful position. The input model requires that the complexities of the classroom be faced and that research and evaluatory activities be

directed to teacher and student performances in classrooms. This allows for students to have divergent objectives within the same curriculum.

It is perhaps unlikely that either outlook model would prevail, on its own, as the basis for a curriculum design. What is important, however, is that the educational proposal is so articulated that suitable evaluation programs, aimed at curriculum adequacy, can be devised to serve formative and summative roles in curriculum decision making. Moreover, any step-wise curriculum design must allow for "evaluation pauses" (Stenhouse, 1971, 57), wherein feedback information can be deliberately considered and any curriculum modifications proposed.

The evaluator is responsible for the design and development of the evaluation program within the curriculum design. The role of the evaluator is not that of a judge. His role is to gather the information which can be used to make judgement. And it must be acknowledged that there are often many groups making judgements concerning a curriculum, albeit for different purposes, and from different perspectives - community members, parents, teachers and students, as well as those specifically concerned with the program design and development. This implies that the evaluator is not only conversant with the designed program itself, but at least acknowledges that other groups in the wider educational, political and social realms may be interested audiences to the program.

Yet, professionally ideal as 'freedom to evaluate as one sees fit' may be, the evaluator is quite often hemmed into an evaluation program format in what Stake (1974) calls preordinate evaluation. In such a format, the evaluator's activities are pre-specified and constrained by a focus on a limited number of observation categories, that are chosen prior to the evaluation. This could occur when the evaluator is narrowly constrained as a member of the curriculum design team, which has pre-conceived, self-contained notions of what is important to be examined. The same thing could occur if the evaluator is directed to act on behalf of one of the interested audience groups.

MacDonald (1974, 8-18) believes that evaluation, where constrained, represents power relationships. He has developed a classification of evaluation, on the basis of the embodied power relationships. He posits that there are three types: bureaucratic, autocratic, and democratic.

(1) bureacratic evaluation

...is an unconditional service to those government agencies which have major control over the allocation of educational resources (1974, 14).

(2) autocratic evaluation

...is a conditional service to those government agencies which have major control over the allocation of educational resources. It offers external validation of policy in exchange for compliance with its recommendations (1974, 14).

Of the evaluator, MacDonald says "he focusses upon issues of educational merit, and acts as an expert adviser" (1974, 14).

(3) democratic evaluation

...is an information service to the whole community about the characteristics of an educational programme (1974, 15).

Of democratic evaluation MacDonald says "the key justifactory concept is 'the right to know'" (1974, 15).

Democratic evaluation is professionally appealing for the evaluator in that he appears to be able to act independently of vested interest groups, whilst, at the same time, providing evaluative information for all groups.

...his job is to identify those who will have to make judgements and decisions about the programme, and to lay before them those facts of the case that are recognised by them as relevant to their concerns (MacDonald, 1974, 10).

In seeking to achieve such ends, the evaluator must:

- (1) identify the decision makers he wishes to inform or which he feels he must inform;
- (2) decide upon the information profile of use to the decision makers;
- (3) judge when the information will be required by the various decision makers;
- (4) plan how he can obtain the required information.

That is, the evaluator plans to inform the various decision makers so as to facilitate their actions. He informs, not judges.

In some senses, the evaluator is like the researcher. He has a concern to identify facts and process validities with respect to curriculum. He makes studies of curriculum. Such studies include: process studies, where the focus is on events taking place in the classroom; proficiency and attitude studies, where changes are observed in pupils' and teachers' behaviours; follow-up studies, where the careers of those who participated in the programs are followed (Cronback, 1963, 678). His studies involve information gathering for course improvement, performance and educational alternatives for individuals, and for the setting of educational regulation (Cronback, 1963, 673).

Yet, the evaluator is different from the researcher in that he should not seek to answer his own questions. He must address the questions of significance to the various decision makers. In this sense, he is by comparison with the researcher, restricted. Yet, he has open to him a far greater freedom of attack on the identified areas of concern in his investigation in that he need not be "trapped into the restrictive tentacles of research respectability" (MacDonald, 1974, 13). The evaluator needs to match the vocabulary of action of the decision maker (MacDonald, 1974, 13) and may need to act in a research-wise unorthodox manner to address the

technological problems of information gathering for the decision makers. If the evaluator sees his task in this light he is likely to avoid the danger in evaluating only that which is easy to measure or of orienting an evaluation plan to make use of the evaluatory instruments at hand (Townsend, 1974, 25).

This genuine concern for audience requirements in evaluation is the alternative to preordinate evaluation. Stake calls this responsive evaluation:

An educational evaluation is responsive evaluation (1) if it orients more directly to program activities than to program intents;

(2) if it responds to audience requirements for information; and

(3) if the different value-perspectives present are referred to in reporting the success and failure of the program. In these three separate ways an evaluation plan can be responsive (1974, 2).

Responsive evaluation requires the evaluator to make special efforts to communicate with program participants, clients and audiences. It requires the evaluator to take a holistic view of the program. It is evaluation as illumination (Parlett & Hamilton, 1972, 1). House, like MacDonald, sees such actions as

democratizing the knowledge demands of various audiences (and involved personnel) (House, 1973, 22).

Responsive evaluation does not lack rigour. The program information is gathered with fidelity and integrity.



What is required, however, is that the information is conveyed to decision makers, within a variety of audiences, in such ways that the characteristics and features of the program are cohesively presented, in association with the decision making issues. Communicative reports may be more descriptive than analytic. Communicative actions are aimed at decision maker and audience comprehension. This sometimes calls for novel modes of operation.

One such novel mode is the "portrayal" which seeks to "tell the story" of the educational program involved.

...to inform the evaluation audience about the nature of the program, its unique features, its successes and failures, the issues surrounding it, the people who staff it, and whom it serves (Kemmis, 1977, 362).

And further ...

By their experience of portrayal, the audience may come to understand something of the program, and can make their own decisions about it (Kemmis, 1977, 362).

In producing the portrayal the evaluator acts as a mediator. As well, portrayal of an educational program is an ongoing, evolving enterprise.

...portrayal does not merely address the issues first identified by audiences. The process of emergence should allow for exploration of the program and for new issues to arise; the final portrayal will address issues that emerge as important (Kemmis, 1977, 370).

But the argument is not one of choice between pre-ordinate or responsive evaluation. Nor is it between measurement and statistics, or observation and judgement. What is required is the development of a comprehensive evaluation plan, which enables evaluation to contribute to the necessary decision making regarding an educational program. Some elements of the plan will require formative evaluation, others, summative evaluation, and still others illuminative, the devised plan having regard to the curriculum design format, the design participants, the school and classroom operations, and the various audiences with interests in, and concerns for, the emergent curriculum.

