THE UNIVERSITY OF MANITOBA

A Design for School Division Implementation of Provincial Curriculum

A Thesis

Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of Master of Education

Department of Curriculum:
Humanities and Social Sciences
Faculty of Education

by

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ABSTRACT

The problem was to develop a model for school division implementation of K to XII provincial programs.

The procedures involved synthesis of theory derived from literature review, involvement in current Manitoba program shifts, and background in curriculum change.

The model applies to the post-adoption stage of the implementation process. Five conditions for application were identified.

Findings are expressed in The Hardy Model for Program Implementation which offers a point of view on what is critical for success. It stresses need to help individuals and groups get good at program change through ongoing collaborative effort related to professional growth goals.

The six critical, interdependent, overlapping design features are: Critical Tasks Component, Major Planning Units, Major Contributing Groups, The Teacher as Central, Leadership and the Linking Agent Role, and Connectors as Key Components.

The major feature is The Critical Tasks Component:

1. Identify and Examine Intents of Curriculum Change: Establish Overview and Define Goals
2. Organize and Manage Curriculum Implementation: Clarify Processes and Structures
3. Plan Inservice for Professional Development: A Continuous Growth Process
4. Nurture Roles and Relationships that Promote Effective Change: Assure a Supportive Climate
5. Recognize Significant Contexts, Current Trends, Appropriate Resources, and Local Needs with a Look to the Future: Critical Analysis.

Artful interpretation of this model can improve quality of school programs.

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CHAPTER I

INTRODUCTION: A STUDY OF CURRICULUM CHANGE

In the past decade, Manitoba teachers have been increasingly involved in provincial curriculum development activities. Manitoba educators will generally agree that several worthwhile programs have recently been developed. However, the implementation stage of the curriculum improvement process is the most critical if planned change is to be realized. Teachers are seeking stronger support in meeting implementation demands as newly revised Manitoba Department of Education program guidelines are distributed to school divisions.

There is need for a model of curriculum implementation for school divisions. School divisions need planning help to encourage change sought through revised provincial guidelines.

A strong program change model can incorporate theory that helps school divisions generate curriculum implementation designs appropriate to unique division contexts. Models can direct focus on critical tasks, key processes, and essential relationships. This researcher recognizes the need for models that summarize and clarify the complex contexts of program implementation.

Planning for effective change in Manitoba schools concerns educators at many levels. The provincial Department of Education, The Manitoba Teachers' Society, faculties of education, school divisions and districts, and interested lay groups work cooperatively to develop program guidelines. At each of these levels, it is generally recognized that planning for change for the school and classroom must be a deliberately coordinated and orchestrated process. This researcher intends to propose a model that can guide planning for effective program change.

Background and Purpose

The purpose of this study is to develop a model for curriculum implementation at the school division level. The model should clarify what must be done well to promote effective program change in schools. Purposeful action at the school division level requires deliberate design.

James Macdonald stated that one could ". . . focus upon theory as the development of frameworks from which designs can be generated rather than as the testing of designs."[1]

This researcher intends to propose a model that can be a framework for school division curriculum implementation planners.

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[1]Ronald C. Doll, Curriculum Improvement (Boston, Mass.: Allyn and Bacon, Inc., 1970), Appendix C. p. 422.

This model should help school divisions become more effective in curriculum implementation. A strong model is one that reflects reliable theory in the direction it proposes. This model is to be based upon a coherent rationale derived from analyses of the review of the literature, interpreted and shaped to offer a pattern for approaching curriculum implementation. The model will incorporate what research and past experience suggest as critical to curriculum implementation success. Deliberate steps have been taken by this researcher in creating the model so that it would be applicable to Manitoba school divisions.

A broad literature review was the initial step to assure a comprehensive overview. Dominant or persistent themes, issues, or positions were then analyzed to sift from the literature what might be critical components to build into a model for curriculum implementation. Having ordered these ideas derived from the literature, the next step was analysis to determine how theory from the literature could be matched with what can actually be observed in Manitoba school divisions. The subsequent stage in model development involved examining relationships. The critical components selected from the literature were judged in complex, real-life contexts of K to XII program implementation projects in Manitoba school divisions. This analysis demanded more intensive literature search and probing to isolate what could be key features of a model. The model evolved through blending what curriculum

writers report as significant with realities observed or experienced. Substantiating these two bodies of knowledge was the method used to create a model which expresses this researcher's point of view.

The model proposed through this study should help yield answers to common curriculum implementation questions posed by professionals in school divisions. Following are typical, overlapping queries:

> How do we get started?
>
> What really makes a difference?
>
> What should we be doing well?
>
> How do we get good at change?
>
> How do we recognize and circumvent barriers to change?
>
> What would help us in any curriculum change context?
>
> How can we promote quality of educational experience for children?
>
> How can busy teachers help themselves and effectively utilize others in the program change process?
>
> How might we view the change process and gauge growth of participants in the process?

These are questions frequently asked by teachers, principals and school staff, division administrators, and those working in curriculum support or consultant roles. A model is needed that can guide all these persons toward answering their own questions. This model can help direct individuals and groups in their decision making. The model should assist in establishing stronger working relationships and common purpose. The proposed model should contribute to the creation of a supportive, nurturing, change-climate

where problems and challenges of the change process can be effectively met.

Curriculum writers have proposed theories worth incorporating in models for strengthening school programs. The literature also offers much on why and how implementation efforts have failed to strengthen actual classroom programs. Reports on failures were analyzed by this researcher to isolate theory that needs to be incorporated in emerging models. This researcher will propose a model that can direct a positive process for improving programs for children. This model will highlight what to do rather than what to avoid.

Statement of the Problem

The purpose of the study is to develop a model for curriculum implementation in school divisions.

Assumptions

There are major principles, supported by research, that reflect generally accepted stances regarding curriculum implementation. These may be stated as assumptions, held by practicing Manitoba teachers, that reflect the expectations placed upon them as professionals. Those assumptions indicate responsibilities of school division administrators and imply relationships commonly accepted as integral to any school division curriculum implementation project.

Following are some assumptions under which this study is conducted:

1. Teachers are expected to base their teaching on program goals issued by a provincial department of education.

2. As a professional, a teacher must critically analyze implications of current provincial program intents. The teacher interprets the guidelines in ways that best meet needs of the learners to whom that teacher is responsible. The teacher, therefore, has a key decision-making role in any school program shift.

3. School divisions are accountable for providing school programs based on provincial program goals.

4. Responsibility for professional development of teachers in preparation for implementing new programs is shared by individual teachers, the school division, and the provincial department of education. Prime responsibility for actual implementation rests with the school division and its teachers.

5. Faculties of education can be involved in the professional development process in a school division in ways that directly relate to implementation of particular provincially developed school programs.

6. Implementation of curricular programs is a process of complex interaction among students, teachers, school division administrators, parents, other professionals, and the concerned community.

7. Planners for curriculum implementation of a particular school program must recognize the integrative relationships of that program with other components of the school program.

8. Curriculum implementation is ongoing, dynamic, and cyclical in nature.

9. The school principal is the most important individual affecting implementation.

10. The individual school is the key unit for change.

11. Teachers in each school need to be effectively involved in activities leading to formal adoption of a particular program prior to involvement in actual implementation.

12. Change and resistance to change is inevitable. Teachers need support in meeting change demands. There is need to reduce perceived threats, anxieties, and resistance, in ways that promote professional growth. Deliberate school division strategies are needed to promote teacher confidence and competence in any division-wide curricular innovation.

Limitations

1. A researcher always brings strong personal bias to the decision-making process. Consequently, this study will be coloured by a personal philosophy of education and specific experiences directly related to curriculum implementation activities in various Manitoba contexts.

2. The study is conducted over a period of eighteen months.

3. There is lack of documentation on Manitoba models for program implementation at the division level. This limits the opportunity to compare the proposed design with other models currently utilized in Manitoba. The Lord Selkirk School Division has been the major division context used as reference as this model was being developed. This researcher assumed that curriculum implementation needs and conditions in other Manitoba divisions have much in common with the Lord Selkirk School Division. Therefore, as the decisions in designing the model were made, it was assumed that what seemed appropriate to the Lord Selkirk School Division context would also apply to other Manitoba divisions. Further to that, applicability of the model to divisions/districts outside Manitoba is expected where the assumptions of this study exist.

4. There may be significant curriculum implementation findings detected through this literature review which do not directly relate to the purpose of this study and will, therefore, not be incorporated in the model. Other findings may not be congruent with this researcher's personal experience or the current Manitoba program contexts. Such findings are noted within the body of the report on the literature and are expressed through recommendations.

Delimitations

Following are the delimitations of the study:

1. The scope of the study is limited to school division implementation of provincially issued K - XII programs. The study is not intended to apply to implementation of locally initiated programs at division, school or classroom level.

2. The literature review was conducted in the period January 1, 1982 to March 31, 1983.

   a) Printed resources dated after 1975 are the prime references.

   b) Only printed references available in English were reviewed.

   c) Reports of Canadian curriculum writers are given greatest consideration.

3. The study focus is on design features of a division plan that promotes the professional growth needs of teachers as they prepare themselves for the initial phase of program implementation. The study does not directly address the needs of division evaluation of the implementation process or the program implemented.

4. The scope of the study is narrowed to identifying elements of a theoretical model and does not report on application or testing of the model.

Definition of Terms

Terms that may have a special meaning necessary for understanding this study and its recommendations are:

Curriculum guides: documents issued by provincial or state departments of education to be used as program guidelines in a school district or school division.

Program guides: a term used interchangeably with the term, curriculum guides.

K to XII: Kindergarten to Grade XII inclusive.

Adoption: a formal decision by a school division or district to implement particular curriculum guidelines issued by the provincial or state department of education. The decision is reached when users (division unit, school unit, and individual teachers) express formal acceptance of proposed change and commitment to assume responsibilities for implementation.

Implementation: a process of realizing change by putting into classroom practice the intents of the provincial or state K to XII curriculum guides.

Inservice: planned activities for practicing teachers to meet educational purposes that have direct relevance to the particular K to XII program being implemented in a division.

Professional development: acquisition of knowledge, understandings, and skills that contribute to becoming an increasingly competent educator.

Provincial: used interchangeably with the term, state.

CHAPTER II

REVIEW OF THE LITERATURE ON PROGRAM IMPLEMENTATION

Introduction: The Critical Tasks Component Identified as the Major Feature for a Program Change Model

One way to identify critical components for a curriculum implementation model is to consider the literature of the 80's, review reports from the 60's, survey what worked in the 70's and decide what is promising for the future. This chapter reports such a literature search.

Analysis of the literature that relates to school division implementation indicates that five critical tasks compose the major design feature for an effective program change model. This Critical Tasks Component incorporates the following five complex interrelated tasks:

1. Identify and Examine Intents of Curriculum Change: Establish Overview and Define Goals
2. Organize and Manage for Curriculum Implementation: Clarify Processes and Structures
3. Plan Inservice for Professional Development: Assure a Continuous Growth Process
4. Nurture Roles and Relationships that Promote Effective Change: Assure a Supportive Climate
5. Recognize Significant Contexts, Current Trends, Appropriate Resources, and Local Needs with a Look to the Future: Critical Analysis.

This writer has identified that these five critical tasks must be attended to in any specific program change project. The five tasks must be highlighted as a major feature in a program change model. This researcher identified the tasks by analyzing what curriculum writers report as significant to successful school program innovations. Literature reports on the many implementation failures contributed other ideas on what must be incorporated in designs. The literature on program change models stresses the complexity of the process.

The literature reports on implementation are varied. Implementation issues are often submerged within contexts that concentrate on the program development stage. Many writers focus on discrete segments of the process with simplistic disregard for the complexity of school division implementation projects.

Through this literature review, the Critical Tasks Component has been identified as the major component of a proposed model for program change. The literature report that follows focuses on each of the five critical tasks. The Critical Tasks Component specifies five key responsibilities for action shared by all participants engaged in the program change process. Those are the key tasks which must be well done by all persons collaborating. They are the ongoing responsibilities that directly relate to all other facets of a change model. All five task categories overlap and have direct relationship to curriculum

activities that precede the adoption stage in the curriculum process. The five task categories can be thought of as interactive elements of the dynamic curriculum implementation process. The five critical tasks must be assumed in concert, guarding balance and harmony. Findings from the literature indicate that a program implementation model should promote effective orchestration of the actions identified in The Critical Tasks Component.

In the literature, there is strong consistency in the way program change problems are categorized. The breadth and complexity of the implementation challenge are always stressed. The literature offers few conclusive solutions but there are particular directions in which curriculum writers predict greatest success in moving curriculum from paper to practice.

This writer has analyzed the recurring, persistent themes of curriculum writers. There is evidence that strengthened programs can emerge through artful application of a model that incorporates the five key tasks of the implementation process. The report that follows presents opinion from the literature that supports the selection of these five action categories. This literature report is organized under the five statements which summarize the five complex, critical tasks to be tackled in the implementation change process. Subheadings are used to emphasize what curriculum writers propose as appropriate actions.

The Critical Tasks Component

1. Identify and Examine Intents of Curriculum Change: Establish Overview and Define Goals

All persons involved in curriculum implementation must identify and examine intents of any proposed program change. Implementation success and program quality depends largely on how well this task is done. The task is a major undertaking through which participants can establish a broad understanding and overview of the meaning of a particular program shift. Through a comprehensive overview can emerge a holistic grasp of what is involved in terms of changing. As intents are examined, participants can determine specific goals which help them set direction for what might ultimately be realized with students. The goals will be both individual and group goals. This researcher will report on the literature that relates to this critical curriculum task under the following two headings:

a) Identify and Examine Intents of a Proposed Program Change

b) Assure Conditions that Support Effective Goal Setting for Improving School Programs.

a) Identify and Examine Intents of a Proposed Program Change

From the literature of the 80's, three Canadian authorities on curriculum offer particularly useful frameworks for thinking about the meaning of change in the implementation process. Michael Fullan, Dianne L. Common,

and David Pratt are dynamic curriculum leaders who have synthesized the best of what was written in the 70's about curriculum implementation. They stress need for a broad focus in viewing curriculum change. They offer significant ideas that apply to all of the five action categories presented in this literature report. Their views appear in this first section of the literature report which establishes a base for developing an implementation model. Their views are dealt with under the following three headings which summarize their key recommendations:

(1) Explore the change process: get good at change through organized common sense

(2) Recognize the participants and key roles in the change context

(3) Determine what to change and how to change.

(1) Explore the change process: get good at change through organized common sense

Michael Fullan is this decade's most widely quoted Canadian authority on factors affecting curriculum implementation. He bases his views on evidence analyzed from twelve years of intensive research. He reports, ". . . noteworthy convergence of findings from two relatively distinct bodies of research . . . that on school innovation and that on school effects." His book, The Meaning of Educational Change, published by The Ontario Institute for Studies in Education, 1982, provides specific direction for dealing with problems of educational change:

> A large part of the problem of educational change may be less a question of dogmatic resistance and bad intentions (although there is certainly some of both) and more a question of difficulties related to planning and coordinating a multi-level social process involving thousands of people.[2]

Michael Fullan confirms that there has been little success in putting into practice curricula adopted in the 1960's and 1970's (Silberman, 1970; Hillan, 1972; Fullan and Pomfret, 1977). In his book, Fullan identifies "factors which affect whether or not an adopted or decided-upon change happens in practice." He explains that processes beyond the adoption stage of the curriculum are much more intricate than the preceding stages where focus is on "product development legislation and other 'on paper' changes . . ." Real change is related to what people actually do or do not do following the adoption.[3]

Fullan outlines the change process in three phases:

. factors leading up to and affecting adoption

. factors affecting implementation (the adoption process being one of them), which in turn affect the extent of implementation (and continuation) defined as change in practice on the part of teachers and students

. outcomes.

Fullan's description of the change process includes analysis of factors affecting implementation identified in his chart that follows:

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[2]Michael Fullan, The Meaning of Educational Change (Toronto: OISE Press, 1982), p. 54.

[3]Ibid., p. 54.

Factors Affecting Implementation

A. Characteristics of the Change

1. Need and relevance of the change
2. Clarity
3. Complexity
4. Quality and practicality of program (materials, etc.)

B. Characteristics at the School District Level

5. The history of innovative attempts
6. The adoption process
7. Central administrative support and involvement
8. Staff development (in-service) and participation
9. Time-line and information system (evaluation)
10. Board and community characteristics

C. Characteristics at the School Level

11. The principal
12. Teacher-teacher relations
13. Teacher characteristics and orientations

D. Characteristics External to the Local System

14. Role of government
15. External assistance.

Fullan's chart presents a framework for thinking and for organizing specific discussion about how and why particular factors are important. His chart can have application in determining school division designs that incorporate the school-unit focus. Fullan proposes that " . . . the more of the interacting fifteen factors supporting the implementation the more change in practice will be accomplished."[4]

Fullan admits the enormous complexity of needs related to better implementation designs and the immense challenge for planners. He comments, facetiously, that one could oversimplify! Fullan suggests that the idealist's

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[4]Ibid., pp. 56-57.

dream of effective management of educational change could lie in the fifteen factors (and all their subvariables and interactions), perfectly directed and harmoniously orchestrated. He concludes: "We need better implementation plans, . . . we need to know how to change our planning process, . . . we need to know how to produce better planners and implementors." Fullan emphasizes that knowing the critical factors is only the first step. He indicates that educational arts must be applied.[5]

In his chapter "The Future of Educational Change," Michael Fullan identifies nine significant themes as challenges in planning any school division curriculum innovation. First, he stresses need for balance of cognitive and social goals. Then, Fullan deals with fidelity versus variation issues of planned change for both the "What" and "How" levels of any change. He reports that where groups of people interact and cooperatively make choices in planning, the actual curriculum change is more balanced. Fullan calls for less privatism among school division professionals and more interaction, continuous professional sharing, and trusting environments. "To get good at change" is the primary goal. Planning for particular changes should be viewed in that larger context. "We do need a new way of thinking about educational change which places a lot of emphasis on what happens during the first year or more of attempted implementation."[6]

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[5]Ibid., p. 80.

[6]Ibid., p. 292.

Fullan highlights the themes "Time and Change," "Leadership and Change," "Grandeur versus Incrementation," "Meaning and Change," and "School and Society." While all these themes are worthy of consideration, Fullan's key statement for planners at all levels is, "The goal is to get good at change."[7] Keeping Fullan's message in mind, implementors of each specific K to XII school program are required to work within the larger cumulative context of the change process in a school division. Fullan's conclusions demand that school division models reflect comprehensive and long-range approaches.

Fullan writes effectively on the need to find meaning in change: "We have to know what change looks like from the point of view of the individual teacher, student, parent, and administrator." He discusses the need to understand organizational and interorganizational factors affecting the change process:

> One of the most promising features of this new knowledge about change is that successful examples of innovation are based on what might be most accurately labled 'organized common sense.'[8]

Fullan's analysis indicates that a school division model should be the "organized common sense" design that helps division participants get good at change.

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[7]Ibid., pp. 288-297.

[8]Ibid., pp. ix-x.

(2) Recognize participants and key roles in the change process

In Part II of his book, Fullan deals with "Educational Change at the Local Level" with a chapter devoted to each of the six roles at local school and school district levels. The roles are: teacher, principal, student, district administrator, consultant, and parents and the community. Other literature reviewed confirms his choice of the most significant roles in implementation.[9] In addition, many writers also identify the "linking agent" role. How the linking agent functions can be shared within Fullan's six roles, is a topic dealt with in other sections of this paper. Many researchers report the need to directly involve academics and teacher educators. Collaboration and active involvement of univeristy staff is reported to enhance school division professional development activities.

(3) Determine what to change and how to change

"The problem of meaning is central to making sense of educational change." Fullan stresses that all individuals at all levels of the educational system in individual and collective contexts, must ". . . contend with both the WHAT of change and the HOW of change with awareness of interactive relationships." Many attempts at change fail because no distinctions are made between theories of change (WHAT causes

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[9]Ibid., pp. 107-214.

change) and theories of changing (HOW to influence those causes).[10]

Kenneth Leithwood confirms that change must be viewed as individual to the persons involved in school division implementation projects. Participants need to recognize and clarify meaning of a proposed change. This includes setting personal goals and determining strategies for changing. Leithwood proposes nine interrelated dimensions for developing an innovation profile. One of the nine, the platform dimension, underlies the others. Leithwood defines curriculum platforms as positions, orientations, or sets of principles which form the decision-making base for any particular implementor. He writes that proposed program change must be described in relation to existing teacher practice, while highlighting the novel features of the innovation. If teachers are to take notice, change must be discussed in terms a teacher can relate to his/her work with students. Critical change features should be openly dealt with using the same language as that appearing in program guidelines. Existing practice and intended practice are key topics. Monitoring and evaluation in a program change project depend on teachers clearly recognizing specific ways they wish to change in their classroom teaching practice. Teachers must examine intents of a program and clearly establish their platform for change.[11]

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[10]Ibid., p. xi.

[11]Kenneth A. Leithwood, "The Dimensions of Curriculum Innovation," Journal of Curriculum Studies 13:1 (1981): 25-36.

Any plan that involves change for the adult teacher must recognize characteristics of the adult learner. Learning is individual. The literature offers direction helpful to planners introducing new provincial curriculum guidelines. One example is the Newton report that identifies the adult learner as "an autonomous, experience-laden, goal-seeking, 'now' oriented, problem-centred individual."[12] These are qualities that must be recognized in creating models that propose to promote teacher development. The individual adult learners need to identify and examine intents of a proposed curricular change. Curriculum writers agree that top-down administrative models have failed to put programs in place. Principals and teachers are identified as the key adult learners who must be supported in their self-directed learning process. Through that support can come the professional growth that can best assure program improvement.

b) Assure Conditions that Support Effective Goal Setting for Improving School Programs

Following are eight recommendations that emerge from the literature as views strongly and consistently expressed:

(1) Include measurement issues in the decision-making process

(2) Recognize relationships of elements critical to the dynamic planning process

(3) Recognize school division conditions necessary for planning program improvement

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[12]Eunice Shead Newton, "The Adult as a Learner," Journal of Reading (February, 1977): 3621.

(4) Analyze through decision-making teams

(5) Strive for excellence in decision-making

(6) Create change models that promote understanding with holistic sense

(7) Maintain flexibility and diversity in change models

(8) Engage in ongoing evaluation within program change contexts.

These eight statements are used as headings to report literature findings on effective goal-setting for program improvement.

(1) Include measurement issues in the decision-making change process

Michael Fullan and Alan Pomfret report on their analysis of more than 15 major studies reviewed in their articles "Research on Curriculum and Instruction Implementation." Topics dealt with are:

- reasons for studying implementation
- defining and measuring implementation
- determinants of implementation
- policy implementations.[13]

It is worth noting the factors seen as determinants of implementation isolated by Fullan and Pomfret in 1977:

Characteristics of the Innovation

Explicitness (what, who, when, how)
Complexity

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[13]Michael Fullan and Alan Pomfret, "Research on Curriculum and Instruction Implementation," Review of Educational Research 47 (Winter, 1977): 336-393.

