MACRO-IMPLEMENTATION OF CRITICAL THINKING IN BRITISH COLUMBIA’S SOCIAL STUDIES CURRICULUM

By

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ABSTRACT

This study investigated how macro-implementation occurs within the British Columbia Ministry of Education. In particular, the Social Studies Curriculum Guide, Grade One-Grade Seven (1983) and related student textbooks, teacher videotapes, evaluation reports and other implementation support materials were examined to determine how the policy "critical thinking and problem-solving skills," a key component of the curriculum, was interpreted. Interviews (N=15) with relevant Ministry coordinators, committee chairpersons and members, and authors/editors/consultants were audiotaped and later transcribed for analysis in light of the existing macro-implementation literature. It was found that the curriculum lacked clarity, was perceived variously by different policy developers, and was interpreted in discrepant ways in implementation materials. Ministry efforts to implement "critical thinking and problem-solving skills" appear to have been thwarted by lack of initial policy clarity; inconsistent liaison within the Ministry to facilitate shared expertise, understanding, and positive rapport; as well as insufficient attention
to capacity building, particularly of Ministry coordinators responsible for monitoring each phase of the policy. Capacity needs highlighted in this study included adequate working conditions for developing complex policy, knowledge of the policy and its implications, as well as understanding the process of change. Future implementation prospects may profit from research which focusses on exemplary ministry macro-implementation plans and those factors which enhance capacity building, liaison, and policy clarity.
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CHAPTER ONE
INTRODUCTION

Theorists and researchers debate such issues as:
What is critical thinking? Can it be taught? What
should be taught? How should it be taught? Of what
utility is such an enterprise? (Ennis, 1985; McPeck,
1985, 1984; Siegel, 1985; Sternberg, 1985, Nov.;
Sternberg, 1985, Dec.; Paul, 1984; Nickerson, Perkins,
& Smith, 1985; Chipman, Segal, & Glaser, 1985; Segal,
Chipman, & Glaser, 1985; Beyer, 1984; Costa, 1985;
Norris, 1985).

Amidst this controversy, British Columbia’s
Ministry of Education introduced the notion, "critical
thinking and problem-solving skills," in the 1983
elementary social studies curriculum. Much of the
literature, however, indicates that implementation of
critical thinking at the school may present a
formidable venture with numerous impediments
(Nickerson, 1981; Goodlad, 1983; Griffen, 1986; Common,
1985; Derry, 1986; Beyer, 1984; Paul, 1984; Bernard &
Gregory, 1979; Sternberg, 1984).

Viewing curriculum policy implementation from a
ministry’s perspective—what is referred to here as
macro-implementation—highlights those factors that
shape an innovation during its development from its inception to classroom materials. Of interest in research on macro-implementation is how the Ministry facilitates integrity of a policy from its development through its numerous translations to classroom resource materials.

PURPOSE

The intentions of this study are to discover how the Ministry of Education interpreted the notion of "critical thinking and problem-solving skills" in the 1983 British Columbia elementary social studies policy and then to delineate how the Ministry of Education facilitated implementation of this notion.

To this end the following questions are investigated:

1. What is the Ministry of Education's notion of "critical thinking and problem-solving skills" in the elementary social studies curriculum policy and what factors have helped shape it? (Chapter II) For example:

   1.1 What notion of "critical thinking and problem solving skills" is represented in the elementary social studies curriculum (1983)?
1.2 How is this notion of "critical thinking and problem-solving skills" justified?

1.3 What factors helped to shape this notion of "critical thinking and problem-solving skills?"
That is, what sources did the curriculum developers use when formulating the notion of "critical thinking and problem-solving skills" in the curriculum (1983)? For example, was use made of critical thinking literature, curricula from other provinces, social studies literature, and Ministry of Education assessments, reports, and policy documents?

2. How does the Ministry facilitate implementation of the notion "critical thinking and problem-solving skills?" (Chapter III and Chapter IV) That is:

2.1. What is the Ministry’s notion of macro-implementation in regard to "critical thinking and problem-solving skills?"

2.2. By what means does the Ministry accommodate macro-implementation of "critical thinking and problem-solving skills?" For example:

2.2.1. Ministry inservice provisions for staff (e.g., Curriculum Development Branch, Program Implementation Services, Learning Assessment Branch, Provincial Educational Media Centre);
2.2.2. Ministry input regarding the notion (e.g., terms of reference for curriculum development, materials selection and publication);

2.2.3. Ministry expectations (e.g., responsibilities, directives, and working conditions);

2.2.4. Ministry efforts toward classroom materials (e.g., authorized and prescribed student textbooks and teacher guides, teacher resource books, films, video tapes);

2.2.5. In-service activities (e.g., district staff, teachers);

2.2.6. Continuation measures (e.g., Social Studies Advisory Committee);

2.2.7. Implementation evaluation (e.g., student assessments).

METHOD

The following tasks were undertaken in pursuit of the research questions:

1. Analysis of the Social Studies Curriculum Guide, Grade One-Grade Seven (1983) in order to determine the notion of "critical thinking and problem-solving skills" represented therein, as well as its
supporting rationale and indication of sources which helped shape it.

2. Analysis of public and unpublished documents and student/teacher materials related to the implementation of the Social Studies Curriculum Guide, Grade One-Grade Seven (1983), in order to assess the Ministry's conception of macro-implementation of "critical thinking and problem-solving skills" (see bibliography).

3. Analysis of public and unpublished documents to determine the policy context of the development of "critical thinking and problem-solving skills" in the curriculum (see bibliography).

The purpose of analysing the documents above was to interpret the meaning of "critical thinking and problem-solving skills" and to identify related implementation considerations. Data that were of interest in each document included:

- statements of definitions/purposes
- statements of prescription
- source material quoted or referred to
- apparent continuities or contradictions among definitions, prescriptions, and reasons across documents
When the documents were compared, of interest were commonalities and differences.

4. Review of macro-implementation literature (1978-1986) to provide an understanding of what it involves, and to compare with the Ministry's conception of macro-implementation.

5. Selected, audio-taped interviews were conducted (n=15) to clarify the Ministry's notions of "critical thinking and problem-solving skills" and macro-implementation as evidenced in the investigation outlined in tasks 1, 2, and 3 above.

5.1. Interview Questions

Interview questions arose from the document analysis. To clarify and corroborate the document analysis, the questions focussed on the following areas:

- What do you believe is meant by "critical thinking and problem solving skills" in the Social Studies Curriculum Guide, Grade One-Grade Seven (1983)?
- What were the factors that shaped this notion?
- What consideration was given to its implementation? (See Appendix 1 for an example of the interview schedule.)
5.2. Subject Selection

The criteria for the selection of interviewees (n=15) included:

5.2.1. Chairpersons of all committees directly responsible for the development of the curriculum and its macro-implementation (Curriculum Development Branch coordinators [49, 50, 28, 59, 62] chaired all committees except for 24 who was appointed chair of the Management Committee about six months after it was established and 60a, chair of the Select Committee.). The relevant committees included the Revision Management Committee, the Elementry Review Committee, the Elementary Materials Selection Committee, the Select Committee, and the Social Studies Advisory Committee.

5.2.2. Liaison personnel (Curriculum Development Branch coordinators [49, 50, 28, 59, 62] as well as 29, a member of the Management Committee) who coordinated the work of the various committees.

5.2.3. Authors/editors/consultants who contributed to the notion's development and/or translations (45, 31, 29, 62, 66, 67).

5.2.4. Individuals who were cited by interviewees as a) having contributed to the notion's
development or translation in some way (26, 30) or b) having information pertinent to this study (30, 29, 26).

5.2.5. The coordinator representing the Provincial Educational Media Centre (23).

5.3. Interview Format

The interviews, conducted between June and October, 1987 and lasting from one-half to two hours, were audiotaped for later transcription and analysis.

6. Coding numbers were assigned to all individuals following this researcher's examination of relevant Ministry Annual Reports and interview data; coded were those who were in the Ministry hierarchy or in organisations pertinent to this study between 1975 and 1986. Generally, a person with a number of lower value (e.g., 12, 17) would have been involved early in the process whereas those with higher numbers (e.g., 59, 62) usually participated more recently. However, it later became apparent that certain individuals had contributed to areas relevant to this study earlier than was first evident; the number assigned to them may not reflect the timing of their involvement. For example, it was learned that 67, editor for Douglas & McIntyre, was involved in 1973 as research assistant in
the preparation of the Culture Realms of the World: Teacher’s Manual as well as being a member of the Provincial Social Studies Assessment Team in 1977.

The following chart lists only those individuals who are referred to in this study.

Minister (15, 37)

Deputy Minister (16, 17)

Assistant Deputy Minister (17, 46)

SCHOOLS DEPARTMENT

- Executive Director Programs (12)

  PROGRAM IMPLEMENTATION SERVICES BRANCH
    - Director (21)
    - Coordinators (28, 59)

  LEARNING ASSESSMENT BRANCH
    - Assist. Director Learning Assessment (12, 56)
    - Assist. Director Program Assessment (48)

  PROVINCIAL EDUCATIONAL MEDIA CENTRE (PEMC)
    - Coordinator (23)

  PROGRAM EFFECTIVENESS BRANCH
    - Director (21)
    - Coordinator (74)

  CURRICULUM DEVELOPMENT BRANCH
    - Director (12, 53)
    - Assist. Director (11, 39, 54)
    - Coordinators (22, 49, 50, 28, 59, 62)

    Revision Management Committee
    (24, 26, 28, 29, 30, 25, 27, 40)

    Elementary Review Committee (31)

    Elementary Materials Selection Committee
    (31, 45)

    Select Committee (60a, 16, 60b, 60c, 60d, 101)
7. A "Request for Ethical Review" was submitted to The Behavioural Sciences Screening Committee for Research and Other Studies Involving Human Subjects at the University of British Columbia. The proposed study was found by the committee to be ethically acceptable.

LIMITATIONS

This study was limited in a number of ways:

1. It was restricted to the elementary social studies curriculum (1983), involving grades one through seven.

2. Documentary data were limited to those documents that were publically available.

3. Interview questions asked respondents to focus on events that happened some years ago, and therefore these self report data are limited. Because of the large number of respondents who were centrally involved in the development of the curriculum, much of the data were corroborated across the interviewees. However, it is recognised that in any organisation as large as a Ministry of Education, participants will have various interpretations of events.
4. The study is limited to a macro-implementation perspective. No claims are made about the actual use of the 1983 social studies curriculum in classrooms.

5. Conclusions reached and views expressed in this study regarding "critical thinking and problem-solving skills" and "macro-implementation" are based on the researcher's interpretation of the documentary and interview data.

TERMINOLOGY AND ABBREVIATIONS

The following have specific referents when used in this study:


B. C. - British Columbia

BCSSTA - British Columbia Social Studies Teacher's Association

BCTF - British Columbia Teachers' Federation

Coordinator(s) - Ministry coordinators who worked with the committees relevant to this study

Curriculum (or guide) - Social Studies Curriculum Guide, Grade One-Grade Seven (1983)

Curriculum Development Branch management or administration - the director and assistant
director(s)

Developers or development team(s) - unless otherwise stipulated, the Management Committee, the Elementary Review Committee, and the coordinator who worked with each committee

EPIE - Educational Products Information Exchange Institute

Elementary Materials Selection Committee - the one of the three Materials Selection Committees which was concerned with kindergarten to grade six

Field - educators outside the Ministry (e.g., teachers, principals, school district staff)

Ministry - British Columbia's Ministry of Education

Ministry officials - the Minister of Education, the deputy minister, and the executive director of school programs

Notion - "critical thinking and problem-solving skills"

PEMC - Provincial Educational Media Centre

SFU - Simon Fraser University

UBC - University of British Columbia

U Vic - University of Victoria
BACKGROUND

By incorporating interview feedback with data gleaned from records made available through interviews, relevant issues of Horizon (1975-1985), and the Ministry of Education Annual Reports, this researcher attempted to unravel some of the often discrepant accounts related to the 1983 elementary social studies revision. Two purposes were served by this effort: 1) it provided for a more comprehensive understanding of the influences bearing on the notion, "critical thinking and problem-solving skills," and the Ministry's activities in implementation; and 2) it allowed one to examine how the timing of specific events affected the development of the notion and efforts toward its implementation.

The first event precipitating the revision appeared to be a Ministry initiated review of the secondary social studies curriculum which concluded with a report in 1976 recommending that the curriculum be revised. Next, a Provincial Learning Assessment Team gathered data, and although its 1977 assessment report did not provoke much ministerial comment, a Secondary Revision Committee was struck in September, 1978. By January, 1979, a draft including six overall
program goals was ready and shared with two reaction panels.

It appears that at this point, in February, 1979, a decision was made to expand the Secondary Revision Committee to include two elementary representatives in order to provide articulation between the elementary and secondary curriculums. As well, its mandate was broadened. Now identified as the Revision Management Committee, its task was to oversee the secondary revision as well as a review of the elementary curriculum which would be carried out by an Elementary Review Committee. Later, its supervisory capacity would also embrace the three Materials Selection Committees.

From February to April, 1979, ten consulting groups were contracted by the Ministry to draft possible scope and sequence outlines. The cross-section of participants included submissions by the Greater Victoria, Prince George, North Vancouver, Delta, and Langley School Districts; the Schools Legal Education Project Committee; the Native Studies Committee; members of the U.B.C. Faculty of Education; members of the B.C.S.S.T.A. "acting as individuals" (p. 133, April Draft); and a kindergarten committee
represented by one Powell River and two Vancouver individuals.

In October, 1979, the Materials Selection Committee responsible for kindergarten to grade six was created, followed later by separate Materials Selection Committees for grades seven to nine and grades ten to eleven.

Then in November, 1979, another draft was completed in which the phrase "critical thinking and problem-solving skills" made its first appearance within four goal statements. This November draft, entailing a scope and sequence apparently derived from committee and contract group input, was subjected to three reaction panels prior to further revision. By 1980, the April Draft was published and distributed for general feedback.

During the spring of 1980, the first Ministry call to publishers went out, requesting samples of existing materials that would match the kindergarten to grade six component of the proposed curriculum. An initial sort by the Materials Selection Committee (kindergarten to grade six) narrowed the over four hundred submissions to only a few which it felt warranted in-depth analysis. This resulted in four textbooks and
one textbook series at the grade four and five levels being field-tested in the spring of 1981. Even if the books being field-tested did meet the criteria, there still existed a need for new materials to satisfy the requirements for all grades in the draft curriculum, so Ministry personnel sent out a second call to publishers in March, 1981, this time for custom-made materials.

By July, 1981, the Materials Selection Committee (kindergarten to grade six) submitted its recommendations for approval, its decision favouring the Douglas & McIntyre proposal. But it wasn't until sometime between January 11 and February 22, 1982 (according to references in the field-testing report to the Ministry) that a contract was actually signed between Douglas & McIntyre for publication of the Explorations Series, grades one through six.

Once the contract was finalized, field-testing of some draft Douglas & McIntyre materials commenced. By May 13, 1982, the field-testing was complete and in November, 1982, the pilot report was submitted to the Ministry.

Sometime between the signing of the contract with Douglas & McIntyre in 1982 and the publication of the revised 1983 elementary curriculum guide, Prentice-
Hall, who had originally competed with Douglas & McIntyre for the opportunity to publish grades one through six and who was the second choice of the Materials Selection Committee (kindergarten to grade six), was given the chance to produce materials for grades four, five and six.

By this time, negative reactions from teachers to the 1980 April Draft, particularly in relation to the grade seven to eleven components, resulted in the entire curriculum being put on hold. It was late in 1982 that the Ministry resorted to establishing an anonymous Select Committee, alluded to by several interviewees. While most of these individuals implied that this "secret" committee rewrote the curriculum, the chair of this Select Committee stated that its members were to examine the proposed secondary curriculum and "simply give our opinion about it."

Soon after, the Select Committee satisfied its mandate and submitted its report. Unaware of who actually revised the April Draft, the chair of the Select Committee commented, "I've no idea who took up after that but I can tell you that in a very short order of time later, a document came out...."
By September, 1983, the *Elementary Social Studies Curriculum Guide, Grade One—Grade Seven* was available to schools, as was the Ministry published *Social Studies Resource Manual, Grades One-Three* and the Douglas & McIntyre Explorations Series for grades one to three. *The Revised Primary Social Studies Curriculum, 1983: Orientation Package*, was also published by the Ministry in the same year, including a video and leader's guide.

By November, 1983, the grade seven component of the 1983 elementary curriculum, previously designated as part of the secondary curriculum, was revised and distributed to schools. Teachers were to ignore the original grade seven segment of the 1983 guide and replace it with a revised two page appendage.

In the fall of 1984, a Social Studies Advisory Committee was established to oversee the completion of the secondary curriculum and serve as liaison between the Ministry and the "field" (educators outside the Ministry).