Campbell (1969, 62) identifies the elements which need to be evaluated as:-

(1) aims -

...to see whether the broad purposes and objectives have been achieved in terms of satisfaction and competence for the student, and whether they are in fact feasible without additional provisions;

(2) returns -

...to see whether society's investment in its schools is justified in economic terms;

(3) the learning process -

...to see whether it could be made to achieve the aims more effectively and what modifications are needed to bring this about;

(4) data -

...to see whether more information and research is required in order to make more effective decisions;

(5) students and guidance -

...to see whether individual students have been rightly placed, what changes should be made, and what problems and needs have become apparent.

Thus, evaluation has a role in both reviewing and forward planning. And in this regard

...the goal of evaluation must be to answer questions of selection, adoption, support and worth of educational materials and activities (Glass, 1970, 58).

## CHAPTER 3

## CURRICULUM DESIGN AND DEVELOPMENT OUTSIDE THE SCHOOL

(Consideration of a centralised model  
of curriculum planning)

As stated in the Introduction, the term "centralised" is given to apply to the curriculum process

Where centralised groups operate within a system of schools, to make formal prescriptions regarding curriculum for schools comprising the system (Introduction, (iv)).

In order to better understand the process involved, there is value in attempting to construct a model or models. A basic requirement of a model, within this field, is that it contains a rationale, together with a mechanism developed in terms of defined concepts and functions (Willer, 1967, 18). The purpose of a model is to articulate relationships within the framework imposed by rationale and mechanism, yielding what might be called a picture of reality. It is in this sense that the curriculum process will be modelled.

The basic feature of any Centralised Model for curriculum is that the educational proposal is developed outside the school or schools by a centralised group. The initiative for development, dissemination, and adoption of the proposal by the schools and teachers rests with the centralised group. This feature gives

active roles to developer and disseminator and somewhat passive roles to users and receivers, at least in terms of initiative. Inherent in the Centralised Model by way of an operative mechanism is that curriculum development can be considered as a sequence of activities which, whilst being associated and related, are sufficiently separable and distinct to allow for a division of labour in the mechanics of carrying out the activities. This characteristic makes the model attractive to educational authorities where curriculum development is required on a large scale, and where there is a requirement for broad uniformity of curriculum.

#### Components of a Centralised Model

Havelock (1973, 10-39) identifies three staged, sequenced components. These are:

- (i) the development, research stage;
- (ii) the dissemination, diffusion stage;
- (iii) the adoption stage.

Havelock characterises the mechanism of the model as moving theory into practice from stage (i) to stage (iii). By comparison, Guba and Clark (1965) prefer to construct the model around four major elements or areas of activity. However, these writers have little dispute with the basic form of the Havelock model. The Guba-Clark phases are:-

- (i) research;
- (ii) development;
- (iii) diffusion;
- (iv) adoption.

Brickell (1964) compiles a centralised model around three phases, carrying with it a somewhat different operative mechanism than those of the previous writers.

Brickell's phases are:-

- (i) design;
- (ii) evaluation;
- (iii) dissemination.

The Brickell phase of "evaluation" represents a trialling of designed and developed material for the purpose of finding out the strengths, limitations and capabilities of what is being put forward. With this phase taking place prior to widespread dissemination, there is an opportunity to amend, delete, qualify and specify with respect to materials developed, before moving into the phase where practical implementation is the intention.

Heathers (1965) articulates a model on somewhat similar phases to Brickell. However, Heathers introduces a first phase which he calls "task analysis". In this phase, Heathers sees the need to clearly identify the purpose (or purposes). This, he maintains, is necessary to aid the phase of "evaluation" and "dissemination".

Alexander (1965) sees the process of curriculum rather like Heathers. Alexander's initial phase of identifying curriculum needs matches Heathers' task analysis phase.

Miles (1964) considers the model to have four components. These are:-

- (i) design;
- (ii) local awareness - interest;
- (iii) local evaluation;
- (iv) local trialling.

Miles' mechanism within the model highlights that the prime objective of curriculum development is the adoption of the educational proposal, by the schools or institutions for whom the curriculum is intended. Miles sees that the major task for curriculum developers is to create awareness of the curriculum requirements among the target schools or institutions, and to encourage (or require) such schools or institutions to implement trialling of the curriculum specifications.

Gallaher (1964) incorporates stages of dissemination and integration concerned with focus on the target schools or institutions. The notion of integration, with respect to curriculum development, is that the requirements of the curriculum are accepted by the target group, and became embedded in the operational structures of the

schools concerned. Gallaher sees the curriculum process as involving two identifiable person-functions. These are:-

- (i) development (which involves an individual or group carrying out the action of curriculum design), and
- (ii) advocacy (where an individual or group is charged with the role to act to get the developed curriculum accepted by the target schools or institutions).

Gallaher's advocate is something more than a mere salesman of an established, completed product. The advocate is operating at a very early stage in the curriculum process - whilst, even, the curriculum guidelines, materials and specifications are being developed. The advocate is to create a feeling of involvement among target schools and institutions, and to pave the way for the ultimate acceptance, by them, of the proposals coming from the developer. It is clear, as Gallaher sees it, that the advocate works very closely with both the developer and the target system.

#### A Centralised Model Mechanism

Whilst a Centralised Model action may be viewed as a "top-down" strategy (Fullan, 1972, 1-45) it is important that any mechanism must seek to put what is proposed at the "top" into practice at the "bottom". This means that at the level of the school, the proposed curriculum action must be received with a receptive attitude on the part of



the administration and the teachers, incorporating an understanding of what the curriculum proposal actually involves. Any model mechanism must seek to take account of this. A mechanism development will be carried out through a focus on model components.

Component 1 : The development, research stage

Within this stage, the educational proposal which is to be the central thrust of the curriculum is formulated and relevant research associated with the proposal is marshalled. This is where the curriculum is designed and aspects of development anticipated and considered. With respect to design one matter is of prime concern. This is the need for curriculum adequacy in the two senses enunciated in Chapter I. This focus gives to design actions a concern for knowledge, learning, curriculum integrity and educational purpose, on the one hand, and an appreciation of the practicalities of implementation, on the other hand. Such focus has direct implications for the composition of the design group, its mode of operation, and the nature and form of design statements and materials which it develops.