Strategies

Inservice training
Resource support (time and materials)
Feedback mechanisms
Participation

Characteristics of the Adopting Unit

Adoption process
Organizational climate
Environmental support
Demographic factors

Characteristics of Macro Sociopolitical Units

Designs questions
Incentive system
Evaluation
Political complexity.[14]

Fullan identifies five dimensions through which curriculum change can be examined:

. subject matter or materials
. organizational structure
. role/behavior
. knowledge and understanding
. value internalization.[15]

Fullan reports that measurement of implementation success can be related to these five conceptual dimensions in implementation contexts. Fullan identifies observation methods as the most rigorous measurement of behavioral fidelity or degree of implementation if the innovation is reasonably well specified. The impact of observers on the performance of users is not clear. Observation methods may sometimes be gauging only mechanical aspects of an innovation. It may be that observation methods are less adequate for assessing dimensions such as degree of understanding of

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[14]Ibid., p. 365.

[15]Ibid., p. 367.

program philosophy and general strategies of the innovation. Unstructured observation methods do have the advantage of identifying more specific dimensions peculiar to a particular innovation.[16] The unstructured observations would allow methods of ethnography consistent with Eisner's view of critical analysis. Unanticipated outcomes and hidden curriculum can be identified through unstructured observation.

Fullan and Pomfret go on to note the Goodlad and Kline (1970) findings on the problems in the use of questionnaire methods for measurement of implementation success. They also comment on discrepancies between what is reported and what is actual practice. Other methods such as focused interview (Hall and Loucks, 1976) and document analysis are reported to be of some use (Downey et al., 1975).

Measuring implementation must be thought of as capturing a 'snapshot' of what users are actually doing at any one point in the implementation process. Ongoing measurement will require different techniques for a range of purposes.[17] The perspectives of fidelity and degree of adaptation are given as key reasons for measurement in the Fullan-Pomfret analysis.

(2) Recognize relationships of elements critical to the dynamic planning process

Dr. Dianne L. Common, in her report given to the Canadian Association for Curriculum Studies, Saskatoon, 1979,

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[16] Ibid., p. 365.

[17] Ibid., p. 367.

analyzed the process of curriculum implementation. She proposed answers to what she identifies as the five fundamental questions. Dr. Common's questions were:

- What are the elements of the curriculum implementation process?
- Who are the curriculum implementation actors?
- What are the necessary conditions for curriculum implementation?
- How does the curriculum implementation occur?
- What are the consequences of the curriculum implementation process?

Dr. Common's answers to these questions were derived from analysis of twenty-five research studies on implementation reported since 1968. Sixteen of the twenty-five studies she analyzed were published in 1975 or later. Dr. Common's views are expressed in her model: "A Theoretical Model for the Curriculum Implementation Process: Change Possibilities and Implementation Elements."

Dr. Common has had first-hand experience in the Manitoba school system. Since 1975, she has served as teacher-educator, as curriculum designer of Social Studies materials at the provincial level, and as implementor of school-based curriculum projects in both rural and urban settings. As she reviewed the literature, one has reason to assume she brought to the task a practical, Canadian, and integrated viewpoint. Her conclusions are, therefore, likely to provide a useful frame of reference for school division implementation designers.

For this report, it is useful to summarize Dr. Common's answer to her first question, "What are the elements of the curriculum development process?" She identifies four main elements:

. the proposed curriculum: to be examined for complexity, clarity, and practicality

. the teacher as user of the curriculum: to be considered in terms of user of knowledge and understanding of the curriculum, new skills and/or roles to be learned, and individual motivation to implementation. Dr. Common indicates that the teacher as curriculum-user performs three necessary and useful functions during implementation. These functions are planner, performer, and monitor/evaluator.

. the manager of the implementation process: a leadership role which can be shared. The manager/leader role blends with the evaluating function. The manager anticipates potential problems and actively resolves them and structures the implementation process to assure effective planning. The third major facet of the manager's role has to do with motivation and involves rewarding, encouraging, facilitating, and supporting the prime users as they work at implementation in an open organizational climate. Dr. Common indicates the manager must be perceived by users (teachers) as sincere and knowledgeable of the curriculum. Direct association in key facets of implementation involves resources, structures, communication networks, and decision-making structures.

. receiving organization: characterized by adaptation, reception to change, and innovation. Openness within

a supportive organizational climate is identified as essential to change and growth conditions. User morale is cited as crucial to implementation success and studies reported by Dr. Common stress organizational morale as a critical factor.

Dr. Common comments on the Farrington Study (1974) which reports on the temporary subsystem or 'collaborative system' that helps the user achieve independent use of the curriculum. Numerous studies reported in the literature had focus on collaborative systems and the roles of linking agents. Through an effective planning process for program implementation, future classroom programs should be more predictable and more adequately evaluated.

Curriculum implementation is a deliberate planning process. Dr. Common's model presents planning as the means of implementation that involves interaction of the four elements in a dynamic process.

Dr. Common portrays the relationships among curriculum implementation elements: "The nature of their interactions is the process of implementation planning. The model only implies relationships but does not describe relationships."[18]

Dr. Common states, "The research literature has concluded that if implementation activities are left to chance, there will be little likelihood of implementation

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[18]Dianne L. Common, "Curriculum Implementation," paper presented to the Canadian Association for Curriculum Studies, Saskatoon, 1979, p. 15.

success. The curriculum must be a deliberate, planned activity."[19]

(3) Recognize school division conditions necessary for planning program improvement

In her article, "Two Decades of Curriculum Innovation and So Little Change" in Education Canada, Fall, 1981, Dr. Dianne Common comments on her search of the literature on curriculum innovation. She identifies the following:

- best unit for change is the individual school, particularly in individual classrooms where teachers understand the curriculum and the nature of the content
- a school must make a decision to adopt the curriculum and then proceed to implement
- curriculum implementation needs to be accepted as a planning process bounded by the adoption decision of a particular program and its goals
- the function of implementation planning is to provide/construct a set of conditions within a school so that the instructional practices implied or prescribed by the curriculum can occur
- the school administrator is the most important individual affecting implementation.[20]

To see how a school implements after adopting a curriculum, Common reports that one must examine 1) teachers, 2) administrator, 3) school as an organization, and 4) the curriculum.[21] Characteristics of the curriculum directly affecting the implementation process must be

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[19] Ibid. p. 18.

[20] Dianne L. Common, "Two Decades of Curriculum Innovation and So Little Change, Education Canada (Fall, 1981: 43.

[21] Ibid., p. 44.

questioned as to: degree of change, risks involved, value shifts, and perceived practicality.

If a curriculum is to be used, Dr. Common reports that teachers and administrators have the following needs:

skills prescribed by the curriculum

knowledge of the curriculum

positive and cooperative attitude

choices and opportunities to participate in making decisions

opportunity to learn new methods, content, roles.

There is reason to suppose that if persons are to use newly revised provincial guidelines, this list of needs must be met through whatever model is used in program implementation. How closely changes in practice match intents of program developers will likely depend on how well teachers are helped. Teachers need help in examining proposed shifts in ways that get them to look at what they want to do differently. This researcher detects this emphasis in the literature on promoting teacher assertiveness in self-directed action toward changed practice.

Without much inservice support, many teachers blunt the effect of new curriculums through a process called "assimilation to the familiar." Rather than change, a teacher may define new skills and roles in a manner consistent with past or traditional values, norms, habits, and practices.[22] Teachers often fool themselves and others

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[22]Ibid., p. 45.

rather than tackle the challenge of change.

Dr. Common highlights the role of the administrator in the following change functions:

- create a supportive encouraging school environment
- encourage a task-oriented organizational environment while facilitating and directing implementation planning and decision making
- provide resources and establish communication and feedback networks in an open and adoptive organizational "substructure" that launches a curriculum in a school
- recognize, encourage, and reward efforts of teacher-implementors by giving explicit, steady, positive support
- solve problems
- be knowledgable about curriculum
- recognize strengths and weaknesses of teachers
- define and maintain resource allocations
- organize and direct planning sessions
- determine inservice needs
- supervise and evaluate implementation programs
- actively plan and supervise the implementation process.[23]

Dr. Common suggests that principals must respond in terms of these functions. Principals are in the key change role. They can better assure the climate for change when they

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[23]Ibid., p. 46.

recognize the key elements and conditions that facilitate the change process.

(4) Analyze through decision-making teams

David Pratt, Queen's University, was presenter at a two-day workshop on Curriculum Design, in Winnipeg, May, 1982. He discussed the process of analysis and decision-making in curriculum implementation. He proposed some practical guidelines for establishing curriculum teams. He stressed the need for genuinely cooperative and collaborative working of members of a team. Pratt suggested that subdividing tasks and then working in isolation will not be productive. His ideas fit well with what has been reported of the Fullan and Common analyses.

In his book, Curriculum Design and Development, Pratt offers comment on three critical elements of school teams:

- Conditions of work must be clearly defined and supported by management.
- Team size is best if limited from five to seven members for practicality and creativity.
- Expertise required should be assessed and met by members or planned for.

Pratt writes about personal qualities of effective curriculum teams. Motivation is "certainly a central factor."[24]

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[24]David Pratt, Curriculum Design and Development (New York: Harcourt Brace Jovanovich, Inc., 1980), p. 21.

David Pratt offers the term "dispositions" (Thomas and Znanicki, 1954) to express the idea of "readiness or tendency to act in a certain way." Dispositions, he defines as, ". . . latent, abstract sets, potentialities, habits, tendencies, or capacities." We might think of dispositions as "a state of mind involving a qualitative, usually positive or negative, and often unconscious, judgement that influences an individual to act in a certain way toward a material or ideational object." For curriculum implementation, dispositions of persons in key roles will be major determiners in what happens in practice. Dispositions involve conscious and unconscious personal response, based on personal philosophy, values, and motives. Questions for curriculum leaders then become, "Which disposition should be developed?" Honest appraisal is required. "Dispositions are concerned not with what the learner can do but with what he or she does do." Pratt challenges teachers to think about "dispositions as objectives in school curriculum and then to question: Are they legitimate? Are they feasible?"[25] In curriculum implementation design, a major concern is how to deal with the question of user-disposition. The users must establish overview and meaning in personal terms before they can contribute effectively to team goal-setting. Balanced response in implementing new or revised programs is likely where teachers have opportunity to weigh proposed

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[25]Ibid., p. 178.

shifts and prepare themselves to do things differently for reasons they decide are important. Motivation is then a generator of change.

Pratt also uses the term "experience objectives" which might apply well in expressing goal statements for school-based teacher professional development designs for "intrinsically valuable experiences." Pratt seeks to liberate teacher creativity and promote teacher development in the "arts" of teaching.[26]

(5) Strive for excellence in decision-making

Three Canadian curriculum authorities were chosen in this review to represent consensus from the literature on global issues related to establishing meaning and direction in curriculum planning. All three have already been quoted in this paper alluding to the "arts" of orchestrating the complex plans. Another elusive critical component is referred to in much of the literature. It is a quality of educational excellence in judgement that some teachers possess. At all levels and in all roles in the decision-making process, the ability to "read the scene" and make "best decisions" is seen as an ideal.[27]

Elliot Eisner in his book The Educational Imagination: On the Design and Evaluation of School Programs proposes a possible framework for developing educational arts. He

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[26]Ibid., p. 179.

[27]Fullan and Pomfret, "Research on Curriculum," pp. 335-393.

directs us to a "complementary approach" to curriculum improvement. He proposes "the uses of art for dealing with the problems of designing and evaluating educational programs."[28] He suggests a need to balance what has been a systematic, scientific approach to curriculum implementation planning.

Eisner admits he is testing a new field of educational inquiry. His name appears in bibliographies of many curriculum writers. Eisner's influence is noted, but the Eisner ideas are not directly applied in models for evaluation of the curriculum implementation process. Eisner says educational program planners could "try to perceive and conceptualize the whole first, and then work on the problems of differentiation." One must have some sense of the whole in order to know where things belong and how they function. He offers this approach, used by artists, as ". . . a way of working." He stresses need to ". . . consider problems in context." He recognizes need ". . . to respond to changing pattern of the context." He values ". . . the ability to know what is occurring."[29]

Eisner explains two terms that could lead to greater excellence on the curriculum implementation scene.

> Educational connoisseurship is the art of appreciating what is educationally significant. It is a means through which the shape of the context and the configurations within it can

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[28]Elliot W. Eisner, The Educational Imagination: On the Design and Evaluation of School Programs (New York: MacMillan Publishing Company, Inc., 1979), pp. vii-viii.

[29]Ibid., p. vii.

> be recognized so that intelligent decisions about that context can be made.[30]

A complementary term to educational connoisseurship Eisner calls educational criticism. Educational criticism is "not so much a role as a function."[31] It is a way to pursue curriculum aims more effectively. It is part of school feedback systems among professional educators when commenting on character and quality of their work. The term "educational criticism" relates to teacher and student activities. It also has application for school division implementation planners who orchestrate critical components as programs are being put in place. It is related to what Fullan and Pomfret called "unstructured observation."[32] The author's views can be reflected in division implementation models that promote educational connoisseurship and educational criticism.

Michael Fullan writes of evaluation in curriculum implementation as capturing a "snapshot" of the sequence of the changing scene. He recognizes formative evaluation in the process. David Pratt has been quoted as promoting an "arts" focus. Dianne Common stresses integrated approaches. Elliot Eisner challenges educational innovators to explore holistic, people-oriented relationships. All these

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[30]Ibid., p. x.

[31]Ibid., p. 221.

[32]Fullan and Pomfret, "Research on Curriculum," p. 335.

authorities highlight evaluation and excellence in judgement and seem to agree with Eisner that "criticism itself is in art form."[33]

It is evident from the literature that the school principal is the key determiner in curriculum innovation success. Eisner's proposals apply to school-level educational leaders. Leadership issues will be referred to again in another section in this paper, "Nurturing Roles and Relationships."

The next section of this report proposes that program intents be considered with holistic view while applying both art and science to planning for program change.

(6) Create change models that promote understanding with holistic sense

William Pinar, editor of Curriculum Theorizing, classifies major contemporary curriculum theorists. He gives background to a movement which would promote implementation models that challenge teachers "to understand" any innovation in broad and holistic terms.

Pinar groups 60-80 percent of curricular theorists as "Traditionalists" who concentrate on guiding practitioners. Examples given include Tyler, Taba, Saylor, and Alexander. Another 20 percent, Pinar calls "Conceptual Empiricists." These are persons concerned with the observable and measureable, investigating phenomena empirically "with an eye to goal prediction and control of behavior." Pinar's

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[33]Eisner, The Educational Imagination, p. xiii.

examples include Beauchamp, Walker, and Mauritz Johnson. Under 5 percent of theorists are labelled "Reconceptualists" who concentrate on understanding educational experience. To date their "dominant modes of inquiry have been historical, philosophical and literary."[34]

Pinar explains the reconceptualist movement in three stages. Earlier critics of the past curricular scene include Apple, Kliebard, and Mann. Pinar reports next on a post-critical group who write on what is currently occurring in the curriculum field. A third group is emerging whose work shifts from criticism to "creation of the new." Pinar explains this as a three-stage maturation within the curriculum field that holds promise of greater synthesis of contemporary social science and the humanitites. "It will attempt a marriage of two cultures: the scientific and the artistic and humanistic."[35] Pinar's analysis is helpful for those creating models to launch programs for the 80's. Pinar predicts what Fullan, Common, Eisner and Pratt call for in curriculum implementation models. Pinar predicts that effective models will promote understanding through the creative blend of design features derived from the arts and sciences.

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[34]William Pinar, Curriculum Theorizing, (Berkeley, California, McCutchan Publishing Corporation, 1975), p. x.

[35]Ibid., p. xii.

(7) Maintain flexibility and diversity in change models

Curriculum writers of this decade propose approaches on implementation that were recognized in the 1960's. Reports on successful implementation projects are scarce. There is, however, some consistency in what is proposed as critical to success. One source from the 60's has been selected to illustrate some time-tested opinions. A review of American curriculum projects of the 1950's and 1960's was reported by Hulda Grobman in her book Developmental Curriculum Projects: Decision Points and Processes. She analyzed a large number of notable curriculum development projects. In her preface, she stated her purpose. "This volume is concerned with identifying some of the critical facets of the work of developmental curriculum projects and what seem to be some promising approaches."[36] Her purpose fits closely with the purpose of this study.

Grobman stresses that in more successful projects are found openness of communication, honest collaborative effort, and involvement of large numbers of people. She stresses need for ongoing analysis of the change process and sharing of information on that process. "The more basic the desired change in behaviour or values is, the more difficult it is to achieve." Change takes time. "When the stimuli for change are inconsistent, when the entire environment

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[36]Hulda Grobman, Developmental Curriculum Projects: Decision Points and Processes. (New York: F. E. Peacock Publishers, Inc., 1970), p. ix.

is not consistently supportive of desired change, the change is less likely to be achieved." Grobman reminds readers that older or adult learners have greater difficulty in effecting change in basic patterns. She uses Bloom's terms "powerful constancy and consistency" to describe environments in which change is most likely to occur. Her conclusions offer direction for determining school division models.[37]

Grobman's report on curriculum projects has heavy emphasis on the development and use of printed materials. Few references are made to implementation designs. The chapter dealing with implementation is called "Diffusion." Subheadings include "release of new materials" and "teacher training for use of materials." There is frequent mention of orientation needs but rare reference to teachers examining intents or creatively interpreting guidelines. Grobman's textbook orientation to curriculum implementation was typical before the 70's. The teacher as professional decision-maker was seldom highlighted in the literature. There is sharp contrast between Grobman's profile of the narrow, passive, teacher-implementor and Grobman's analysis of what is crucial in improving school programs. Her view of the teacher may hold a strong clue to why so little curriculum improvement is reported in the literature.

Hulda Grobman's preface defines developmental curriculum projects as "group efforts to produce some kind of

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[37]Ibid., pp. 225-228.

curriculum using experimental tryout of preliminary materials and collecting feedback from such tryouts to be used for the improvement of the curriculum prior to its release for general distribution." This definition fits closely to the current Manitoba provincial model for K to XII school program revision. Therefore, Grobman's analysis is of interest.

Grobman cites flexibility as the greatest asset in any curriculum project. She refers to Schon (1967), in declaring that invention is not a series of orderly steps intelligently directed toward an objective spelled out in advance. Rather, it involves building on the unexpected, experimenting, and recognizing the emergent objectives.[38] Eisner proposes these same ideas in the 80's. These principles appear to be standing the test of time. But, were these principles used in actual implementation designs of the 60's and 70's?

Grobman proposes that the following issues be examined to determine ways to retain flexibility and diversity in any implementation project:

- situational and administrative factors
- funding constraints
- age and lifespan of the organization
- structure of the organization
- project personnel and policies.[39]

What Grobman distilled as worthwhile from the diverse projects she studied from the 50's and 60's can be incorporated in current models. Some important features would include:

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[38]Ibid., p. 6.

[39]Ibid., pp. 31-86.

. diversity at each level of the system
. honest collaborative effort
. communication about the change process
. realistic timelines
. knowledge about adult learners
. consistency within a supportive climate
. flexibility and avoidance of rigidity.

Implementation models can reflect these Grobman ideas in planning structures, processes, major tasks, and change environments. That Grobman analysis is important to teachers and others engaged in the task of establishing an overview and determining change goals for a particular school program innovation.

(8) Engage in ongoing evaluation within program change contexts

Evaluation cannot be viewed as independent of goal-setting in curriculum contexts. Robert E. Stake suggests need for strengthening formal evaluation of school programs. Teachers should be ". . . imploring measurement specialists to develop a methodology that reflects the fullness, the complexity, and the importance of their programs."[40] Stake stresses that evaluation of any school program consists of a complex process involving both describing and judging. A balanced approach to program evaluation must be planned for at the school division level with greatest input by teachers implementing a particular program. Stake's studies confirm that program evaluation cannot be separate from program goals. Goals must, however, be clearly articulated if persons are to collaborate efficiently on program evaluation.

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[40]Robert E. Stake, Readings in Curriculum Evaluation (Dubuque, Iowa: W. C. Brown Co., 1972), p. 93.

In his paper "Evaluation for Course Improvement," Lee Cronbach (1964) concludes that ". . . the main objective for evaluation is to uncover durable relationships, . . . those appropriate for guiding future educational programs."[41] This view suggests need for greater focus on describing relationships between teachers and learners, teachers with fellow staff members, and teachers with division curriculum support persons and groups. These key relationships should, therefore, be reflected in strong models for division-wide implementation of K to XII school programs. Cronbach identifies important questions to be answered as program intents are described: Who describes? What is the focus? How will data be collected, judged, reported and used?

Robert Stake's view on evaluation is substantiated by many. Michael Scriven insists that educational evaluators must judge. There are five groups that Taylor and Maguire say should have input in evaluating a school program: ". . . spokesmen for society at large, subject matter experts, teachers, parents, and the students themselves." Where implementation design allows formal interaction between these five groups, an effective evaluation process is more easily developed. Stake stresses that these groups should be systematically involved in the ongoing process of gathering judgement data and description data essential to evaluation of an educational program. In implementing any program, Stake identifies need to gather data that falls in three

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[41] Ibid., pp. 94-95.

categories: "antecedent, transaction, and outcome data." Stake offers a model for recording this data on a description matrix and on a judgement matrix. He proposes strategies for a twelve-step process that leads through program intents, observations, standards, and judgements.[42]

Stake challenges teachers to take greater professional responsibility for designing program evaluation. "The countenance of evaluation should be one of data gathering that leads to decision making, not to trouble making." As teachers plan for implementing programs, their plans should recognize the evaluation process as an integrated feature and allow for ongoing collaboration at different levels of the school division system. Stake's theories are worth reflecting in a model intended to guide successful program implementation. His theories call for strong school division support systems for professional development.

The literature offers much comment on needed shifts in evaluation approaches in educational reform. One comprehensive assessment of alternative approaches in designing for program implementation is a report by Rolland G. Paulston (1980).[43]

Paulston argues that educational evaluation should be "useful for both theory and practice." He conducted intensive research on models for educational reform. His

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[42]Ibid., pp. 95-96.

[43]Rolland G. Paulston, "Evaluation and Explication of Educational Reform," Studies in Educational Evaluation 6 (1980): 301-327.

focus was on "major alterations of content, access or structure in national educational system."[44] Paulston identified ideology as a key concept to be dealt with in the social and political context of any particular program implementation design. He refers to studies by Galois (1978), Bowers (1977), Pratte (1977), Apple (1978 and 1979). Values and ideological stances of program implementation participants must be recognized as various, as educational changes are planned for and evaluation strategies are determined. Paulston reviews the emergence of subjective and critical approaches to evaluating educational reform.