Douglas & McIntyre and Prentice-Hall delivered the grade four materials in 1984 and the grade five materials in 1985. In 1985, the revised *Social Studies Curriculum Guide, Grades Eight—Eleven* was published.
By 1986, along with Douglas & McIntyre’s Explorations Series for grade six, there appeared Ministry sponsored orientation videos, *Thinking Together: Strategies in Social Studies*; the *Thinking Together: Strategies in Social Studies--Inservice Handbook*; and the *Social Studies Resource Manual, Grades Four--Seven*. As well, Gage published the grade seven student text, *Other Places, Other Times*. At the time of this study, the teacher’s guide for grade seven was not yet available.

Regional inservice workshops throughout the province were provided to district staffs during the spring of 1986. Regular classroom teachers were not involved directly in these sessions.

During the summer of 1987, the agreement between the Ministry and Prentice-Hall in regard to the publication of materials for grade six was terminated.

The development and implementation activities spanned over thirteen years, beginning in 1975 with the Secondary Social Studies Review, and at the time of this writing, it was still in progress. At times this revision was plagued by considerable controversy and apparent setbacks.
MACRO-IMPLEMENTATION

Little research to date has been directed from a macro-implementation perspective, one that considers government (rather than district, school, or teacher) efforts in the implementation of policy. Some research has identified different phases that policy is subject to and the factors which affect its implementation.

PHASES

For his view of macro-implementation, Paul Berman (1978) suggests that policy must endure four separate "passages" enroute to outcomes and that "each passage transforms the input" (p. 166).

Passage 1—Administration level: from ministry policy to ministry program or materials

Passage 2—Adoption level: from ministry program to adoption of local district project, designed to facilitate implementation of the ministry policy/program

Passage 3—Micro-implementation level: from adoption to implementation by policy deliverers (e.g., classroom instructors)
Macro-Implementation: Critical Thinking

Passage 4—Validity level: from implementation by policy deliverers to client (e.g., student) outcomes (adapted from Berman, 1978, p. 167).

During the first passage from government policy to government program (or materials), the policy is vulnerable to "cooptation" (p. 169) through selection based upon what government program developers agree with, even though their "presumed objective is to carry out the policy's intent" (pp. 167-168). The government program is then subject to re-definition or "slippage" (p. 169), depending on its reception by local school district personnel who devise a project (e.g., teacher inservice, local development of classroom materials) for implementing their interpretation(s) of the government policy or program. The policy is then susceptible to further change or "mutation" (p. 171) as instructors incorporate it into their classrooms. According to Berman, the number of passages and implementation settings determines the number of mutated policy forms; the policy may be subject to "cooptation" (p. 178) where it is changed to suit the deliverer, or "mutual adaptation" (p. 178) where alterations occur to both the policy and deliverer behaviour. During its fourth passage, evidenced by
student outcomes, the policy's "validity" (p. 167) is tested.

The "essential differences", Berman explains, between the processes of micro-implementation and macro-implementation arise from their distinct institutional settings. Whereas the institutional setting for micro-implementation is a local delivery organization, the institutional setting for macro-implementation is an entire policy sector, spanning federal (or provincial) to local levels. (p. 164)

In discussing macro-implementation, Fullan (1982) does not use Berman's "passages," referring instead to three "phases of curriculum decision-making...: (1) curriculum or policy development, (2) implementation, and (3) evaluation or review and revision" (p. 242; italics in original). Fullan's policy development phase occurs prior to Berman's first passage from government policy to government program. Ministry decisions affecting Fullan's implementation phase relate to Berman's first, second and third passages: from government policy to government program, from government program to local school district adoption, and then from local district project to classroom implementation. Fullan's evaluation phase coincides with Berman's fourth "validity" passage.

In the present study, the researcher speaks of three phases in the evolution of the policy being
investigated. The outcomes of Berman's final "validity" passage and Fullan's evaluation phase may both initiate policy decisions and therefore contribute to what is described in this study as the policy's preparatory phase. Next is the development phase which correlates to Fullan's development phase, having no counterpart in Berman's passages. Finally, the implementation-facilitation phase relates to Berman's first three passages and Fullan's implementation phase. These three phases of macro-implementation are used to organise the data in this study.

Within each phase is evident some relationship between the government agent that develops the policy and the receiving organisation, the nature of which may influence how the policy is translated. How a government agency addresses the passage of an innovation through each of these phases "so as to influence local delivery organizations to behave in desired ways" (p. 164), Berman defines as the macro-implementation problem.

While Fullan posits that "the quality of relationships across this gulf [from Ministry to classroom] is crucial to supporting change efforts" (p. 74), the government's macro-implementation task is
complicated by the nature of the organisations which
comprise the total policy sector, described by Berman
as a "loosely coupled structure" (p. 165) in which

1) each organization has its own problems,
perspectives, and purposes that reflect its
particular structure and culture, and 2) each
organization acts more or less autonomously within
the overall macro-structure of the sector. (p.165)

If Fullan's observation is accurate that policy
reforms will fail "to the extent that each side is
ignorant of the subjective world of the other..." (p.
74), then it would appear that the implementation
literature would benefit from more macro-implementation
research.

FACTORS

Fullan (1982), Berman (1978), and Anderson (1986)
point to a paucity of research dealing with a macro-
implementation perspective, one that represents how
government ministries interact with varied agencies
within the policy sector to facilitate a policy's
implementation. Fullan and Berman provide general
reviews of the literature while Anderson depicts
results of his research pertaining to federally
initiated multicultural programs in Canada. Warning
that generalisations must be made with care because of
the limited availability of comparable data, Fullan does state that "some clear impressions, backed up by a small number of research studies and policy decisions being taken in different provinces" (p. 242) are available.

One limitation to date in the search for factors influencing implementation of government policy is that research has focussed largely on "why authoritative decisions do not lead to expected results" (Berman, 1978, p. 160) without consideration of the worthiness of policy goals or how those goals were selected. Research, however, indicates that ministry decisions precipitating and involving policy development can have considerable impact upon the success of the policy's implementation. As Fullan contends, "What happens afterwards is to a large extent a continuation of how well or how badly the change process is initiated and followed through" (p. 227).

Possible policy implementation influences depicted in the literature are clustered here into three categories which apply to each segment of the policy sector and each of the three phases to varying degrees. How a ministry plans for and acts to facilitate clarity of expectations, capacity for change, and sustained,
quality liaison within its own structure as well as among relevant organisations within the policy sector appears to have significant impact on the prognosis for policy implementation. Each factor will be examined briefly, in light of Berman (1978), Fullan (1982), and Anderson (1986) for related problems, implications, and recommendations.

1. Clarity of Expectations

One of the most common problems cited in the literature related to policy implementation is a lack of clarity regarding the policy's intent and the roles expected of various agents involved in the change process within the policy sector. Berman indicates that multiple goals are often conflicting and ambiguous, and that the means for policy fulfillment suffer from "lack of specificity" (Berman, p. 168), affecting translation from policy to program, program to district project, and project to implementation and outcomes. The more ambiguous the policy, the more leeway agents have for interpretations.

Without a clear policy, each passage encourages discrepant interpretations. As Anderson deducted from the academic literature and his own research which
analysed the content of multi-cultural policies of six Metro Toronto school boards to determine "whether and to what extent they anticipated and addressed implementation (p. 34), it was difficult to judge what counted as instances of the policy. Ministry personnel, program developers, district staffs, teachers, and evaluators were often left to pursue their own priorities, which did not always correlate with the policy's intent. Government programs were not congruent with the policy, even if developed to match it. Ministry personnel, unclear about the policy, represented varied emphases in their orientation sessions for district staff who then added to the confusion by sharing their "knowledge" with classroom teachers. Teacher methodology was then sometimes inappropriate, and outcomes likely related to the mutated conceptions that were implemented. Without a clear definition of the policy or the means by which it could be realised, the materials developed for classroom use sometimes lacked congruency with the policy.

One could expect in situations involving ambiguous policy that it will be altered. Otherwise non-implementation may be the case or even worse, the
frustrations that result from attempts to interpret policy could have detrimental affects on future policy implementation.

A difficulty experienced in different organisations involved in implementing ministry policy was the absence of explication about who was to do what and how it might be accomplished. The assumption that adoption led to implementation was often unfounded. Follow-through was usually left to Ministry and district staff who may have been unclear about the role distinctions between assistance and regulation (Fullan, 1982; Anderson, 1986). If ministry staff interpreted their role as a regulatory one, it may have alienated delivery organisations, rather than gaining cooperation. Without a clear understanding of role expectations, implementation agents often became ineffective. This resulted in confusion, non-action, ineffective action, and a waste of resources.

Fullan and Anderson stress the importance of disseminating clear policy, particularly regarding how the goals are to be achieved. Provision of a "practical image of effective practice" (Anderson, p. 36) promotes continuation sooner than would otherwise be possible. If implementation and continuation are to
be realised, then specific plans must be made for each passage and followed through (Berman, Fullan, Anderson).

2. **Nature of Liaison**

Characteristics of organisations within a policy sector present impediments to sustained, quality liaison among constituents. Because of their "loosely coupled structure" (Berman, p. 165), organisations operate relatively independent of each other and are occupied with their own problems, perspectives, and priorities; this accounts for some of the difficulties a policy must endure through each passage. Fullan points to value conflicts among committee members as well as between developers and policy stakeholders as also affecting the nature of interactions and implementation prospects.

Organisational attributes hindering communication and policy implementation relate to size, complexity, formalisation, the number of organisations involved, geographical distances, and the number of inter-organisational agreements necessary. As these factors increase, implementation prospects decrease (Berman).
The more the number of passages, the more difficulties and mutations (Berman).

Direct ministry contact with the policy sector is usually limited to orientation sessions for district staff. Yet Fullan maintains that it is "during" (italics his, p. 245) implementation when assistance is most needed and seldom provided. Anderson also notes that encouragement and help for teachers was a missing factor contributing to implementation problems. Liaison and rapport among ministry branches are also critical to policy implementation. Without sustained liaison, implementation prospects are poor. If ministry branches have not established a close working relationship in which clarification and integration of development, implementation, and assessment considerations occur, districts will unlikely be successful in accomplishing what the ministry was unable to do.

The relevance of sustained, quality liaison within the ministry as well as among policy sector organisations cannot be overstated. It allows players to gain understanding of the unique characteristics of participating organisations which can facilitate planning and implementation. Fullan discusses the need
to be open to the "multiple realities of people who are the main participants in implementation change. The leader who presupposes what the change should be and acts in ways which preclude others' realities is bound to fail" (italics his, p. 82). Resulting benefits from such openness, Fullan says, may be that sometimes...ideas from others will lead to alterations for the better in the direction of change, and sometimes because the others' realities will expose the problems of implementation which must be addressed and at the very least will indicate where one should start (p. 82).

He further advocates that ministries stand to profit by devoting more time to interacting with local deliverers to assist and clarify. Not only will implementation potential be improved, the ministry will also gain knowledge about compliance, capacity, and implementation realities.

3. Capacity for Change

Often overlooked and usually contributing to noncompliance is an organisation's capacity for change (Fullan). Capacity incorporates a variety of factors related to the readiness of organisations to participate in change, such as knowledge, skills, time,
support, encouragement, and resources; a compatible belief system; and lack of competing priorities. Blanket expectations applicable to all organisations within a policy sector may be unreasonable, considering that organisations vary considerably in their capacity for implementation, says Fullan.

Also inappropriate may be a business-oriented perspective as the nature of schools precludes predictability for policy implementation. The teacher-pupil relationship is interdependent, with selection of methodology and resources reliant upon student feedback. What works with one client may not apply to another. The school-community relationship is also unique to some degree. Many players and events may interact to affect policy implementation. Parental and public attitudes ranging from apathy to militancy, organisational changes, demographic fluctuations, and the like may add to a policy's vulnerability.

Policy developers may also lack the skill, as well as time and/or inclination to consider details; program developers may not understand the policy's intent; evaluators may not have the knowledge of what information to gather and how to interpret and apply it; district staff may lack knowledge of the policy's
intent as well as an understanding of the process of change and plans for facilitating change; teachers may require assistance and encouragement which is often not available, as well as knowledge of what the outcomes will look like, so as to plan strategies for how to achieve them and to recognise when they have been realised; and ministry staff may lack the resources or understandings of both the innovation and the logistics of change. Planning for change is not sufficient, for as Anderson proposes, "the problem of implementing the implementation plan still has to be surmounted" (p. 34).

Also a hindrance to policy implementation are competing priorities, which may be the result of existing policies which are incompatible with or work against the new policy or are in conflict with district interests (Fullan). Competing priorities also affect translations of government policy into government program when the program developers disregard the policy and promote their own priorities (Berman). Here the proposed policy is in conflict with the goals held by other agents.

When the capacity of people involved in the change process is not considered in plans for policy change,
discrepant translations are a strong likelihood. Unrealistic expectations may lead to misunderstandings, resentment and noncompliance, or feelings of inadequacy and even worse, a negative reaction to future change aspirations (Fullan). Perhaps because of these possible responses, Anderson suggests that the release of a policy without consideration of implementation problems may be dangerous.

Capacity building would seem to be in order if policy implementation is desired. Sustained interaction which focusses on communicating the policy intent and priority, and provision of assistance and encouragement does reap results, according to Fullan, as well as provides ministries with an opportunity to monitor implementation and add to its knowledge of the "realities and needs of implementation" (p. 253). Capacity building also pertains to the ministry's own staff "who will have the most contact with the field" (p. 254). Relevant knowledge should include that pertaining to the innovation and the process of change, as well as that dealing with the beliefs and attitudes of policy stakeholders. Without such preparation, one can "hardly expect government staff to extend clarity and support to others" (p. 253).
Fullan also suggests that ministries need to ensure that "for any new policy, ...someone...is addressing and looking at the program development and in-service assistance needs" (p. 253, italics in original). Roles should not be taken for granted, and resources should be allocated among evaluation, development, and implementation endeavours. Implementation must be considered during development, thereby increasing the likelihood that capacity concerns will be recognised and remedied prior to policy dissemination.

To alleviate implementation surprises, Fullan and Anderson propose an explicit implementation plan to guide change, one which includes a trouble shooter, "someone at the top who takes an active interest in probing and fixing implementation problems" (Fullan, p. 254). As Williams (1980; in Fullan, p. 254) observed, the "basic issue is whether the agency can alter its orientation and style of decision-making to develop the resources and the organizational structure needed for implementing (italics in original) the implementation perspective." For this to occur, Williams (1980, p. 101, in Fullan, p. 254) contends that

Top leaders must really want [italics in original] better implementation to the point of continually
asking staff and local personnel about implementation, committing resources to support implementation, and being realistic but insistent about progress.

In summary, this review explored an area of research that has so far been neglected, one that examines implementation from the perspective of the ministry, noting its liaison with varied agencies to facilitate policy change. While information is limited, what is available suggests that ministries can make a difference by promoting capacity for change, sustained, quality liaison, and clarity of expectations.

Capacity building would include ministry staff as well as others who will be involved in the change process. This requires knowledge of the policy as well as its implementation. Also required are ongoing, constructive working relationships across ministry departments and between it and other organisations in the policy sector. Expectations are better realised if a policy intent is explicit, especially the means for linking intent with outcomes, and roles are clearly delineated. Planning which integrates evaluation, development, and implementation considerations is essential, as is "implementing the implementation perspective" (Fullan, p. 254).
CHAPTER TWO

THE INNOVATION

In British Columbia's revised elementary social studies curriculum (1983), one reads that "critical thinking and problem-solving skills" (pp. 5-6) are to provide the means by which students acquire and apply knowledge. Of interest to this study, as well as to those who must interpret the pedagogical implications of such a curriculum, is what the Ministry intends by "critical thinking and problem-solving skills." This phrase defines the heart of the innovation. To this end, the Social Studies Curriculum Guide, Grade One-Grade Seven (1983) will be analysed, followed by an examination of interviewee feedback.

DOCUMENT ANALYSIS

Early in the guide, the first and only mention of "critical thinking and problem-solving skills" appears in the following four goal statements that pertain to general learning outcomes expected of all students by the end of grade eleven:

GOAL 1: STUDENTS SHOULD KNOW AND UNDERSTAND THE FACTORS WHICH HAVE SHAPED AND CONTINUE TO SHAPE CANADA AND CANADIANS. More specifically, by the end of the required program and through the exercise of critical thinking and problem-solving
skills [italics added], students will be expected 
to know and understand:
- how Canadians have interacted with and continue 
to interact with their physical environment.
- how Canada's social and cultural diversity has 
developed and continues to develop.
- how Canada's economy has developed and continues 
to develop.
- how Canada's political process has developed and 
continues to develop.
- how Canada's relations with the rest of the 
world have affected and continue to affect 
Canada's development.

GOAL 2: STUDENTS SHOULD KNOW AND UNDERSTAND THE 
DIVERSE PATTERNS OF HUMAN ACTIVITY IN THE WORLD. 
More specifically, by the end of the required 
curriculum and through the exercise of critical 
thinking and problem-solving skills [italics added], students will be expected to know and understand:
- the world's physical environment and how the 
people of the world interact with their 
physical environment.
- the social and cultural diversity of the peoples 
of the world and the factors which contribute to 
their diversity.
- the basic characteristics of the world's 
economics and the factors which contribute to 
their diversity.
- the basic characteristics of the diverse 
political processes of the world and the factors 
which contribute to their diversity.
- the development of the nation states and their 
interactions.
- current events in the world and contemporary 
world issues.