With respect to design, there is strong support for a "team" rather than an individual designer, or even a loosely confederated set of individuals (Brickell, 1964). The argument for a team rests on two claims. Firstly,

with a group there is more chance for sharing ideas and for critical, yet supportive, work to be undertaken; secondly, the existence of a group ensures that there is a collection of apostles who are keen and anxious to have the design carried through; that is, to have the developed educational proposal disseminated and adopted. Further, as to the nature of the group, there is support for the notion of its being

composed of people who do not normally work together, because this breaks any fixed circle of expectations and frees ideas and talents to emerge more easily (Brickell, 1964).

As to group composition, expertise in aspects of design and development functions are major requirements. Brickell (1964) believes that the group should contain a blend of scholars and teachers, who have the respect and confidence of a large number of teachers in the target school system. Hughes (1973, 7) is more specific in that he would want a range of "technical" experts in curriculum to be involved in the design group. These experts would include teachers, subject specialists, psychologists, sociologists, measurement specialists and communication specialists.

Research plays an important part in the operation of the design group. Research provides input concerning subject knowledge, learning theory and practice, and circumstances of teaching within the target schools.

Moreover, in that design anticipates dissemination and adoption, the design group ideally should be aware of research data concerning these stages. In brief, there is an obligation on the design group to seek out basic research relevant to its actions, both in the product formation sense and in the curriculum process sense (Brickell, 1964). As well, the design group should have ready access to consultants, from outside the group, professional literature, and schools. The requirement is, clearly, that the input options should be maximised so as to enhance the general quality and acceptability of the designed and developed curriculum material.

In essence, of the circumstances pertaining to the development and research stage, Brickell says that ideally they are artificially created, enriched and free (Brickell, 1964, 498).

#### Component 2 : The dissemination, diffusion stage

The purpose of this stage is to create widespread awareness of curriculum requirements and products coming from the work of the group in component 1 - namely, the design and development group (Clark & Guba, 1965, 8). The stage is clearly important in the process of curriculum realisation since it represents the movement of the educational proposal from the design group, as it were, to the ultimate implementation group, namely the schools

and teachers. Without the successful passage from drawing board to classroom the curriculum intention chain is broken, and theory or ideal has not moved into practice.

It is important to see this stage as being closely allied to the development, research stage, in that a high level of awareness may already exist for a small group of teachers (those who have been directly involved in developing the product), and a low level of awareness may already exist among many other teachers, due to the work already carried out by advocates. The central task objective is to make all teachers aware of the formulated educational proposal to the point where teachers are willing and able to accept the proposal's rationale, and prepared and able to take such implementation steps, which the design and development group sees as necessary, to bring about desired learning in children.

Within the Centralised Model the initiative is with the design and development group. Hence, it is strategic and tactical manoeuvre on the part of the design and development group which dominates this stage and creates the associated dynamism of action, to the end of getting schools and teachers committed to the developed product.

Central to the building of the intention-implementation bridge is communication. In a general way, communication is the interchange of thoughts and ideas. It is

a process - a process involving action aimed at spreading influence (Rogers, 1962, 539). According to Beach (1965, 539), the influence spread has five basic elements. These are:

- (i) an information source;
- (ii) encoding;
- (iii) transmission;
- (iv) reception;
- (v) decoding.

With respect to the mechanism of a Centralised Model of curriculum, the following points should be made concerning the elements themselves and relationships between the elements.

Firstly, the elements constitute a coherent whole - at least this is the ideal intention. The "information source", which is the design and development team, being responsible for the communication encoding, anticipates the action of decoding. In practical terms, such anticipation is reflected in the language and form of encoding used, trying to match this with that of the potential decoder - namely, the teacher in the school. As well, the anticipation involves a plan to assist teachers in the action of decoding. Such anticipated assistance involves some form of in-service support.

Secondly, reception and decoding are ideally more than superficial, technical actions. The actions are both

to inform teachers and convince them to implement the designed proposals.

It is essential to see dissemination, diffusion merging into adoption. Moreover, the merging of the stages is within a continuum, rather than being made up of discretely separable steps. The movement into adoption brings together the ideals of design and of implementation. Rogers (1962, 81) states that the adoption movement can be described by five necessary, sequenced actions on the part of the teachers required to implement the curriculum proposal. The actions are:-

- (i) Awareness;
- (ii) Interest;
- (iii) Evaluation;
- (iv) Trial;
- (v) Adoption.

Awareness means that teachers know of the existence of the designed and developed programme, may know some details, and are informed and initially motivated to move along a path to adoption.

Interest is a state of being favourably disposed to the curriculum material, in a general way. A teacher who is said to "show interest" will seek to gain further information about the curriculum requirements, as an expression of initial desire to implement such requirements. As the move towards adoption becomes more positive,

the strength of affective concern, in the expression of interest, becomes greater.

Evaluation is made of the curriculum requirements and the curriculum provisions by individual teachers, and groups of teachers, as teachers try to identify with the materials in their teaching situations. This marks a crucial point in the chain of design to implementation, since failure to identify with the materials can, in effect, lead the teacher to not giving the material a fair trial. Information from consultants and fellow teachers can help the teacher to conviction that the material is worthwhile and deserves a fair, wholehearted trial (Rogers, 1962, 81).

Trialling involves individual teachers or groups of teachers in schools trying to meet the curriculum requirements, as developed through circulated materials, in their own teaching situations. During trialling, teachers may wish to discuss aspects of the operating features of the material with consultants or fellow teachers. As far as teachers are concerned, trialling has the important role of developing understanding of, and familiarity with, the curriculum features. As far as curriculum development is concerned, interpretative and demonstrative support needs to be available to schools and teachers so that the implementing groups are fully aware of content, teaching styles and teaching attitudes required by the curriculum materials.

Adoption by schools or teachers occurs essentially on the basis of the results of their personal triallings. Adoption can be said to have taken place when teachers are convinced of the value of the curriculum requirements to their teaching operations and are prepared to make such requirements a part of the day to day operation of their classrooms.

The move from "awareness" to "adoption" is characterised by increased involvement by schools and teachers with respect to the designed and developed materials. During this transition the dissemination - diffusion group plays a very active role. The initiative to communicate the substance of the educational proposal (cognitive and affective) is with the group. The group has available to it many forms of communication within the "Impersonal Communication" - "Personal Communication" frame (Rogers, 1962, 98). Impersonal Communication

...does not involve direct face-to-face exchange between the communicator and the communicatee (Rogers, 1962, 99).

#### Personal Communication

...involves a direct face-to-face exchange between the communicator and the receiver (Rogers, 1962, 99).