He proposes need to broaden evaluation practices from traditional, narrow, technical or positivistic modes to include broader approaches of social-change theories. Paulston supports his position with reference to studies reported by numerous reputable curriculum writers: Israel (1972), Bolan (1975), Coleman (1973), Hodges and Sheeham (1978), Sejersted (1978), Werts and Linn (1969), Touraine (1977), Vallance (1972), Murphy (1977), Levin (1977).

Paulston proposes advantages of using a multiple-model approach to planning for program evaluation. Models must be defined explicitly enough to allow application that takes advantage of the range of viewpoints present in any particular program-reform situation. Paulston is biased toward "conflict perspectives of educational reform and towards a view of evaluation as social critique." Paulston

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[44] Ibid., p. 303.

uses the language of the artist and presents his analysis as "painting on a broad canvas."[45]

Paulston's references on reform evaluation and explication are useful. Paulston's sources from the 1970's include reports of respected curriculum writers from many countries. His analysis on evaluation issues focuses on subjective and critical approaches to program evaluation. Implementation designs can reflect Paulston's caution to respect the diverse ideologies and methodological perspectives of persons cooperating in any specific program shift in a school division.

This report on what curriculum researchers write about evaluation fits well with what has already been quoted from authorities on goal setting for program change. Comprehensive overview of a program change context can lead to well defined goals determined by division implementors. These goals must be viewed by the individuals in personal terms. Well defined goals are needed to measure the change process and to assess actual program quality.

c. Recognize Other Overlapping Issues from the Literature

Following are opinions already alluded to in this report and frequently expressed by researchers of the curriculum implementation process:

- Change is constant and needs to be viewed in individual terms.

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[45]Ibid., p. 303.

- Program change must be planned.
- The teacher is central to change.
- The principal is principle conductor of change.
- Leadership and the Linking Role are critical in school division change projects.
- University staff should be involved in division on-site inservice activities.
- Understanding involves the arts.
- Flexibility and diversity must be guarded.
- Collaboration and communication are connectors that promote effective decision making.

d. Summary Statement

A critical task to be assumed by all participants in any program change context has been dealt with in this first section that reports literature findings on the task: Identify and Examine Intents of Curriculum Change: Establish Overview and Define Goals. The following subheadings, that summarize views expressed, were used to present the findings:

a. Identify and Examine Intents of a Proposed Program Change

(1) Explore the change process: get good at change through organized common sense
(2) Recognize the participants and key roles in the change context
(3) Determine what to change and how to change

b. Assure Conditions that Support Effective Goal Setting for Improving School Programs

(1) Include measurement issues in the decision making process
(2) Recognize relationships of elements critical to the dynamic planning process

(3) Recognize school division conditions necessary for planning program improvement
(4) Analyze through decision-making teams
(5) Strive for excellence in decision-making
(6) Create change models that promote understanding with holistic sense
(7) Maintain flexibility and diversity in change models
(8) Engage in ongoing evaluation within program change contexts.

Many of the statements already made in this first section of the literature review will apply also to the remaining four critical task categories of the implementation process. In the next four sections of this report, literature findings are presented to confirm those four action categories as Critical Tasks in putting programs in place. The section immediately following has most specific focus on organizing and managing for program change.

2. Organize and Manage Curriculum Implementation: Clarify Processes and Structures

Organizing and managing for program improvement is a major task. Curriculum writers report findings that suggest particular ways to approach this complex task. The following statements which are supported in the literature, summarize suggestions made by curriculum authorities:

a) Foster Cooperative Planning at Teacher School, and Division Level

b) Assure Continuation of Initiated Reforms

c) Promote Program Effectiveness through Strong Leadership

d) Assess Other Program Change Models

e) Value the Processes of Communication and Coordination

f) Recognize Other Overlapping Issues from the Literature

The statements just listed were selected by this researcher as headings under which specific reports from the literature are incorporated in examining the overlapping organizational and management challenges of program change.

a) Foster Cooperative Planning at Teacher, School, and Division Level

The literature indicates that school program improvement depends heavily on cooperation and collaboration that is ongoing. Coordination of the planning efforts of individuals in the change process is necessary.

Organizing and managing curriculum implementation is a complex task to be approached at both individual and group levels. Certainly groups would include at least a division coordinating team and school-building teams. Other subgroups could be a division consultant team, materials resource groups, parent support groups, and professional grade or subject groups. Individual teachers and principals must organize and manage. The literature stresses need, at all levels, to complement activities between implementation projects that might be operating at the same time. Never is an implementation project the only "new thing" happening in a school system. Sensitivity and careful pacing are critical. The literature confirms this view.

Following are references that serve as sampling from the literature to provide focus on some specific aspects in planning for effective implementation.

Saylor and Alexander (1966) offer sound direction on cooperative curriculum planning in the school and school division system. They identify the following necessary elements:

- Common goals
- Adequate leadership
- Group decisions
- Clear communication
- Supporting facilities.[46]

McNally and Passow (1960) and Miles (1964) reported on studies of planning at the individual school level. They concluded that coordinated efforts are needed to link persons in innovating groups at a peer level, particularly as they relate to pilot projects on initial-phase implementation. Five specific suggestions they offer to schools involve:

- Adequate encouragement and support of innovators by the school principal and other status leaders
- Development of pilot studies and demonstrations with the knowledge--preferably the active cooperation--of the entire faculty, and especially of teachers who have teaching responsibilities similar to those in the pilot unit
- Collection of evidence about the progress and outcome of the innovation

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[46] J. Galen Saylor and William M. Alexander, Curriculum Planning for Modern Schools (New York: Holt Rinehart and Winston Inc., 1966), pp. 405-413.

- As much reporting to, or observation by, concerned members of the faculty as possible

- General understanding of the principle that experimentation as a means of curriculum improvement will be encouraged if other teachers wish to undertake extensions or duplications of pilot studies.[47]

Saylor and Alexander propose the model "Organization of the Individual School for Curriculum Planning."[48] The description of that model raises issues for planners at the school division level. Communication and coordination of individual school planning activities are examined in the following organizations: school councils, faculty meetings, grade/subject/department groups, and service corps or task forces. While these organizations can provide leadership services, it is the principal and/or designate curriculum leader who steers the organized efforts offering "stimulation, coordination and facilitation," report Saylor and Alexander (1966) and Cronin (1963).[49]

Five characteristics of good organization for the individual school are proposed by Saylor and Alexander. These five points can apply to an individual planning for curriculum change. They also have relevance for planners at the school division planning level. They can be translated in an implementation model that would facilitate effective action in terms of The Critical Tasks Component

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[47] Ibid., p. 414.

[48] Ibid., p. 416.

[49] Ibid., pp. 420-424.

this study identifies. Saylor and Alexander summarize in the following five statements:

> . Curriculum planning efforts are organized in terms of goals resulting from the considered thinking of all persons directly affected.
>
> . Each person and each group are utilized in terms of their potential contributions rather than with respect to sharp lines between pupil, parent, layman, and teacher participation.
>
> . Each job assigned a committee or an individual is in terms of the needs of the total program with final decisions made with reference to the program of the school as a whole rather than to departmental or other special interests.
>
> . An atmosphere of cooperative planning and constructive evaluation pervades all groups and the school as a whole.
>
> . A continuing search is made by leadership to identify services, materials, facilities, and persons that can contribute to curriculum planning and to utilize these as possible.[50]

Cooperative planning and effective collaboration are always a priority. Planning for long term effect must be deliberate and is the next issue to consider.

b. Assure Continuation of Initiated Reforms

Michael Fullan writes on factors affecting continuation of initiated reforms which will, he says, require another series of adoption decisions. He refers to findings reported by Berman and McLaughlin (1978). They reported need for deliberate planning for ensuring continuation of the innovation. The institutionalization and continuation process

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[50]Ibid., p. 421.

must be viewed as ongoing. Fullan's fifteen factors must be continually borne in mind and attended to within the process. "The single most powerful internal factor which takes its toll on continued change is staff and administrative turnover" (Louis, 1980; Berman and McLaughlin, 1977). This finding highlights need for orientation plans for new staff members to incorporate them into what is a fragile process. "The process is not linear and is never ending."[51]

Critical factors in the implementation process must be considered in terms of short-term and long-term outcomes. Fullan identifies the Dessi study (Crandall et al., forthcoming) as a "helpful examination of the area of outcomes of change efforts." Issues to consider were named as:

- degree of implementation
- attitude toward innovation
- impact a) students' benefits
  b) teachers' benefits
  c) organizational benefits
- continuation or institutionalization
- attitude toward school improvement.[52]

Change is not always progress, Michael Fullan warns! "Change must always be viewed in relation to the particular values, goals, and outcomes it serves." In curriculum change, Fullan declares ". . . 'the proof is in the putting': how

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[51]Fullan, The Meaning of Educational Change, p. 77.

[52]Ibid., pp. 5-6.

change is put into practice determines to a large extent how well it fares." Fullan states, "in the past 12 years we have come to understand how educational change works in practice." There is greater clarity about what factors need to be addressed and how to address them. Continual strengthening of school programs is largely dependent on the persons in leadership roles. They must recognize that programs put in place are not static. The 'putting' means 'perfecting' in the long run.

A more specific comment on leadership for curriculum improvement follows in the next part of this report.

c. Promote Program Effectiveness Through Strong Leadership

Curriculum writers report much on problems to be avoided as new or revised programs are being implemented. Dissemination of printed documents, accompanied only by declarations demanding school program change, bring little or no results according to studies thus far reported. Effective leadership in the change process is stressed as essential for program improvement. Leadership roles need to be recognized by all participants involved. Leadership can best emerge from within the group and be efficiently shared where processes and structures are clearly recognized in a school division. The literature indicates four significant leadership responsibilities that promote effectiveness in a particular program shift. Following are the four statements through which this researcher identifies key

leadership functions. Those four statements serve as headings under which literature sources are quoted to elaborate on leadership issues:

(1) Establish structures for problem-solving.

(2) Apply administrative theory to models for change.

(3) Incorporate principles of learning and motivation in change designs.

(4) Broaden awareness of management issues and organizational patterns.

(1) Establish structures for problem-solving

School divisions must establish effective curriculum implementation structures to deal with complexities of program change. Leaders on the division scene have diverse challenges. It is important to clarify the purpose of structures meant to facilitate any particular program change. Following is one report that highlights this need.

"Theory and the Curriculum" is a topic summarized by Neagly and Evans. Their analysis has significance in the study of leadership. They refer to Herrick's analysis of problems confronting the curriculum theorist. Herrick promotes curriculum implementation structures which have greatest focus on the child-learner and society. Herrick calls for integrated approaches and recalls limits of discipline or content-centred models for putting programs in place. He identifies key problems to overcome. Most of those problems involve establishing meaning for change. The

problems can be dealt with through strong school division organization. The problems Herrick expressed in action statements are:

- Establishing priorities;
- Making value decisions;
- Eliminating dichotomy between content and process;
- Clarifying the nature of processes;
- Clarifying role of values in curriculum development;
- Clarifying nature of curriculum operations;
- Developing ways of studying curriculum structure.[53]

A strong implementation model can incorporate leadership features that help solve the problems Herrick lists.

(2) Apply administrative theory to models for change

To develop a model for curriculum improvement, one must consider how administrative theory contributes and directs action. Neagly and Evans quote Griffiths on theory of educational administration. Griffiths reports that good theory serves as a guide to: action, collection of facts, new knowledge, and an explanation of the nature of administration. Neagly and Evans go on to quote Homans' practical rules for theory building which are worth reflecting upon as one considers model building for curriculum change purposes. On rules for theory building, Homans' ideas can be summarized thus, if related to curriculum implementation:

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[53]Ross L. Neagly and N. Dean Evans, Handbook for Effective Curriculum Development (New Jersey: Prentice-Hall, Inc., 1967) pp. 15-16.

- Look at the obvious, familiar and common features
- State the "obvious" in its full generality for holistic overview
- Isolate and talk about one feature at a time
- Be sparse in determining features or categories
- Clarify relationships between key parts
- Accept limits of abstraction but value it.

Homans' six suggestions, just listed, can be a practical check list for streamlining curriculum change models.

Beauchamp defined curriculum theory as ". . . a set of related statements that gives meaning to the school curriculum by pointing up the relationships among its elements and by directing its development, its use and its evaluation." Beauchamp refers to a curriculum theory model as ". . . a structure, framework, or formula for making or building a curriculum theory."[54] Mackenzie offers another model that highlights the interrelationships of factors and stages of the curriculum change process.[55] Curriculum models can help by identifying key features and relationships in ways that can direct human action. Models always present a point of view and have a philosophical base. Neagly and Evans derived their examples primarily from the literature of educational leadership prior to 1967.

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[54]Ibid., pp. 16-17.

[55]Ibid., pp. 21-22.

(3) Incorporate principles of learning and motivation in change designs

Goodwin Watson's list of propositions about learning offers guidelines for curriculum implementation designers from the field of psychology.[56] This list includes comment on rewards, repetition, threat, readiness for involvement, testing, utility, goals, and relationships. Learning theory must be held strongly in mind as curriculum implementation decisions are made. The Watson propositions are included to record this researcher's concern that the needs of teachers, as they learn, be given strong consideration in any program change design.

(4) Broaden awareness of management issues and organizational patterns

Neagly and Evans recognize the coordinated local school district effort as a key to maintaining strong school programs. Theory analysis of essential factors includes: direct teacher involvement, all school personnel identifying with program changes, recognition of unique local conditions, and continuous evaluation conducted on local levels.[57] These are factors to be considered in building a strong division model for curriculum implementation.

Neagly and Evans focus on other school district issues of organizing and planning for curriculum improvement. The district curricular councils, and related K to XII

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[56]Ibid., pp. 33-34.

[57]Ibid., p. 102.

committee structures they refer to, suggest what Fullan would call "organized common sense." Such committees now operate in some Manitoba divisions. Neagly and Evans stress the need to maintain balance in school programs. They propose use of consultants and outside groups in any major implementation project. They indicate the need to reserve adequate time and adequate budget. Neagly and Evans raise questions useful in gauging professional growth of participants during an innovation. These questions allude to evaluation. Evaluation is part of school division decision-making that relates to setting goals, selecting appropriate activities, understanding learning theory, planning for advanced study, and articulation. Model-builders must recognize the importance of evaluation as part of formative stages of an implementation. Teachers need support and strong organizational structure to evaluate effectively in terms of Fullan's challenge about 'getting good at change.' This researcher concludes that the evaluation process should stem from teacher action, have diagnostic purpose, and be a continuous, cooperative effort leading to action for improved programs.

Jon Wiles and Joseph Bondi, in Curriculum Development: A Guide to Practice, comment on roles and responsibilities in program implementation in school divisions. These authors report that ongoing evaluation is necessary within the decision-making process of any implementation.[58] They

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[58] Jon Wiles and Joseph Bondi, Curriculum Development: A Guide to Practice (Columbus, Ohio: Charles E. Merrill Publishing Company, 1979) pp. 176-190.

indicate that models must reflect division commitment to collecting, organizing, and analyzing data in ways likely to promote balanced and effective change. Models should recognize the following responsibilities that Wiles and Bondi identify as part of any successful innovation: "focusing evaluation, designing evaluation systems, assessing educational research, translating research into programs and reporting research to others."[59]

Wiles and Bondi summarize the purpose of a management system that a curriculum implementation model should direct. They propose that comprehensive planning should accomplish the following:

- What is to be accomplished is clearly spelled out.
- Communication among all interested parties, especially between the school and the community, is encouraged.
- There is a maximum utilization of resources within the school district.
- Information needed for decision making is coordinated.
- Problems are identified that prevent the accomplishment of activities.
- Progress leading to the accomplishment of the plan is monitored.[60]

Success of curriculum leaders in school divisions depends on good human relations. For effective cooperation and coordination of professional activities at different levels of the

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[59]Ibid., p. 190.

[60]Ibid., p. 329.

school system, Wiles and Bondi list key competencies for curriculum leaders (Cuirczek, ed. 1973).[61]

In designing to accommodate managerial aspects of the implementation task, placeholders are needed for management function technique and aids, as reported by Wiles and Bondi. Structural management skills that might lead to greater success include time management, goal setting and priorization, delegation of authority, displaying and monitoring progress by use of charts, checklists, flow charts, and other displays. Components of a model should promote these leadership competencies.[62]

Leadership talents of all group members must be recognized by persons in leadership roles. A strong model should encourage the following eight tasks listed by Wiles and Bondi:

- Maintain a comfortable environment.
- Develop a relationship with group members to keep communication flowing.
- Secure resource personnel for necessary consultant services.
- Determine consensus when appropriate.
- Define and clarify problem areas in a suitable form for research.
- Help distinguish between data and inference, fact and assumption.
- Convey the idea that curriculum is not a neatly wrapped educational package, but rather that which emerges when resources and individual perceptions are joined.

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[61] Ibid., pp. 217-219.

[62] Ibid., pp. 120-129.

- Recognize that genuine participation will result in "psychological ownership" of a resulting curriculum.[63]

Wiles and Bondi give examples of analysis of barriers to educational change through lists compiled by McClelland, Rogers, Guba, and Horvat. These can serve as checklists in justifying components of a proposed model. It is also noted that Klein (1967) identified benefits of the resistant factors operating in any change project. Klein noted three benefits:

- protects the organization against random change, which may be harmful;
- protects the system from take-over by vested interests; and,
- may insure that unanticipated consequences of a change be spelled out and thus possibly avoided.

In promoting planned change, Wiles and Bondi recognize the following realities:

- Change is often a political process and political influence is one means of altering rate of change.
- Resistance to change is not unnatural and teachers need to feel informed, operate with trust and have some control in directing the change.
- Change involves interrelated events.

Understanding these realities is important to designers for change in school division programs.[64]

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[63]Ibid., p. 197.

[64]Ibid., pp. 112-113.

Organizational development frameworks can contribute to strong models for program change in school divisions. Sarason (1971) cites concern for the individual in the change structure in relation to power, association, communication, and status. Wiles and Bondi list primary values and terminal goals to be considered within organizational development contexts. These two lists are presented as follows. They summarize much of what the literature suggests as promising to implementation success with revised K to XII programs:

> The primary values underlying a program of organization development are:
>
> . provision or opportunity for each organization member, as well as for the organization as a whole, to develop to full potential,
>
> . provision of opportunity for people to act as human beings rather than as resources in the productive process,
>
> . striving to create a work environment in which it is possible to find challenging and exciting work, and the
>
> . provision of opportunity for people in the organization to influence the way in which they engage work.
>
> Eight terminal goals for a program of organization development are:
>
> . an open problem-solving climate throughout the organization,
>
> . decision-making responsibilities located as close to the information source as possible,
>
> . authority by role supplanted by authority of knowledge and competence,
>
> . increasing degrees of trust among individuals and groups in the organization,

- maximized collaborative efforts in daily work,
- increased feelings of ownership by organization members,
- management according to relevant objectives rather than past practices, and
- increasing degrees of self-control and self-direction.[65]

Where these primary values and terminal goals of organization development are assured through strong curriculum implementation models, division professionals would likely 'get good at change.'

In Learning System Design, authors Davis, Alexander and Yelon condense their experience in working with teachers, military instructors, and industrial trainers in a book on improving instruction. They identify five problems in designing for learning: 1) direction, 2) evaluation, 3) content and sequence, 4) method, 5) constraints. Their design involves identification of concepts, principles, and skills to be taught, "so that scientifically validated information about human learning can be applied in the creation of a system to teach them."[66] Davis, Alexander and Yelon define a task as an activity in which people engage. Action tasks and cognitive tasks are the two major classes. "Action tasks may be either fixed (algorithnic) or variable sequence. Cognitive tasks are covertly performed as mental activities."[67]

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[65]Ibid., pp. 132-133.

[66]Robert H. Davis, Lawrence T. Alexander, and Stephen L. Velon, Learning System Design (New York: McGraw-Hill, Inc., 1974), pp. 21-22.

[67]Ibid., p. 154.

In considering the complexities of implementation tasks, one might heed the authors' caution not to prescribe a rigid approach to task description. These authors identify three approaches which are helpful in identifying and sequencing the salient features of a task. If the sequence is fixed, a flow diagram might be appropriate. If not, an outline or narrative is likely more suitable. "Learning objectives and task descriptions interact and tend to evolve together."[68] Task analysis is proposed as an examination of the task description to determine how to go about teaching or learning. Task analysis would allow persons to determine strategies in a curriculum implementation context.

How to assess learner entry skills is another topic dealt with by Davis et al. They cite the flowchart approach as one method of recording. They stress need to analyze types of learning involved and unusual conditions or constraints on any particular task which could be a condition of learning.[69]

Davis et al isolate nine basic principles of learning and motivation derived from psychological experimentation that should be reflected in any learning design. Regardless of learner age, subject matter, or type of learning, these key principles deal with: 1) meaningfulness, 2) prerequisites,

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[68]Ibid., p. 154.

[69]Ibid., pp. 182-194.

3) modeling, 4) open communication, 5) novelty, 6) active appropriate practice, 7) distributed practice, 8) fading prompts and supports, 9) pleasant conditions and consequences. The authors' references include John DeCecco (1968), R. M. Gagné (1970), Robert F. Mager (1968), Carl Rogers (1969).[70]

"The Learning and Teaching of Problem Solving" is a chapter in which Davis, Alexander and Yelon describe the process of problem-solving in five steps:

- problem sensing
- formulation of the problem
- search for solutions
- trade off among solutions and selection of approach
- implementation and evaluation.[71]

The authors' ideas on teaching problem-solving can be of some use in determining implementation designs. However, there is an underlying assumption in examples give that the learner can be manipulated toward a predetermined "end" without personal involvement in goal-setting. This mechanistic assumption of programming people to reach a predetermined solution has limiting implications. One might question whether teachers can learn to be effective, creative curriculum problem-solvers if they are not formulating their own questions.

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[70] Ibid., pp. 197-218.

[71] Ibid., pp. 250-252.

It is useful to consider this example from the systems-approach literature on planning for implementation of school programs. Davis, Alexander and Yelon graphically describe interrelationships among what they say are three phases in the learning system design process.[72] They provide a useful summary checklist on "Principles of Learning System Design and Redesign" and "Strategy of Learning System Design."[73]

Recent research reported on microfiche indicates researcher interest in the topic of organizing for effective implementation. Topics that frequently appear are: positive supervisory experience (Squires and Huit, 1981), concerns-based adoption model (Loucks and Hall, 1979), proactive model of self-analysis of change (Evans and McKeogh, 1981), stages of concern (Hall and George, 1977), factors that impinge at the school-building level (Miller, 1977).

Ron W. Common writes with focus on the Manitoba scene in his article "Managing for Curriculum Change: An Empirical Investigation." Ron Common refers to numerous researchers who agree that we know little about the process of implementation and consequently have problems in designing effective plans. "(Goodlad and Klein, 1970; Gross, Giacquinta, and Bernstein, 1971; Beauchamp, 1978; and Hampson, 1975)"[74]

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[72] Ibid., p. 314.