GOAL 3: STUDENTS SHOULD KNOW AND UNDERSTAND THE 
ROLES, RIGHTS AND RESPONSIBILITIES OF AN 
INDIVIDUAL AS A MEMBER OF SOCIETY. More 
specifically, by the end of the required 
curriculum and through the exercise of critical 
thinking and problem-solving skills [italics added], students will be expected to know and understand:
- informal and formal social interactions within the society and their influence upon individuals and groups.
- the effect of the economy upon Canadians.
- the different levels of Canadian government and how they function.
- the different types of government in the world and the relationship between governments and individuals throughout the world.
- the media's influence upon individuals and society.
- the legal system of Canada and its affect upon individuals and groups.

GOAL 4: STUDENTS SHOULD DEVELOP A WILLINGNESS AND ABILITY TO USE KNOWLEDGE AND UNDERSTANDING AS A MEMBER OF SOCIETY. More specifically, by the end of the required curriculum and through the exercise of critical thinking and problem-solving skills [italics added], students will:
- communicate their ideas to others in a variety of situations and forms.
- participate to the level of their maturity, in their society.
- tolerate differing views.
- examine a variety of viewpoints, particularly with respect to issues and problems.
- analyze and react meaningfully to the constant change in society.
- reach a conclusion on the basis of the best available evidence. (pp. 5-6)

INTENTIONS

Being that "critical thinking and problem-solving skills" represent the path(s) students will travel enroute to their destination, one might understandably be concerned by the deficiency of definition and justification. Appearing only four times within the curriculum, "critical thinking" is left to the reader
to decipher. The use of "and" to link "critical thinking" and "problem-solving skills" raises the unanswered question: What is the relationship of "critical thinking" to "problem-solving skills"? That is:

- Are they separate entities?
- If so, in what way do they differ?
- In what sense do they belong together?

Students are expected to solve problems but what "problems" entail is never clearly defined. Inquiries are said to embrace

...questions [that] range from those which have a solution based on the available evidence to those which are issues. An issue may be defined as a matter of interest about which there is a significant disagreement. [involving] matters of fact, matters of meaning or matters of values. (p. 7)

"Inquiries" would appear to involve "problems," questions to be solved on the basis of available evidence (p. 7), and "issues" which are to be discussed (p. 4). Goal 4 indicates that students will

"...examine a variety of viewpoints, particularly with respect to issues and problems" (p. 6). Thus each is treated as a separate entity.

Further reading of the sample "inquiries" suggested for each grade reveals a variety of
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questions, most which require gathering information to
answer the questions, while others lend themselves to
more involved "problem-solving skills," "decision-
making skills" (Social Studies Curriculum Guide, Grade
One-Grade Seven, 1983, p. 45), or the discussion of
issues. Under the rubric "inquiries," it states that
"students should integrate content, understandings, and
skills through the study and discussion of inquiries"
(p.15). The introduction to "skills" suggests that
they "should be introduced, developed and reinforced in
a suitable context" (p. 15).

It would seem, then, that "inquiries," some types
which may be interpreted as "problems," provide the
forum or context for discussion, problem-solving, and
decision-making.

In order to discover what "problem-solving skills"
entail, teachers are referred to Appendix A of the
curriculum for delineation of the six steps to problem-
solving:

1. Define a problem
2. Establish a tentative hypothesis or answer
3. Interpret the information available
4. Gather additional information
5. Analyze the information for purposes of
   assimilating evidence to re-examine the
   original tentative answer
6. Synthesize information into [a] firmer
   hypothesis or answer (p. 45)
"Decision-making skills" are also depicted in Appendix A as including the following steps:

1. Identify problem or issue
2. Identify possible alternative solutions or objectives
3. Gather, analyze and interpret information regarding the alternatives
4. Evaluate the alternatives and establish which should be accorded higher priority in light of the information gathered and/or value preferences
5. Test the priorities and analyze the consequences of each
6. Plan a course of action
7. Establish a group decision
8. Take some action of the group’s decision
9. Evaluate the group’s decision (p. 45)

Aside from outlining these steps in Appendix A and suggesting that student evaluation should incorporate students’ capacity in applying such "skills" (p. 9), the curriculum provides no further illumination for instruction or student assessment. How "critical thinking" and "problem-solving skills" are related is not clarified.

SOURCES

On the final page of the guide, sources that were "considered in constructing [the] skills appendix" (p. 60) are listed:


2. Submissions of Consulting Groups and others:
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a) Delta School District—Secondary Social Studies Program Outline for Grades Eight to Eleven
b) Maple Ridge—Social Studies Skills Curriculum—Kindergarten-Grade Seven
c) Prince George—Consulting Group—Part 3—Skills Guide
d) Saanich—Elementary Social Studies Skills
e) Victoria Consulting Group—Social Studies Skills (Grades 7-11)
f) Vancouver School District Skills

The majority of the above have used, to varying degrees, the following as a source:


This is the only reference to materials that were utilized in arriving at the "skill" component of the Ministry's notion of "critical thinking and problem-solving skills." Sources that shaped the other constituents are not indicated.

JUSTIFICATION

While there does not seem to be any justification for the notion of "critical thinking" provided within the curriculum, some rationale is evident in the statement below supporting the use of "issues" and "skills," of which "problem-solving" is one of many:

Society demands that the public schools promote learning and provide for the acquisition and application of knowledge and the mastery of skills
upon which a student may build a successful future. Social Studies makes a major contribution in meeting this demand of society, particularly in the education of good citizens. (p. 3)

Furthermore, one reads,

It is the belief of those who have drafted this curriculum that the key to learning is the application of knowledge. Concepts and skills, together with the discussion of contemporary issues, culminate in the ability to transfer knowledge to a real-life situation. (p. 4)

Thus, the acquisition and application of concepts and skills, in conjunction with the "discussion of contemporary issues," are assumed to be the means for students' transference of learning or, in other words, their tools to achieve independence in learning and to participate as responsible and productive citizens.

INTERVIEW FEEDBACK

Interviewees, involved in some way with the development of the 1983 curriculum, included 49, 50, and 28, curriculum coordinators; 24, 26, 28, and 30, Revision Management Committee members; 31, a member of the Elementary Review Committee; and 60a, chairperson of the Select Committee.

Of the coordinators, 49 and 28 were involved only with writing the final document, not the April Draft, the development of which was coordinated by 22 (he
passed away following his tenure as coordinator). 50's contribution to the 1983 curriculum was limited to her work with the Management Committee when 49 was ill and while it did not appear to directly affect the notion, it did relate to the evolution of the term "inquiries," an apparent effort by the committee to resolve confusion over the definition of "issues." 24 and 26 were members of the Management Committee from its inception while 29 and 30 joined after the first six months when the committee's mandate was broadened to incorporate consideration of elementary grades. As their membership preceded the appearance of the final four goal statements which first were noted by this researcher in the November, 1979 draft, their understandings are relevant to the study. 31's mandate, as a member of the Elementary Review Committee, did not pertain to the development or explication of the curriculum's goals. Yet, as developers of the body of the curriculum (1983), members of the Elementary Review Committee would have to interpret the notion in order to accomplish their task. For this reason, 31's statements are pertinent. The role of the Select Committee was, according to 60a, only to provide a "candid opinion" of the proposed
curriculum. In that the Select Committee did not provide specifics as to what should be in the document (60a), it will not be treated as part of the development team. However, as some of the Select Committee's recommendations pertained to the notion, its contributions will be considered as a source available during the development stage.

INTENTIONS

A review of how the intention of the notion, "critical thinking and problem-solving skills," was perceived by those who contributed to its development suggests that discrepant understandings were the norm, not the exception. To illustrate this, we look first to the three coordinators who were involved, and then to member(s) of the Management Committee and the Elementary Review Committee. (For more detailed analysis, refer to Appendix 2.1.)

1. Coordinators

Of the three coordinators involved in the development of the curriculum, 49 presented two interpretations of the notion, one which depicted "critical thinking" as embracing "decision-making" and
"problem-solving," among other things, and the other
which equated "critical thinking" with "decision-
making" while "problem-solving" was seen as somewhat
different. His perception that the former represented
the intention of the document is not reflected in the
employment of "and" in the goal statements. 50
appeared to focus on the "skills" aspect of the notion.
28 perceived that "critical thinking" encompassed
"inquiry," "problem-solving," and "decision-making."
The coordinators' perspectives are summarised in the
chart below:

49 $CT = DM + PS + X$ or $CT = DM; PS = X$
50 skills focus
28 $CT = PS + DM + Inquiry$ (relationships unclear)

Key: $CT =$ critical thinking
$DM =$ decision-making
$PS =$ problem-solving
$X =$ undefined; something different

2. Management Committee Members

While the five Management Committee members
interviewed vary in their perceptions of what was
intended by the notion, they seemed to agree that the
relationship between "critical thinking," "decision-
making," "problem-solving," and "inquiry" was never
reconciled. 26, 28, and 29 each indicated that the
goal phrase, "critical thinking and problem-solving skills," was introduced later in the development process but how the notion evolved seemed to be a puzzle.

Although none of the interpretations are very explicit, they are sufficient for summarising the basic perceptions of committee members on the chart below:

24 $CT \neq DM$

$CT = cerebral term depicting higher level thinking (e.g., synthesizing, evaluating)$

$DM = going beyond CT by taking action$

$DM model = practical steps to teaching thinking$

26 $CT = PS = Inquiry$

$PS model = Inquiry model$

$CT or PS or Inquiry include Inquiry Processes or Cognitive Skill Processes$

28 $CT = PS + DM + Inquiry Process$

(relationship not resolved)

29 $CT = PS (+ CTP) + DM (+ CTP) + CTP$

30 $CT = DM = PS$

Key: $CT$--critical thinking

$PS$--problem-solving

$DM$--decision-making

$CTP$--critical thinking processes

As depicted above, 24 saw "critical thinking" as a mental activity employing higher level thinking skills whereas "decision-making," she felt, went beyond thinking to "taking action." The "decision-making"
model was to provide teachers with a step-by-step guide for teaching thinking.

26 thought Management Committee members used "problem-solving" and "critical thinking" interchangeably. By "problem-solving," members really meant "inquiry." Under the general rubric of "problem-solving" (or "critical thinking" or "inquiry") would be found the inquiry or cognitive skill "processes" the committee wanted children to experience.

29 envisaged "critical thinking" as the general rubric, under which was found "problem-solving," "decision-making," and "critical thinking processes." Of the latter, she indicated that they were inclusive within "decision-making" and "problem-solving" activities but may also be employed separately.

30 indicated that the Management Committee used terms interchangeably, equating "critical thinking" with "decision-making" and with "problem-solving."

While 28 did suggest that committee discussion about terminology dwelt on whether some terms were synonymous, he indicated that in his interpretation, "critical thinking" included "problem-solving" plus "decision-making" plus the "inquiry process."
In spite of the differences among these interpretations, committee members appeared unified in their general impression of what the notion implied for the curriculum. Their interpretations had in common an approach to social studies which encouraged a progression beyond students "memorising lakes and bays and streams and memorising explorers and kings" (24) to having them explore questions and issues, and carrying out skill-related activities in order to acquire understandings and abilities related to the citizenship aspirations of the curriculum.

3. Elementary Review Committee

As a member of the Elementary Review Committee, 31 did not recall working with the notion, "critical thinking and problem-solving skills." She neither understood its intent nor agreed with it as represented, suggesting that "critical thinking" and "problem-solving" were synonymous, "problem-solving" being a form of "rational inquiry." She claimed that decision-making, not equated with "critical thinking" by the Elementary Review Committee, went beyond problem-solving to include exploring alternatives, establishing criteria, making decisions which may
include action, and evaluating the decision/action. In chart-form, this perspective could be represented as follows:

31: CT = PS ("virtually")
DM ≠ CT
Inquiry = PS (+IP) + DM (+IP) + higher level Inquiry Processes
Inquiry Processes = analysing, synthesizing, predicting, evaluating

SOURCES

Interviewee comments were examined to assess which references were influential in the formulation of the notion, "critical thinking and problem-solving skills." Other sources of interest included input from contract groups, respondents to the April Draft, consultants, committee members or other Ministry individuals, research literature, and the Select Committee. (For analyses details, refer to Appendix 2.2.)

The Management Committee's terms of reference included Ministry directives that it

incorporate the relevant goals from the Guide to the Core Curriculum (1977) and consider carefully the reports of the Secondary Social Studies Review Committee (1976), the British Columbia Social Studies Assessment (1977), the existing Social Studies curriculum guides for British Columbia as well as comparable documents from the other Canadian provinces and all relevant available research. [April Draft, 1980, Preface, page one of two]
It seems that curricula from other provinces, Alberta in particular, were most influential regarding the inquiry approach adopted by the Management Committee. They also had a binder of "available relevant research" which was recognised by 26 and 29 as a compilation of academic conference papers, including input by 45; it was implied by 26 that the significance of such contributions was of little consequence as far as the committee's work was concerned.

Contract group submissions were another source for the Management Committee to consider. However, few interviewees could recall what actual influence this input had. Because some also confused these briefs with the April Draft feedback, both were considered together.

It appears that 26's assessment that the committee focussed on practitioner input rather than university submissions is realistic. 29's expression of committee difficulties in dealing with discrepant input, supported by 30, offers another explanation of why contributions related to the notion may not have been utilised.

April Draft feedback seems to have led to most of the changes in the curriculum. In that "issues" were
intended to provide the vehicle for "critical thinking and problem-solving skills," their dilution in the final document and the removal of related teaching notes and bibliography would have some implications for the notion.

While all relevant interviewees except 24 credited 45 with advising the Management Committee about the notion, there was doubt expressed about what actual impact a university consultant (45) had on it, as represented in both the April Draft and the final document. While there was evidence of 45's input in the April Draft, in the role exchange test provided in the appendix teaching notes for dealing with issues and in one bibliographic entry, these were deleted in the later curriculum (1983). In the guide, however, the introductory statement (p. 7) that describes "issues" as involving disagreement about "matters of fact, matters of meaning or matters of values" has been taken verbatim from 45's paper on issues (1981), page 2. He posits that the only influence his work had was in the committee's relabelling of the "issues" column to "inquiries."

It seems that among committee members, 26 provided the inquiry model (24, 30, 26; 49 cited him as
consultant for the notion), based, he claimed, on Edwin Fenton and John Dewey. 26 also shared some information for dealing with issues, stemming from the Harvard Public Issues Project (1967) and his own teaching experience. 30’s "skills list" would appear to have contributed substantially to the final skills appendix (30, 24, 26). While only 26 appeared to investigate the notion in the literature, there is evidence to suggest that Bloom et al. (1956) influenced the framing of questions (24, 29, 28).

Interviewees were in agreement that "issues" were diluted in the final document as a result of Ministry intervention, although they were not in agreement as to how or when this occurred. As "issues" are described in the curriculum as involving disputes about matters of fact, meanings, and values, and also provide the motivation and focal point for "critical thinking and problem-solving skills," such Ministry action was significant.

The role of the Select Committee is not evident. Recommendations from the Select Committee that if "critical thinking" goals were to be realised, the notion needed clarification and "the issue questions had to be true issues....that allowed for diverse
points of view" (60a) were not incorporated. Because the notion was not any clearer in the final document and "issues," relabelled as "inquiries," were even more dilute than in the April Draft, this researcher would judge that the Select Committee had little affect on the notion.

The major sources utilised in the development of the notion seem to be 26 and his contribution of an "inquiry model" as well as an approach to dealing with issues; 30's masters thesis which along with the "skills lists" cited in the guide, formed the basis for the skills appendix; the Alberta social studies curriculum with its inter-disciplinary, issues/inquiry-based approach; and the taxonomy of Bloom et al. for fashioning questions. While many acknowledged 45's contributions regarding the notion (29, 49, 28), he actually appeared to have had little impact. Nor were relevant recommendations from the Select Committee acted upon. Feedback to the April Draft, however, did seem to have some influence on adjustments to the employment of contentious issues in the final document.

It is of interest to note that the perspectives of the interviewees vary as to which sources were of importance to the development of the notion. This
seems partly due to their different responsibilities and the timing of their involvement. In the case of the Management Committee and the Elementary Review Committee, the former devised the goals and learning outcomes while the latter formulated the grade topics. This helps to explain why the sources the Elementary Review Committee employed differed from those of the Management Committee.

JUSTIFICATION

Considering the apparent importance of the notion, "critical thinking and problem-solving skills," to the four main program goals, one wonders how the developers justified its inclusion over another "vehicle" for acquiring and applying knowledge. Finding little evidence in the guide to support it, aside from assumptions that exposure to course content and the "exercise of critical thinking and problem-solving skills" will result in the transference of such knowledge and "skills" to real life situations, one turns to the developers for this information. As the coordinators and the Management Committee were the only ones involved in relevant aspects of the guide, only their statements will be considered here.
Neither 49 or 28 were aware of what evidence the Management Committee considered before settling on the notion, "critical thinking and problem-solving skills." The assumption that transference would occur, 29 claimed, had justification from her reading of the literature, the specifics which she could not recall. She explained:

It seems to me in my reading I came up with that because that's what I saw as being the great value. Content is quickly forgotten unless its put in some kind of framework and unless it has a conceptual base. The same applies for process. A problem that might be relevant today may not necessarily be relevant tomorrow but the process of arriving at a solution could be applied to other problems and therefore is valuable. It's a valuable skill.