Impersonal communications are nearly always spread via a mass communication medium (Rogers, 1962, 99).



Klapper comments that

...personal influence appears to exercise a more crucial influence towards change than does mass communication. Personal influence appears also to function as an agent of reinforcement (1960, 95).

Katz (1960, 346-365) expresses the view that for the initial "awareness" action of receiving information, the mass media forms are more efficient than interpersonal relations, but the reverse is true for establishing "acceptance".

The notion of exerting personal influence is taken further by Guba (1968). He suggests activities which the dissemination, diffusion group can undertake with teachers to maximise the possibility of adoption and acceptance.

The activities include:-

- (i) helping the teacher to implement the educational proposal in the classroom, by acting as consultants and possibly demonstrators;
- (ii) involving the teacher in some design and development aspects of the curriculum process;
- (iii) involving the teacher as an advocate to aid further dissemination and diffusion to fellow teachers;
- (iv) training the teacher to use developed curriculum materials;
- (v) intervening in the school and classroom of the teacher to the extent of requiring certain actions

to be taken, with respect to the use of developed curriculum materials.

In summary, the central purpose of dissemination and diffusion activity is to get the teacher to accept the developed educational proposal at the level of cognitive and affective conviction as a necessary condition for ultimate adoption. Convincing dissemination tactics, and demonstrative circumstances, must be such that individual schools and teachers can identify with the enunciated proposal in their ordinary and normal teaching environments.

...at their best they are exactly like the everyday situations in the teacher's own school (Brickell, 1965, 499).

### Component 3 : The adoption stage

It has been stated previously that the dissemination - diffusion stage merges into the adoption stage. It does so insofar as the school and teachers take the educational proposal material and act on its requirements, as they perceive them, in their local setting. Should the implementers be persuaded that they should, and can, operate with the materials, they have already adopted it at the first level of adoption. Yet, as basic and vital as this element is to the adoption of the designed curriculum, it is not a sufficient element to secure and maintain adoption. In order to take a realistic stance.

with respect to adoption, it is necessary to acknowledge that the setting in which the teacher operates is an institutional, social, system. The consequence of this realisation and acknowledgement is that adoption issues are seen to concern factors other than those which can be classified as rational. Social interactive networks, interpersonal relationships within the school, and formal institutional authority structures must be used in the adoption process, to have the curriculum proposal take root and be sustained. Put another way, although the curriculum itself may be considered to be an element of the technological dimension of organisation within the school (Pusey, 1976, 31-32), its adoption is greatly dependent on developing functional overlap between the technological dimension and the dimensions of formal structure and social system. Without this functional overlap it is unlikely that the desired curriculum will reach the status of institutional adoption.

Within a school or system of schools, adoption is time-differential. That is, not all teachers will adopt and consequentially implement, at the same time (Rogers, 1962). Moreover, the installation and institutionalisation of the necessary curriculum actions within a school or system of schools requires continuity of consideration (Clark & Guba, 1965). These factors make it imperative that schools and teachers be meaningfully related to outside resources (Havelock, 1973, 11-15). Put another way,

there is need for a linkage and support system to exist between the centralised design and development groups and schools. The nature of the support system is largely determined by the curriculum requirements of the central educational proposal, but it is structured around personnel in the form of advocates and consultants, and materials provision. Adequate, sustained support is vital to combat the situation aptly described in the following:

The spread of an innovation involves increasing numbers of teachers who lack skills and the enthusiasm of the pioneers ... The result is that an innovation can fail when generally adopted and diluted (Shipman, Bolam & Jenkins, 1974, 177).

## CHAPTER 4

## CURRICULUM DESIGN AND DEVELOPMENT AT SCHOOL LEVEL

(A consideration of a decentralised model  
of curriculum planning)

The extreme of decentralisation is that an individual school is responsible for its own design and development of curricula. Such a curriculum circumstance is currently called "school-based" (or, more fully, "school based curriculum development" - S.B.C.D.). In this extreme sense, S.B.C.D. involves the school deciding on the educational proposal at the heart of the curriculum, and the forms which implementation should take. The initiative for change and development is with the school.

The rationale for extreme decentralisation is the inherent belief contained in the following statement.

Change programmes designed at the local level are bound to be a more realistic reflection of, and thus better suited to, the environment within which they are going to operate. Moreover, a curriculum development programme designed chiefly by local staff is likely to elicit more interest, thus providing a better guarantee of awareness and commitment on the part of the individuals involved in the process of change (C.E.R.I., 1976, quoted in Walton, 1978, 21).

Thus, the rationale highlights appropriateness of design, on the one hand, and a high probability of adoption on

the other. Any model for curriculum design and development around the school must reflect this rationale.

Model components and mechanism actions must encompass the notion of curriculum itself with the goal of achieving curriculum adequacy embedded in the model and its operation.

#### Some Bases for a S.B.C.D. Model

The most fundamental factor to consider is that the design and development actions take place within the educational community which is the school. This does not merely imply a physical location. It implies an ambit of social and educational concerns comprising the sphere of composition, function, and control which is the school. Matters of the curriculum task undertaken, the nature of the involvement with respect to the undertaken task, and the composition of the participating group in the task actions, must be catered for in an effective model. But clearly, the model must require that the making of decisions pertaining to such matters is with the school.

Moreover, a model and its involved mechanism must indicate the possible actions to be undertaken by the school participating group, or on their behalf, to identify the curriculum task and to take it to its fulfilment of adoption.

Walton (1978, 16-17) provides a very useful location and involvement model based on three variables. The variables are concerned with identifying the magnitude and nature of the curriculum task and its intended sphere of influence. The three variables are:-

- (1) approaches to curriculum development;
- (2) involvement in curriculum development;
- (3) area covered by curriculum development.

Within variable (1), Walton suggests that three states exist. These are:

- (a) selection;
- (b) adaption;
- (c) creation.

Each state represents a mode of action to arrive at an educational proposal with its attendant articulation and implementation. As well, the different actions will each carry with them a varied form of involvement on the part of the group or groups required to take the action, and differing demands for support services.

Variable (2) is concerned with which groups and individuals within the school participate in the curriculum process from design to full development. In this regard, Walton suggests that the variable may have total participation or partial participation values.

Variable (3) takes account, in an identification sense, of the area for which the curriculum development is intended. The identified areas are:

- (a) sub-section of school;
- (b) school;
- (c) school and community.

Thus, the model takes account of curriculum coverage, participation and design.

A mechanism to give the Walton location model operative action derives from three sources. These are:

- (i) curriculum task;
- (ii) participating group operation;
- (iii) outside curriculum support.