[73] Ibid., pp. 325-326.

[74] Ron Common, "Managing for Curriculum Change: An Empirical Investigation," Manitoba Journal of Education 14, p. 12.

Common investigated relationships between school organizational and management characteristics and the degree of implementation of a curriculum developed external to users. Common concluded that curriculum implementation success is related to a participative management style characterized by supportive relationships of group members, participatory decision-making, and information flowing freely upward, downward, and laterally. "Teachers in schools with participatory management patterns tended to modify the curriculum in light of formative evaluation data to fit their local situation and pressing needs; . . . showed more intense concern to pupil; . . . had lower self-concerns."[75]

Ron Common suggests that the Likert management model is useful to school systems interested in facilitating curriculum change by developing a 'human' management team. Principals are the key leaders, concludes Ron Common.

Leadership issues are complex and pertain to all facets of any program change model. Any attempt to focus on discrete aspects of leadership is frustrating. Leadership is an essential ingredient of the program implementation context of any school division. The way in which it operates determines the quality of program change. This researcher recognizes that leadership challenges must be met in tackling the five Critical Tasks of program implementation. In the

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[75]Ibid., p. 12.

next section of this report which has focus on models; leadership issues continue to be dominant.

d. Assess Other Program Change Models

Ron Common's paper, An Overview of Models for Curriculum Implementation, has particular relevance to this study. He reports on past failures to clarify and deal with distinctions between program adoption stage and implementation stage in the program change process. He refers to Clark and Guba (1967), Guba (1967), Carlson (1965), Pellegrin (1975), Hoyle (1970), Giacquinta (1975) and Pincus (1974). "A review of pertinent literature reveals that little is known about what influences the extent of implementation after the decision towards full use of an innovation is made."[76]

Common identifies need for models that avoid oversimplification and misapplied propositions derived from reports of diffusion projects that have limited association to a school division scene. Data sources from agricultural innovations, single school studies, and narrowly based case studies are among those cited as failing to recognize the dynamic complexities of the process. Ron Common explains model-building as a method of implementation research that involves analysis of questions to be answered, incorporates assumptions on curriculum change theory, and offers reference

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[76]Ronald W. Common, "An Overview of Models for Curriculum Implementation," paper presented in Winnipeg, Manitoba, March, 1980, that includes excerpts from Doctoral Dissertation, University of Ottawa, 1980, on the topic "An Investigation of the Relationship Between School Management Patterns and the Degree of Implementation of an Innovative Curriculum." pp. 11-12.

points for further research. He states that models are needed that apply directly to the dynamics of the post adoptive stage of the implementation process. Other supporters for model-building of this kind are Fullan (1978), Gross et al (1971), Hall (1975), Leithwood (1974, 1977), Brantley (1975) and Winklevoss (1975).[77]

"Implementation is an individualistic process that occurs over time with each person implementing in his unique fashion." Common refers to studies by Farrington and Rutherford (1976) in this comment on the nature of curriculum implementation. Organizational characteristics of a curricular change system affect the developmental process in which individuals interact in the dynamic problem-solving process. Common's references include Hall, Wallace and Dossett (1973), Fullan and Pomfret (1977), Leithwood and Russell (1973). Models should recognize the individuals in the process who react in change situations and make decisions in a particular organizational milieu. Beauchamp (1978) referred to this as determining "action strategy."[78] Ron Common's statements direct model-builders for school division program change. A model might offer practical frameworks for organizing the contexts and defining and tackling tasks. A model could direct interactions and coordination of the efforts of individuals involved as collaborators in the dynamic process. Such a model would incorporate ongoing

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[77]Ibid., pp. 12-14.

[78]Ibid., pp. 15-17.

evaluation since goal-setting is both an individual and system component of the process.

Examined from a change perspective, "implementation should be an organizational development process in toto." Common refers to Musella (1971), Dalin (1975), Nicodemus (1976, 1977), French and Bell (1973). This literature suggests that teachers will interpret programs in ways that reflect their local situational needs.[79] Fidelity to intents of provincially developed programs can, therefore, be best assured and measured through models that clarify local context and involve the teacher as key reporter-evaluator. Mutual adaptation appears to be a key to implementation success.

In introducing his index of 34 models of program implementation, Dr. Ron Common states that the models of change can be classified in three groups.[80] One category, theory into practice models, or research and development models, would assume teachers in the innovation process to be passive disseminators. The next category, social interaction models, would place emphasis on convincing key persons of the usefulness of particular program changes and using interpersonal contact to communicate the change specifics. A third category is problem-solving models. In these more client-centred models, users define needs of the innovation. The teacher is involved in assessing needs,

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[79] Ibid., pp. 15-20.

[80] Ibid., pp. 27-28.

examining problems, and working with other professionals in seeking solutions. The problem-solving models seem to have greatest application to school division implementation of revised programs.

Common cites extensive review of change models reported by Bennis et al (1976).[81] They refer to three types of process models. The "empirical-rational model" proposes the approach, 'Convince them and they'll change.' The second type of model has the "normative-reeducative approach" that involves collaboration that assists the client as problem-solver and active-researcher. This normative-reeducative model assumes that change agents work to promote personal development of individuals within the system, with resultant organizational changes. This model holds promise for helping teachers get good at changing. In the third category of change models, that Bennis et al label "the power-coersive approach," political and economic sanctions are employed as a method to enforce change. These authors propose that the power-coersive model is likely to lead to what Goodlad and Klein refer to as "blunting" at the classroom level with little real change in school programs.

Huberman applied Rogers' analysis of how an individual moves through the innovation process. Rogers' adaptive categories appear in the Huberman model that identifies tasks that lead to "integration" of a proposed change in

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[81]Ibid., pp. 28-29.

actual practice. The three positive actions promoting that integration were help, service, and nurture.[82] Those are three actions which should appear as dominant features of any model that proposes to encourage teachers to change classroom practice.

In his index, Ron Common includes the Fox model that describes "The Support System" which is related to two other components called "The Curriculum" and "The Learning Transaction." This Support System identifies key persons and groups who contribute to the curriculum activities which are outcomes of teacher and student interaction. Fox's Support System is depicted as contributing to the curriculum development process that determines the following: rules, norms, procedures, relationships, requirements, structures, and organization. The Fox model fails to state what leads to decisions in these areas. However, the Fox model has value in identifying placeholders for further analysis.[83]

Another model that merits mention is Havelock's Change Agent model (1970), which is a six-phased change agent model for educational innovation. The six phases identified have response from 'Change Agent' as process helper, catalyst, and solution giver. The weakness in this model may be that action is not depicted as being derived from teacher and student but more from a top-down

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[82] Ibid., pp. 88-89.

[83] Ibid., p. 72.

position of trouble-shooting to plant a pre-conceived package. However, the change agent concept can be transferred to serve in models that have different views.[84]

Common writes, "Models provide a framework or way of defining and ordering the implementation process and of anticipating difficulties."[85] This researcher is concerned with how the literature consistently highlights the difficulties. Anticipating difficulties must surely be followed by identification of what is to be done! That is what needs to be incorporated in future models!

Ron Common summarizes what the literature promotes as "The Teacher's Perspective" within the implementation process. His analysis is based on views shared by curriculum writers Herron (1971), Eisner (1970), Russel (1975), Goodland, Klein et al (1970), Lippet et al (1967), Fullan (1972), Olson (1977), Bridges (1968), Eddy (1977), Willower (1963) and Hall (1975).

Common conclusions suggest that teachers and students should be "effectors of the implementation process." Supporting this view are Harman (1977), Russell (1975) and Fullan (1982). They agree that implementation designs should centre at the classroom level where teachers and students are implementing. The literature indicates that implementation should be approached from the user's point of view. We need models that reflect this focus![86]

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[84]Ibid., p. 73.

[85]Ibid., p. 31.

[86]Ibid., pp. 31-38.

Included in Ron Common's 1980 report are useful resources to curriculum implementation designers. Common contributes a valuable bibliography on models for curriculum implementation.[87] He has also compiled an index of 34 models.[88] He offers a useful table, "Link Between Organizational Pattern and Implementation Factors." This table lists reports on studies that identify factors affecting implementation under the following four headings:

- Organizational Climate
- Leadership
- Mutual Quest-Reciprocated Quest by and in a Leader
- Communication Across Hierarchies.[89]

Common has prepared a check-list that is a practical tool in identifying potential conflict.[90] This check-list has direct application to school division implementation design. The Common bibliography, index, table, and check-list synthesize much that needs to be considered in developing a model for curriculum implementation at the school division level.

Ronald C. Doll's chapter "Initiating Curriculum Improvement" confirms that for several decades educators have proposed centrally coordinated approaches to curriculum

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[87]Ibid., pp. 40-61.

[88]Ibid., pp. 62-97.

[89]Ibid., pp. 100-104.

[90]Ibid., pp. 98-99.

implementation in school divisions. In 1946, Alice Miel is quoted thus:

> Organization becomes useful only when it facilitates group endeavor. It serves best when it is functional, when it permits widespread participation and free-flowing interpersonal relationships, when it fulfills the institution's own purpose, when it provides for continuity of problem-solving, and when it arranges for coordination among groups.

While Doll sees the school unit as key, he makes a strong case for a division-coordinated approach for reasons of communication, articulation, and effective problem-solving. Doll comments on steering committees, critical expectations of curriculum improvement programs, and feelings of professional staff. Discussed over a decade ago, these ideas have had limited translation in school division practice. Doll's prescription fails to state what tasks must be done to ensure effective change.

Doll classifies participants in curriculum improvement as being inside local districts or outside local districts. Outside agencies, writes Doll, must be considered in division designs to ensure balanced contribution to a division plan. Doll confirms that classroom teachers are key determiners of school curriculum. Teachers seek opportunities to learn with other teachers in their district. Doll refers to Broderick and Mason (1958) in stating that teachers prefer group curriculum-learning activities with school district colleagues.[91] Current Manitoba studies

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[91]Ronald C. Doll, Curriculum Improvement: Decision Making and Process (Boston, Mass.: Allyn and Bacon, Inc., 1970), p. 285.

highlight this preference. Any change model should facilitate teacher-interaction in division curriculum change activities.

e. Value the Processes of Communication and Coordination

A model for curriculum improvement should help avoid what Ronald Doll identifies as major communication barriers. One barrier is manufacture and spread of rumour. Another barrier is filtering of information involving eliminating or screening of important information. Doll lists Witt's ten guidelines in planning for effective communication in curriculum improvement projects:

- Develop good human relations.
- Provide for interchange of ideas.
- Communicate at levels of interest and understanding.
- Secure common understanding of what is communicated.
- Use a variety of media.
- Maintain a cooperative spirit in the process of communication.
- Distribute curriculum materials with discretion.
- Provide needed facilities, materials, and services.
- Provide time for communication.
- Insist on attractive publications, and on pictorial and graphic materials of high technical quality.[92]

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[92]Ibid., p. 316.

Doll offers ideas on strategies for improving school programs through master-planning. Guidelines in group process are offered for leaders. Doll concludes, "Centralized planning works best when it accomplishes those things which do not rightfully belong to the individual school." Actions should promote coordination, desirable conformity, and economy of time and effort. Power in master planning can be had by designating, organizing a central steering committee, working with lay groups, and establishing task forces. Four dangers in central office master planning are summarized. The four dangers are: not enough involvement in decision-making, too much paper work, unwise comparisons of teachers and kids, military-like directives.[93] Certainly Doll's analysis is useful to curriculum implementation designers. Doll's research on concerns of practitioners of curriculum improvement is worth noting. He ranked 21 concerns. Those concerns might be attended to in strong models for division implementation.[94]

Doll recognizes guidance to curriculum implementation designers offered by James B. Macdonald in "An Example of Disciplined Curriculum Thinking." In this article, Macdonald chooses "to focus upon theory as the development of frameworks from which designs can be generated rather than theory as the testing of designs.[95] He defends

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[93]Ibid., pp. 322-327.

[94]Ibid., Appendix A, p. 412.

[95]Ibid., p. 422.

the idea that curriculum theorizing should remain broad enough in scope to include the use of aesthetic rationality since the systems metaphor has not been enough. Macdonald's propositions to guide dynamics of theorizing recognize curriculum as fluid and emerging, and as dependent on school subsystems and relationships between people. Macdonald sees need to reserve freedoms for individuals within structures of the curriculum contexts.[96]

"No one method will permit a universal implementation of new programs." Parker and Rubin state this view in their chapter, "The Engineering of a Process-Centred Curriculum." They propose that a variety of methods should be incorporated in any model for program shifts. Processes can be thought of as goals in themselves when they lead persons toward meeting objectives of a particular curricular innovation. In this context, it is useful to consider three models that Parker and Rubin offer for treating process as content. These models suggest some steps that could involve teachers in learning how to change. "Processes are not merely vehicles to destination but are themselves a destination."[97] Fullan affirms this!

This section of the literature report had prime focus on the critical implementation task: 'Organize and Manage Curriculum Implementation: Clarify Processes and

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[96]Ibid., pp. 421-432.

[97]J. Cecil Parker and Louis J. Rubin, Process as Content: Curriculum Design and the Application of Knowledge (Chicago: Rand McNally College Publishing Company, 1966) pp. 53-54.

Structures.' In reporting that literature, many strong themes emerge that help describe dimensions of that curriculum change challenge and the inter-relatedness of the five tasks of The Critical Tasks Component. Following is a list of opinions that reputable curriculum writers consistently express.

f. Recognize Other Overlapping Issues from the Literature

The following list summarizes common beliefs of curriculum writers on issues of organization and management.

- The change process requires supporting leaders and facilitation.
- Change depends on a climate that invites experimentation and includes stimulation.
- Effective change strategies are based on clearly defined needs of participants.
- Change contexts require an open process that allows a place for newcomers.
- Known barriers to change can be dealt with through effective planning.
- Appropriate models help direct purposeful action.
- Evaluation is part of getting good at change.
- Resistant factors in the change scene can contribute to balance and quality of programs.
- Participatory management styles contribute to effective program change.
- Teachers interpret programs in ways that reflect their own and local community priorities.
- Teachers need help, service, and nurture as they change.

- Students and teachers should be at the centre of implementation designs.
- Teacher interaction in program change activities should be facilitated.
- False rumours and inappropriate filtering of information are serious barriers to positive change.
- A human development focus is important in program change.
- Major tasks should be analyzed in ways that recognize the complexities and focus the action of individual problem solvers.
- Centralized division implementation efforts should promote coordination, desirable conformity, and economy of time and effort.
- Organizing and managing school division program shifts can be focussed at three levels:
  1) classroom teacher with students
  2) school unit with principal as leader
  3) school division unit responsible for coordination and communication of the division wide effort.

g. Summary Statement

Organizing and managing for implementation of revised K to XII school programs is an ongoing curriculum change task. The following headings have served to indicate major issues highlighted in the literature:

a. Foster Cooperative Planning at Teacher, School and Division Level
b. Assure Continuation of Initiated Reforms
c. Promote Program Effectiveness through Strong Leadership
   (1) Establish structures for problem solving
   (2) Apply administrative theory to models for change

(3) Incorporate principles of learning and motivation in change designs
(4) Broaden awareness of management issues and organizational patterns

d. Assess Other Program Change Models
e. Value the Processes of Communication and Coordination
f. Recognize Other Overlapping Issues from the Literature.

These headings represent overlapping facets that relate also to the other four critical tasks.

Establishing overview and defining goals was the first critical task dealt with in this report. Next was specific focus on organizing and managing for change. The section that follows reports the literature on professional growth issues. Planning that promotes professional development is a major theme in literature reviewed. Researchers agree that professional growth depends largely on teacher-defined goals and effective division support structures.

3. Plan Inservice for Professional Development: A Continuous Growth Process

A critical component in implementation planning has focus on professional development. Literature reviewed confirms the need for ongoing inservice. Teachers should be involved in determining their professional needs related to understanding intents and establishing goals for implementing new or revised provincial programs. Teachers need support in translating those goals with students. This aspect of professional activity is an area for which there seems need for research. The discouraging record on program implementation success points very directly at failure in

helping teachers change while they are busy at teaching. The challenge is complex.

From Brandon University, Jack Lam summarizes in The Manitoba Journal of Education, Fall, 1979:

> Teachers are more likely to benefit from the inservice that is linked to the general effort of the schools than they are from single shot programs.

We must, writes Lamb, "rethink inservice as a sequence of interrelated activities."[98] Many researchers echo this statement.

This section of the report on the literature will be organized under the following four headings which focus on the critical task that relates to professional growth issues:

a) Apply Learning Theory to Models that Help People Change

b) Approach Inservice as a Continuum from Preservice Education

c) Encourage Coordinated Division Structures and Supports that Promote Professional Development

d) Recognize Other Overlapping Themes from the Literature.

a) Apply Learning Theory to Models that Help People Change

The use of learning theory by curriculum planners is assumed. Learning is individual. Psychological theory contributes to understanding the processes of teaching and learning. Saylor and Alexander present one useful reference

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[98]Jack Lam, "Effectiveness of an Inservice Workshop," Manitoba Journal of Education, (Fall, 1977): 29.

in their "Model of Behaviour and Learning."[99] Their model is based on principles they discuss under the following headings:

- Human Traits and Potentialities
- Readiness
- Behaviour
- Learning
- Transfer of Learning
- Personal Determinants of Behaviour.

Saylor and Alexander stress that an individual responds to an environment as he or she perceives it. "Learning results from behavioural responses to environmental situations."[100] Saylor and Alexander predict that perceptions of an individual in a curriculum change situation will be shaped by:

- inherited capacities, talents, capabilities, potentialities, and motor skills
- stock of previous learnings and the organization and structure developed of these learnings in terms of knowledge, concepts, generalizations, and modes of behaving
- attitudes, values, and wants
- needs
- skills, abilities, and competencies
- concepts of self as a person and personal aspirations
- goal-sets and situation-sets
- drives
- incentives seen in the situation

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[99] Saylor and Alexander, Curriculum Planning for Modern Schools, p. 223.

[100] Ibid., p. 227.

Curriculum implementation, referred to by Saylor and Alexander as "diffusion," can be examined as a comprehensive self-study, improvement program within school systems. Saylor and Alexander suggest four steps that operate simultaneously in different phases or units of the school system. In school systems where comprehensive programs on curriculum appraisal and action are needed, the four steps proposed are:

- Identification of Curriculum Needs
- Investigation of Innovative Practices
- Controlled Evaluation of Innovations
- Diffusion of Innovations.

In commenting on the evaluation step, Saylor and Alexander refer to Miles' review of innovations and the need to involve participants in establishing evaluation plans to monitor change.[101]

Robert Zais classifies representative curriculum designs as learner-centred, subject-centred and problem-centred.[102] His analysis is useful.

Much of the literature would favour what Zais describes as the learner-centred model for implementing school programs. This model would place the teacher as key learner in a division-wide implementation process. This approach views society in democratic terms, assumes individuals as good, and regards learning in holistic terms. Individual development is valued with organizational patterns

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[101] Ibid., pp. 421-426.

[102] Robert S. Zais, Curriculum Principles and Foundations (New York: Thomas Y. Crowell Company, 1976) pp. 397-430.

determined primarily by needs, interests,and purposes of learners cooperating in the change process.[103] The learner-centred model would allow response to evolving or emergent activities recognized as important during the growth process. Teachers interact with others in the process; both adult-collaborators and student-learners. Teacher-assessed readiness and ongoing analysis of personal learning needs regarding the intended innovation would direct professional development activity. The model capitalizes on intrinsic motivation. That intrinsic motivation leads to relevant activity that meets individual needs. The problem-solving focus has wide application. Zais writes with child-learners in mind. The model also has relevance to adult teacher-learners. Adequate coordination and monitoring is needed to assure that division-wide priorities are being met as individuals interpret their individual needs and seek professional development. Division curriculum leaders must ensure K to XII articulation of program intents both horizontally and vertically for greatest program improvement. Learner-centred professional development models are promising as part of a division implementation process.

Zais has described eight models for curriculum engineering that apply most directly to development stages but which refer also to implementation. The prototypes offer framework features that might be combined in models for the future.[104]

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[103]Ibid., pp. 408-413.

[104]Ibid., pp. 447-468.

Zais outlines problems of the "Administrative ("top-down") Model" for curriculum engineering.[105] That model alone is too simplistic for "people change" and the dynamics of implementation. However, some managerial principles can be borrowed.

The "Demonstration Model" is one that Zais claims has some grass-roots features.[106] It can provide safe and workable conditions for easing into change. It can offer an interim stage where division colleagues can observe an action-example of activity in which they might become involved. Those teachers ready to try and test program shifts can give administrators and consultants some trial-run practice. Used exclusively, this model causes problems related to elitism, distrust, self-serving, and destructive competition. Open communication and cooperation must bond any "project demonstrators" with their division colleagues to prevent resentments and promote collegial growth. Zais' analysis indicates that division coordinating committees can contribute to this bonding process.

Zais describes the grass-roots model as a democratic orientation that involves teachers, students, parents and lay community in curriculum development and implementation.[107] Declaring the teacher as key to implementation

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[105]Ibid., pp. 447-448.

[106]Ibid., pp. 450-451.

[107]Ibid., pp. 448-450.

success, Zais highlights the following four principles of the grass-roots model:

- The curriculum will improve only as the professional competence of teachers improves.
- The competence of teachers will be improved only as the teachers become involved personally in the problems of curriculum revision.
- If teachers share in shaping the goals to be attained, in selecting, defining, and solving the problems to be encountered, and in judging and evaluating the results, their involvement will be most nearly assured.
- As people meet in face-to-face groups, they will be able to understand one another better and to reach a consensus on basic principles, goals, and plans.[108]

The grass-roots model requires that roles and functions have precise definition since the participatory democracy model is being applied to a very complex process.

"Beauchamp's System" of five critical decision-making areas is a model for curriculum engineering that has had heavy emphasis on curriculum documents.[109] Zais attributes that model's top-down administrative features as the reason for its limited success.

"Taba's Inverted Model" inverts the traditional sequence to begin the curriculum process with teachers planning units.[110] Taba's Model, according to Zais, though intended to integrate theory and practice, has serious limitations.

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[108] Ibid., p. 449.

[109] Ibid., pp. 451-454.

[110] Ibid., pp. 454-458.

"Rogers' Interpersonal Model" centres on "people change," trust in process, and interaction-human relations in encounter groups.

"The Systematic Action-Research Model" views curriculum change as social change. The Smith, Stanley and Shores Model (1957), given as an example, has focus on human relations, as well as school and community organization and professional authorities. Action-research is process oriented, is concerned with program quality, and has a top-down orientation. Zais views Action-Research models as more disciplined than grass-roots approaches.[111]

"Technical Models" would seem inappropriate for curriculum implementation.[112]

From the Zais analysis the "learner-centred model" holds greatest promise. Where strong division support structures exist the "demonstration model" and "grass-roots" approaches can be utilized in early stages of innovation. Effective coordination is needed if isolated program projects are to enhance total division efforts toward professional development. Zais would place the teacher as central in any model.