24 could not recall whether the Management Committee examined supporting evidence during its deliberations. For related information, she directed this researcher to 26, the committee's reference person for "critical thinking and problem-solving skills." On other hand, 26 pointed to the experience of committee members and input from the field as supporting the effectiveness of the notion. However, as his statement below illustrates, the committee felt it was treading into "virgin territory:"

I think the practitioners on the committee themselves, myself included, would have indicated their experiences in trying things and what worked
and what didn't work. And that weighs quite heavily, I think, in terms of deliberation. And of course introducing their own knowledge of colleagues who had tried things and did not work or worked. 29, for instance, was able to offer a lot. Because of her role as primary consultant in social studies, she was able to come in with ideas directly from the field. So there was a feed-in that way in terms of what works and what doesn't work. But I think the feeling of the Management Committee was that this is virgin territory and we really have to think about implementation.

Considering the lack of consensus among interviewees, and support for the notion that appeared limited to 29's reference to general literature that she had read and 26's mention that the committee relied basically upon the experience of its members and input from the field via 29, justification of the notion did not seem to be a major consideration in committee work.

SUMMARY

Analysis of the 1983 elementary social studies curriculum did little to clarify the notion, "critical thinking and problem-solving skills." "Problem-solving" seems to be portrayed as a systematic form of "inquiry." What "critical thinking" entails or its relationship to "problem-solving" is not indicated. Nor is any justification provided for assumptions that practice in applying "skills" and knowledge in school will result in the ability to transfer learning to a
"real-life situation" (p. 4). The only sources cited that might be relevant to the notion are those indicating from where the skills appendix evolved.

A review of the perceptions of those involved in some way with the development of the curriculum reveals as many interpretations as there were interviewees. Coordinators (49, 50, 28), Management Committee members (24, 26, 29, 30, 28), and 31 of the Elementary Review Committee had different understandings of the specific components in the notion and how they related to each other. However, they seemed in agreement as to its general intention—an inquiry approach to learning which focussed on application of knowledge rather than rote memorisation—and the fact that terminology was never clarified. Evidence to justify the conception portrayed in the document did not appear to be of particular concern to the Management Committee who felt that it was embarking upon "virgin territory" (24, 26). It appears that the main sources utilised in the development of the notion were 26's contribution of the inquiry models for problem-solving and decision-making, based on Dewey and Fenton, and perhaps some ideas borrowed from the Harvard Public Issues Project; 30 who provided the foundation for the skills appendix; the
Alberta curriculum for its issues-based, multi-disciplinary approach; and the ideas of Bloom et al. for the construction of questions. 45 and the Select Committee, each who were credited with input that may have related to the notion, do not appear to have had much impact. Feedback to the April Draft appears to have been somewhat responsible for the dilution of "issues" in the 1983 curriculum.

Considering the disparity of understandings of specifics related to the notion among developers, and the vagueness of the notion as depicted in the curriculum, it would be surprising to find "critical thinking and problem-solving skills" translated in a cohesive manner throughout implementation endeavours. Chapter Three examines how these translations occurred within the Ministry.
CHAPTER THREE

MACRO-IMPLEMENTATION: MATERIALS

In spite of ministerial concerns about which branches should handle implementation tasks (24, 26) and a "jurisdictional dispute" (26) throughout the revision over "shared" responsibility for curriculum implementation (Annual Reports, 1977-1986), the Ministry exhibited considerable interest in implementation endeavours toward this curriculum. Potentially suitable materials were field-tested and when these seemed inadequate, new submissions were sought from publishers. Later, contracts or letters of agreement were established with publishers so that materials could be designed to match the curriculum. One textbook series was piloted in draft form so that input from the field might be utilised in its production. Resource manuals were written, videos made, and inservice handbooks produced. Some regional workshops were offered for district staffs. What had previously been a deficiency of materials would become a comparable wealth of resources for schools.

As the notion, "critical thinking and problem-solving skills," was to be the major vehicle for students attaining program goals and objectives, and
considering that the curriculum lacked any explication of it or of the sources that contributed to it, one would expect to see information in the materials that clarifies the curriculum and enhances its implementation. To this end, this researcher reviewed all prescribed and authorised materials for the curriculum. Interviews were conducted to extend and corroborate these findings, as well as to learn how the Ministry facilitated the implementation of the notion through the selection, production, and field-testing of materials, as well as about any other efforts undertaken to enhance the prospects for implementation.

Results of the investigation will be shared, first focussing on the document analysis and later on interview feedback, in order to illustrate how the notion was translated and justified in the varied implementation endeavours, as well as sources which contributed to it. How these translations correlate with each other will be noted as well.

DOCUMENT ANALYSIS

Even while the Social Studies Curriculum Guide, Grade One-Grade Seven (1983) was being finalised, the Ministry directed attention to its implementation
through the selection or development of materials that included Ministry publications, Douglas & McIntyre’s Explorations Series, Prentice-Hall’s Identity Series, and Gage’s Other Places, Other Times. (See Appendix 3.1 for analysis details.)

Common to the materials intended for the implementation of the curriculum is a lack of any explication of "critical thinking and problem-solving skills." Data gleaned from 45’s account of the Elementary Materials Selection Committee’s experience and 50’s pilot testing report are not only devoid of the notion, but also of any indication that it was a consideration. It is particularly disconcerting when a notion, intended as the major vehicle for attainment of program goals and learning objectives, is omitted even in Ministry publications, produced with considerable effort and expense expressly for the purpose of orienting educators to the intent of the curriculum and facilitating its implementation. Also, the publications seldom identified sources utilised in the development of their interpretations, aside from Explorations’ reference to two decision-making consultants, Identity’s citation of one author’s doctoral thesis, and the intermediate resource guide’s
acknowledgement of Benjamin Bloom. Particulars with which to assess the validity of the interpretations are not evident in the materials.

Within the Ministry publications, one finds varied representations of the inquiry method. The 1983 orientation package video provides sample lessons of "problem-solving," referring educators to the primary resource guide for "extensive" evaluation suggestions and illustrations on how to use the "inquiry method." Three forms of inquiry are promoted in the leader's guide: "problem-solving," "decision-making," and "issues." Inquiry "processes," involved in all three forms of inquiry, include observing, comparing, contrasting, interpreting, inferring, evaluating, predicting, generalising, and defining. Neither publication deals with criteria for making judgements.

In the primary resource manual, "problem-solving" and "decision-making," referred to interchangeably as "skills" and "processes," are emphasised, following the same steps as outlined in the curriculum. Although criteria for evaluating decisions are not explored, group consensus and action in "decision-making" are pursued to a limited degree.
Suggestions for student activities, found in the primary media resources guide, portray "problem-solving" and "decision-making" skills, among others, in the form of "why" and "should" questions. For instructional guidance pertaining to these "skills," instructors are referred to the curriculum.

The Thinking Together videos are the only Ministry publications which purport to "illustrate an important aspect of the new social studies curriculum—the emphasis on critical thinking and problem-solving." Following this introductory statement, the videos focus on "problem-solving," "decision-making," and "role drama." The use of criteria in evaluating decisions is not apparent to this researcher except that the goal of group consensus is employed in one video. Action is not illustrated as part of the "decision-making process." The inservice handbook which accompanies the videos only once mentions the notion in its preface. It concentrates on "problem-solving" and "decision-making" which are identified both as "processes" and "skills" and adheres to steps much as represented in the curriculum, although action and evaluation of that action and decisions in general are not illustrated.
Macro-Implementation: Critical Thinking

The intermediate resource manual focusses on the "processes" of "problem-solving" and "decision-making," each "central to the inquiry process" (p. vii), incorporating "higher level inquiry processes including analyzing, synthesizing, predicting, and evaluating" (p. 125) to be instigated by "challenging questions" (p. 63) modelled after Bloom et al.'s Taxonomy of Educational Objectives (1956). Referring once to the curriculum which "encourages the use of the inquiry approach to critical thinking..." (p.3), this is the only explicit linkage made between the resource manual's interpretation and the curriculum. However, here "critical thinking" appears to be represented as an outcome resulting from the inquiry approach whereas the curriculum proposes that "critical thinking and problem-solving skills" are vehicles for program goals and learning objectives. Group consensus in "decision-making" is recommended in some instances, but the use of action in "decision-making" is not depicted. How decisions are to be evaluated is not explicated either.

Other publications that portray an inquiry-based interpretation of the curriculum include the teachers' guides for Douglas & McIntyre's Explorations Series and Prentice-Hall's Identity Series. The manual
accompanying the discussion picture sets, although published in 1974, also illustrates some aspects of an inquiry approach.

The "inquiry process" is central to the Explorations Series. Linking six levels of inquiry, questions, and thinking (but not acknowledging the source of the design as Bloom et al.) to a three-step "decision-making" model, the Explorations teachers' guides imply that by wrestling with the questions via the "decision-making process," students should realise higher levels of thinking, as well as other objectives. Unlike the "decision-making" steps depicted in the 1983 curriculum (p. 45), neither action nor group consensus seems to be part of the "decision-making process."

The Identity "Taxonomy of Learning Processes" includes levels of thinking related to acquiring and evaluating data through recall and observation, viewing situations from the perspective of an insider, and problem-solving, decision-making, and evaluation. While establishing criteria for decisions appears to be important to this program, there is little information for the instructor on what those criteria might be. This is the only publication that makes a concerted effort to evaluate inquiry-related outcomes but there
is little guidance upon which to judge proficiency. Action, "where appropriate" (Grade 5 Teacher's Edition, p. 9), is part of the decision-making process, as is group consensus.

The *Culture Realms of the World: Teacher's Manual* integrates concepts and three forms of inquiry: analysis, synthesis, and examining a problem from the perspectives of those involved. "Problem-solving" explores values, much like the "decision-making" model in the curriculum, except for the omission of evaluation of the action. "Thinking processes," including gathering, organising, interpreting, and applying data, are also part of each form of inquiry. Standards for judging decisions are not evident.

In summary, it appears that translations of the notion, "critical thinking and problem-solving skills," have in common the element of "inquiry." Some form of "problem-solving" and/or "decision-making" is employed in teacher materials, in most cases also incorporating thinking "processes" or "skills." Another feature utilised in many materials to different degrees is student examination of situations from the perspective of an "insider." Questions, based on the Bloom et al. Taxonomy of Educational Objectives (1956), appear to be
the starting point for inquiry. With the exception of Douglas & McIntyre's Explorations Series, materials promote to varying extents group resolution of conflict and the use of action in "decision-making." Although evaluation of decisions may be a part of decision-making, there appears to be little explicit direction to assist teachers or students in establishing criteria, except for Douglas and McIntyre's discussion of moral standards.

How could these materials (with the exception of the Culture Realms of the World: Teacher's Manual), created to clarify the curriculum, neglect to explicate how the interpretations therein relate to the notion, "critical thinking and problem-solving skills?" Even in the Thinking Together kit, the only publication which refers to the notion, this is not done. Examination of related interview feedback may provide some insight into this situation, as well as corroborate this analysis.

INTERVIEW FEEDBACK

Interview statements were examined first to verify the intention of, justification for, and sources contributing to the notion, as interpreted in the
materials. (See Appendix 3.2 for analysis details.)

Also, consideration was given to why the notion, "critical thinking and problem-solving skills," seemed to be abandoned.

Interviewees involved with implementation materials (the coordinators, two members of the Elementary Materials Selection Committee, and major authors/editors/advisors) were interviewed (N = 11). One exception was in the case of the primary resource manual where 62, the secondary author, was consulted because of the difficulty this researcher had in contacting 68, the major author.

Interview feedback corroborated the document analysis except in two instances. First, this researcher was incorrect in assuming that an attempt had been made to link "decision-making" and "critical thinking" in Ministry publications. Second, she did not recognise as evaluative criteria the three moral standards that 45 claimed were imbedded in the Explorations Series decision-making model. These included the role exchange test (e.g., Would you want this decision to apply to you?), the universalisation test (e.g., What would happen if everyone faced with the same situation did what you suggest?), and the new
cases test (e.g., Would this solution apply in other similar situations?).

With this new information pertaining to moral standards, the researcher re-assessed the use of criteria in the Thinking Together videos. In one video, where a decision is being generalised, it would appear that a new cases test is being used because students are asked to "apply a principle acceptable to them, to new, logically relevant cases" (45, 1981, p. 47). It would also appear that in the video portraying role drama and in the Identity Series, the focus on role exchange could exemplify a role exchange test where the student is asked "to exchange roles with those affected by the application of his principle and consider whether or not he could still accept the principle" (45, 1981, p. 48). Some materials promote this standard to varying degrees, but none so clearly as the role drama exhibited in the Thinking Together video.

Missing still in all materials, it seems, is any concentrated effort to guide students and teachers in evaluating facts, meanings, and arguments, even though such evaluation is purported to be an objective in the Social Studies Curriculum Guide, Grade One-Grade Seven.
1983 (p. 45), as well as in some of the materials. For example, when the Explorations Series lists several critical level reading comprehension "skills" which pertain to the validity of information, there are few situations where this is explored. Also, in dealing with primary and secondary sources, the Explorations Series misses the opportunity to relate them and illustrate how information may be altered when the secondary source interprets the primary source (e.g., grade 4 teacher's book, pp. 309-310). Students are consistently expected to provide reasons why a solution to an issue or question has merit, without having much understanding of what counts as a sound decision or valid information.

The phrase, "critical thinking and problem-solving," either unclear to at odds with the conceptions of the developers of materials, seems to have been abandoned in many instances. This was seemingly an intentional act by 31, advisor to 62 and 23, in the creation of most of the Ministry publications, as it was by 67 and 66, creators of the Explorations and Identity Series. 67 and 66 disagreed with the notion as depicted in the curriculum and 31 "wished it would go away."
Circular #167 (p. 3, composed by 62), the Thinking Together videos (introduced by 62), and the inservice handbook accompanying the Thinking Together videos (p. iii) indicated that Ministry publications (e.g., orientation videos, some which support the intermediate resource manual, or the inservice handbook) or related orientation workshops focussed on "critical thinking and problem-solving skills"; the materials, developed primarily by 31, discuss and portray "decision-making" and "problem-solving." This situation seems to be evidence of the conflict between 62, the coordinator attempting to provide continuity from the curriculum goals, and 31 who disagreed with the phrase, "critical thinking and problem-solving skills."

Sources utilised in Ministry publications seemed dependent upon resource people who were largely members of the development team. 31 and/or 29 were advisors in all Ministry endeavours and there is evidence to suggest that 31's contributions affected the translation of the notion in most of those materials. 29's input appears most evident in the delineation of "inquiry processes" in the 1983 orientation package leader's guide. For the materials published prior to 1983, the April Draft was the only Ministry resource
utilised, and the previous curriculum. 31 stated that the notion represented in the April Draft and the curriculum was dropped intentionally, agreeing with 29, 62, and 23 that the April Draft and the curriculum were unclear about the notion.

45 seems to have been the only resource person who contributed to 67's translation in the Explorations Series, which 67 claimed was based largely on Bloom et al. While the Bloom et al. influence is most apparent in the questions, levels of inquiry, and decision-making, 45's input is evident in the three moral standards for decision-making. He and 72, each credited as decision-making consultants in the Explorations Series teachers' books, also authored students' decision-making activities. 28, the coordinator who interacted with 67, influenced the "issues" that were employed in the Explorations Series. In his letter to 67 (January 24, 1983), 28 recommended that decision-making activities should not involve "value judgments which lead to 'right' and 'wrong', 'good' and 'bad'..., 'best' and 'not so good'...decisions." Uncomfortable with the notion in the April Draft, 67 incorporated her understanding of
what "critical thinking and problem-solving skills" should be.

66's work in the Identity Series was based largely on her doctoral thesis and the influence of Charlotte Crabtree, her advisor. Evidence of Ministry input is not extensive, as far as the translation of the notion is concerned. The only Ministry resource that she depended on was the April Draft, from which she added "decision-making" to her "taxonomy."

While those involved with these materials rationalised why they interpreted the notion as they did, the evidence shows that they may not have understood the curriculum very well.

The following summary chart, based upon evidence provided from the document analysis and the interviews reported in this Chapter, illustrates how the materials interpret the curriculum.