Skilbeck (1975, 80) has proposed five steps around which operative actions develop. These are:

- (a) Situational Analysis
- (b) Goal Formulation
- (c) Programme building
- (d) Interpretation and Implementation
- (e) Monitoring, feedback assessment, reconstruction.

In Skilbeck's view it is step (a) which is the identifying hallmark of curriculum development in a decentralised mode.

The analysis takes place in the setting of the learners.

In the ideal, this should give to developed curricula a



greater possibility for adequacy than those developed in less decentralised curriculum modes.

According to the conception of curriculum as experience and as communication between teacher, learner and environment... curriculum development at the school level must start, not with given objectives or objectives drawn up abstractly, but with a critical appraisal of the situation, the learning situation as it exists and is perceived at the school level (Skilbeck, 1975, 80).

The extent and form of the situational analysis depends upon the location of curriculum intention within Walton's model. The consequential steps (b) and (c) are taken from the analysis results. Hence, the analysis should be so conducted and the results so articulated that steps (b) and (c) can be taken. Moreover, in so doing, the situational analysis should reveal what, if any, expertise and other support will need to be sought from outside the curriculum participating group - either from elsewhere in the school or from outside the school. Put this way, it can be seen that steps (a), (b) and (c) are sequentially cognate and together represent the core of the school based cooperative action of curriculum development.

Many writers have advocated the use of change agents or linkage agents in curriculum actions (Lippitt, Watson & Westley, 1958, Havelock, 1970, Bolum, 1976). According to Havelock (1975, 327) change or linkage

agents are:

people who can work in the middle  
between research and practice.

Thus, the involvement of such agents in the Skilbeck curriculum actions of school based curriculum development is a possible strategy open to the school. However, the relationship between agents and school must be one of collaboration. Agents must seek to sustain the desire of the school to develop an adequate curriculum and to have school personnel participate fully in such development.

To identify the requirements and features of change action, Lippitt, Watson and Westley (1958) describe what they call phases of planned change. The described actions are relevant whether or not change agents are specifically involved. The action framework enunciated by the phases gives dynamism to the model described by Skilbeck.

#### Phases of Change

##### Phase 1 : The development of a need for change

This initial phase requires that the situation within which curriculum development is to take place be perceived for what it is, the elements for change be identified and a need for change accepted and embraced.

The authors specify three outcomes which must be achieved.

First, problem awareness or awareness of curriculum shortcomings within the existing set-up;

Second, such problem awareness must become a commitment to change;

Third, an acceptance that appropriate outside help can be enlisted to assist the school to solve perceived curriculum problems.

Phase 2 : The establishment of a change relationship

The essential purpose in this phase is the establishment of bona fides of possible assistance in curriculum problem solving. Where change agents or linkage agents are involved, the phase is a period for the development of a trust relationship between agents and school. The school must be satisfied that the involved agents are going to be able to help them to become aware of whatever theory is pertinent to their curriculum situation and to marshal the theory to develop appropriate practice. The involved experts must be capable of becoming members of the curriculum team of the school and be judged by other members of the team as having something valuable to offer. In this trial period (Havelock, 1973, 10-57) the agents will show their capabilities to fill one or more of the roles played by such agents. These

roles include:

...resource finders (who collect, organise and analyse information),  
process helpers (who plan, manage conflicts and analyse problems) and  
solution givers (who market and implement) (Frazer & Smith, 1980, 10).

It is considered by Lippitt et al that this phase is a vital part of the change process of curriculum development in the school setting (1958, 135-136).

### Phase 3 : The clarification or diagnosis of the school's problems

This is where the action of curriculum change becomes visible and specific concerns identified. The existing curriculum (from design to implementation) is thoroughly investigated to build up a profile based on authentic information. The collection of data needs to be thorough and in a form which lends itself to effective analysis. Without effective analysis the possibility of curriculum adequacy being achieved is reduced.

It is in this phase of information gathering and the attendant analysis and diagnosis that a school may be overwhelmed by the magnitude of the curriculum task. Should this situation arise the school could:-

- (1) shift the location of its curriculum development action (within the Walton location model), or

- (2) involve a more substantial component of change agents or linkage agents. That is, seek to involve more experts in the school curriculum team.

However, curriculum adequacy, as an action intention, should not be compromised.

Phase 4 : The examination of alternative routes and goals; establishing goals and intentions of actions

In this phase curriculum changes and curriculum modifications are planned and developed. Such plans are made in the light of diagnostic insights and understandings gained in the previous phase. These are supplemented by curriculum input from the teachers within the school and the change agents or linkage agents involved in the collaborative exercise. The design process must pay heed to the fundamentals of curriculum purpose and function (as outlined in Chapter 1), whilst recognising that the implementing group is itself a part of the design team. This is a vital element of school based curriculum development as curriculum intention should be well-known to the teachers who will implement such intention.

During this phase, linkage agents give of their expertise to help shape, frame and articulate the curriculum. In the process of collaborative curriculum design, such agents may be called upon to exhibit a variety of

linking roles between research and practice or between researcher and practitioner (Havelock, 1973, 7/1). The roles would include the following:-

- (a) the conveyor (Havelock, 1967), where the linker may pass on research data, developed curricula information, information derived from research, knowledge of developed curricula materials, and the like;
- (b) the consultant (Havelock, 1967) where he may advise concerning "how" things may be accomplished, if called upon to do so;
- (c) the trainer, where he may provide the like of in-service courses to the involved curriculum designers;
- (d) the leader, especially if the linker is a member of the school group involved in the curriculum design.

It is certainly not intended that linkage agents from outside the school should attempt to take over the curriculum design exercise.

In brief, the linking role is one of positive contribution by facilitating, speeding, easing, expanding the flow of knowledge (Havelock, 1973, 7/15).

It is important that the curriculum design which emerges from this process phase is motivationally sound as regards the teachers who will be concerned with its implementation. That is, the designed curriculum

must be seen by the teachers to have a fair change of "working". Anxieties of failure can be eased by providing opportunities for teachers to trial curriculum components before they are fixed within the final design destined for adoption (Lippitt et al, 1958, 139).

Phase 5 : The transformation of intentions into actual change

In this phase, curriculum design moves into implemented action. The planning associated with the preceding phases is, as it were, put to the test in operational practice. Curriculum planning of design and development would have proposed a management pattern to implement the designed curriculum actions. Such a management plan may involve change agents or linkage agents and would have provision for monitoring implementation as a basis for curriculum design review and modification.