Numerous studies connect professional development with putting programs in place. Farris reports a field-based study involving home economics teachers. She offers useful self-needs assessment and evaluation checklists.

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[111] Ibid., 463-467.

[112] Ibid., pp. 467-468.

Setting of personal self-improvement objectives were recorded under these practical headings:

As a result of _____,
I want to _____,
Because _____,
I will know I have accomplished this by _____.[113]

From such personal commitments from teachers involved in cooperative planned inservices, researchers report significant change and growth.

b) Approach Inservice as a Continuum from Preservice Education

Good relationships between university and public school systems are important in promoting effective change. Critical factors are openness and communication on personal levels with university staff as on-site helpers.[114]

In relation to inservicing, other teacher needs reported are stress reduction, choice availability, feelings of safety, ongoing support, continuous feedback and collaboration with other teachers, as reported by Thomas and Hartman.[115] They see major inservice trends for the future as being cooperative efforts between teacher educators and

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[113]Charlotte Farris, Field Based Inservice Course for Home Economics Teachers. Two Year Report: 1975-1977. Community Service Report (New York: ERIC Document Reproduction Service, ED 167 709, 1978), p. 33.

[114]Richard Les, Cooperative Relationships in Preservice and Inservice: A Report Prepared for Division H, Aera (ERIC Document Reporduction Service, ED 195 548, 1980), p. 17.

[115]Thomas Stephens and Carol Hartman, "Inservice Education Its Murky Past and Uncertain Future," Viewpoints in Teaching and Learning (1978): 1-3.

school personnel. Inservice education is viewed as a continuum from preservice education.

One facet not directly dealt with in this review is the question of preservice training of teachers. Could more self-initiated, self-directed patterns for learning be induced through improved teacher education programs? The literature suggests some promise. Implementation of revised programs requires professional skills that can be nurtured in teacher education faculties. Individual teachers benefit from an early start in becoming flexible and good at program change. They need to develop as "effectors" of the implementation process which is the role Ron Common confirms is a must. Preservice and inservice for teachers needs to be reviewed.

Myrna Cooper proposes a process of participatory democracy through practical involvement of teachers in inservice planning. Her simple guidelines for collaboration are worthwhile.[116]

William Webster's California study based on reports from 107 schools reported job-related or job-embedded inservice as seen to be most useful by teachers. They felt that inservice during the time that teaching is going on is best. They said they learned most from other teachers.[117]

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[116]Myrna Cooper, Collaboratin in In-Service Education (ERIC Document Reproduction Service, ED 161 853, 1977).

[117]William E. Webster, Inservice Teacher Education in California (ERIC Document Reproduction Service ED 160570, 1977).

The literature indicates advantage in active involvement of teacher educators in coordinated division-based professional development activities related to program change efforts.

c) Encourage Coordinated Division Structures and Supports that Promote Professional Development

Tanner and Tanner identify the teacher as key decision-maker in curriculum implementation. Imposed curriculum reforms have failed. Teacher-proof curriculum packages seldom lead to lasting success and are incompatible with professionalism. These authors see greatest promise in a growth model of teacher competence that promotes active teacher involvement.[118]

Tanner and Tanner stress that curriculum leaders must help the teacher build a knowledge base. Leaders must avoid pitfalls of "error orientation" and become more "concerns based" or problem-centred. Tanner and Tanner agree with Jackson (1971) that "defect" oriented inservice is to be avoided.[119] Inservices, consultative support, and supervisory assistance are important, and they require funds and strong planning. Teachers must not be ignored or left isolated if successful implementation of a program is a division goal.

The need for goal-setting by learners is deeply rooted in progressive philosophy, the curriculum literature,

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[118]Daniel Tanner and Laurel Tanner, Curriculum Development Theory Into Practice (New York: Macmillan Publishing Co., Inc., 1975) Preface x.

[119]Ibid., p. 587.

and accepted principles of learning. Tanner and Tanner express this view and declare, ". . . choice-making is the process of democracy. One goal of learning is the development of individual and group responsibility for making choices and setting objectives and testing their validity."[120] Participants in planning for curriculum implementation need practice at setting realistic goals. Self-directing involvement enhances self-concept which promotes learning. The critical factors of motivation are more likely to lead to positive change where goals are learner-set, reported Morse and Wingo, (1969).[121] When individual school units and the school division planning unit become effective in setting group goals and establishing procedures for reaching those goals, they are engaged in "learning how to learn." Forward looking school divisions might take this holistic approach to any implementation project involving K to XII curricula.

It is important that curriculum leaders work with teachers in task-focused situations,report Harris and Hartgraves (1971). Improved instruction is likely when supervisors serve as consultants in direct and collaborative problem-solving contexts, conclude Maucker and Pendergraft (1957).[122] A recurring theme expressed by Tanner and Tanner is the need to encourage teachers to think experimentally

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[120] Ibid., p. 606.

[121] Ibid., p. 606.

[122] Ibid., p. 631.

as they work at improving curriculum. Curriculum leaders are cautioned to recognize the wide range of teacher readiness for formal experimentation and the supports needed for developmental research. Lessons learned through action-research projects stress that forced teacher involvement can raise resistance to change. Teacher-readiness must be read. The leaders must be perceived as active partners in the process.

From an ASCD report, Tanner and Tanner list leadership functions that "spring from the foundations of curriculum development."[123] Those functions should be considered in designing professional development for implementing K to XII provincial guidelines at the school division level. The leadership functions are:

- Develop balance in the curriculum
- Develop balance in the educational program for the child.
- Develop commonality of goals.
- Provide for adjustment of contradictions within the program.
- Provide for control of the over-development of individual areas.
- Provide for design and organization of the instructional program in terms of knowledge of human growth and development, value patterns, social trends, education research.
- Provide for continuous evaluation in terms of fundamental principles and objectives.

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[123]Ibid., p. 632.

- Stimulate change--to act as a change specialist.
- Provide for a synoptic view of all the areas.[124]

Models for curriculum implementation should recognize these functions.

Lippits (1967) reported that optimal conditions for change include expert assistance for teachers at a practical level. Teachers value strong consultant help and ongoing evaluation of the implementation process. Visits to other classrooms and support in risk-taking was needed as curriculum implementation was being initiated.[125]

Promoting innovation with a segmented or adhoc approach has proven to be ineffective, reports Janowitz (1969). He proposed an "aggregate model as focused on the totality of the educational function with all important curricular elements and goals being treated in their interdependence."[126] With this model, schools are more likely to fulfill a holistic personal-societal growth function. Key relationships and cumulative interactions can be recognized as school divisions plan for professional development. While K to XII provincially issued programs are distributed one document at a time, school divisions cannot afford piecemeal approaches to implementing them. The designs for implementation must be coordinated and promote effective integration within the total school program.

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[124]Ibid., p. 632.

[125]Ibid., p. 651.

[126]Ibid., p. 689.

"Schools must be sensitive to the concomitant and unanticipated effects of the innovation," warn Tanner and Tanner. They quote the Hall and Rapp (1971) report on the Gary, Indiana study where adverse impact on children's attitudes was found though a particular performance-contracting program appeared to be successful in other ways. Many other examples exist. In planning for program shifts, designers must guard that the process does not merely promote a new program. Teachers must be continually evaluating the process and program outcomes to gauge real effects with learners. Ford Foundation (1972) reports highlight the shortcomings of projects "imbibed in promotional rhetoric," and geared to managerial efficiency.[127] Teachers must engage in ongoing evaluation as they implement. This requires planned professional development.

d) Recognize Other Overlapping Issues from the Literature

Curriculum writers consistently express the views summarized in the following statements that relate to professional growth:

- Psychological theory can contribute in human-change projects.
- A learner-centred change model, where teacher is central, holds greatest promise for school program improvement.
- Parents and lay community should be part of division curriculum implementation efforts.

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[127] Ibid., p. 689.

- University staff as on-site helpers can strengthen division change projects.
- A continuum of preservice to inservice with effective collaboration at division level can reduce stress for teachers.
- Job-imbedded inservice is best.
- "Defect-oriented" inservice is to be avoided.
- Increased motivation to learn rests in learner-set goals.
- School division leaders must guard program balance.
- Curriculum leaders need to be perceived as active partners by teachers with whom they collaborate.
- Teachers value consultants most if help is given directly at the school and classroom level.
- Division implementation planners must recognize unanticipated effects, emergent activities, and evolving needs.
- Program improvement is not merely promoting a new program. The users must be researching and evaluating.

e) Summary Statement

The literature reflects the need for ongoing inservice linked to teacher-determined goals in program change contexts. Curriculum writers stress need for shifts from the top-down direction in professional development action. The teacher must be an assertive interpreter of program guidelines rather than a passive recipient of directions for change. Quality of cooperation and collaboration is a

major issue. Sharing and helping others in the process are promoted. Major findings on professional development reported in this section of this literature review are summarized in the following statements which served as sub-headings:

a) Apply Learning Theory to Models that Help People Change

b) Approach Inservice as a Continuum from Preservice Education

c) Encourage Coordinated Division Structures and Supports that Promote Professional Development

d) Recognize Other Overlapping Issues from the Literature.

Positive changes in school programs depend on continuous professional development of school program implementors. Statements from the literature on professional development for program change apply also to issues in the next section of this report where the focus is on climates for change.

4. Nurture Roles and Relationships that Promote Effective Change: Assure a Supportive Climate

Effective program change in schools depends on individuals in the change setting. The literature offers direction to those who wish to create supportive climates for program changers. In this section, reports from the literature are used to elaborate on the task of nurturing roles and relationships that promote effective change. Key facets of that task that must be recognized and attended to are summarized in the following statements which will serve as headings:

a) Respond to Key Social Factors in Shifting Change Contexts

b) Value the Shift in the View of the Teacher to Active Researcher in Program Improvement

(1) Nurture the teacher as researcher
(2) Focus on principles of change and motivation

c) Foster Supportive Leadership and the Linking Role

d) Avoid Obstacles and Adopt Positive Approaches

e) Promote the Teacher as Reacher

These statements summarize what curriculum writers identify as complex, interdependent dimensions of the nurturing task. These are the actions that can contribute to a supportive climate so necessary for program improvement in school divisions.

a) Respond to Key Social Factors in Shifting Change Contexts

Roles and relationships fit into complex, shifting contexts. Leithwood and Russell present a process model of implementation of school change. They explain that implementation encompasses, rather than serves, curriculum development. They base their report on an Ontario project begun in 1967, the Peterborough Operation for Individualization of Student Education (POISE). School autonomy and teacher responsiblity were heavily emphasized in this project. Their model, in chart form, is "Possible Interaction Components and Changes in School Change Model." The components identified

are worth studying for ways in which they interact at designated stages in any implementation plan.[128]

Leithwood and Russell elaborate on specific topics their model identifies. The implementation process they describe is complex. Their tentative model allows for involved interaction that must be part of strong school division plans. Key roles identified are teacher, principal, administrator, and academic.[129]

Robert Travers comments on research needs related to social settings of schools. He reports that investigation is required on attitudes and cooperation in schools, particularly on social factors that make educators efficient or inefficient. "The relationship of teachers to principals is a worthwhile area of research."[130]

Evaluation of school processes through scientific techniques has offered little conclusive direction. Implementation of school programs has too often been examined as if it were static. Curriculum implementation means change for the persons involved. Planning ways to determine what to change and how to measure change will always challenge educators.

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[128]K. A. Leithwood and H. H. Russell, "Focus on Implementation," Interchange 4 (1): 10-25.

[129]Ibid.

[130]Robert M. W. Travers, An Introduction to Educational Research (New York: Macmillan Publishing Co., Inc., 1978), pp. 165-190.

Lillian Spitzer has prepared a valuable, selected bibliography of material written in the 1960's. She includes annotations that refer to social issues using terms which continue to echo in the current literature on educational change:

- organizational health (Bennis, 1966)
- change agents and client systems (Bennis, 1966)
- teacher receptivity (Bridges, 1968)
- barriers to change, principal as a facilitator (Chesler, 1963)
- factors affecting public acceptance of change (Goldhammer, 1965)
- kinds of human beings (Goodlad, 1967)
- problem diagnosis, points of entry and leverage, temporary systems, management of conflict (Hansen, 1967)
- peer counselling, open system theory (Katz, 1966)
- power structures in local school districts (Kimbrough, 1965)
- resistor role (Klein, 1966)
- readiness for change (Lonsdale, 1964) (Lortie, 1964)
- power tactics and attitude change activities (Walton, 1965.[131]

Spitzer summarizes "Planning strategies, models, roles, receptivity, resistance, innovating, facilitating,

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[131]Jerrold M. Novotney, The Principal and the Challenge of Change An I/D/E/A Monograph (Melbourne, Florida: ERIC Document Reproduction Service, ED 031 787, 1968), pp. 60-72.

dissemination, decision-making--'action words' predominate . . . the current literature of change."[132]

b) Value the Shift in the View of the Role of Teacher to Active Researcher in Program Improvement

Shifts in how teachers are viewed have been referred to in this literature report as significant to curriculum implementation success. Many reputable curriculum writers stress that teachers must be active researchers in meeting program change challenges. Following are two strong messages from the literature on program improvement:

(1) Nurture the teacher as researcher
(2) Focus on principles of change and motivation.

These recommendations serve as headings under which specific references are used to defend the positions taken.

(1) Nurture the teacher as researcher

Lawrence Stenhouse offers interesting comment in his book An Introduction to Curriculum Research and Development. A major theme in his book concerns his belief that a teacher should approach curriculum implementation as a researcher. He proposes that teachers approach newly revised program guidelines as recommendations to be tested, verified, and adapted in classroom practice. He refers to the "extended professional" whose three critical characteristics seem to be:

. the commitment to systematic questioning of one's own teaching as a basis for development

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[132] Ibid.

> . the commitment and the skills to study one's own teaching
>
> . the concern to question and to test theory in practice by the use of those skills.
>
> To these may be added as highly desirable, though perhaps not essential, a readiness to allow other teachers to observe one's work--directly or through recordings--and to discuss it with them on an open and honest basis.
>
> In short, the outstanding characteristics of the extended professional is a capacity for autonomous professional self-development through systematic self-study, through the study of the work of other teachers and through the testing of ideas by classroom research procedures.[133]

Stenhouse reports on British studies that identify barriers, gaps, and value conflicts that have been restrictive to implementation of school programs. Reports by Rudduck (1973), Jung (1967), and Dalin (1973) identify problems Stenhouse believes could best be dealt with in curriculum implementation designs that encourage the "teacher as researcher." Teachers need to work together in the context of one innovation in ways that there will be transfer of that learning to solving new problems.[134] This is what Canada's Michael Fullan would call "getting good at change" by applying research and development procedures in innovating!

When Stenhouse proposes "disciplined intuition, fusing creativeness and self criticism," one recognizes

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[133]Lawrence Stenhouse, An Introduction to Curriculum Research and Development (London: Heinemann Educational Books Ltd., 1975) pp. 143-44.

[134]Ibid., p. 220.

Eisner's themes of this decade in America. Stenhouse refers to reports of Skilbeck (1971), Rudduck (1975), Schon (1971) and the Schools Council Report (1974). Stenhouse proposes techniques for classroom study. He comments on limits of interaction analysis approaches proposed by Amidon and Hunter (1966) and Flanders (1970). Logical analysis approaches for researching teaching have serious limits according to Smith (1967) and Walker (1971). While Stenhouse admits some value in both interactional and logical analysis, he sees the greatest promise in "social anthropological" approaches. He quotes reports from studies by Walker (1971), Hamilton (1973), Walker and Ademan (1972). Quality in classroom programs is enhanced where teachers can examine their practice "critically and systematically." Teachers need to communicate and report to each other in a mutually supportive trusting climate.

A practical handbook that clarifies teacher roles and responsibilities is Curriculum Planning for the Classroom, an O.I.S.E. publication edited by Connelly, Duakacz, and Quinlan. It tables "Major Tasks in Curriculum Development and Change." That chart details stages of the process and central committee sequenced tasks. Ongoing professional development is stressed. The teacher must assume the researcher role. A set of curriculum action skills are offered to encourage a sequenced, developmental approach to program change.[135]

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[135]F. Michael Connelly, Albert S. Dukacz, and Frank Quinlan, Curriculum Planning for the Classroom (Toronto: OISE, 1980).

The roles of the teacher in effecting change have been the topic of too few in-depth studies, according to Mary Ellen Finch. She notes in her literature review the increased interest in considering teachers as enquirers and/or innovators. Finch conducted a study involving a four-teacher team. She assumed the position of observer-participant using direct observation, interview, documentary evidence, and participant observation. She describes the administrative context in terms of advocacy and reluctance. She summarized the advocacy/reluctance situation of early phases of the project implementation which was fraught with problems. Finch reports on the eventual project success. Subsequent analysis allows her to comment that for success in innovation there is need to determine:

- advocacy of school administration prior to innovation
- base of school administrator's support as being his/her personal belief or the result of coercion
- how teachers and administrators will judge success of an innovation and appreciate each other's pressures.

Finch reports on one junior high school project to implement an Optional Educational Program. This report is useful since it highlights the importance of roles, relationships, advocacy, and cooperative-collaborative efforts needed for positive change in school settings. These same components operate at the school division level. Finch

supports her views by specific references to reputable North American educators.[136]

An Ontario authority, Patrick Babin, confirms that teachers are interpreters of provincial guidelines. He stresses that the teachers' role is to translate documents in ways they believe meet unique characteristics of classroom and particular learners.[137]

Canadian curriculum writers, Wilson and Irvine, stress need for perceptive and flexible teachers. They summarize thus:

> The developing teacher needs to become aware of the knowledge, demands, opportunities, and excitement involved in seeking to develop the expertise that gives power and judgment. We who are teachers must find our own way, as we try to draw useful applications from our philosophies, perceptions, and skills. We hope to emerge with an approach that reflects integrity and individuality, that will stand the test of time, inspire hope in learners, lead them to learn effectively, and produce the maximum benefit for the greatest number of students.[138]

Designs for implementation of K to XII provincially issued documents must provide for great support to the teacher who is asked to be a competent researcher in the complex process of innovation. Babin has much support for the following statement:

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[136]Mary Ellen Finch, "Behind the Teacher's Desk: The Teacher, The Administrator, and the Problem of Change," Curriculum Inquiry 11 (Winter, 1981): 321-342.

[137]Connelly, Curriculum Planning for the Classroom p. 66.

[138]Ibid., p. 111.

> The teacher, going beyond the work of the curriculum developer, zeroes in on the needs and interests of the learner and considers these and the proposed curriculum in the light of his or her own beliefs and curriculum orientations. Regardless of the content of a curriculum document, the teacher and the learners are ultimately responsible for its expression in the classroom. They are the final curriculum developers.[139]

(2) Focus on principles of change and motivation

Ronald Doll, in his book Curriculum Improvement, stresses need for an environment rich in helpful and stimulating influences since improvement follows a process.

Doll confirms the widely held opinion that if school programs are to be strengthened, teacher growth must be nurtured. "Curriculum improvement results from improvement of individual persons and organizations of people.[140]

Persons determining models for implementing curriculum can consider interdisciplinary findings about change in individuals and institutions. Doll places emphasis on cooperative effort, power of motivation, and significance of institutional arrangement. He stresses need for attending to school climate and working conditions, tempo of curricular innovation, variety of curriculum implementation activities, and deliberate evaluation procedures for different facets of any curriculum implementation project.

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[139]Ibid., p. 66.

[140]Doll, Curriculum Improvement, pp. 159-191.

Doll refers to the statement from the Bennis, Benne and Chin (1961) report indicating that for school systems to function enduringly, change should be a "deliberate, collaborative process." This deliberate change process involves the following six features:

- joint effort that involves mutual determination of goals
- 'Spirit of Inquiry'--a reliance on determinations based on data publicly shared
- existential relationship growing out of the 'here and now' situation
- voluntary relationship between change-agent and client with either party free to terminate the relationship after joint consultation
- power distribution in which the client and change-agent have equal or almost equal opportunities to influence the other
- emphasis on methodological rather than content learnings.[141]

Doll proposes eleven principles on how individuals change. The following are those principles which can be applied at many stages and levels of division-wide curriculum implementation:

- People improve with greater enthusiasm when they detect the desire of the stimulator of improvement to improve himself. The argument, "You need improving, and I am here to improve you" has slight effect. On the contrary, "We have a common problem; to solve it, we should all improve our competencies" has a pleasanter, more convincing ring.

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[141]Ibid., p. 162

- The direction of improvement should be determined cooperatively. People's goals differ. However, if they are to work together effectively, they must determine cooperatively the direction their efforts are to take.

- To achieve improvement, people must identify and examine each other's centrally-held values. This action is difficult and time consuming. It requires the best in communication--the careful listening that Carl Rogers talks about, the careful observing that Daniel Prescott recommends to teachers. It demands lengthy talking together and prolonged watching of each other's behavior, so that the persons involved may truly say, "We know each other."

- People improve through experiencing. The kind of teacher one is may be determined largely by the kinds of experiences he has had. School systems should seek to provide their teachers with the best of in-service education.

- Stimulators of improvement should divide their time between contacts with individuals and contacts with groups. Research and practice show that both individual conferencing and group work are effective in helping teachers improve the quality of their work. The balance between these two general procedures cannot be predetermined; it can be judged only in consideration of given, prevailing situations.

- People's resistance to the efforts of others to help them improve constitutes a major individual difference. Not only are some people more generally resistant than others, but people vary in their resistances to specific new proposals.

- Whenever possible, improvement should be induced in situations that involve problem-solving. People improve most when a stimulator of improvement helps

them solve their own problems. Some problems pose a threat, and therefore cannot be dealt with immediately and directly. For instance, teachers who have trouble with classroom control are often unable to discuss their control problems dispassionately. Curriculum workers should do their best to make many such professional problems appropriate ones for discussion and solution.

- Stimulators of improvement should try to create and maintain a climate of freedom for those with whom they work. This statement rests on the thesis that people improve when they feel free to improve. Where there is a feeling expressed in the declaration "My boss won't let me," that feeling should be eliminated by carefully-guarded words and behavior that point clearly to permissiveness in the whole situation.

- Stimulators of improvement should help keep channels of communication open. Psychological static easily gets between the sender and the receiver of a message. Much of this static can be cleared away by face-to-face communication. Curriculum workers should try to hear what others say by listening carefully, by repeating or rephrasing people's comments, and by trying to understand their messages.

- Stimulators of improvement should use their power and influence with great care. Educational leaders have largesse to distribute in the form of position, salary, approval, knowledge, prestige, disciplinary control, and even affection. Their status often begets in teachers an acquiescence that is easily mistaken for a genuine desire to improve. When the threat or the paternalism is gone, acquiescence disappears too.

- Stimulators of improvement should operate on a limited number of fronts at a given time. Curriculum workers are learning that sweeping, comprehensive improvements rarely take place. Rather, progress is

made on a broken front, a little at a time, in manageable form.[142]

A curriculum implementation model should reflect sound principles of change and motivation theory. A model should allow flexibility for participants to interact in the complex ways that theorists propose as significant to success.