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## Abbreviations

### Materials
- Guide—1983 curriculum guide
- 1983 video—1983 orientation package video
- 1983 LG—1983 orientation package leader’s guide
- PRM—primary resource manual
- PMRG—primary media resource guide
- TT videos—Thinking Together videos
- TT HB—Thinking Together inservice handbook
- IRM—intermediate resource manual
- CRTM—Cultural Realms teacher’s manual
- D&Mc—Douglas & McIntyre’s Explorations Series teacher’s book
- P-H—Prentice-Hall’s Identity Series teacher’s edition

### Components
- CT&PSS—"critical thinking and problem-solving skills"
- PS—problem-solving
- DM—decision-making
- Cr—criteria for evaluating decisions
- Con—consensus in decision-making
- Act.—action in decision-making
- Th. P/S—thinking processes and/or skills
- IP—examining situations from an "insider’s perspective"

### Key
- * — component mentioned but not explicated
- ** — component employed and explained to varying degrees
- x — component not present, as far as this researcher could determine
- ? — researcher unsure if component present because in the case of the 1983 Leader’s Guide, she did not have access to the complete
publication.

(**) - In CRTM, component described as problem-solving exhibits characteristics of decision-making and in D&Mc, decision-making incorporates problem-solving

ltd. - limited aspects of component employed somewhat, but not explicated
CHAPTER FOUR
MACRO-IMPLEMENTATION: PHASES OF DECISION-MAKING

The Ministry's efforts in facilitating implementation of the notion, "critical thinking and problem-solving skills," are here discussed in light of three factors from the literature on macro-implementation: clarity of expectations, the nature of liaison, and capacity of participants. The issues raised in this discussion also have utility for the implementation of other curricular policies.

The policy's preparatory phase is first reviewed, followed by examination of the development and implementation facilitation phases. (Refer to Chapter I for a discussion of these phases and factors as identified by the literature on macro-implementation; Appendix 4.1 provides a detailed analysis of these factors and phases; Appendix 4.2 provides a discussion of the context of the Ministry and the broader political, economic, and curricular contexts of these phases and factors.)

PREPARATORY PHASE (1975-1978)

In the preparatory phase, the Ministry reviewed the need for policy change, as well as assessed
directions the policy should follow. Policy development would be directed by 22, a coordinator who was hired a year in advance to devise a curriculum planning model and gather a revision team. In spite of this preparation, there seemed to be inadequacies in how the Ministry addressed liaison, clarity of expectations, and capacity.

Although data are limited, it would appear that the Ministry's lack of response to the 1977 assessment (28, 60a) and the Minister's apparent dissatisfaction with the information it supplied (60a) are indicative of inconsistent liaison and unclear expectations. 60a and 28 stated that the previous curriculum was such that standardised comparison of learning outcomes across classrooms was not possible. Had the Minister clarified his expectations for the assessment, he may have become aware of the limitations of the existing policy and its implications for assessment. If, as 28 posited, the need for new secondary materials was misinterpreted as a need for revision of the entire secondary curriculum, this too would imply inconsistent communication. Appointment of 60a and 93 to both the review and the assessment seems to have been insufficient to facilitate shared understandings among
participants in this preparatory phase of the revision. It appears that the results of the assessment and the review were left to Ministry personnel to interpret in various ways (28, 29).

Data are lacking regarding Ministry attention to the need for developing the capacity of Ministry and policy sector personnel for the process of change during the review and the assessment. Most members of the review appear to have been secondary social studies teachers while the assessment team included various stakeholders, with significant representation by university academics. However, judging from the limited utility of the review and assessment reports for clarifying social studies priorities (26), familiarity with implementation literature did not appear to be a criteria for membership selection nor a consideration for inservice.

Capacity building in order to enhance 22's endeavours was not evident, even though he was to be the coordinator of the early revision. Described as having some background in social studies (23, 31), 22 did not appear to exhibit extensive knowledge of implementation or the notion. If the experiences of other revision coordinators (49, 50, 28, 59, 62, 23)
were representative of Ministry functioning during this phase of the revision, 22 would have been expected to satisfy his mandate without much guidance to enhance his knowledge of implementation or of the notion, "critical thinking and problem-solving skills."

Inconsistent liaison and its potential for discrepant interpretations suggests a need for those who design assessments and reviews to have an understanding of the implications of their recommendations as well as what is entailed in the process of change in order to anticipate implementation difficulties and enhance the utility of the results for developers. Ministry coordinators responsible for planning policy development require similar understandings if the resulting policy is to be implementable.

DEVELOPMENT PHASE (1978-1985)

During the policy development phase of the revision, inadequacies in clarity of expectations, liaison, and capacity considerations were also apparent. Terms of reference, directives, considerable outside input from contract groups and reaction panels, and feedback from at least three drafts were provided
to developers without assuring that the information was understood or that developers had the capacity to deal with it (24, 26, 28, 49, 29). Although 28 and 25 were appointed to the Management Committee (each having participated in either the review or the assessment), committee members worked basically on their own, until public dissension over the April Draft motivated intervention by Ministry officials (24, 26, 28, 29, 49). Liaison between the Management Committee and the Elementary Review Committee, effected via the coordinator and 29, a Management Committee member appointed to facilitate communication, did not involve clarification of the intent of the curriculum, "critical thinking and problem-solving skills" (31). The nature of liaison within the Management Committee did not appear to promote a shared understanding of concepts central to this notion (26, 24, 28, 30, 29, 49, 50), thus limiting related curricular decision-making and liaison. Evidence also shows that Ministry branches tended to function independently, except for occasional informal liaison at the discretion of the coordinators involved (28, 24, 49, 59, 23).

Some concern within the Management Committee for implementation (24, 26) led to the promoting of a
teacher's resource book to help explicate what members saw as a curriculum representing significant change for teachers (24, 26, 29, 49, 31). However, this focus on a resource book meant that developers did not wrestle with implementation issues themselves (26).

Inservice related to the policy or to its implementation was not a consideration in the development phase (24, 49, 28, 59, 29, 31), aside from the coordinator seeking input from a university academic about "issues" after the release of the 1980 April Draft when feedback revealed conceptual errors (60a, 50, 49). It seems that capacity of practitioner-oriented developers and coordinators was such that they did not recognise the need for guidance (49), and this may have contributed to conceptual errors in the curriculum (60a, 50). Capacity inadequacies may in part explain the apparent neglect of "expert" input when it was available (e.g., 45's 1981 paper on "issues;" the 1980 monograph on "implementation").

Capacity of participants in the development phase of the revision was also hindered by insufficient time. The timing of Management Committee meetings, monthly two-day sessions, seemed to detract from continuity (24, 29, 26, 30). Concurrent employment
responsibilities (24, 26, 28, 45), or in the case of coordinators, duties involving other subject areas (28, 49, 59), limited opportunities and inclinations to reflect on curricular conceptual complexities (26, 45), as did the overlapping of the development and implementation phases which meant that coordinators had the additional task of monitoring implementation projects while curriculum development was still in progress. The time that Ministry officials could devote to social studies was restricted by their responsibilities for all subject areas. During the latter part of the development phase of the revision, the capacity of participants may have been further affected by substantial reorganisation in the Ministry. Coordinators were likely most affected, considering that they changed almost annually after 22's departure. Apparently lacking a thorough understanding of the notion and implementation, these coordinators would unlikely have had sufficient reflective time to acquire adequate knowledge to monitor the integrity of the notion. However, considering the April Draft did not seem to explicate the intent of the notion when Ministry organisation appeared more stable, one might
query whether later changes contributed significantly to the notion's vagueness.

When the 1980 April Draft became the centre of public controversy, further revision was put on hold while the Ministry engaged an anonymous committee, the membership of which favoured university academicians, to provide its opinion about the viability of the secondary component (grades seven to eleven) of the proposed document (28, 60a). Judging from the changes in the final documents, acceptability by the "field" seemed to be the Ministry's main concern. Contentious "issues" and "content arrangements" were adjusted to satisfy the many secondary educators who lacked the capacity and perhaps desire to implement a multi-disciplinary, issues-based curriculum (29, 28, 60a). Repercussions were also seen in the elementary document which incurred changes to grade seven content and the dissolution of "issues."

Had Ministry personnel a better understanding of the notion and of implementation prior to development efforts, they may have been better equipped to anticipate and work through the difficulties that the policy met with. With sustained liaison within its organisation and across committees, it would have been
better able to monitor progress, promote interactions that encouraged policy clarity, and assist with the ongoing capacity needs of its staff. If the development committees had more liaison with personnel in the assessment and implementation branches, they may have resolved implementation and evaluation considerations before the policy was released.

IMPLEMENTATION FACILITATION PHASE (1979-1986)

In the implementation facilitation phase, policy was subject to redefinition as it passed to the selection and development of materials, to adoption by local school districts, and from local school district projects (local development of inservice plans and materials) to classroom use. During this phase, clarity of expectations was an issue, as were liaison and capacity.

POLICY TO MATERIALS

In the passage from policy to materials, Ministry concern for policy clarity and cohesiveness was seen in its commissioning of new materials to match the proposed curriculum, its appointment of members of the development committees to assist in the selection and
production of materials, and its sponsorship of additional Ministry publications to illustrate the notion.

Liaison between the Elementary Materials Selection Committee and the developers of these materials was limited, however, with coordinators apparently unable or not inclined to explicate the intent of the policy (28, 59, 31, 45, 66, 67). In one case, the coordinator (28) referred 67, editor of the Douglas & McIntrye Explorations Series, to 45, the author of the "issues" paper (1981), for clarification. Later, however, following the April Draft, 28 informed 67 that her writers (45 and 72) had "tangled decision-making and valuing" and that it was to be rectified. Otherwise, interpretations were left to the priorities and understandings of committee members, authors and editors, none who appeared to have benefitted from relevant input from the assessment and implementation branches (66, 67, 31, 59). During the one occasion when the Management Committee met with the three Materials Selection Committees (50), policy clarification did not appear to be a priority (31, 45). Congruency of materials with the notion was not achieved beyond "content" congruency (45).
Ministry concern about the changes in teaching methodology that were implied by the revised curriculum was evident in its provision of a variety of materials and its field-testing endeavours. However, its capacity-building efforts did not extend to its coordinators who, during this phase of the revision, were replaced yearly and seemed to lack adequate time and guidance to acquire the understandings necessary to monitor the productions (28, 50, 59, 62). Perhaps it was felt that selection of coordinators and advisors who had prior involvement with some aspect of the revision (e.g., 28 had participated on the review team, the Management Committee for its first year, and as a coordinator in the implementation branch; 59 had been involved with materials through his role as an implementation coordinator; 62 had been a co-author of the primary resource manual; and advisors, 29 and 31, had been members of the Management Committee and Elementary Review Committee respectively) was sufficient to maintain cohesiveness. However, evidence shows that coordinators were in a weak position to rationalise their interpretations with advisors and developers who succeeded in promoting their own understandings (28, 50, 59, 66, 67, 31, 23). Another
explanation may be that the Ministry's possible shift to coordinators with management capabilities (23, 31) in order to get the job finished superceded its concern for consistency. Or as 49 indicated, perhaps cohesiveness between the policy and materials was not a priority.

Some capacity-building of the Materials Selection Committees and the Management Committee was evident in the Ministry's provision of an EPIE training course which prepared individuals for assessing the internal congruency of a curriculum and the congruency between a curriculum and materials (45). However, one must first understand the intent of a policy to assess how materials relate.

Ministry consideration of the capacity of publishers was evident in the qualifications of 67 and 66, the parties responsible for interpreting the policy in the Douglas & McIntyre and Prentice-Hall materials. However, the vagueness of the policy and the time limitations for the submission of proposals (45, 66, 67) may have hindered the Elementary Materials Selection Committee's task (e.g., submissions may not have provided sufficient information for decision-making). Inadequate time for completing contract
obligations was cited by 66 and 67 as contributing to 66's inability to complete the grade six component of the Identity Series, and 67's apparent inattention to incorporating student evaluation activities related to her interpretation of the policy's intent in the Explorations Series. Although time was also a factor in some Ministry publications, additional help was provided when it appeared that the primary resource manual would not be ready on schedule (31).

In this passage from policy to materials, the Ministry invested considerably in the development of a broad array of resources for facilitating implementation of the curriculum. Yet, these materials were not entirely congruent with policy intent. Had Ministry coordinators been better equipped to fulfill their roles, with knowledge of the policy and the process of change, they may have been able to either rationalise more clearly the policy or discern its inadequacies and initiate adjustments, recognise which interpretations were meritorious, and explicate how the translations in the materials related to the policy.
MATERIALS TO DISTRICT ADOPTION

The passage from government policy/materials to adoption by local school districts was facilitated by Ministry staff who conducted regional workshops, intended to "orient" district staffs to the intent of the curriculum (62, 31); the provision of an inservice leader's handbook and video (1983), and accessibility to classroom materials which included the primary resource manual, described as clarifying the policy's intent (49, 29). Later in 1986, inservice materials would be enhanced with the addition of the Thinking Together videos and inservice handbook, as well as the accompanying intermediate resource guide. Also available in June, 1986, was the Social Studies Advisory Committee, a contact for school and district staff who may have had implementation concerns (Ministry Information Circular, #167).

Based on the discrepant interpretations of the policy held by coordinators and those evident in the materials, there likely would have been inconsistencies regarding the policy's intent communicated to district staffs. Consequently, coordinators may have been less effective in their efforts than they might otherwise have been, had they benefitted from sustained
opportunities to build their understandings of the policy and of the process of implementation.

CLASSROOM IMPLEMENTATION

This passage would have been influenced by district plans, as well as by the variety of Ministry resources representing different interpretations of the policy. The Thinking Together videos, available through PEMC as well as on KNOWledge Network television, provided a visual model of 31's interpretation of the policy for teachers during implementation. Inservice was to have been provided by the publishers, as part of their contract obligation. Only the Prentice-Hall materials attended to evaluation of student abilities related to its interpretation of the notion; not even Ministry publications satisfied this need. Thus diverse interpretations of the notion are likely to be implemented (Clausen, 1987; Clausen et al., 1985).

DISCUSSION

As the coordinators bore the main responsibility for developing the curriculum and for monitoring implementation materials, it would appear that if the
notion was to be implemented consistently, the coordinators required relevant qualifications or guidance. In addition, they would need working conditions that allowed for the acquisition of understandings necessary to their liaison role. Inter-branch coordination, although not in much evidence in this study, may have allowed for greater shared expertise. The Ministry's apparent inattention to clarifying the notion when providing criteria to publishers and directives to the Materials Selection Committees meant that materials portrayed different interpretations of the curriculum.

The development of the notion over all phases of the revision was perhaps most affected by the limited credentials of participants, as evidenced in the Secondary Social Studies Review (1976), the Provincial Social Studies Assessment (1977), the *Curriculum Development Planning Model* (1979), the *Social Studies Curriculum Guide, Grade One-Grade Seven* (1983), the pilot testing report (1982), and the implementation materials. Each of these products reflected their authors' priorities and understandings concerning "critical thinking and problem-solving skills" and implementation.
As Conners, cited in Dearden (1968), so astutely observed, "A sensible questioner must already know what general sort of thing will count as an answer" (p. 125). What one questions or sees will depend on one's prior understandings. Or to quote Wittgenstein, which Burke (1985) does, "You see what you want to see" (p. 308). In support of this conclusion, 49, when queried about the Management Committee's employment of experts for input regarding the notion, responded,

Never did it become significant enough for us to have requested expert advice. In essence, Management Committee, plus all the people that we consulted with and the people on the Materials Selection Committee, were happy enough with the way it was.

This attitude may account for the lack of inservice provisions to curriculum workers regarding implementation and the notion. However, 45, a consultant to the Management Committee as well as a member of the Materials Selection Committee, had submitted a paper defining types of "issues" and how they related to "critical thinking," but this paper was not utilised by the Management Committee. Perhaps not having an understanding of what the notion entailed for classrooms, the committee did not recognise the complexities involved and/or felt it threatened the investment they had already put into the curriculum.
This apparent lack of concern regarding the notion and its implementation likely influenced how the notion was developed and interpreted as much as any other factor.

SUMMARY

Anticipating that the policy might mean change in teaching methodology, the Ministry supported a variety of resources to clarify the policy’s intent. Concerned about policy acceptability, the Ministry favoured practitioners on the development committees, field-tested resources, sought input from varied contract groups, submitted drafts to reaction panels, and in response to discord over the April Draft, revised the draft to alleviate contention.

Where the Ministry was thwarted, it would appear, was in a lack of clarity early in the revision of the notion, and a lack of understanding of implementation. Armed with such knowledge, it may have been able to anticipate potential difficulties and taken steps to overcome them. For example, it may have been better equipped to recognise and provide for the capacity needs in others. Because of the many different committees, coordinators and authors working overtime within an organisation that was itself in change,
macro-implementation of the policy could have benefitted from sustained liaison and capacity-building in each phase of curricular decision-making.
CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RESEARCH IMPLICATIONS

SUMMARY

This study investigated two questions: 1) What is the Ministry's notion of "critical thinking and problem-solving skills" in the 1983 elementary social studies curriculum and what factors helped shape it? and 2) What is the Ministry's notion of "macro-implementation" as evident by its efforts toward facilitating the implementation of "critical thinking and problem-solving skills?"