Lippitt and his co-authors consider this phase the realisation of change effort. The authors state that

the active work of changing is the keystone of the whole change process (1958, 139).

Phase 6 : The generalisation and stabilisation of change

With the designed curriculum operationally under-way, sustaining and maintaining the curriculum needs to be ensured. The school may need to make personnel and organisational provisions for effective curriculum management. Efforts would centre around institutionalising the adopted curriculum. Such institutionalising may have internal and external components. The external component is involved where sustaining the curriculum momentum was seen to entail support from outside the school. Critical in this is bringing the proposed change to what Lippitt et al call a state of equilibrium, which, in their view, manifests an inherent momentum that tends to aid institutionalisation (Lippitt et al, 1958, 141).

Review and appraisal of the adopted curriculum within the school, may lead to spread or generalisation of the curriculum to other sections of the school. That is, what may have been intended as a very limited locality curriculum action may spread wider in the Walton locality model sense, from sub-school to school (Lippitt et al, 1958, 140). Attendant procedural and structural changes of organisation would need to be examined if generalisation is considered.

The phased framework portrays the process of school based curriculum development as discrete, yet integrally linked, activities involving individual and team actions.



The process involves not just a curriculum design method or technique - it represents a philosophy to be embraced by the professionals (teachers and others) who are concerned in the process. This implies that those involved are aware and informed of the process, prepared to engage in any required collaborative efforts, and wholeheartedly commit themselves to the philosophy of school based curriculum development as an ongoing mode of curriculum change. A model and its mechanism should take account of these fundamental requirements. In seeking to provide this requirement, consideration will be given to

- (a) broad strategies which may be employed; and
- (b) specific tactics which may be used in line with the strategies.

### Broad strategies

#### Strategy 1 : System self renewal

This involves the creation of a climate favourable and sensitive to curriculum change. Through involvement of experts inside and outside the school, teachers receive training in curriculum change process skills.

## Stragety 2 : Action research

Teachers work with outside experts to build up an ongoing picture of the state of curriculum matters within the school. The experts provide the research design and academic back-up, whilst the teachers provide the necessary link to curriculum actions and data thereon. Teachers individually, and the school collectively, are receiving self evaluation information whilst becoming aware of the evaluative and diagnostic techniques which are employed.

Whilst it is clear that both the researchers and the school benefit from the arrangement where school based curriculum development is the focus, it should be that the issues researched are helpful in guiding curriculum design actions for the school.

## Strategy 3 : Human relations development

The purpose here is to develop greater individual and collective openness and interpersonal facility and skill. This is done in the belief that human relations of this kind are necessary if groups and individuals are to be able to take curriculum design actions in their school setting (Bradford, Gibb & Benne, 1964).

## Stragety 4 : Consultation

This may take many diverse forms but has the purpose of

...helping a client system to define its own helping role and to work through its own problems by means of reflection and authentic feedback (Havelock, 1971, 4).

#### Strategy 5 : Sharing of practice innovations

This strategy involves teachers sharing developed classroom and school curriculum practices with each other. Such sharing increases teacher knowledge of such practices and also allows for wider evaluation of the practices (Havelock, 1971, 5).

#### Tactics employed with the strategies

In identifying tactics typically associated with the presented strategy profile, Havelock points out that there is no necessary or logical connection between the tactics and particular strategies (1971, 5). The identified tactics, with some characteristics of each, are now presented.

#### Tactic 1 : T-Group, sensitivity training group

Through a variety of unstructured group sessions, teachers are made aware of group dynamics. The building of sensitivity, trust and openness to exchange of ideas are the designed intentions of the session activities.

## Tactic 2 : Reflection

The intended action of the change agent involved, is to have the teacher (or teachers) involved go through a careful self examination. This he generally does by

reflecting back to the teacher, the teacher's own spoken thoughts and actions (Havelock, 1971, 5).

The change agent is actively involved seeking to have the teacher recognise that he has within him the capability to provide solutions to many of his own curriculum problems.

## Tactic 3 : Authentic feedback

The tactic is concerned with providing reception feedback in a non-evaluative manner. The claim is made that this assists teachers, individually and collectively, to have a more realistic view of themselves as judged by their statements and actions (Havelock, 1971, 5). The further claim is made that this process improves the school's capacity for self-diagnosis and for making objective evaluations of change proposals (Havelock, 1971, 5).

## Tactic 4 : Role playing

In the curriculum design sense, role playing involving teachers and change agents

- (i) contributes to the establishment of desirable human relations;
- (ii) permits problem solving modelling; and
- (iii) aids the establishment of trust and respect.

Tactic 5 : Group observation and process analysis

Constructive criticism based on observation and analysis is a basic requirement of change action with respect to curriculum. This applies in a personnel characteristic sense as well as in a school and teaching environmental sense. Again, the tactic is aimed at achieving greater openness between the teachers and the gaining of insight into interactive processes.

Tactic 6 : The derivation conference

The tactic is a training in the process of design. A group of teachers from within the school, together with a group of research persons (generally outside the school) select, and collaboratively tackle some problem, isolated within the school activity setting. The series of activities involves:-

- (i) clear definition of a problem topic;
- (ii) marshalling of relevant data from research and practical sources;
- (iii) deriving the action implications from the retrieval data;

(iv) putting forward specific plans for action.

Tactic 7 : Survey feedback

The systematic gathering of data from teachers and students on various aspects of the school curriculum, administrative performances and personal work matters such as work motivations, aspirations, and satisfactions (Havelock, 1971, 6) can give a picture of school reality not always obvious on the surface. The reality constructed from the data can be used by the school to stimulate accurate self-diagnosis and to suggest specific change actions aimed at remediation.

Tactic 8 : Brain storming

During brain storming sessions, participants engage in imaginative consideration of curriculum issues without undue regard to matters of practicality. Such activity may result in new ideas being developed or novel configurations being composed. As well, brain storming can help teachers to break out of their existing curriculum pattern and procedures and "think in terms of new possibilities" (Havelock, 1971, 7). Thus, there is both a product and a process purpose in brain storming exercises.

Like the tactics identified before it, brain storming exercises need to be planned for in the curriculum design process, and the outcomes reviewed and monitored.