Ronald Doll does not propose specific models for division or district implementation. He does focus on facets of the change process. He offers four key facilitating action statements:

- Cause the climate and the working conditions in your institution to encourage curriculum improvement.
- Achieve and maintain appropriate tempo in curriculum improvement.
- Arrange for a variety of activities that lead to improvement.
- Build evaluation procedures into each curriculum improvement project.[143]

c) Foster Supportive Leadership and the Linking Role

Ronald Doll's book, Curriculum Improvement, includes a chapter, "Leadership for Curriculum Improvement." In his book he speaks for supportive climates for the change process. He comments on three major theories that have been used to describe effective leadership in curriculum change. The first theory focuses on leader traits. Derived from

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[142] Ibid., pp. 163-164.

[143] Ibid., p. 170.

review of over 100 studies, Doll lists seven traits identified as the elements most common to successful educational leaders.[144]

The second theory of leadership that Doll reviews maintains that leadership does not inhere in the traits of individual leaders but in the structure of the group to which the individual belongs. Researchers in social psychology have contributed evidence on behaviours of outstanding leaders. Krech and Crutchfield defined leadership as "performance of acts which help the group achieve its objective. Such acts may be termed group functions." The acts fall into two major categories: those concerned with achieving the goals, and those concerned with keeping the group working happily and productively together. A leader, then, is anyone who engages in the performance of these two types of acts. Those supporting this theory recognize that leadership in groups can be widely diffused with both formal (status) leaders and emergent leaders.[145]

The literature of group process offers ideas about what status and emergent leaders do to assist their organizations achieve goals. Doll outlines functions of the curriculum leader within that context:

- Interact with one's fellow staff members as often as possible.
- Establish a structure that permits broadly-based decision-making.

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[144] Ibid., pp. 195-197.

[145] Ibid., p. 200.

- Initiate new ideas and lend support to other acceptable ideas.
- Help the organization reach its goals.
- Develop and maintain good relationships among group members.
- Help coordinate activities.
- Facilitate communication within the organization.
- Pay attention to the process by which decisions are made.
- Encourage the emergence of new leadership.
- Hold real promise for the leadership endeavours of curriculum workers.[146]

A third theory of leadership for curriculum improvement Doll defines as a function of situation or circumstance. Certain situations call for leadership of a particular quality. Doll cites four ingredients or factors from situational theory to be considered in a given curriculum change circumstance as leadership patterns/policies are evolving:

- structured interpersonal relationships within the organization
- nature of the organization
- nature of the culture in which the organization exists
- physical conditions and tasks within which the organization must reckon.

Doll has summarized that leadership for curriculum improvement may involve combinations or blends of the three

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[146] Ibid., pp. 201-203.

theories centred on leader traits, group structures, and particular situations. But, he notes that other factors to consider are "about the nature of the social organization within which leadership is to be established, about the value systems that exist within organizations, and about differing expectations of leadership behavior and role."[147]

Doll's assessment of the role of leadership in curriculum improvement is useful in developing a model for a school division. He notes that social scientists offer theories worthy of reflection as designs for effective curriculum implementation evolve. He quotes statements from Saunders, Phillips, and Johnson (1966) on theories of educational leadership that relate to improved instruction and the tasks connected with curriculum shifts. The theories highlight the need for:

- participant involvement in setting objectives
- decision-making by those most directly involved at different levels
- cooperative group effort as a best means to promote change
- trust and respect and acceptance of individuals in relationships
- ongoing assessment of educational objectives and sensitivity to societal shifts
- direct involvement of learner with choices and responsibility for own learning
- application of scientific methods for approaching problems of curriculum.

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[147] Ibid., p. 205.

Regardless of the leadership theories which dominate a particular curriculum change situation, Doll isolates five broad tasks to be tackled.

- defining educational goals
- facilitating teaching and learning
- building a productive organization unit
- creating a climate for growth and emergence of leadership
- providing adequate resources for effective teaching.

Principals in individual schools are the leaders who can contribute most in division-wide curriculum change projects. Doll elaborates on responsibilities and implications for school implementation leaders. Doll's comments recorded in 1970 are views currently echoed by curriculum thinkers of the 80's.

Many curriculum writers indicate that improvement of school programs is largely dependent on professional growth of principals. Milton E. March has reported on his study on the roles of Canadian school administrators. He explains that most principals act as administrators rather than as facilitators for curriculum change. He indicates that there is inadequate decentralization and a need for teachers to have greater participation and control over educational decisions. March suggests the need for role shifts toward facilitation if principals are to be dynamic leaders in curriculum implementation and innovation.[148]

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[148]Milton E. March, "Control Over Educational Decisions," The Canadian Administrator 21 (December, 1981): 1-5.

In an article, "The Role of the Regional Professional," Burns and Oatway conclude that curriculum implementation must focus very directly on the " . . . development of people who are partners in the implementation process." From their review of midnorthern Ontario experience of regional professional development committees, the authors stress ". . . that administrators, principals and classroom teachers, while playing different roles, are not only partners, but also partners who should be equally involved . . .." Commenting on roles, Burns and Oatway report ". . . the administrators and principals mainly as facilitators and the teachers as implementators." They suggest that inservice must be linked to curriculum implementation concerns.

Burns and Oatway classify implementation needs as management expertise and classroom level expertise. They describe a five-phase process for professional development committee involvement in curriculum implementation. The article proposes some specific goals and tasks for committees and persons in facilitating roles.[149]

Factors that really differentiate effective from ineffective curriculum planning are summarized by Saylor and Alexander:

. significant problems recognized by the members of the curriculum planning group

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[149]Ibid.

- interest and involvement on the part of those who are to work directly with pupils in the school situation
- patterns of administrative procedure and quality of administrative leadership which encourage individual initiative on the part of all school personnel
- a clearly defined organization for curriculum planning with a definitely agreed-upon procedure for effecting change
- adequate facilities and time for curriculum study and experimentation with new practices
- the availability of adequate technical services in the curriculum planning process
- full opportunity for interchange of experience, including interclassroom observation
- recognition of those personnel who sincerely and successfully work to improve their practices.

The curriculum leader is best able to affect--even create in some cases--these factors. He can work with curriculum planning groups and faculties concerned to make certain that there are significant, recognized problems, interest and involvement, and interchange of experience. He can work with the school administration to develop congenial patterns of administrative procedure, adequate facilities and recognition of personnel and time, and he himself is generally directly responsible for the organization for curriculum planning and for the technical services. Thus it is the curriculum leader who can really make the difference between effective and ineffective curriculum planning![150]

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[150] Saylor and Alexander, Curriculum Planning, p. 519.

"Nurturing Roles and Relationships that Promote Effective Change" is the task category of this section of the literature review that involves helping and encouraging functions within cooperative planning. For successful program improvement, the principal must, in fact, be an effective educational leader. There is also another critical role to be recognized. Someone must be the school consultant/liaison person/linking agent between teachers, between schools, and between other significant groups related to a particular innovation. A large body of the literature speaks to this linking role. Principals can share the responsibility for that role. A school division must assure that the linking agent functions are met.

d) Avoid Obstacles and
Adopt Positive Approaches

Kenneth A. Leithwood has edited Studies in Curriculum Decision Making, OISE, 1982, which provides Canadian comment on issues identified as central to educational improvement. Contributing authors sought to offer "a broad conceptual framework for planned educational change." They chose to focus on planned change in educational contexts from a decision-making perspective. They refer to implementation of provincial curriculum guidelines and define the change problem "as reducing the discrepancy between present student outcomes and those outcomes aspired to by society (most visibly in provincial curriculum guidelines)." The authors conclude that student growth is a product of school system actions and reflects growth of educational agents. Curriculum

implementation success has been limited. One course of action proposed is systematic identification of "obstacles preventing growth." The other route is "to work to greater interdependence among roles."

Leithwood proposes the following set of hypothetical conditions likely to promote effective change if practised within each educational agent role:

> . Preferred outcomes or images of students and educational agents are clarified.
>
> . Current status, outcomes, or behaviors of students and educational agents are identified.
>
> . Manageable stages of growth, between (high priority) elements of current and preferred status are defined.
>
> . Obstacles to growth at each stage are diagnosed.
>
> . Actions or strategies for overcoming obstacles are designed and carried out.
>
> . Growth is systematically monitored and refinements in the above conditions are made as warranted.[151]

These Leithwood conditions just quoted refer to what is sought, what exists, and what is to be overcome in a curriculum change context. There is no clear statement on what to do. This researcher recognizes need for model that directs planners towards reaching what is sought. The model should be applicable to existing division contexts and help overcome existing barriers. Curriculum writers speculate

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[151]Kenneth A. Leithwood, Studies in Curriculum Decision Making (Toronto: OISE Press, 1982), pp. 287-288.

on why there has been so little real change even when programs seem promising.

Leithwood summarizes the teachers' decision-making process as "political bargaining." He reports that teachers have limited options and few supports for program change. Problems cited include ambiguous, unrealistic goals, uncertain techniques, fuzzy lines of authority, multiple (often competing) responsibilities, and minimal feedback. Leithwood concludes that curriculum managers and external change agents can assist teachers most effectively when they focus very directly on teachers' curriculum decision-making.

e) Promote the Teacher as Reacher

There is persistent dialogue in the literature about the need for curriculum managers/administrators and change agents to reach the teacher in the decision-making setting. This researcher sees need to reverse the process. Perhaps the key question should be 'How can teachers be helped to find ways to utilize these support persons?' The teacher, as key changer, must take assertive responsibility. The top-down efforts have not worked well. The idea of promoting 'the teacher as reacher' is the most important concept that this researcher has isolated through this study in curriculum implementation. Curriculum implementation models for program shifts for the mid 80's must surely feature the teacher as central and capable of professional growth. The teacher who reaches out for help appropriate in meeting personal program change goals is operating at a

high level of professionalism. That kind of reaching is likely to contribute to meeting the goal that Fullan would express as "getting good at change." Can the teacher become the reacher?

Leithwood concludes that teachers and all support persons must get better at planning, organizing, supervising, and communicating. A model is needed that links actions/ conditions likely to promote positive curriculum change with "roles best positioned to bring them about."[152] Four levels of decision-making Leithwood recognizes as key are classroom, school or school system, province, and university.

"A much more focused and more coordinated effort by agencies both directly and indirectly involved must go into the invention and delivery of programs to students."[153]

Leithwood's reports are encouraging if one assumes that teachers will work toward strengthening programs for the children they teach if given adequate support. A supportive division climate is critical. Support can be realized through a model that helps teachers decide what to change and how to go about changing. Ownership for change rests primarily with the teacher. Effective program change can be realized through strong, coordinated, implementation plans in school divisions.

The issue of teacher evaluation can be directly related to program change efforts. The literature offers

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[152] Ibid., p. 290.

[153] Ibid., p. 294.

strong support for professional growth opportunities connected with teacher defined goals in specific program shifts. Effective formal teacher evaluation processes in school divisions can encourage teachers to invite principals to evaluate their program implementation efforts based on their own implementation goals. Such evaluation processes can contribute to nurturing strong relationships between principals and teachers. The direct collaboration promotes understanding of program intents and encourages supportive change climates.

f) Summary Statement

This section has reported literature findings that relate to the fourth of five key tasks that comprise the Critical Tasks Component of any major school program shift. Establishing a supportive climate for program change involves complex roles and relationships. The task has many interdependent dimensions. Dimensions frequently referred to in the literature have been dealt with in this report under the following action headings:

a. Respond to Key Social Factors in Shifting Change Contexts

b. Value the Shift in the View of the Teacher to Active Researcher in Program Improvement
   (1) Nurture the teacher as researcher
   (2) Focus on principles of change and motivation

c. Foster Supportive Leadership and the Linking Role

d. Avoid Obstacles and Adopt Positive Approaches

e. Promote the Teacher as Reacher

One can conclude that where supportive change climates exist, professional growth can be expected. The next section of this chapter report stresses the need to attend to local issues with a look to the future in planning for change in school programs at the division level.

5. Recognize Significant Contexts, Current Trends, Appropriate Resources, and Local Needs with a Look to the Future: Critical Analysis

This section of the literature review recognizes a fifth critical task in implementing program shifts. Like the other four tasks, it is ongoing and must be attended to simultaneously. Several studies already quoted endorse this task as necessary to program improvement. Local issues may be the most significant since they involve teachers and the school community in direct collaboration. Strengthened programs and continuation are unlikely if this cluster of responsibilities is ignored. Three key responses proposed by curriculum writers as ways to approach this fifth critical task are:

a) Respond to Local Priorities

b) Recognize Role of Elected Trustees

c) Accommodate Emergent Needs and Community Input

a) Respond to Local Priorities

Curriculum writers stress that curriculum implementors must recognize local priorities in planning for particular

program changes. Teachers need to understand unique features within their own school community. The planning process should accommodate this need. Specific division-wide planning can incorporate particular local program features as K to XII programs are implemented with students.

From one Manitoba school division implementing revised Social Studies programs, examples of local priorities included: Centennial Year events, Native Studies components, computer awareness strands, human rights topics, and Canadian mosaic emphasis. The program strands listed were incorporated in a coordinated division design for Language Arts and Social Studies programs being implemented simultaneously in 1982. Deliberate planning efforts and much collaboration encouraged all five program features, which could then be observed in most division classrooms during that first year of a paced implementation process. Ongoing collaboration will be necessary if these program features are to be maintained. Monitoring, resource allocation, and supports must be provided if these program facets are to be held in place.[154]

Local priorities must be viewed from the perspectives of individual classroom, school, school division and other regions or contexts important to the people a school serves.

b) Recognize Role of Elected Trustees

This section of the literature review includes focus

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[154]Lord Selkirk School Division Annual Reports 1982-1983 and other documentation available on division curriculum implementation, Selkirk, Manitoba.

on significant local contexts and resource issues. It is important to recognize the role of elected division trustees and consider how they perceive their role in curriculum implementation. How trustees translate their authority in practice will be significant to any curriculum change model. This study has not directly searched beyond the curriculum leadership role assigned to division superintendents responsible for coordinating school programs. The issue of trustees has emerged as significant.

Following is one specific reference which will be the placeholder that reserves a focus on the role of elected representatives in program change.

At their annual meeting, March 17, 1983, Manitoba school trustees participated in a clinic on authority issues in the curriculum change process. The program theme was The Trustee, The Superintendent and The Curriculum. In analyzing trustee responses, recorded on individual Division Analysis Charts, it appeared evident that curriculum decision-making is an area that needs to be studied. Workshop participants held widely differing views on responsibilities for program change. Their lack of consensus would indicate that one reason for so little program improvement may be that responsibilities are not clearly understood and articulated in Manitoba school divisions. Frameworks that clarify responsibilities for program improvement can help. Where a clear policy exists, and implementation models are agreed upon, it is likely that newly elected trustees could make

more effective contributions. Strong frameworks provide a starting point for further analysis. The politics of curriculum change is very complex. Models are needed that improve communication and clarify roles within the school system. Strong models can serve to promote efficiency and increase appropriate participation by elected school trustees.

c) Accommodate Emergent Needs and Community Input

Curriculum planners must work with the future in mind. Rapid and major changes in society place heavy demands on curriculum innovators. Allan C. Ornstein identifies six trends to be considered within the context of any curriculum implementation plan:

1. Communications technology
2. Computers
3. Lifelong learning
4. International cooperation
5. Values and potential danger of subordination of human values to technological advances
6. Budget cuts that demand good management and effective behaviour.[155]

Ornstein's references are useful for persons looking ahead. Critical analysis of curriculum contexts, trends, and resources is an ongoing task. The scene shifts continuously. Curriculum planning is for the future.

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[155] Allan C. Ornstein, "Change and Innovation in Curriculum," Journal of Research and Development in Education 15 (2): 27-33.

The literature on adult education offers guidelines applicable for school division planners. Donald E. Moore Jr. offers his model of eight needs assessment activities as part of "a rational, need-reduction, decision-making model." Moore reports on actual practice rather than the ideal. One could apply the idea of synergism to his eight simple steps addressed to an action stage of a curriculum implementation process. From evaluation of "action taken" could follow another eight-step analysis of new, emerging needs. The eight steps Moore identifies are:

1. Identify the problem
2. Develop a plan
3. Establish an implementation mechanism
4. Define data requirements
5. Identify data sources
6. Collect data
7. Analyze data
8. Report.[156]

Moore's model is one that could be used to determine plans of action for incorporating locally identified program emphasis. Thus, any local problem, and resulting plan, must be dealt with keeping a broad perspective of where that problem and plan fit in the whole program change context.

Involvement of parents and other community persons is essential as a program is being examined. Decisions on what and how to change must be made with a clear view of local contexts, trends and needs. Influences of media economics, community values, technology, and current events can alter conditions for implementation between the

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[156]Floyd C. Pennington, ed., New Directions for Continuing Education: Assessing Educational Needs of Adults, (San Francisco: Jossey-Bass Inc., Publishers, 1980), pp. 91-98.

time program-guidelines are issued and teachers are ready to begin putting them in place. Prediction and divergent thinking must be part of the decision-making. Anticipating needs and avoiding problems makes good sense. Providing for unanticipated outcomes and a shifting world becomes part of the ongoing process. The literature supports these views which have already been reported in other sections of this chapter. Program improvement is a continuous process. That iterative characteristic should be evident in any model for program change in schools.

Greatest local needs to be met through division-wide means might be identified through simple questions:

- What is unique about the children we teach and this community that merits division-wide planning related to this program to be implemented?
- How can we effectively involve parents in implementing this program?
- What is there in other segments of our division programs that needs to be attended to as this program is implemented?
- Who are persons best able to contribute as leaders in this project?
- What can be predicted as particularly important to this implementation?

The literature reports need for classroom teachers to actively involve parents as program shifts are being planned and initiated with their children. The examples, given in this section, serve to highlight significant facets of the curriculum implementation action that should be accommodated through a model for curriculum improvement at the school division level.

Other Information from the Review of the Literature

The intent of this review was to identify what should be incorporated in a model for implementing revised K to XII programs at the school division level. Through the study this researcher concludes that six key features must be built into a strong model. The Critical Tasks Component is the major feature which must be incorporated in a framework that highlights five other key features.

1. The Critical Tasks Component: The Major Feature of a Program Implementation Model that has Five Other Key Features

This researcher recognizes six key features for a framework intended to serve as a design for program improvement. The first and dominant feature of a model is the Critical Tasks Component. This Component has been described in considerable detail within this chapter. Literature sources were used to validate the selection of the five key tasks that comprise the Critical Tasks Component. Five action statements were used to organize and report on the review of the literature. Analysis within this report confirms that five key activities or responsibilities apply to all participants in the implementation process. These five critical tasks to be assumed in any implementation project can be said to constitute the Critical Tasks Component for an implementation model. The action statements focus on ongoing processes that are interrelated and involve the cooperation and collaboration of persons in many roles and levels of the change system.

Leithwood, Holmes, and Montgomery identify three variables and relationships between them: the user system, the innovation system, and the change-agent system.[157] The literature supports the view that in all three systems, there are five major tasks to be accomplished. The critical tasks to be tackled are:

- Identify and Examine Intents of Curriculum Change: Establish Overview and Define Goals
- Organize and Manage for Curriculum Implementation: Clarify Processes and Structures
- Plan Inservice for Professional Development: A Continuous Growth Process
- Nurture Roles and Relationships that Promote Effective Change: Assure Supportive Climate
- Recognize Significant Contexts, Current Trends, Appropriate Resources and Local Needs with a Look to the Future: Critical Analysis.

2. Five Other Key Design Features to be Incorporated with the Critical Tasks Component in Designs for Improved School Programs

Curriculum authorities offer convincing evidence that there are five other critical design features to be incorporated with the Critical Tasks Component in strong program change models. This researcher has made direct reference to these additional critical features in quoting curriculum researchers in this chapter. These five additional design

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[157] K. A. Leithwood, M. Holmes, and D. J. Montgomery Helping Schools Change: Strategies Derived from School Experience Occasional Papers/20 (Toronto: Ontario Institute for Studies in Education, 1979).

features identified serve as the necessary context for effective collaboration on the Critical Tasks Component. They contribute to a strong model for program change since they promote the actions of the Critical Tasks Component in a school division context.

Through the literature search, this researcher identifies the five following critical features in addition to the Critical Tasks Component.

a. Major Planning Units

A model for curriculum implementation should identify the following three key levels or units at which planning action takes place:

(1) Individual teacher with students

(2) School unit with principal as leader

(3) School division unit that includes a committee structure with representation from each school.

b. Major Contributing Groups

The literature reports that the five broad tasks (Critical Tasks Component) to be dealt with at three key levels (Major Planning Units) involve four major contributing groups. The four groups that should be recognized in any division design intended to strengthen school programs are:

(1) Parents

(2) Local Community

(3) Provincial Department of Education

(4) Faculties of Education.

c. The Teacher as Central

Curriculum writers are unanimous in placing the classroom teacher as central in the program change process. An implementation model should recognize that:

- a model should place the teacher in central position in the process where implementation efforts of the school division are directed toward improved programs for children. Models for strengthening school programs should encourage professional growth.

- models should highlight an emphasis on providing direct support to teachers. The teacher must be viewed as an active researcher in the process. The teacher should be considered as an initiator willing to accept direct responsibility for reaching for appropriate support. The literature stresses that the school principal is the person who has the greatest influence on the teacher in any program shift.

d. Leadership and the Linking Agent Role

School-building principal(s) and school division curriculum leader(s) hold key roles for success in program change in school divisions.

Curriculum writers refer to the importance of the role of Linking Agent. The Linking Agent facilitates/consults/collaborates/supports/advises and often serves as major "overview" monitor for the cooperative implementation effort. The role can be shared. It must be met.

Principals as educational leaders must exercise educational arts at their school level. They can be significant Linking Agents in their schools. Principals

also serve as Linking Agents through the school division coordinated activity. Educational connoisseurship is a criteria for effectiveness as an educational leader in all roles and particularly in a Linking Agent role. This demands facilitating appropriate action between the major division planning levels and groups involved in any particular implementation. The Linking Agent role does not match well with managerial directive modes of administration. The Linking Agent nurtures professional growth. Holistic approaches and educational criticism must be artfully applied in this critical role. The studies indicate that where principals neglect this role, there is little change in program. Where a Linking Agent is effective, leadership from within the group is more likely to emerge. It is for divisions to decide how the role will be filled. Models for implementation must recognize 'Leadership and Linking Agent Role' as a critical feature.

e. Connectors as Key Components

Essential links on the implementation scene can be thought of as connectors. Connectors can be helpful people, facilitating structures, practical supports, community decision-making and action, open-line communication, and deliberate information-sharing practices. These connectors all contribute to creating a comfortable, supportive division environment that allows

experimentation and risk-taking, necessary if change is to happen. Division models must assure these connectors that encourage two-way communication and collaboration as they bring direct help to teachers. The connectors may be thought of as paths where the Linking Agent operates very visibly and is accessible to teachers.