To resolve the first question, the curriculum was examined and interviews were conducted to corroborate findings. Document examination did not help clarify what "critical thinking" was nor its relationship to "problem-solving." The document was devoid of references to any literature utilised in shaping the notion or justification supporting it. Interviews with participants in the development of the curriculum revealed that they had different understandings of the notion, although all seemed to agree that it represented an inquiry approach to learning. Sources they identified that appear to have influenced the
notion included 26's contribution of inquiry models, based on John Dewey (1933) and Edwin Fenton (1966); 30's contributions to defining a "skills list" for students; the work of Benjamin Bloom et al. (1956) as a basis for the construction of inquiry questions; the Alberta social studies curriculum (1977) for the multi-disciplinary and issues-based format; and public feedback to the April Draft (1980). Justification of the notion did not appear to receive much consideration by Management Committee members who relied basically upon their own professional experience, perceiving the notion to be a venture into "virgin territory" (26, 24).

Investigation of the second question involved examination of documents and materials related to policy implementation, followed by interviews with the relevant Ministry coordinators, the developers of materials for teachers and students, and their external advisors. Document analysis revealed as many discrepant interpretations as there were materials, none which explicated the intent of the policy or how the interpretations within related to it. Nor were sources identified or justification provided for the interpretations, aside from reference in Douglas &
McIntyre's Explorations Series to two decision-making consultants (45 and 72); Prentice-Hall's Identity Series mention of 66's doctoral research; and evidence of Bloom et al. (1956) being utilised in the formulation of questions. Interviews substantiated the analysis, with a few minor exceptions. The translations evident in the materials seemed to be, in many cases, diversions from the policy, because the developers or advisors did not always agree with or understand the policy as represented. Receiving little guidance or direction from Ministry coordinators, who were themselves seemingly unsure of the policy's intent, these developers/advisors were left largely to their own understandings and priorities.

Yet Ministry decisions made throughout the revision implied a concern for policy consistency, acceptability, and implementation. For example, the need and direction for a revision was first assessed and a model for curriculum development devised. A curriculum was then developed with considerable effort to make it acceptable to schools. In order to maintain consistency, coordinators and advisors tended to have long term involvement over the course of the revision. Ministry attention to enhancing the capacity of school
and district staff was evident in its attempts to clarify the policy via an array of materials including videos representing the intent of the policy in action. Further capacity concerns were apparent in the Ministry's orientation workshops that were provided for district staffs, the arrangements that were made with publishers to attend to the inservice needs of classroom teachers, and the advisory committee that was established to resolve curricular concerns.

In spite of these efforts, the Ministry had difficulty producing a policy that was acceptable to the field, or materials that either clarified its intent or explicated how they related to the policy. How the Ministry addressed clarity of expectations, liaison, and capacity building—three factors highlighted in macro-implementation literature—may help explain this outcome.

Capacity considerations did not seem to include the Ministry's coordinators who were responsible for coordinating all aspects of the revision. This may have left them in a weak position to operate effectively. Their participation on the policy development team or with related endeavours neither ensured that they were clear about the policy's intent
nor did it prepare them with an understanding of the process of change.

Liaison within the Ministry was inconsistent, with branches seemingly functioning at times independently. Initial revision efforts did not, therefore, benefit from anticipation of and working through implementation and evaluation concerns. Sustained interaction did not seem to occur in order to share a common understanding of implementation roles, the process of change, the clarity of the policy, or the need for capacity building within the Ministry or in the numerous organisations within its policy sector.

CONCLUSIONS

This study of macro-implementation provided strong support for the need for initial policy clarity; increased liaison within the Ministry, as well as between it and the policy sector; and attention to capacity building of the various players.

POLICY CLARITY

Without initial policy clarity, it is unlikely that later efforts to explicate the policy will be consistent. As exhibited in this study, a vague policy
invites discrepant translations in implementation facilitation projects.

Contrary to what some policy developers (29, 49, 24, 26, 31) seemed to think, explication of "critical thinking and problem-solving skills"—an integral part of the policy through which students were to realise learning outcomes—was within the jurisdiction of curriculum development. Teachers first have to understand what "critical thinking and problem-solving skills" entails in order to made decisions regarding how they will facilitate student learning. If the policy is to have integrity and be implementable, it seems relevant that terminology, particularly that relating to policy goals, be clear to developers, coordinators, and those responsible for its implementation. By continually striving toward a defensible policy, curriculum developers may be able to eliminate much potential policy vagueness.

It therefore seems reasonable to conclude that policy clarity may need to be resolved during the development phase, rather than being left to others in later implementation efforts.
Clearly depicted in this study was the need for sustained constructive interaction within the Ministry as well as between it and other organisations in the policy sector in order to facilitate *shared* understandings and *shared* expertise, as well as to allow for the monitoring of progress and the capacity needs of participants. Some mechanism to ensure such liaison appears essential to producing a policy with integrity, one that has prospects for implementation.

Consistent liaison throughout the revision that focussed on a shared understanding of roles, terms of reference, policy intent, and policy implications between Ministry levels, across and within branches and committees, as well as between the Ministry and other policy sector organisations may have contributed to better rapport, smoother transition during the reorganisations that occurred, and more consistent policy interpretations. Consistent liaison that also encouraged shared expertise among these participants, particularly across Ministry branches, might have allowed the prediction and working through of implementation and evaluation considerations, perhaps enhancing policy integrity and alleviating potential
difficulties prior to policy dissemination. Consistent liaison might also have meant that capacity needs were noted early in the revision, particularly those of Ministry coordinators who interacted with other players. Consistent liaison that focused on shared understandings, shared expertise, and capacity needs would likely have had the additional advantage of providing ongoing revision progress data, perhaps lessening what seemed to be a deteriorating rapport and wasted efforts, as evidenced by the negative reaction to the April Draft and steps that were taken to compensate.

CAPACITY BUILDING

The capacity of people responsible for policy change represented the most important consideration for macro-implementation in this study. Management capabilities and participation in the development of the policy seemed insufficient qualifications for the role of revision coordination. Nor did experience in teaching social studies seem adequate to provide participants with knowledge of the policy and of the change process. Without substantial understanding of the potential conflicts in the subject area of social
studies, and of implementation considerations, ministry staff may be ill-equipped to initiate and facilitate policy change. Unless their capacity needs are first attended to, they will unlikely be able to recognise capacity inadequacies in curriculum committee members and in other policy sector organisations, and be effective in their roles.

If the capacity of ministry coordinators is to be ensured, the capacity of those responsible for appointing coordinators is also an issue. However, it seems unreasonable to expect management personnel to have expertise in all curriculum areas. Perhaps specialisation in implementation research would be more realistic, with the establishment of ongoing liaison with outside experts who would provide subject area consultation throughout curriculum endeavours.

As well as qualifications, time restraints also appeared to affect the capacity of participants in the revision. It may be that we underestimate the time required to realise shared understandings, especially when the concepts entail complexities as does the notion, "critical thinking and problem-solving skills." In addition, it seems that "critical thinking" did not achieve prominence in general educational literature
until after 1982, previously having been concentrated in philosophical literature, an area of research not readily comprehended by the uninitiated, nor representative of a common conception of "critical thinking." Related understandings seem to require more time than is likely available for many curriculum enterprises. However, perhaps some adjustments could be considered so that curriculum tasks with such far-reaching implications could be conducted under conditions more conducive to resolving inherent complexities.

Because these understandings may be of an evolving nature, it seems even more relevant that the intent of policies and the sources upon which they are based be clearly depicted so that they may serve as a foundation for subsequent questions and learning. In this era where it is so difficult to keep pace with new knowledge, some curricula seem more amenable to ongoing cultivation rather than remaining dormant between infrequent revisions.

In conclusion, this study suggests that discrepant interpretations of policy should be anticipated. By approaching policy work with this in mind, ministries
may be prepared to gauge interactions accordingly, continually striving to promote shared understanding.

"Critical thinking" attributes, alluded to in the policy that was investigated in this study, are necessary conditions to achieving such understanding. With a "critical thinking" disposition, one would be, among other things, sensitive to others; committed to seeking out the most credible and relevant information, reasons, standards, or solutions; and willing to consider arguments in opposition to one’s own view, being open-minded to the possibility that in so doing, one might have to reconsider and compromise one’s own ideas. A "critical thinker" would also be concerned about promoting clarity, sound inferences and judgements (Ennis, 1985; Paul, 1984; Coombs, 1987; Wright & La Bar, 1987).

Yet without clear, shared meanings of terminology, Coombs (1987) maintains that acquisition and application of other "critical thinking" attributes would be ineffectual. He explains:

The meanings of statements, claims or judgments...are crucial to critical thinking because both alternative courses of action and reasons for choosing are often brought to our attention through statements or judgments. To the extent that we fail to understand such statements we will be unclear about the alternatives available to us or unable to evaluate the
suggested reasons. Moreover, in our consideration of reasons we make use of the concepts of our language. If we ill-understand the language we use in our "internal dialogue," our reasoning may well be defective. (pp. 45-46)

Coombs (1987) discusses the need to be sensitive to problems of meaning, which "implies both being on the alert for meaning problems and being able to recognize them when one sees them" (p. 51). This, he suggests, would require one to be on the lookout for "vagueness," a pursuit which may be motivated by understanding the consequences "vagueness" implies, so clearly depicted in this study.

This is not to suggest that shared understanding should always lead to fidelity in policy implementation for this would be in contradiction to the open-minded disposition of a "critical thinker." It is only to propose that without a shared understanding of a curriculum's intent, there is little basis upon which to rationalise the merit of the policy or other interpretations. Change may not always be the wisest decision. Nor is this to suggest that shared clarity will always be readily forthcoming. Research has suggested that policy clarity may evolve over time through use, sharing of experiences and perceptions, and ongoing adjustments based on the acquisition of new
understandings. This should not, however, be cause for conceding "vague" policy but instead, for intensifying the search for clarity.

Impediments exist but prospects for implementation are more optimistic than earlier research implied. Although complexities are involved, they need not be a deterrent, provided they are approached "in a way which maximizes clarity" (Fullan, 1982, p. 59). As Berman (in Fullan, 1982, p. 59) found, "the more tried for, the more accomplished."

IMPLICATIONS FOR FURTHER RESEARCH

Following from this study are some suggestions for further research.

1. Focus on exemplary ministry macro-implementation plans and factors that enhance capacity building:
   a) of ministry staff, and
   b) of other policy sector organisations.

2. Pursue one of the more significant problems in capacity building--the means for translating theory into practice.
3. Explore strategies that ministries employ to facilitate initial policy clarity, and mechanisms to promote intra-ministry coordination and rapport.
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Macro-Implementation: Critical Thinking


MACRO-IMPLEMENTATION LITERATURE REVIEW


CRITICAL THINKING


Macro-Implementation: Critical Thinking


**OTHER REFERENCES**


Interview questions varied according to the role that each interviewee had fulfilled in the revision of the 1983 elementary social studies curriculum. The following schedule, therefore, is only an example of the common areas that were investigated.

1. Clarify the interviewee's role in the preparatory, development, and/or implementation facilitation phases of the curriculum and the basis for his or her involvement.

2. The notion of "critical thinking and problem-solving skills"
   
   2.1. What was intended by the notion in the 1983 guide?

   2.1.1. What was intended by "critical thinking"?

   2.1.2. What was intended by "problem-solving skills"?

   2.1.3. What relationship was intended between "critical thinking" and "problem-solving skills"?

   2.2. What justification was considered for the notion in the guide?
2.3. What sources contributed to the development of the notion (e.g., specific social studies, critical thinking, and implementation literature; other curricula; input from individual committee members; outside pressure groups; Ministry directives, terms of reference, and reports)?

2.4. Why did "critical thinking" seem to disappear in the guide?

2.5. What relationship was intended between "critical thinking" and "decision-making?"

3. Macro-Implementation

3.1. Clarify what specific actions the Ministry took in facilitating implementation of the notion.

3.2. What Ministry expectations regarding the notion and its implementation were expressed to the curriculum developers as well to those engaged with implementation related efforts? For example, were concerns expressed regarding the clarity and complexity of the notion, loss of fidelity to the notion, justification for the notion, evaluation of outcomes related to the notion, provision of a rationale for the curriculum change, the capacity of deliverers for implementing the notion, and the nature of a political climate conducive to implementing the notion?
3.3. What inservice and/or terms of reference did the Ministry provide to its coordinators, the developers, and those involved with implementation related endeavours regarding the notion and its implementation?

3.4. Which Ministry branches were involved in the preparatory, development, and implementation-facilitation phases and in what ways?

3.5. How was the consistency of the notion monitored across implementation materials and endeavours? By whom?

3.6. How was the notion interpreted in the various implementation materials?

3.7. Why does the notion seem to disappear in the materials?

4. Ministry organisation

4.1. What organisational changes occurred during the revision?

4.2. What specific effects might organisational changes have had on the notion and its implementation?

5. Obtain suggestions for further relevant data sources to pursue.
APPENDIX 2.1

THE INTENTION OF THE NOTION: INTERVIEW ANALYSIS

To illustrate the discrepant perspectives of the intent of the notion, "critical thinking and problem-solving skills," we look first to the three coordinators who were involved and then to member(s) of the Management Committee and the Elementary Review Committee.

COORDINATORS

49, coordinator for the first year following the more than three years of direction by 22, referred this researcher to page 81 and 125 of the Social Studies Resource Manual, Grades One-Three (1983) for explication of the intention of the notion. As these pages only explain what "decision-making" and "problem-solving" entail, this researcher pursued with 49 the relationship of "decision-making" to "critical thinking." He indicated that two perspectives were evident among Management Committee members:

One group tended to see decision-making and problem-solving as constituent parts of critical thinking and so therefore critical thinking was a bit more general in nature and included those two.....There tended to be a...sub-group of the Management Team that were saying that...when they were talking about critical thinking they were
essentially thinking of the decision-making process.... I feel fairly confident about that. And those people probably would say,...'And we see problem-solving as slightly different in some way.'

In agreement with the former group, 49 felt the curriculum represented that perspective. However, when asked why the "and" linked "critical thinking" and "problem-solving skills," he was unsure, indicating that it likely reflected a "controversy" among committee members.

50, co-coordinator during 49's tenure, did not exhibit a clear understanding of the intention of the notion. This inference is based upon her inability to recall such information in the interview and the lack of attention to the notion in her field-testing questionnaires and report. It appears that she emphasised the "skills" component rather than the four goal statements.

28, a member of the Management Committee during its first year prior to the formulation of the final goal statements and the last coordinator involved with the 1983 document, thought that "critical thinking" was represented by "problem-solving, decision-making, and the inquiry process." While the relationship among these aspects of "critical thinking" was discussed by
committee members, 28 indicated it was never resolved. He did not recall any committee discussion about the term, "critical thinking."

MANAGEMENT COMMITTEE MEMBERS

24, chairperson of the Management Committee, when asked about the intended relationship between "critical thinking" and "problem-solving skills," indicated that "it was a conscious decision to make them separate." As for the relationship, she thought this researcher was "probably reading more into the 'and' that we would have ever intended." To all queries related to "problem-solving," her responses were directed to "decision-making," even when she was pointedly asked if she was equating "decision-making" and "problem-solving." Regarding her understanding of the intention of the notion, 24 commented in a rather unclear manner:

The "critical thinking," you know, if you're looking at a Bloom's Taxonomy of encouraging students to get beyond the lowest levels of thinking and analyse, synthesize, etc., given some content and some information and some experiences, could they analyse it? So I think we would have said, 'There's "critical thinking".' Then we were also looking at "decision-making" in terms of taking that information and working through it in sequential steps and arriving at a conclusion and acting on it. We saw it as going beyond, I guess something cerebral in analysing, but we thought taking action.
The decision-making model employed in the guide, 24 described as a "handy-dandy guide to thinking, teaching thinking." While at one point in the interview 24 suggested that the committee did distinguish between "decision-making" and "critical thinking," she later expressed doubt as to whether the committee ever "resolved the two."

26, the only university representative on the Management Committee, thought the committee often used the terms "critical thinking" and "problem-solving" interchangeably. He explained:

Now, I'm using "problem-solving," "critical thinking," because one of the problems that we ran into was a lack of clarity in terms of what they meant, those two terms, whether they were synonymous or whether they should be treated separately or what. So when the committee talked about these things they generally used them synonymously. "Critical thinking" and "problem-solving" became sort of a catchword to describe the processes, the skill processes—cognitive skills processes that we wanted the kids to go through.

....Now the difficulty was I don't really think we defined the distinction between "critical thinking" and "problem-solving." In other words, we used the word inquiry— inquiry skills, and we really thought this was going to be the crux of our process of the social studies curriculum, to promote inquiry. And we viewed inquiry as primarily a problem-solving exercise where you identify a problem and you have some systematic way of attacking the problem, gathering the data, analysing data, and so on.

....I think the committee tended to look at problem-solving as the general rubric under which all these skills fitted.
Macro-Implementation: Critical Thinking

Discussing the secondary curriculum, 26’s comments also pertain to the elementary document as the Management Committee imposed the same structure on the Elementary Review Committee (31):

...We felt that the critical thinking component there, probably erroneously we thought this, would be plugged in under the inquiry column, questions which were specified in terms of content in each grade level so that when you examined a question, it usually had, sometimes had a 'should' in it, that you obviously had to go back to this decision-making, problem-solving and/or decision-making model to come to grips with that item. We hoped teachers could make the bridge so we were linking the back end of the curriculum, the document, dealing with those issues, critical thinking stuff, back into the substantive content. And we felt the only way to do it was to make it very content-oriented.