## CHAPTER 5

## OVERCOMING CURRICULUM DESIGN AND DEVELOPMENT DIFFICULTIES

As stated in Chapter 3 (21) the curriculum process has been described through articulating a rationale for the process and a mechanism for its enactment. In Chapters 3 and 4, respectively, centralised and decentralised curriculum models were developed and discussed with a view to exhibiting both the static and dynamic features of the models. This was done without critical scrutiny of the congruence between the theoretical models and the reality in the education system, school and classroom. Moreover, consideration of the models in a rational, logical frame, important though it is, may neglect the human action, reaction and interaction embedded in the curriculum development. Likewise necessary human qualities and professional skills, knowledge and attitudes to make practice reflect the models have not been adequately considered. Such neglected human and professional elements may play an important part in accounting for any identified incongruity between model and reality.

At this point, the model-reality match will be examined and discussed, for each of the centralised and decentralised models.

### Centralised Model Difficulties

The centralised model has an appealing step-by-step logic. This is not to label the model as being mistakenly linear in form. The step-by-step form of the model makes it possible to single out the components of curriculum development. This enables the various resource personnel who might contribute to the curriculum process to be identified (Bannister, 1979, 379). Moreover, the model does suggest ways and means whereby the efforts of the resource personnel may be synchronised and coordinated. If the centralised curriculum process is to be successful, both aspects of composition and contribution must be recognised and heeded in practice. This point is made by Taba (1962, 10-11).

If one conceives of curriculum development as a task requiring orderly thinking, one needs to examine both the order in which decisions are made, and the way in which they are made.

Yet, there have been a number of warnings that the centralised curriculum process with its orderly ends - means format does encounter grave difficulties. Observations of a large number of centrally developed curriculum actions have led critics to conclude that in many cases very little significant change has occurred at the school level, despite quite substantial resources support of the projects and the appearance of adoption of the curriculum proposals by the schools (Fullan, 1972, 15). Such



criticisms tend to identify deficiencies and unanticipated problems in aspects of the curriculum process. These aspects are:

1. the drawing up of the curriculum proposal;
2. the act of dissemination;
3. the act of adoption.

With respect to the drawing up of the curriculum proposal and the development of appropriate curriculum materials it is important that the team involved have an understanding of how teachers act and think (Carlson, 1965, 74). This increases the chance of ultimate adoption. An understanding of the circumstances of schools and classrooms, and of the attitudes and behaviours of teachers helps designers and developers to not only anticipate the benefits of the programme but also to anticipate resistance to adoption. On this point Carlson (1965, 74) comments

...a new practice is not accepted in a vacuum. Rather, it is superimposed on, or merged or nested with ongoing practices, structures, ideologies, and ways of doing things.

Understanding "the world of the teacher" (MacDonald & Rudduck, 1973, 1) and finding out how the system works helps the designers and developers to take note of the "givens" with respect to implementation. Coping effectively with the characteristics of the school, classroom and teachers is essential to ultimate implementation and acceptance of the curriculum proposal.

The feeling of involvement in the curriculum formulation on the part of teachers is thought to contribute positively to curriculum process success, particularly at the stage of acceptance (Fullan, 1972, 4). Teachers need to be assigned a broader, more fundamental role in the process. The "producer-consumer" relationship, at the heart of centralised model needs to be more expansive, enabling the consumer to feel that the process serves his need and not the need of the process (Fullan, 1972, 15).

Dissemination was seen, in a traditional central model, as a simple action of a producer supplying a product to a passive, yet receptive consumer. If the curriculum process was viewed as being empirical/rational (Fullan, 1972, 1-45) the researchers and curriculum developers, through trialling and materials demonstration, expected that the consumer would accept the product on the basis of the demonstrated evidence alone; moreover, not only accept, but wholeheartedly embrace the packaged philosophy and practice involved. If the curriculum process strategy was authority/coercive (Fullan, 1972, 1-45) expectation of acceptance on the part of the designers and developers was even stronger.

Actions based on these strategies failed because:-

- (i) they gave no recognition to the varying teaching contexts; and
- (ii) they often failed to recognise the need to make

teachers fully aware of the curriculum proposals and materials.

MacDonald and Walker (1976, 27) put in in this way:

There is a curriculum; 'it' is disseminated; 'it' is then used. The 'it' is a stable, fixed entity. If 'it' is not used properly - that is in the way its developers intended it to be used - then 'it' has been adulterated.

Such a notion of curriculum, so readily 'acceptable' within a centralised curriculum model, gives teachers virtually no chance for discussion or participation in the 'it' itself. They are merely called on to pass 'it' on to the students in their charge. Such a restricted role often conflicts with teachers' perceptions of themselves as professionals with a caring concern for their pupils. To meet pupils' needs requires curriculum flexibility.

The centralised model can attempt to eliminate these difficulties through informed anticipation. Thus, teachers must be able to feel involved in the curriculum design and development stage. This can be done indirectly, through a broad canvassing of actual teaching needs as perceived by teachers in their various teaching contexts, and directly by involving informed, peer-respected and experienced teachers as members of the curriculum design and development teams. That is, there is an obligation

on designers and developers to view the formulation of curriculum proposals as an organic part of teaching, growing out of existing educational practices and evolving to meet perceived needs.

As well, the curriculum patterns and materials should allow for some degree of openness, participation and choice both for students and teachers. Such an approach represents an understandable compromise between centralised conformity and totally teacher based curriculum decision making.

Further, seminars, workshops, and discussions can be conducted regularly for teachers, even as design and development are in their early stages. Such involvements can inform teachers of the curriculum features and provide for trialling, feedback and modification of programme and materials.

The practised adoption of a designed curriculum depends largely upon human factors, as first order considerations. The human factors are derivative of anxiety occasioned by changes in roles and role relationships (Fullan, 1972, 15) and are manifested as conflicts. The resulting barriers to adoption have been classified into the following conflict types (C.E.R.I., 1973, 246)

- (i) value conflicts;
- (ii) power conflicts;
- (iii) practical conflicts.

Thus, the bases of conflicts may range from being complex and educationally fundamental where matters of human and professional values are inherent, to technological matters. The possibility of damaging conflicts arising is reduced if the sources of conflict are recognised and anticipated. Provision needs to be made for their consideration and accommodation in the curriculum design and development process. The greater the mutual respect and professional trust existing between the design and development team and the teachers and schools responsible for implementation, the greater the chance of design and implementation being successful. Design and development team actions helpful towards this end would include:

- (i) attending to valid objections raised by teachers and schools;
- (ii) allaying fears concerning the changes involved;
- (iii) providing feedback and clarifying intentions and objectives;
- (iv) extending support and encouragement to schools and teachers, thus building up confidence;
- (v) keeping teachers informed of curriculum progress, revision steps taken and progress intentions, whilst the curriculum process moves forward (Watson, 1969, 496-497).