To explain the decision to name connectors as a critical feature for an implementation model, it is useful to refer to the literature on 'networking.'

The concept of networking is old. Networking is explained as a way people help each other through personal connections. Networking offers routes for personal and community action. Some authorities presently analyzing the networking phenomena of the 80's are Gus Jaccaci, Jessica Lipnack, Jeff Stamps, Pat Wagner, Allen Parker, Frank Reissman, Charles Kadushin, John Adams, Seymour Sarason, Carol Pierce, Marilyn Ferguson and Jonas Salk. In the March, 1983 issue of Forum, the J. C. Penny Company editors feature the theme "Networks: A Matrix for Exchange." In that issue, the editors offer articles by these researchers who are interested in how people connect to get things done. These futurists have studied networking for school improvement. They have contributed significantly to the large body of literature on networking as a catalyst for change. The editors

of Forum define a network as "a web or a matrix of invisible connections." They explain that networking can be a way to reach goals, offer service, or satisfy needs. The editors indicate that networking can work for people by helping them keep informed, gather perspectives, expand horizons, foster I win/We win thinking, keep in touch with people, and increase awareness of personal strengths.

Futurist, Carol J. Pierce, writes that collegial relationships depend on assertive particpants who are willing to risk. Pierce states that effective networkers must be initiators, autonomous beings, and interactive communicators.[158]

The change literature that has focus on networking complements what has already been expressed in this literature report.

The six Critical Components proposed through this study for a model for school program improvement incorporate a network for change. Combined in an innovation network, the six Critical Components direct some formal interactions while encouraging informal relationships. Dr.Allen Parker refers to six common traits among effective networks:

- shared commitment to the innovation
- feeling of shared purpose and commitment

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[158] Carol J. Pierce, "Behaviors That Help," Forum (March, 1983): 20-21.

- openness in sharing and discretion in using information
- combination of professional and personal support
- voluntary participation by and equal treatment of members
- one or more members functioning effectively as facilitator.[159]

These features of effective networks are inherent in the combination of the Six Critical Features for models. Parker's priorities can thus be met as school divisions introduce new programs.

3. Six Major Features for a Model for Program Implementation at the School Division Level

Program success depends on what teachers do with children. Any model for program change should be a design to help teachers grow and get good at changing. Fullan concludes that for program change to happen, there must be benefits for both students and teacher. The meaning of the change must be clear. That meaning has two components. The teacher must be able to answer two personal questions. One question, based on theory of education, would probe WHAT change is. The teacher might ask:

"What does the change mean for what I do?"

The other question has focus on theory of change, and the implementation process that reflects HOW the teacher must

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[159]Allen Parker, "Networks in Education," Forum (March, 1983): 20-21.

go about changing. A teacher might ask:

> "What does the process of introduction and follow-through look like from my perspective?" [160]

Any division implementation model should help teachers answer these questions in ways that promote professional growth.

This researcher concludes an extensive review of the literature on school program change believing that there are six critical features that must be incorporated in implementation designs. Those six critical features are:

1. Critical Tasks Component
2. Major Planning Units
3. Major Contributing Groups
4. The Teacher as Central
5. Leadership and the Linking Agent Role
6. Connectors as Key Components

Where school divisions approach implementation guided by these findings, teachers are likely to get better at changing.

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[160] Michael Fullan, The Meaning of Educational Change, OISE; 1982, pp. 295-6.

CHAPTER III

PROCEDURES IN DEVELOPING AN IMPLEMENTATION MODEL

Initial Phase: Literature Review, January 1 - August 12, 1982

There were three stages involved in completing the initial literature review. They are described in the paragraphs that follow.

1. Conventional Library Search. In the initial stage of this study, a conventional library search was undertaken. The purpose was to determine what researchers and curriculum writers identify as significant to success in curriculum implementation planning. Books, tapes, journal articles, ERIC documents, and other unpublished reports were included. Interviews and workshops provided additional background.

2. Analysis of Findings of Initial Library Search. Topics, issues and problems highlighted throughout the literature were analyzed. Categories of literature findings were examined to isolate what might best contribute in answering the question of the study.

3. Refinement of the Literature Review Report. Five categories were selected that identify critical tasks of the curriculum implementation process. Those five task categories provided the framework for a more focussed search of the literature. That intensive search tested the proposed "critical

tasks" as key to program improvement. Evidence gathered was used to explain, refute, support, or adapt the initial positions taken. Five headings that summarize the five broad critical tasks were used to organize the first written report. Only opinion based on established research and reports of widely respected curriculum experts were incorporated in that written analysis. Major references reported were by writers who have done recent comprehensive reviews of the literature on curriculum implementation. A Canadian point of view was included. Only ideas consistently supported in the literature were reported as findings in answering the question of this study.

The preliminary literature review report was presented to Dr. Harold May on August 13, 1982, to seek comment on the appropriateness of the procedures and analysis completed to that date.

Developing Phase: Analysis of Theory, September, 1982 to March 31, 1983

Analysis of theory that related to models for curriculum implementation was based primarily on data from three sources:

1. Previous experience directly related to school program implementation.

2. Direct Involvement in Current Program Implementation Activities 1982-1983.

a) Observation and active participation in current curriculum implementation action in one school division.

b) Input derived from dialogue initiated with other Manitoba educators.

3. Extension of the literature review: September, 1982 to March, 1983.

Following are summaries that elaborate on these three facets of professional activity that served this researcher in analysis for the study.

1. Previous Experience Directly Related to School Program Implementation

Personal experiences provided background for weighing theories proposed in the literature. This practical experience is summarized under the three headings that follow.

a) Experience with Manitoba Department of Education Program Development and Implementation, 1975-1979

Background experiences relevant to this study include four years as Manitoba Department of Education Elementary Consultant serving provincial committees responsible for revision and development of new programs, 1975-1979. Committee responsibilities included orientation and initial implementation of K to XII programs in school divisions. Related inservice experience with teachers in most Manitoba divisions involved assisting teachers in implementing recently revised programs. Inservice goals included strengthening school learning climates, improving communication, and fostering articulation across programs and grade levels while promoting a broadened view of the implementation process.

b) Relevant Teaching Experience

Teaching experience in the following settings contributed significant background for this study:

- remote, northern, one-room school.
- urban divisions in elementary and junior high classrooms.
- K to XII classrooms in a division incorporating one town of 10,000, several village communities, and rural farm areas.
- instructing student teachers and coordinating their school experience program. In liaison tasks with schools involved, program implementation issues arose.
- teaching as a community volunteer on topics that include: Children's Literature for Parents, Utilizing Volunteers, Christian Education, Adult Leadership, Communicating with the Aged, Challenging Children.

2. Direct Involvement in Current Program Implementation Activities 1982-1983

There were two major facets to this researcher's current experiential base in determining critical features of an implementation model. One information source was varied experience in a particular school division. The other data source involved persons outside that school division. The following two sections summarize this involvement that contributed to analysis reflected in the model this researcher proposes.

a) Observation and active participation in current curriculum implementation action in one school division

This researcher participated as follows:

- Acting as chairperson of the Lord Selkirk School Division Social Studies Study Group

since January, 1982 allowed relevant participation. This committee coordinates division activities in implementation of the recently adopted K to XII Social Studies program. Provincially issued guidelines directed committee efforts in the first year of the implementation stage. The committee helped teachers plan, prepare, and begin to translate the guidelines into classroom programs. Participation as chairperson working directly with the division curriculum superintendent allowed exploration of major facets of a specific change process.

- Formal collaboration with the division Language Arts implementation team offered broadened scope for considering components of a model. This activity contributed extended overview of an active, shifting, division curriculum implementation scene.

- Membership on the division Curriculum Council was useful in seeking a holistic and integrated view of the complex implementation challenge.

- Serving as school representative to the Social Studies Study Group gave opportunity for coordinating implementation activities at the school level. Observation of specific teachers in the process increased sensitivity to the need to respect change as an individual experience for adult learners.

- Functioning as school resource teacher in a consultative model, allowed practice in collaborating and assisting elementary teachers in initial-stage implementation activities related to K to VI Social Studies and Language Arts programs. This experience involved cooperative goal setting, materials identification and organization, unit development, evaluation, monitoring and adapting programs in progress, recognizing emergent outcomes, and working toward integration. With mainstreaming as a division priority, it was necessary to approach program implementation with individualized approaches for teachers and children.

Specific analysis of curriculum implementation action in the Lord Selkirk School Division related directly to the first year of implementation of K to XII programs, 1982-83. That practical involvement provided an important context for analysis and synthesis with what the literature offered as theory significant to this study. The Critical Tasks Component was assessed through this direct involvement and practical application.

b) Input derived from dialogue with other Manitoba educators

This researcher deliberately chose to engage in activities that promised to be useful in isolating critical features for an implementation model. Following are some examples of those interactions with other Manitoba educators directly involved in examining program implementation concerns.

- Attended a curriculum design workshop presented by David Pratt of Queens University, in Winnipeg, May 26-27, 1982. The 14 hour inservice course was based on David Pratt's book Curriculum: Design and Development.

- Participation in the Manitoba Department of Education workshops on planning inservice for curriculum implementation of revised K to XII school programs. Division delegates attended August 25 to 27, 1982.

- Ongoing consultation with Manitoba Department of Education program consultants.

- Presented a workshop for Manitoba principals, October, 1982. Literature review findings were introduced through the topic "The Role of the Principal in Curriculum Implementaion." As workshop resource person, it was possible to involve participants

in examining the findings as proposed in the tentative model. Questions raised and feedback gained helped in refining the model.

- A presentation made to graduate students of the Faculty of Education, March, 1983, yielded significant input. Particular concerns were expressed related to evaluation issues in the change process.

- Assisting a school staff in a neighbouring division with inservice for implementation provided opportunity to consider the proposed model in another divisional context. Involvement included collaboration in planning and presenting a workshop with that elementary school staff. That gave opportunity to utilize the proposed model to generate a specific plan of action. Involvement was in spring term, 1983.

- Personal contacts made with persons in several Manitoba school divisions enabled examination of some emerging division implementation models.

- Useful experience was gained through organizing a university credit course that directly related to program implementation of the revised Manitoba K to XII Social Studies program. That course was given in Selkirk, September to December, 1982. Many findings from the literature review were incorporated through the cooperative planning. The credit course was delivered on a division site with objectives and presentation reflecting teacher-expressed needs. This researcher was an active participant and collaborated with the professor and teachers taking the course. Resulting analysis helped in clarifying what should be incorporated in models for school program improvement. Follow-up activity related to the course has continued.

3. Extension of Literature Review, September, 1982 to March, 1983

Continuation of the literature review was based on feedback from faculty advisors and other persons directly involved in current implementation activities described in this chapter. Analysis that drew on past personal experience also led to further reading. Revision and expansion of the literature review was incorporated in the written analysis that identified key components for a proposed model for curriculum implementation. The comprehensive literature review was circulated for feedback to several persons experienced in the curriculum implementation planning field. These include:

- persons with university teaching background
- school division program implementation leaders
- program consultants with the Manitoba Department of Education.

Responses were considered and are reflected in the literature report in Chapter II. That report was submitted with the study proposal presented to Faculty of Education advisors in March, 1983.

Six key features for an implementation model were identified through this study. The procedures can be summarized as:

a) literature review

b) reflection on past experience

c) observation and participation in current relevant contexts

d) dialogue with professionals expert in the field

e) synthesis of theory expressed in a written report in which a model is proposed in answer to the question of this study.

Concluding Phase: Proposing the Model
April-May, 1983

1) Description of the Model as presented in Chapter IV.

2) Preparation of concluding statements and recommendations as presented in Chapter V.

CHAPTER IV

THE HARDY MODEL FOR PROGRAM IMPLEMENTATION

Introduction: A Model For Program Implementation In School Divisions

A model is proposed as an outcome of this study. It is described in this chapter. That model is intended to apply to implementation of provincially developed K to XII school programs. There are six critical features to the model this researcher proposes as a guide to practitioners. The six critical features to be described in this chapter are:

1. The Critical Tasks Component
2. Major Planning Units
3. Major Contributing Groups
4. The Teacher as Central
5. Leadership and the Linking Agent Role
6. Connectors as Key Components.

Users of this model would have the broad goal of strengthening school programs for children in a school division. All implementation efforts would, therefore, be directed to improving quality of educational experience for children.

There are specific conditions that would need to exist in a school division before this model could be expected to promote strengthened programs. Those conditions have been summarized from literature findings.

Conditions that Should Precede Application of this Model

1. Involvement in Program Development Stage

Division teachers should have opportunity for involvement/input at the program development stages at the provincial level. This might mean division representation on curriculum committees, written reaction invited on draft reports or interim documents, pilots, regional workshops, or other direct expressions of opinion.

2. Orientation and Overview of a Program Presented by Provincial Department of Education

Initial orientation to a specific program should be offered to division administrators and teachers by the provincial department of education personnel. Documents and presentation of overview of a proposed program will, therefore, provide a common starting point. With the introduction to a K to XII program, there should also be opportunity for ongoing dialogue with provincial consultants and more specific input or inservice, on request.

3. Coordinated Division Adoption-Process for a Specific Program

Formal decision to adopt a particular K to XII program should be reached through coordinated efforts of a division-wide curriculum implementation planning group. Such a school division structure could assure representation from every school with individual input invited from all teachers directly involved in the innovation.

4. Division Structures that Invite Teacher Input in Planning for Implementation

Teachers should be involved in determining details of their own program implementation activities. School and division structures should invite teacher input in the division design for implementation of any K to XII program in which a teacher is directly involved.

5. Monitoring for Balance and Integration of Division K to XII Programs

Since there is usually more than one K to XII program in early stages of implementation in any school division, monitoring is needed to assure complementary integrated approaches to introducing those various programs. This coordination should be part of the division long-range planning process that assures a balanced approach to program change. Participating teachers should have opportunity to be active in the evaluative process that monitors both the change process and program outcomes.

Six Critical Features of The Hardy Model for Program Implementation

Six key features are identified in this program implementation model. They are briefly described in this section that answers the question of this study. Under the six headings, descriptive statements on the model features condense findings already recorded in the report on the literature.

To assist the reader, this researcher includes the diagrams, A to C. This graphic representation of the model highlights the relationships of the six model components.

The diagrams focus particular emphasis on the two-way communication-collaboration network of the ongoing program improvement process. Relationships in the process and the cyclical nature of program improvement are depicted. Communication patterns and paths for collaboration are part of the network. But, several other complex concepts are incorporated within each of the six critical features proposed in this model. Those significant intents are reflected in the report on the literature. Symbols for the critical components used in Diagrams A to C are presented in the key that precedes Diagram B.

The Critical Tasks Component is the major feature of this proposed model. That feature identifies what to do in any program change project. That direction for action is essential. The other five features can be thought of as the necessary context for tackling those jobs well. Therefore, the Critical Tasks Component is the first to be described in the following sections of this chapter.

1. Critical Tasks Component

This model identifies five complex, critical, major tasks that must be attended to in complementary ways in any school division program change project. These five tasks expressed in action statements imply ongoing partnerships in the curriculum implementation process. The following five statements summarize the five critical tasks of the process:

- Identify and Examine Intents of Curriculum Change: Establish Overview and Define Goals
- Organize and Manage for Curriculum Implementation: Clarify Processes and Structures
- Plan for Professional Development: A Continuous Growth Process
- Nurture Roles and Relationships that Promote Effective Change: Assure a Supportive Climate
- Recognize Significant Contexts, Current Trends, Appropriate Resources and Local Needs with a Look to the Future: Critical Analysis.

These five tasks involve the central and common planning activities of all professionals directly concerned with a particular program implementation project. These tasks must be attended to simultaneously and continually through an integrated approach.

Diagram A presents one graphic representation of these five overlapping critical tasks. Five overlapping circles that represent the five critical tasks are joined to convey integrated efforts of division implementors. An orthographic projection would highlight the continuing action. This symbolic expression conveys the dynamic and progressive nature of the process. The critical tasks are those to be assumed by individual persons and groups in the division. Outcome at the centre of this implementation action can be thought of as professional growth that is reflected in strengthened programs for children. The professional growth can be considered in terms of individual teacher development, school team development, and school division growth. Therefore, this model demands coordination of professional development

THE CRITICAL TASKS COMPONENT:
The Major Feature for a Program Implementation Model

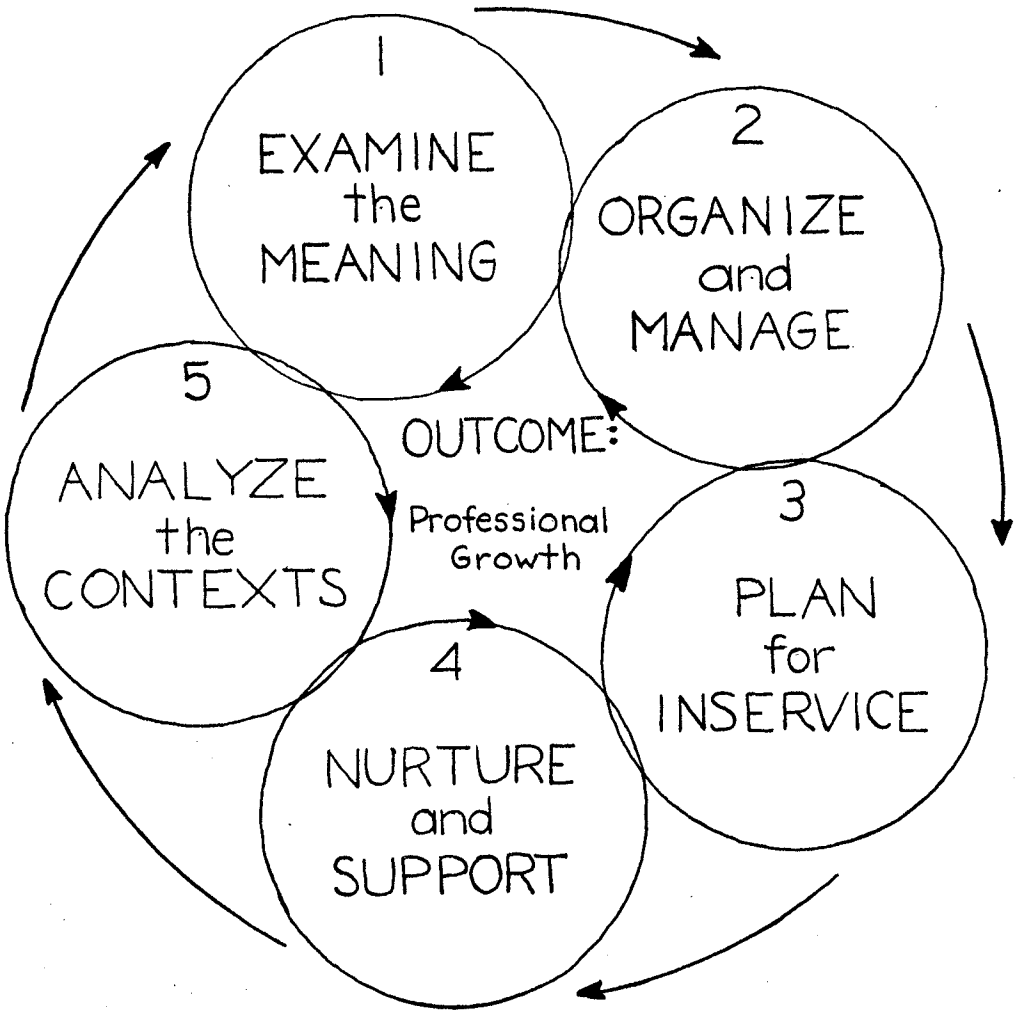

Diagram A

opportunities at all levels and phases of an implementation project for all active participants in the process. The symbol for overlapping critical tasks of implementation will be used as placeholder for the Critical Task Components in other diagrams that further explain this model. One could think of this bloom-like symbol appearing in petalled layers as individuals and groups grow from one stage to the next. Movement and development is unique to the persons participating and their current local division contexts. There is spiralling movement as the tasks are tackled. In a process never static, there is limited opportunity to backtrack for a fresh start on one or more of the tasks without displacing other key determinants in the process. Balanced response to the tasks at hand encourage well balanced classroom programs. Gaps in response to the critical task components could delay or distort intents of a proposed program. Thus, one might visualize a wilted or deformed bloom symbol as depicting neglect or imbalance in division planning. The Critical Tasks Component identifies what must be done well if teachers are to get good at change. Quality of program change depends on how the tasks are tackled.

2. Major Planning Units

This model proposes a dynamic interactive process that promotes cooperative planning for curricular change. This process is described as operating at three major planning levels or decision-making units of the school division system:

a. Individual Teacher as Implementor with particular students

b. Individual School Level/Unit

c. School Division Level/Unit.

Major Planning Units are graphically presented in Diagram B where triangle symbols represent the three key levels/units where professional planning efforts are focused.

The Critical Tasks Component Symbol of overlapping circles appears in Diagram B to highlight the actions that must be continually undertaken by persons at all three planning levels/units of any curriculum implementation context. In Diagram B, two-way arrows appear on connecting lines that resemble telephone wire. These lines indicate that any participating teacher is involved in cooperative planning in four directions. The teacher is active collaborator with (a) students, (b) as a member of the school unit team, (c) through the school divison implementation planning structure, and (d) through relationships with persons in contributing groups not directly part of division schools. The arrows on connecting lines represent the ongoing communication of the process which promotes strengthened programs through professional growth. Collaboration between the three major planning units and other major contributing groups are also depicted in Diagram B by the connecting line symbols. The connected circuit suggests synergism in the process.