In other words, the Management Committee assumed that through the inquiry method, a student would be participating in critical thinking.

As to how the actual phrase, "critical thinking and problem-solving skills," evolved, 26 could not recall, indicating that "in any case, it wasn't a big issue."

29, one of two representatives who joined the Management Committee after its first six months to provide an elementary curricular perspective, also indicated that "critical thinking" was not a term used by the Management Committee in its deliberations:
...Originally, it was "problem-solving" and "decision-making." Those were the two major areas that we were focussing in on. And then somehow later the term "critical thinking" emerged. I don't think we started with "critical thinking." It sort of came after. We tried to think of a term that would incorporate both of those components ["problem-solving" and "decision-making"] because they are distinct....So rather than continually saying we're going to be teaching "problem-solving" and "decision-making," "critical thinking" seemed to emerge.

Attempting then to explain the goal statement which links "critical thinking" to "problem-solving skills," 29 commented:

...We realised that within the whole structure of "problem-solving" and "decision-making" the children also go through other "critical thinking" processes. So in "problem-solving" you'd find the problem, you'd generate a hypothesis, you'd do your research, you'd test it, etc. But while you're doing those things, you're also doing a lot of other things. You are analysing, you are evaluating, you are comparing, you are contrasting. And that could be where the "critical thinking" came up because throughout the whole program, the children will not just be doing "problem-solving" and "decision-making." You can't do that all the time but you will, through class discussions, have the children evaluate something. You will have them critically analyse something.

....The committee felt it was just too overwhelming [for teachers]...to have "problem-solving," "decision-making," plus some of the hierarchy of skills that...various other writers had suggested....So we decided to just define the two and I guess that's where the others ["observing, comparing, contrasting, evaluating, analysing, interpreting, inferring"] would be subsumed, under "critical thinking."
29 is trying to say that while these aspects of "critical thinking" have been subsumed in the document under the term, "critical thinking," they may also be subsumed or employed within the processes of "decision-making" and "problem-solving." However, when discussing varied interpretations of the notion, 29 allowed that perhaps the "definition was never clearly conveyed."

30, the second elementary representative, claimed that there was "no total agreement" among members as to how "critical thinking," "decision-making," and "problem-solving" related to each other. Meanings were "unclear" and terms often used interchangeably, a "mish-mash of the same thing." However, unlike 28, 30 recalled much discussion by the Management Committee about "critical thinking, problem-solving, and inquiries."

28, as well as being the last coordinator involved with the development of the curriculum, was also a member of the Management Committee during its first year of operation. His understanding of the intent of the notion, which it appears was developed after his departure from the committee, depicts "critical
thinking" as a general rubric for "decision-making," "problem-solving," and "inquiry."

ELEMENTARY REVIEW COMMITTEE

31, the member of the Elementary Review Committee interviewed by this researcher, could not recall the phrase "critical thinking and problem-solving skills" as being part of the goal statements in the Elementary Review Committee's terms of reference. She explained:

It would be fascinating to look at those four goal statements [in the earlier drafts] because somewhere in and around 2B's time, it changed. That phrase "critical thinking and problem-solving" crept in. And that was never there, in my recollection, early on because in my conceptualisation, "critical thinking" and "problem-solving" are virtually the same thing and that in fact, if you look in the skills appendix, what we have is problem-solving and decision-making. So why "critical thinking and problem-solving" appears in the goal statements has always been a mystery to me.

According to her, the Elementary Review Committee worked on the body of the document "...with the skills appendix in mind, problem-solving and decision-making in our mind...," although she acknowledged that committee members "knew about the program goals..., knew what guided us."

Yet 31 had "no idea" what the Management Committee intended by "critical thinking" or what relationship
was implied between "critical thinking" and "problem-solving skills," presumably because these were not the goals she remembers being provided to the Elementary Review Committee. Considering it a "redundancy" to use the phrase, "critical thinking and problem-solving" as each implies "virtually the same thing," 31's explication of what she thought was meant by "problem-solving," likely describes her understanding of "critical thinking" as well:

I think that they intended it to be the kind of rational inquiry type of problem, the question that is to be researched. I don't think it's in the sense of you know, maybe like a guidance problem-solving or a counselling problem where you've got something that's wrong that has to be fixed up but that it's... in the sort of scientific or rational mode of inquiry, when you read about problem-solving and you look through the stages. There's define the problem, come up with a hypothesis..., gather additional information, you know, which in my view, indicates that it's a rational form of almost scientific inquiry.

As for "decision-making," 31 indicated that the intermediate resource manual (1983) represents where her thinking was "clarified" as far as the difference between "problem-solving" and "decision-making" was concerned. Here one reads that the "decision-making" process may be defined as making reasoned choices based on judgements that are consistent with one's values and based on sound, relevant information. The steps in the decision-making process may be outlined as follows:

1. identify issue
identify possible solutions or alternatives
- gather, analyze, interpret data relevant to alternatives
- plan action and act accordingly
- evaluate decision and action (p. 125)

The manual also indicates that to make decisions, students will engage in numerous, related higher-level inquiry processes including analyzing, synthesizing, predicting, and evaluating.
(p. 125)

"Decision-making," according to 31, cannot be done "without looking at the value stance." Queried about establishing criteria for making decisions, 31 emphasised that it was part of the decision-making process." While it is helpful to view how 31 perceived the notion, she admits that her understanding evolved since her work on the Elementary Review Committee. Consequently, it would seem unlikely that her current interpretation, represented by the intermediate resource manual, would have influenced the work of the Elementary Review Committee.

If 31's observations are correct, that the Elementary Review Committee worked basically from the "skills list" and focussed on "problem-solving" and "decision-making," then it is possible that they too were confused by the notion, if they even attended to
it. Whether committee members perceived the notion as did 31 is not clear to this researcher.
APPENDIX 2.2
THE SOURCES FOR THE NOTION: INTERVIEW ANALYSIS

Interviewees provided some indication of what sources contributed to the notion, "critical thinking and problem-solving." The comments below pertain to the influence of Ministry terms of reference, contract groups and respondents to the April Draft, consultants, the personal contributions and/or references used by members of the development committees, and other related Ministry input.

TERMS OF REFERENCE

Of the several references cited in the Ministry terms of reference, most interviewees on the Management Committee seemed impressed by the Alberta social studies curriculum's inquiry model, particularly in that it had an inter-disciplinary, inquiry-based perspective at the secondary level (26). 24, 26, 29, and 30 confirmed that it likely had an impact in terms of the notion. The Saskatchewan social studies curriculum may also have provided some insights, according to 26 and 28, especially because 26 had experience with it.
The Guide to the Core Curriculum (1977) and previous curricula were not useful in developing the notion, according to 29 and 28. Nor was the British Columbia Social Studies Assessment (1977) helpful, suggested 26, although 29 was the only interviewee to indicate that it was an influence on the Management Committee's thinking. As she remarked:

Whenever they did it [the B.C. assessment], one of the things that the teachers said is that we should make our children more capable to reason, to solve problems, etc. And so the revision was based primarily on the assessment results. So it seemed as if the teachers and the public were saying we should be helping our children to be critical thinkers, and deal with life's issues. And so the Management Committee tried to fulfill these goals, designed the curriculum with issues and critical thinking incorporated into them. Then the draft was submitted to reaction panels. We went through several of these....And the teachers that looked at them said, 'We don't want to do this. We can't. Issues are values. This is sensitive. We'd get into a lot of trouble. We don't have the skills. We are not social scientists. We are historians and geographers.'

31, a member of the Elementary Review Committee, was the only interviewee to suggest that the previous curriculum was of prime import, in that the committee's mandate was to review, not revise.

As for the "relevant available research" mentioned in the Management Committee's terms of reference, 49 referred this researcher to a "big, black 3-ring binder" that might contain such material. 24 indicated
that such a binder contained April Draft responses, not research. 26 suggested that a binder containing literature from a conference preceding the revision, papers by "people from SFU and UBC primarily," had been made available to the Management Committee early in its deliberations. But 26, who identified 45 as one of the contributors, suggested that he "wouldn’t overemphasise their importance...." Of the elusive binder, all that 29 recalled was that 45 had some input into it.

CONTRACT GROUPS AND RESPONDENTS TO THE APRIL DRAFT

Contract group submissions were another source for the Management Committee to consider. However, few interviewees could recall what actual influence this input had. Some also confused these briefs with the April Draft feedback so both will be considered together.

24 suggested that it was too long after the fact to differentiate among the varied contributions. She did indicate that the April Draft feedback focussed on concerns about content location. Little opposition was recalled over how the notion was represented in the April Draft except that some pointed out, "This is not
Regarding this input, 24 remarked, "Well, we knew that."

Discussing the contract group submissions, 26 felt the university briefs had "less impact" than those from school-based practitioners, "primarily [because] we could understand it." Of the consulting groups who had the most influence on the notion, 26 pointed to North Vancouver and Richmond who he remembered having "attacked the issue of [critical thinking and problem-solving]...." The following explanation for this state of affairs was offered by 26:

The problem with most university stuff, speaking now as a curriculum committee member, was it's unintelligible in the sense that it's, given the nature of our work here [as university academics], that we focus on very specific problems in a very detailed way and develop a language that may be incomprehensible to the curriculum committee's frame of reference whereas a practitioner-developed focus, which may not have the depth that the other does, is more acceptable because it's readable. It's as simple as that. You get someone talking to you, for example, like 45 on how to teach issues in the classroom. Now, 45's a very profound thinker and certainly writes a very detailed, complex, complicated paper but that's not what a curriculum committee wants to hear because its task is under a timeline to produce something and therefore it tends to be impatient with the complexities and looks for a rather simpler organisational path. And that's a fact of life. That's the type of thing that happens to committees. So that's what I would say, but that's just my interpretation but that's how I recall it....

But I think that the other problem, Carole, is the way committees function. You see, they
only meet three days every month and I could see that gap narrowing if they had more intensive and more commitment to time. You could wrestle with these problems with a little bit more detail because it involves time commitment to go through it. Now you can say we can give homework to the committee members, tell them to read. Well, that just doesn't happen because they're doing a multiplicity of other things as a classroom teacher.

As for the effect that the April Draft feedback had on the notion, 26 was unsure although he suspected "it was partly a reaction to the reactions to the draft" that the "issues" component was downplayed.

29, responding to queries about the consultant groups' influence on the notion, described the difficulties experienced by the committee in resolving the disparate views. The committee, she said, finally concluded that attainment of consensus, because of such extreme differences, was "extremely hard" and that it could not arrive at understandings that would satisfy everyone. While 29 was sure that the university input was considered, she did not know "whether it had a great bearing on what actually appeared in the curriculum." Of the April Draft feedback, however, 29 indicated that educators expressing opposition to dealing with "issues" and the social scientist approach led to the revisions seen in the final document which included the dilution of "issues" and the removal of
related teaching notes and a bibliography. As far as how "issues" related to the notion, the April Draft responses affected it.

30's observations support 29's perspective that the committee was not able to reconcile the diametrical perspectives that were submitted following the April Draft. Certain features that to some were the "strongest," to others were the "weakest." This, he posited, led to a "middle of the road curriculum."

28 could not recall consultant group input "addressing critical thinking." However, his comments implied that he was likely thinking of responses to the April Draft during his tenure as curriculum coordinator. This input related more to sequencing of content rather than "critical thinking." (Perhaps his early departure from the committee preceded committee consideration of the contract group submissions which were not due until April in the same year he resigned.) However, 28 indicated that changes related to "issues" evolved in response to secondary educators who were opposed to this approach. The elementary curriculum, he suggested, was affected by this April Draft dissension.
A university professor of social education (45) was cited by 29, 28, 49, and 30 as being a consultant for the inquiry/critical thinking component of the new curriculum via his paper on "issues." 26, who also acknowledged 45's contributions, was not sure they weighed heavily in the development of the notion because the conditions the committee worked under did not allow for serious consideration of the complexities entailed. Nor was 28 aware of what actual impact 45 had. 24 claimed that 45 served to represent the university after 26's departure but she did not mention his influence on the notion.

While all relevant interviewees except 24 credited 45 with advising the Management Committee in some capacity about the notion, there was doubt expressed about what actual impact 45 had on it, as represented in both the April Draft and the final document. While there appears to be slight evidence of 45's input in the April Draft, in the role exchange test provided in the appendix teaching notes for dealing with issues and in one bibliographic entry, these were deleted in the later document (1983). In this guide, however, the introductory statement (p. 7) that describes "issues"
as involving disagreement about "matters of fact, matters of meaning or matters of values" had been taken verbatim from 45's paper on issues, page 2. He posits that the only influence his work had was in the committee's relabelling of the "issues" column to "inquiries."

It would seem that the committee was not interested in changing their ideas about "issues" because this would necessitate reworking the entire document. Considering that 45's input seemed to have come late in committee deliberations, this would appear to be a reasonable conclusion.

COMMITEE MEMBERS AND THE RESEARCH BASIS FOR THEIR INPUT

According to 24, 26 was the Management Committee's reference person for literature on the "critical thinking and problem-solving skills" aspects of the curriculum. Once he departed, she implied the committee had a difficult time filling the void. In the brief time that 50 spent as coordinator working with the committee, she verified that the committee never dealt with defining what "issues" were. 24 referred this researcher to 26 for information related
to research literature that might have contributed to the notion and how the committee justified the notion it settled on.

While 30 confirmed that 26 provided the inquiry model for the curriculum, 26 was less sure of what his actual contributions were, in that committee members were experienced teachers who he felt already relied upon Edwin Fenton's (1966) approach. Dewey and Fenton, he claimed, provided the basis for the "very simple social science inquiry mode" utilised in the revised curriculum. 26 also shared with the committee approaches he was familiar with, the Harvard Public Issues Project, for example, which even though it was "old hat" was interesting to look at "in terms of dealing with issues."

While 29 was not sure what contributions 26 made in regard to the notion, 49 cited 26 and 45 as a committee source for the notion, "critical thinking and problem-solving skills."

Any other research initiated by committee members concerning the notion seems to have been self-directed (29). 24's remark that 26 was the only committee member who investigated related literature, because of
his interest in the area and his proximity to the university, would confirm this view.

However, this researcher noted evidence in the curriculum of Bloom et al.'s Taxonomy of Educational Objectives (1956). When asked about this source, 29 confirmed its influence. She also agreed that Louis Raths (1967) had some impact. 24 and 28 acknowledged that the work of Bloom et al. was utilised specifically in the construction of questions. While 31 did not identify Bloom as a resource utilised explicitly in the curriculum's development, she did suggest that "people's conceptualisation of thinking was more along the lines of Bloom’s Taxonomy and...early work in the skills of thinking."

According to 30, his masters thesis provided the basis of the skills component of the curriculum, which was later simplified following suggestions from 22, the coordinator, that it was too detailed. Though 28 was not clear about 30's input, 24 and 26 confirmed his contribution to the skills component. 31 was unaware of 30's role in the curriculum's skills appendix, suggesting that the list stemmed from the National Council for Social Studies (1963), a source cited in the back of the curriculum. As 30 worked for the Maple
Ridge School District whose "skills" curriculum was also recognised in the guide, it seems reasonable to conclude that 30's input was likely in the form of the Maple Ridge submission.

OTHER MINISTRY INPUT

While 24, 49 and 28 were positive that the Ministry did not provide any directives in regard to the notion and 26 concurred that Ministry directives were more general in nature, 26 did state that the Management Committee was under a constraint from the beginning of its work to avoid using the term "values" in the new curriculum. He suggested that the committee was certainly aware that the Ministry was not going to be happy with us getting into the values clarification game or emphasising our problem-solving or critical thinking in that domain.

28 was also aware of the Ministry's reticence to incorporate "values" within the curriculum although he was not clear how or when such concerns were communicated to the committee. Ministry consternation over the type of "issues" employed did not appear to erupt until after the April Draft, as evident when 22 commissioned 45 to do a paper about "issues," by 50's discussions with the committee concerning what "issues"
were, and by 28, 29, and 49's concurrence that there was little interference from Ministry officials prior to the release of the April Draft. It seems to this researcher that Ministry contraints described by 26 were communicated just to some members of the Management Committee following the April Draft furore. 45 remarked that the Ministry had been opposed to entertaining the use of "values" in curricula as long as he had been in British Columbia.

Such Ministry intervention would affect the notion in the curriculum if one agrees that "issues" involve disputes about matters of fact, meanings, and values (45) which may be settled via "critical thinking and problem-solving" and/or "decision-making."

SELECT COMMITTEE

While 24, 28, 29, and 49 implied that members of the secret Select Committee re-wrote the April Draft, 60a, chairperson of the Select Committee, indicated that the committee's mandate was to review and offer only an opinion about the proposed curriculum. Of its recommendations related to the notion, 60a suggested that if the notion was to be realised, it must be clearly explicated. As well, "issues," which needed to
be real "issues" rather than questions that could be answered by a "yes" or "no," would have to be significant in order to "allow" for diversity of opinion.