Such actions require professional judgement, imagination, honesty and effective communication.

### De-Centralised Model Difficulties

The freedom offered to schools to develop curricula is not without its circumscriptions (Field, 1978, 19).

The difficulties stem from the nature of curriculum design and development itself, and the attendant expertise requirements. At the outset, some schools may welcome the freedom and ambitiously attempt too much too soon, often resulting in a failure to adequately plan and manage the undertaken curriculum development (Walton, 1978, 15). Such ill-conceived action usually results from under estimation of the task and its requirements.

In reality, curriculum development is usually lengthy and time consuming; it places additional strains on teachers and requires resources (Hunt, 1978, 226).

Endorsing Hunt's view, Richards (1972, 32-33) is more expansive.

Teasing out the underlying rationale of good practice, formulating it for others to try out and then evaluating it in a wider setting are very difficult procedures, calling for more expert help and entailing far more time and effort than the vast majority of teachers can reasonably expend.

To undertake school based curriculum development teachers must have a knowledge of curriculum development and theory. Many teachers do not have such knowledge (Field, 1978, 18). S.B.C.D. will have heavy reliance on

the professional skills of teachers. New skills are required (Walton, 1978, 19). The knowledge, skills, and resources required, are of four types;

- (i) information;
- (ii) development;
- (iii) instrument;
- (iv) procedures.

The provision of resources may not be entirely possible from within the school. This could be especially so within the range of foundation disciplines associated with curriculum design and development. Curriculum, involving as it does, consideration of Society, Learner, Knowledge and Learning Theory (Hughes, 1969) will have need for input from a range of disciplines including sociology, philosophy, psychology, and subject specialisms. Such inputs are provided by experts in the various fields. Thus there is a need for "...the forming of carefully engineered relationships" between teachers and consultants (Batten, 1973, 25-31).

And of the practical needs of teachers and schools engaging in S.B.C.D.,

...the most critical needs appear to be such things as in-school opportunities for discussion and learning, reasonable time allocation for curriculum tasks, teacher aides to assist in classroom activities, recognition and rewards for curriculum development efforts, a supportive school organisation, participation in planning, decisions, and a clear decision-making role for the teacher (Evans, 1974b, 3).

### The models operating together

Curriculum theory and practice is influenced by a host of social, political, educational and economic factors. Among these factors are:-

- (i) the prevailing conditions of cultural and social life;
- (ii) social, economic and political policies;
- (iii) educational fads, theories, tradition and ideologies;
- (iv) local community needs and pressures;
- (v) advances in the understanding of teaching and learning;
- (vi) available resources, funds, buildings and support services (Davis, 1979, 369).

Consideration of these factors leads to the view that curriculum design and development requires a marked degree of flexibility before effective responses could be made to the influences of these factors. It is the view of Davis that neither one of the centralised or de-centralised approaches alone can achieve such flexibility. In relation to this matter Davis writes (1979, 369):

...although each school can be responsive to individual differences and local circumstances, the educational functions of schooling in general are broader than local decision making are likely to recognise. School based Curriculum Development carries no guarantee that every child will be given the opportunity to acquire the kinds of understandings, abilities and qualities that would enable them to participate fully in their own society's development.



And further, he writes (1979, 369):

...centrally formulated policy is unlikely to have its full impact if it is not consistent with local needs or if it closes off local interpretation and alternative forms of implementation.

The Davis view is supported by Fullan (1972, 15) when he states:

The most effective solution can probably never come from improving the existing (centralised) process, nor can it come from leaving users (the schools) to make their own choice in a permissive environment.

What the writers are supporting is the availability of both approaches to curriculum planners operating in a coordinated, integrated and functionally linked way to achieve flexibility and curriculum adequacy.

The fundamental requirement for teachers is that they:

...possess a framework for thinking about curriculum design and development large enough to provide a secure base for exploring new possibilities of improving experiences for children (Frazier, 1968, 448).

As a first order consideration, teachers would need to, at least, reach Beeby's (1966) "Stage of Meaning" in their development. This requires that they be well educated and professionally informed. Furthermore, the professionalisation of the teacher involves contributions from pre-

service, in-service and continuing teacher education programs. This not only implies a sequencing of experiences, but also a difference in the kind of experiences provided as the teacher moves from what Hoyle (1975, 341-342) calls a "restricted professional" to an "extended professional". The teacher in the "models together" pattern would be called on to act as the "autonomous professional", adding to the teaching role of the extended professional, the knowledge, skills and teaching action procedures of curriculum design and development (Bannister, 1979, 383).

As to the characteristics of a successful school in the "models together" pattern, Bannister (1979, 383) suggests that the key notion is "adaptability". He suggests that the capacity of a school to be adaptable depends on the level which a school possesses in five major variables:

- (i) Resource adequacy;
- (ii) Technical competency;
- (iii) Problem-solving competency;
- (iv) Work-relationship competency;
- (v) Attitudinal set.

To reach adequate levels may require further professional development within a school. Such development would arise from cooperative planning by the school and its education system. Moreover, the planning would be centred

on the teacher as curriculum developer, interpreter and implementer in full awareness of the realities of day-to-day teaching. Much of the planned development activity needs to be "job-embedded" or "on-site" (Howey, 1976, 102). As to professional development programmes Smyth (1981, 142) writes of the need for them to be

- (i) personalised;
- (ii) interactive;
- (iii) contemporaneous;
- (iv) developmental;
- (v) reciprocal; and
- (vi) practical.

The overall aim is for "...participants to acquire the skills necessary to do the job" (Smyth, 1981, 143). On this point Rubin (1978, 299) states:

Curriculum development and professional growth share a common ground. Much could be gained if greater efforts were made to interrelate the two.

This view is supported by Power (1981, 166) when he writes:

...the professional development programme should be linked with a curriculum development programme aimed at improving the quality of the programmes offered by the school.

Curriculum oriented professional development programmes, both in planning and operation, require adequate support. Support can come from sections of the

school sector, including the services of consultants, subject specialists, curriculum specialists and the like, and from sections of the tertiary sector (Power, 1981, 167). The combined support efforts should provide for both theoretical and practical inputs, enabling adequate soundly based programmes to be developed. Within a system of schools, input sources can be linked through Teachers' Centres associated with the schools (Hoyle, 1978, 345) as well as through the individual schools themselves.

Collaborative action involving teachers, their schools, and the various educational and tertiary support groups is required if the professional development - curriculum development bond is to be achieved. Such collaborative action is the basis for the design, development and implementation of adequate curricula.

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