The collaboration at all three levels is pointed toward strengthening programs for children. That direction is visually confirmed in Diagram B. Planning with fellow professionals

KEY TO DIAGRAMS:
The Hardy Model for Program Implementation

Six Symbols Used in Diagrams A to C
Representing Six Critical Components of The Hardy Model

1.  -Critical Tasks Component Composed of 5 Key Tasks
2.  -Levels or Units for Key Planning Action
3.  -Major Contributing Groups Involved in Collaboration
4.  -Teacher as Central in the Implementation Process
5.  -Leadership and the Linking Agent Role as Change Catalyst
6. -Connectors of the Implementation Network

MAJOR PLANNING UNITS:
A Key Feature of a Program Implementation Model

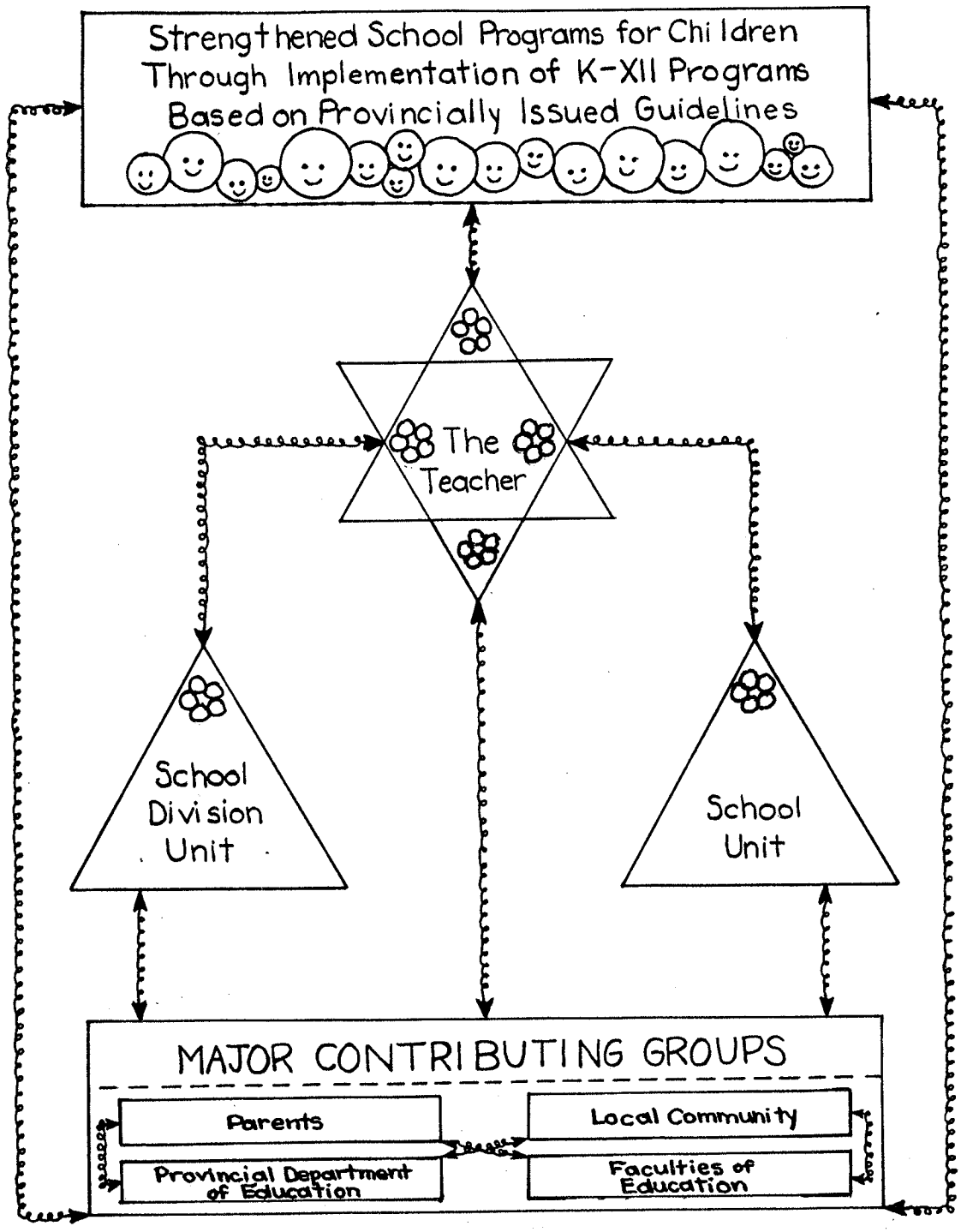

Diagram B

is assumed to lead to improved interpretation of program intents through planned curriculum experiences for particular children. The quality of the planning is reflected in real classroom programs. There is need to recognize the relationships of planners at the three key levels as they tackle the five key tasks in direct consultation with persons in four groups critical to implementation success.

3. Major Contributing Groups

Four groups are identified as critical participants with division personnel in implementation of provincially developed K to XII programs. School division professionals should interact and collaborate with persons in these four groups on an ongoing basis. This model directs participants to interact with these groups at each of the three division planning levels/units. Four major contributing groups identified for this component of the model are:

- Parents of the Students
- Local Community Groups
- Provincial Department of Education
- Faculties of Education.

Diagram B includes two-way arrows to show connections between these four groups. The arrows are intended to stress that ongoing, cooperative efforts of persons in these groups can contribute to and support teachers in program implementation. Ongoing communication between school division professionals and these groups during program development stages can greatly increase practical support to teachers in early

implementation stages at the classroom level. The literature confirms increased success if they are continually involved. School division professionals should structure the implementation process to assure ongoing communication and active participation. Connecting lines in Diagram B have two-way arrows that indicate the ongoing communication and information-sharing that contributes to the continuous program evaluation. The actual program with children has direct connection to persons in these four groups who collaborate with teachers. Their input is valued at classroom, school, and division level. They also feed the larger provincial change network.

4. The Teacher as Central

The teacher role is central in this program change model. The teacher interacts and cooperates in planning in four distinct directions and, in each case, is engaged in the five critical planning tasks this model highlights. The teacher interacts and cooperates with the following four groups of persons:

a. classroom student learners

b. school-building colleagues with principal as leader

c. members of division planning team coordinating division K to XII implementation who are included in the major planning level/unit this model identifies as the "school division unit"

d. persons who represent the four major contributing groups.

The teacher, therefore, has four major facets to the decision-making role of planning for positive change in classroom

programs. Teacher involvement with division colleagues and major contributing groups is expected to promote strengthened classroom programs.

In Diagram B, two-way arrows on connecting lines represent ongoing collaboration between persons or groups the model declares as partners in nurturing effective program change. These arrows imply a cycle of needs-assessment, decision-making, cooperative action, monitoring of implementation process, ongoing evaluation of program, and, therefore, continual assessment of program change needs.

Diagram B is useful in clarifying the complex teacher role. One triangle represents the teacher as a person collaborating with adults in decision-making about a particular innovation. Over that role-symbol appears an inverted triangle which represents the teacher as planner with children in the specifics of classroom implementation. The two roles clearly overlap and can be complementary. In both roles, the teacher is involved with the five Critical Tasks that direct professional effort toward strengthened programs. The overlapping circles symbol, introduced in Diagram A, is used in Diagram B to indicate the activity related to the critical action tasks. The circles symbol highlights The Critical Tasks Component as the major component of this model. The relationships this model describes emphasize the heavy demands that program shifts place on the classroom teacher. The interaction expected reflects the responsibility placed upon the teacher as key manager, coordinator, and interpreter of any planned

program change. Feedback paths to the provincial program development base are inherent through the model networks that promote ongoing program evaluation and continuous revision.

The model, as represented in Diagram B, conveys a reaching movement orchestrated by the teacher with persistent focus on the classroom scene.

Diagram B visually confirms that a solid and coordinated program implementation resource base is connected to two key divisional, professional planning groups that can offer support to the teacher in the curriculum change process. In Diagram B, the teacher appears in the critical and central position of researcher/planner/learner. The teacher has ultimate control of actual change in program. Division administrators and elected officials have authority to decide on how to allocate resources for supports that can help assure that the teacher is assisted in ways that facilitate positive change in programs.

5. Leadership and the Linking Agent Role

This model can reflect the literature and real school division contexts only if it clearly reserves place for person(s) who fill the critical function of 'Leadership and the Linking Agent.' That role incorporates leadership, communication/coordination, advisory functions and "reading the scene" to effectively facilitate purposeful action. Implementation success can depend largely on the arts of the leader who operates as Linking Agent in applying what Eisner refers to as "Educational Connoisseurship" and "Educational Criticism."

The person who acts as Linking Agent in a division program change project must continually survey that curriculum implementation scene. There is need to work as an artist to maintain a balanced grasp of what is going on in a division as a whole. Recognizing significant and shifting patterns, considering problems in broad contexts and facilitating the process is the Linking Agent's function as programs are being put in place.

School principals are recognized as school building leaders as well as members of the division administrative team collaborating with division curriculum coordinators or superintendents. In school and classroom contexts, it is assumed that principal and designates, assisted by assigned division consultants, provide support to teachers and serve as facilitators sharing the Linking Agent role in the school-based implementation action.

This model assumes that each school is represented on a division committee that coordinates division efforts. Some person(s) are needed who can be identified as Linking Agent with that committee and who can also interact directly with persons in all three division planning units and with representatives of major contributing groups. Diagram C incorporates all elements of the implementation model introduced in Diagrams A and B. In Diagram C appears a symbol to represent a facilitating person joining connecting lines of the implementation network. This cartoon symbol represents the person(s) who operates as key school division Linking Agent(s)

THE HARDY MODEL FOR PROGRAM IMPLEMENTATION

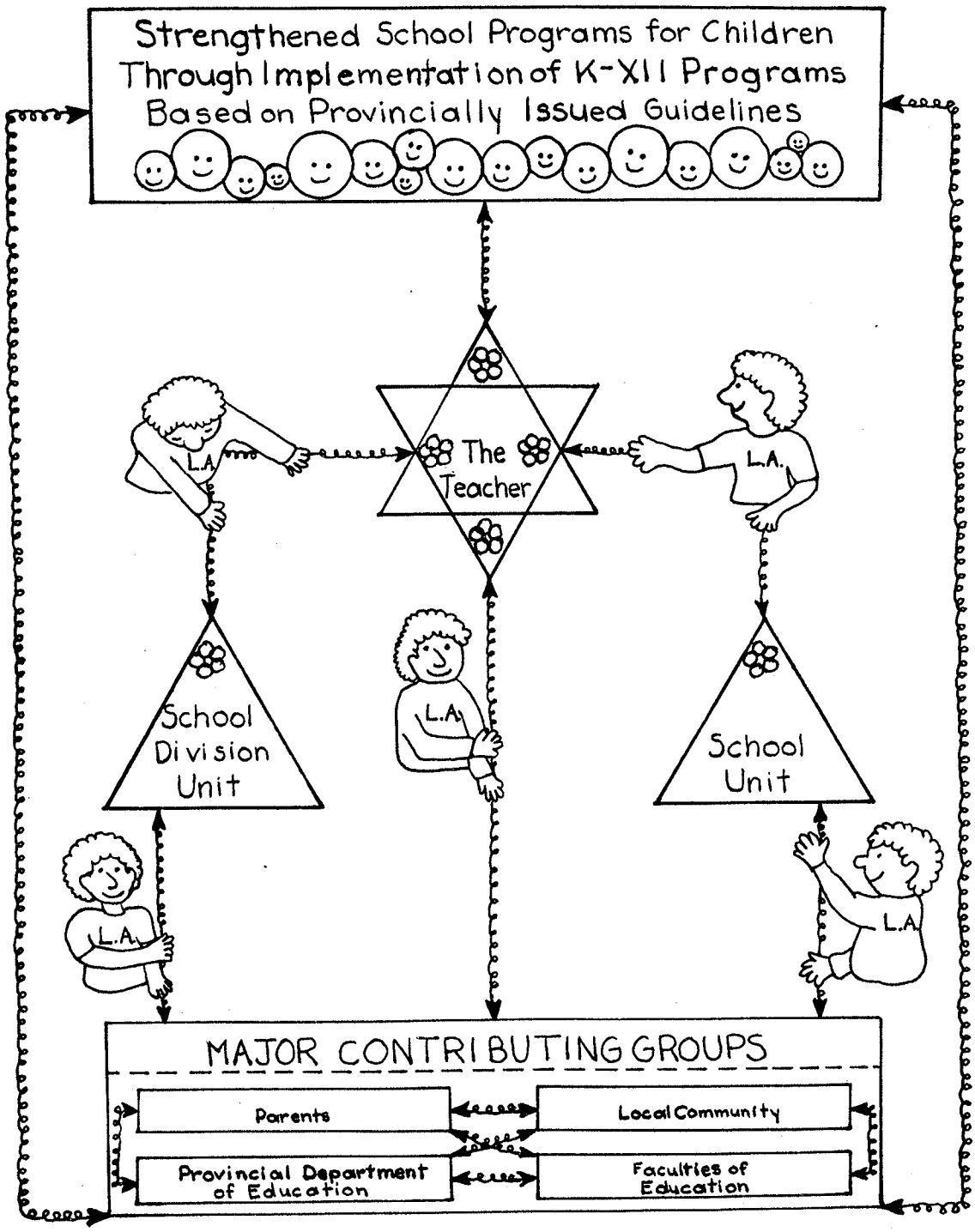

Diagram C

Key: p. 155

in a particular program shift. Linking Agents have leadership responsibility for the implementation effort. Balanced and complementary attention to the Critical Tasks is heavily dependent on the monitoring and nurturing of these Linking Agents. In some divisions this role might be centralized and fulfilled primarily through a senior division administrator. Other divisions might assign a consultant, second a teacher or designate facets of the role in other ways.

Qualities of an effective Linking Agent would be a subject for serious study as a division determines implementation strategies. Flexibility would be a prime characteristic. A Linking Agent must be seen by active participants, as a superior teacher-helper in this model that would foster professional growth.

6. Connectors as Key Components

Related to all other features of this model are the connective interactions nurtured and sharpened by the Key Linking Agent(s). These connectors are key components of a model that promotes successful implementation of K to XII provincially issued program guidelines. The two-way arrows in Diagram C highlight this process. The Linking Agent symbol signifies the ongoing nurturing functions of a Linking Agent in all phases of a particular change process and along all paths that constitute the implementation network. The linking agent role and functions cannot be thought of as separate from the connectors which are key pathways for the process. It is effective synthesis that leads to strengthened

program. It involves actions along the routes through which division professionals are 'getting good at change' as they tackle the tasks of a particular change. The synthesis of leadership, linking agent, and the connecting phenomena determines the quality of the change for children. This synthesis constitutes what serves as the powerful catalyst for positive change in school divisions. Superficial attention in performing leadership and linking agent functions lead to breakdown in connections critical to success in implementation.

That Linking Agent serves as key in the evaluative functions of the division efforts toward K to XII program improvement. That person is a member of division-wide coordinating committees that steer implementation. The Linking Agent must assure articulation of policy and structures that promote coordinated effort.

Concluding Statement on the Hardy Model

The six key features of this model are presented as interdependent and are expected to contribute in complementary ways.

Zais has proposed an eclectic concept of curriculum theory: ". . . a generalized set of logically interrelated definitions, concepts, propositions, and other constructs that represent a systematic view of curricular phenomena. The function of curriculum theory is to describe, predict, and explain curricular phenomena to serve as a policy for the guidance of

curriculum activities."[161] This model may function as a policy guide to activity in school divisions. It highlights theory important to implementation success. The model summarizes and explains key relationships. It offers a framework that incorporates theory worth utilizing in program change efforts. The model places emphasis on five critical tasks in implementing school programs and offers a pattern for tackling those tasks. It identifies five other design features necessary as context for tackling the implementatation tasks.

The model allows any participant or group in the implementation process to initiate the proposed actions. Regardless of the starting point, the design generates professional action involving the same five tasks within the designated framework. All participants need not become involved simultaneously. Flexibility is inherent in the model.

The literature report includes information useful to school division innovators on the six main features identified in this model. This model identifies what must have deliberate attention in planning for change in school programs. The specifics of how that planning evolves depend on unique characteristics of particular school divisions and persons participating. The model, if artfully applied, promises an organized, common sense approach to program improvement in school divisions.

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[161] Zais, Curriculum Principles and Foundations, p.87.

CHAPTER V

Conclusions and Recommendations

Summary Statement on The Hardy Model for Program Implementation

Holistic view of school program implementation was sought in order to develop a model that promotes heuristic purpose. Our age has placed heavy value on application of technological rationality in solving problems of human behaviours. Not until the 80's has there been so much support for combining arts and sciences in models for reaching educational goals.

James Macdonald refers to the aesthetic dimension of rationality as "man's capacity to cope rationally with the world on an intuitive basis." He explains that theories tested or validated in reality can yield "fresh perspectives." He refers to Kuhn and the Hegelian dialectic as he builds a case for open approaches to creating curriculum designs. He affirms that theory ought to be based upon coherent rationale. Theory, he states, can be applied to both viewing and solving problems.[162]

Macdonald's comments on curriculum theorizing encourage the development of models for curriculum improvement. Those models can be theoretical frameworks to guide school division

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[162]Ronald C. Doll, Curriculum Improvement, pp. 427-428.

planners as they generate specific designs for implementation of programs. Macdonald's views endorse a model based on a review of the literature, analysis of what has been experienced, and that which can be observed occurring in school divisions. This researcher used these procedures in developing the model described in Chapter IV of this report.

This researcher has presented a model for curriculum implementation of K to XII programs in school divisions. The shape of a particular curriculum process that operates in one school division was illumined by drawing upon past personal experiences. Resulting analysis and synthesis of data derived from these two sources were melded with theory distilled from the literature. Such synthesis sharpened the focus on critical features of the process. Disciplined thinking, where ideas were tested in real life, resulted in this researcher's interpretation of curriculum theory. A model was created that presented this researcher's synthesis of curriculum theory that should be incorporated in school division efforts toward strengthened K to XII programs for children.

The model presented in Chapter IV is simply described. It is this researcher's way of explaining what is critical to successful curriculum change in school divisions. The description reflects one person's blend of study and experience synthesized to present a point of view. The model provides a focal point for discussing a topic of major concern. If the model prompts further analysis and experimentation, it serves additional purpose. Critics may revamp the model, reorganize

its elements, and create better models. Other model-builders could incorporate different theories. Multiple ways are needed for looking at the program implementation challenge. Nothing is static. This Hardy model can only present key features identified to date!

Six critical features are identified in the Hardy Model for Implementation. Those features are:

1. Critical Tasks Component
2. Major Planning Units
3. Major Contributing Groups
4. The Teacher as Central
5. Leadership and the Linking Agent Role
6. Connectors as Key Components.

Of those six critical features, it is the Critical Tasks Component that is the major feature. The Critical Tasks Component identifies the five key tasks of the implementation challenge to be met through application of this model. This model is a design for helping teachers get good at change. The model can guide school division professionals in their efforts to strengthen programs for children.

It is important to recognize that specific conditions should exist in a school division if this model is to promote greatest potential for positive program change. Those conditions, summarized in five statements, were included in Chapter IV of this report. Assumptions of this study given in Chapter I help to explain those conditions. The model offers direction in the very complex curriculum change process.

Major Strengths of The Hardy Model

The outcome of the study has been a design that meets the requirements that the literature proposes. The theory distilled from the literature has been tested in real-life program implementation activities in which the researcher has been directly engaged. An examination of the model can reveal key facets that the literature reports as essential to curriculum implementation success. Analysis of the model can also determine ways in which the design allows circumvention of problems that led to implementation failures in recent decades.

Following are overlapping statements that indicate strengths of this model that is intended to guide practitioners in implementing programs in a school division:

1. clarifies the program implementation challenge and places the teacher as central
2. recognizes professional growth as individual, ongoing, and self-directed
3. guides division professional development programs
4. allows wide application and is appropriate for any provincially issued school program at any level of the system
5. reflects organized common sense in ways supported by the literature and current opinion of division professionals
6. promotes cooperative approaches and ongoing collaboration of individuals and groups
7. allows implementation to be initiated at any level of the system by either an individual or a group

8. allows continuous entry of participants within a coordinated, ongoing process that ensures uninterrupted program refinement

9. incorporates ongoing diagnosis and evaluation of the process, the programs, and the support systems

10. has value also for a school division-initiated program not necessarily provincially issued

11. encourages curriculum research at all levels of the education system in the many facets highlighted as significant to program improvement.

Need for Testing the Model

The Hardy Model can contribute to strengthened division programs if it is used as a planning tool for improving implementation practice in school divisions. It can be a point of reference for professionals who want to examine current practice or plan for future implementation action. While educators may not choose to adopt the model in its entirety, it can be used as an instrument for generating dialogue and encouraging collaboration. The model can help practitioners capture a snapshot of a current context or project an image of a desired situation. In that way the model can serve as significant in goal-setting. Users of the model should test its features which are based on the theory reported in the literature. The researcher's pattern proposed for real-life division action should be carefully examined to test its practicality and viability in different division settings and for a range of programs. Does this model help users recognize what must be done

well for program improvement? Can the model promote professional growth? Can the researcher's view of the model's strengths be supported by others? These are sample questions that could be significant in testing the model.

In expressing the background and purpose of this study it was stated that the model to be developed should help yield answers to common curriculum implementation questions. In testing the Hardy Model it would be appropriate for users of the model to analyse how the model helps yield answers to those same questions:

How do we get started?

What really makes a difference?

What should we be doing well?

How do we get good at change?

How do we recognize and circumvent barriers to change?

What should help us in any curriculum change context?

How can we promote quality of educational experience for children?

How can busy teachers help themselves and effectively utilize others in the program change process?

How might we view the change process and gauge growth of participants in the process?

Critics of this Hardy Model can contribute to the curriculum field.

Persons or groups involved in program implementation at various levels other than the school division have reason to study this model. Planning for effective

program implementation concerns provincial departments of education, professional teacher groups, faculties of education, and interested lay groups. The model can be used as an instrument for planning program change from any of these various perspectives.

The value of the model can be tested if it becomes an instrument in determining plans for purposeful action toward improved programs for children. Such use will ultimately reveal the strengths and gaps of the design. Practical application can lead to refinement or reshaping of the model. Testing the model will also contribute to clarification of what needs to be further researched in the curriculum implementation field.

Other Suggestions for Further Research

Need for further research on improving school programs is repeatedly referred to in the literature report of this study. Other curriculum writers raise questions that this researcher recognised as significant while in the process of deriving the Hardy Model. More information would strengthen the likelihood of effective application of the model.

In developing this model for curriculum implementation, topics emerged for further investigation. Those topics are closely related and can be identified in a wide variety of clusters. Following is one example of how research needs can be expressed with subheadings

given to guide direction for future studies:

1. Organizational Issues

    a) models for division implementation of provincially issued curricula
    b) division-wide curriculum implementation committees
    c) authority issues in program implementation and the elected representative

2. Leadership Concerns

    a) leadership development in school divisions
    b) the linking agent role in the curriculum change process
    c) teacher-principal relationships significant to program improvement

3. Teacher Supports and Inservice Needs

    a) patterns for encouraging professional development
    b) involvement of faculties of education in division-based inservice related to program implementation
    c) consultative support to teachers engaged in program improvement
    d) school program change and the adult learner

4. Program Change at the Classroom Level

    a) teacher-student interaction in classrooms that relate to program shifts
    b) descriptive classroom studies

5. Ongoing Evaluation of Programs and the Implementation Process

    a) formative evaluation of program change projects
    b) stages and levels for evaluation
    c) communication issues in program evaluation
    d) methods for evaluating in program shifts

Concluding Statement on Program Improvement

Change in school programs should be deliberately planned to promote quality in educational opportunities for children. This researcher has presented a design

for generating plans that might strengthen K to XII school programs in school divisions. The model incorporates six critical features. The major feature is the Critical Tasks Component. Professional growth is an expected outcome if division participants effectively engage in tackling the five critical tasks in ways this researcher suggests. Relationships between the key features are highlighted in the model. The model promotes ongoing professional growth which is required for significant improvement in school programs for children.

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