In that the notion was not any clearer in the final document and "issues" remained even more dilute than in the April Draft, this researcher would judge that the Select Committee had little affect on the notion, "critical thinking and problem-solving skills," in the 1983 curriculum.
APPENDIX 3.1
MACRO-IMPLEMENTATION: MATERIALS—DOCUMENT ANALYSIS

MATERIALS SELECTION COMMITTEES

The only print data pertaining to the Elementary Materials Selection Committee's work available to this researcher was 45's paper, "The Politics of Materials Selection: The British Columbia Case" (1983; available to the Ministry in July, 1981). Herein he delineated two sets of criteria provided to publishers to guide their submissions, one for existing materials and another for new proposals. The only relevant criterion for new proposals suggested that publishers submit "a statement on how the proposed resources match the proposed curriculum" (p. 11). How the Materials Selection Committees or publishers were to interpret the curriculum in order to achieve a match with it is not indicated.

PILOT TESTING REPORT

50, who with 49 was a curriculum coordinator following 22's resignation, conducted a pilot test of draft materials for Douglas & McIntyre's Explorations Series. Expecting to see some evidence in the report
of 50's interpretation of the notion, considering its relevance to the overall program goals, this researcher found little to suggest that the notion was of importance to the project, aside from occasional references to the "skills" component of the curriculum. For example, on the teacher's questionnaire, the vehicle for obtaining feedback related to the materials, 50 asked if "the activities supported the knowledge, skills and attitudes to be developed?" or if "the questions posed encouraged the students to use a variety of skills?" Brief attention was directed to whether "the program [is] geared to skills development rather than content?" or whether "the students have the necessary skills to handle the program?"

When rationalising her collection of data, 50 did not mention any justification for or sources utilised in determining the content of the questionnaire or the discussion guides for pilot teachers. Perhaps 50's reference to Palmer (1969) best explains why:

A question, after all, posits a preliminary way of seeing; just as understanding is not placeless and empty so questioning is not without its own horizon of expectations.

Judging by comments throughout the report, 50's priorities for the pilot testing seem more concerned
with the materials themselves than with the curricular goals.

MINISTRY PUBLICATIONS


MINISTRY INFORMATION CIRCULAR # 167

Within this circular, four implementation projects are brought to the attention of educators. The
intermediate social studies resource manual is said to "...emphasize problem solving or decision making, a key component of the new curriculum" (p. 1) while the Thinking Together kit is to "aid districts in their orientation to the intent of the new curriculum" (p. 2). Not indicating what that intent is, the circular continues, mentioning nine regional workshops that "...focussed on the relationship of critical thinking and problem solving to the new 1-11 curriculum" (p. 3) and twelve KNOWledge Network broadcasts that "...highlighted teachers and students involved in lessons emphasizing critical thinking and problem solving" (p. 3).

Because the resource manual depicts "problem solving or decision making" as a "key component of the new curriculum," and because the video lessons in the Thinking Together kit illustrate the "intent of the new curriculum" and were used for workshops and KNOWledge Network broadcasts, one might conclude that "problem solving and decision making" have been construed as equivalent to "critical thinking and problem solving." Lacking, however, is any verification of this relationship or any justification for the notion.
Neither within the video, *The Primary Revised Social Studies Curriculum* or *The Revised Primary Social Studies Curriculum, 1983: Leader's Guide to Orientation Package* is the notion, "critical thinking and problem-solving skills," alluded to.

While the video portrays the notion as a form of "inquiry" which employs the "skill" of "problem-solving," the leader's guide delineates three forms of inquiry: problem-solving, decision-making, and issues. Page 9 provides a brief definition of each. Problem-solving involves students making an "educated guess" or hypothesis and "testing [it] by gathering information." Decision-making entails the "exploration of alternatives" while "issues" are described as "a point in dispute." Each type of inquiry will be influenced by "values" which are "something considered worthwhile or desirable." "Inquiry processes" inherent within each form of inquiry include

- observing, comparing, contrasting, interpreting, inferring, analyzing, hypothesizing, recalling, synthesizing, evaluating, predicting, generalizing, [and] defining. (p. 9)

How "issues" became a form of inquiry, rather than a vehicle which employs "knowledge, skills and
understandings" (p. 7) as stated in the curriculum, is not evident. Nor does there seem to be any indication of where the "inquiry processes" emerged from. Reference to criteria for judging alternatives in "decision-making" or the use of group consensus and action in "decision-making" is not apparent. The notion, "critical thinking and problem-solving skills," is not clarified in the video and leader's guide within this orientation package.

SOCIAL STUDIES RESOURCE MANUAL, GRADES ONE-THREE (1983)

In this manual which purports to "...help teachers translate the curriculum goals and objectives..." (p. 1), it is curious that aside from a brief reference to curriculum goals and learning outcomes relevant to multicultural education (p. 17), the notion, "critical thinking and problem-solving skills," does not appear. "Problem-solving" and "decision-making" receive considerable emphasis and are defined as a "process" (pp. 120, 132), classified as a "skill" (pp. 62-63, 114, 170, 180), and in the case of "decision-making," discussed as a "skill" and "process" interchangeably within the same paragraph (p. 27).
Macro-Implementation: Critical Thinking

Without resolving these ambiguities, the manual defines "problem-solving" as including the same steps outlined in the curriculum: "define the problem, establish a tentative hypothesis or solution, interpret the information available, gather information, analyze the information, [and] synthesize the information into a firmer hypothesis or solution" (p. 132). The relevance of "problem-solving" is rationalised in the following statement:

Developing skill in solving problems should enable the student to attempt any intellectual endeavour by a systematic method. By making use of a standard procedure, familiarizing students with the process and providing practise within the context of real experience, it is possible for the child to transfer this ability to any discipline; to move from theory into practise....The process of problem-solving is one of continuous refinement....Regardless of subject content, developing competence [sic] in this process is critical. It provides the child with a framework for effectively solving problems. (p. 26)

The "decision-making process" is differentiated from "problem-solving," in that the child also learns to:
evaluate and prioritize alternatives to reflect information gathered or value preferences,
test the priorities and analyze the consequences of each,
plan a course of action,
establish a group decision,
take some action on the group's decision, [and]
evaluate the group's decision. (p. 26)
The manual provides a rationale by stating that assuming personal responsibility is based on the ability to make rational decisions and to anticipate the consequences of one's actions. The student who knows how to arrive at decisions and practices this skill should be better able to apply the process to real-life situations now and in the future. (p. 27)

Again, there is no evidence to support this transference assumption, nor reference to sources other than the curriculum and the orientation package, each of which were found lacking in this regard. As well, absent are criteria to be employed in priorising alternatives or assessing the merit of decisions.

Being that the curriculum proposes "...a more broadly based evaluation program—one which is consistent with its intents and which assesses all its components," and considering 49's referral in the 1983 orientation video to the primary resource manual for "extensive" evaluation suggestions, it is disappointing to find that the nearest the manual comes to illustrating how related outcomes might be assessed is on page 52 where it permits photocopying of the skills checklist "for evaluation purposes." How instructors are to gage proficiency of skills is not indicated.

The manual does not mention "critical thinking and problem-solving skills;" it discusses "problem-solving"
and "decision-making." How they relate to the notion is not evident. "Decision-making" may have been interpreted as "critical thinking," "problem-solving/decision-making" may have been perceived as some aspect of "critical thinking," or "critical thinking" may have been abandoned or lost in the translation.

SOCIAL STUDIES MEDIA RESOURCES, GRADE ONE-GRADE THREE (1983)

Lacking any reference to the notion, "critical thinking and problem-solving," the media guide does label suggested student activities as utilising among other "skills," "problem-solving" and "decision-making." These activities are intended to illustrate "...ways in which students can practice the ranges of skills outlined in the Social Studies Curriculum Guide, 1983" (p. 1). This is the only reference or rationale provided.

THINKING TOGETHER: STRATEGIES IN SOCIAL STUDIES KIT (1986)

In the introduction to each of the three videos in this orientation kit, 62, the Curriculum Development
Coordinator for Social Studies, proposes that the video was "...designed to illustrate an important aspect of the new social studies curriculum--the emphasis on critical thinking and problem-solving." Considering that the focus of each video is said to be "critical thinking and problem-solving," one might expect to find further explication of the notion therein; along with report writing, small group skills, and role drama, the overall emphasis is on "problem-solving" and "decision-making." At this point, one puzzles whether an attempt to link "decision-making" with "critical thinking" is being made. An answer to this quandry, as well as to what justification or sources support or contribute to the notion, are not provided.

In one of the videos, 31, PEMC advisor as well as a member of the Elementary Review Committee, related the "problem solving process" to report-writing strategies.

A second video illustrates the "decision-making process" steps which include: identification of the conflict, followed by restating the conflict so that its resolution will have a more general application rather than a specific application; students, in small groups, considering alternate solutions and
consequences, deciding upon a rule applicable to the situation, sharing and evaluating the decisions made by each group, and selecting the best one as a class. Consideration of alternatives is based on De Bono's PMI's (the Plusses, Minusses, and Interesting aspects of a situation), though De Bono was not credited (1976). A test to be applied to the class' selection of a rule for resolution of the conflict was that the rule be acceptable to others.

The final video explores role drama, described by one of the teachers involved as "an excellent tool for thinking....where students learn to walk in someone else's shoes." Emphasised in the video are the process of exploring the universality of the issue, clarifying statements and vague areas in need of more information, considering the implications of various options and criteria for selection (a teacher mentions some criteria for students to consider on one occasion), and clarifying the emotions experienced in a role; these seem to take precedence over the decision itself which is never resolved in the video. As the teacher indicated, the "...thinking sessions/ discussions were really the most important part."
While the decision-making models represented in two of the videos are similar to that depicted in the curriculum, each adds the step of relating the conflict in question to more general situations. Neither appear to explicitly develop criteria (except, perhaps, with role-taking tasks) for judging the merit of decisions with students, nor is action promoted.

The *Thinking Together: Strategies in Social Studies Inservice Handbook* claims "...to show teaching strategies that promote thinking" (p. 5); aside from brief mention of the notion in the preface, the only other reference is made during the introduction to one inservice program where the session leader is encouraged to draw participants attention to "the four program goals of the Social Studies Curriculum Guide, pages 4 and 5, noting particularly Goal 4" (p. 27). The focus then shifts to "...the inquiry processes of problem solving and decision making [which] are important elements of the curriculum" (p. 14). One also learns that "...the decision-making process...[is] one of the main inquiry skills of the Social Studies curriculum" (p. 26), as is the "problem-solving process" (p. 18). Once again "process" and "skill" seem to be used interchangeably. It is expected that
the steps in "problem-solving" and "decision-making" would parallel the curriculum.

Seeking some connection between the goal statements and the emphasis on "problem-solving" and "decision-making," this researcher noted that following a reference to the four curriculum goals, the leader is prompted to "put the words DECISION MAKING on the board" and focus on the "process." At this point, one might query whether the author is attempting to link "critical thinking" with "decision-making." No explication is provided, nor any justification or source for the interpretation therein. Absent is guidance for evaluating the merit of a decision as well as how "process-related" outcomes might be assessed.

KNOWLEDGE NETWORK BROADCASTS

Of twelve PEMC videos aired on the KNOWledge Network, only five pertain to the curriculum (1983). One of these has since been recalled as unsuitable and was unavailable for study. Another about a Dene family emphasised problem-solving. The last three are the same videos discussed above in the 1986 Thinking Together orientation kit (1986). Hence, the representation of the notion, "critical thinking and
problem-solving skills," as "decision-making" and "problem-solving" and the lack of any information pertaining to justification or sources apply here as well.

SOCIAL STUDIES RESOURCE MANUAL, GRADES FOUR-SEVEN (1986)

Focussing on "problem solving and decision making processes...central to the inquiry process" (p. vii), the intermediate resource manual proposes that it provides "...specific planning strategies that teachers can adopt to facilitate the application of the inquiry model" (p. 3) within the "framework of program goals, grade goals, and learning outcomes" (p. vii) provided in the curriculum (1983) which "encourages the use of the inquiry approach to critical thinking..." (p. 3). Here one wonders if an attempt is being made to identify the inquiry approach, to which "decision-making" and "problem-solving" are "central," as the vehicle for attaining "critical thinking" outcomes. If so, this may be a digression from the curriculum which depicts "critical thinking and problem-solving" as the means for acquiring understanding and applying
knowledge. Although not defining "critical thinking,"
the manual says:

The inquiry approach encourages the generation and exploration of questions that require students to apply and extend their knowledge, skills, and understanding, including the ability to define questions, observe, evaluate, argue a case, assess a counter-argument, and make decisions in a rational and objective manner.

The inquiry approach, through its use of challenging questions also encourages the search for, and evaluation of, evidence to support or refute hypotheses, the development of an inquiring and critical spirit, participatory citizenship, personal autonomy, attention to value issues, ethical awareness, and full involvement in group decision-making processes. With such an approach, factual knowledge is not downgraded but becomes more meaningful and increasingly likely to be retained and used by students. (p. 63)

Furthermore, it states:

The processes of problem-solving and decision-making form an integral part of the inquiry approach to teaching Social Studies. Students who understand these processes, and who are provided with opportunities to practise the skills involved, are able to approach hypothetical and real problems with a much greater efficiency. (p. 63)

By promoting the use of "challenging questions" (p. 168) based upon the cognitive levels of Bloom et al., the manual suggests that students will be aided in use of "higher thought processes" (pp. 267-268) which they also may employ in "decision-making" and "problem-solving." For example,

...to make decisions, students will engage in numerous, related higher-level inquiry processes...
including analyzing, synthesizing, predicting, and evaluating. (p. 125)

Aside from the implication that through practice students will acquire related abilities and attitudes, the relationships between the challenging questions, higher thought processes, and "decision-making" and "problem-solving" to the notion, "critical thinking and problem solving skills," are left to the user to ponder.

Delineating "problem-solving" and "decision-making" in virtually the same manner as the skills appendix in the guide, the resource manual defines "problem solving" as "a form of rational, systematic inquiry in which students clarify and expand knowledge" (p. 81) and "decision-making" as involving "reasoned choices based on judgments that are consistent with one's values and based on sound relevant information" (p. 125). Lacking any explication about criteria upon which to judge the soundness or relevance of information or choices, the manual is also devoid of justification for its assumptions or sources contributing to its interpretation of the notion (with the exception of acknowledging Bloom et al.).
Two publishing companies were commissioned to produce materials to accompany the curriculum (1983). Douglas & McIntyre won the competition and produced the Explorations Series for grades one through six. Prentice-Hall was awarded the right to publish the Identity Series for grades four through six, but apparently unable to meet the Ministry time-line, only produced material for grades four and five. Gage produced Other Places, Other Times, the grade seven student textbook. At the time of this study, Gage's teacher's guide for grade seven had not yet been produced. The Culture Realms of the World: Pictures (Year 6) (1973) and its accompanying Culture Realms of the World: Teacher's Manual (1974), produced by Fitzhenry and Whiteside, remained part of the authorised social studies program for grade six, as did a variety of earlier published student textbooks for grades five through seven.

Examination of student materials and the picture set did not reveal any explicit notion of "critical thinking and problem-solving skills." Student activities in some of these resources might be construed as conducive to "critical thinking and
problem-solving," if one assumes that such outcomes result from exercises directed to the higher levels of thinking.

EXPLORATION SERIES: TEACHER BOOKS

As each teacher book for grades one through six is similar or identical as far as considerations of the notion are concerned, page references will relate to the grade one edition, unless otherwise stated.

The Explorations Series never alludes to "critical thinking and problem-solving skills." The nearest reference to the notion is found in the description of the "critical level" (p. 32) of reading comprehension which includes many attributes that could be translated as "critical thinking" abilities.

Central to the Explorations Series is the inquiry process through which students are encouraged to find out things for themselves by gathering, interpreting, and applying data to form concepts and generalizations, solve problems and make decisions. (p. 11)

The six levels of the inquiry approach are paralleled to "six levels of classroom questions which are designed to move students from lower to higher levels of thinking" (p. 12, grade 4 teacher book). It
is immediately apparent that these inquiry levels, questions, and higher levels of thinking have been modelled after the Taxonomy of Educational Objectives, though Bloom et al. have not been credited.

Students are encouraged to "use inquiry skills to solve problems and make decisions" (p. 13) via a three-step decision-making model which incorporates problem-solving, as seen below:

1. Define issue or problem.
2. Explore alternatives and consequences.
   - identify alternatives
   - analyze alternatives
   - evaluate consequences—help students clarify criteria or values they use to evaluate consequences.
3. Make decision (or choose solution)
   - justify choices; examine reasoning (help students identify inconsistencies/contradictions in reasons and decisions.)
   (pp. 14-15)

It is apparent that this "decision-making process" diverges from the "decision-making" model in the curriculum when it stops short of taking and evaluating action following a decision. Perhaps this stems from an attempt to link the three steps of decision-making to the higher levels of inquiry, questions, and thinking, none of which suggest or promote action.

While consensus in decision-making is advocated in the curriculum, the Identity Series, and Ministry publications, the Explorations Series is adamant that
in regard to issues, "students can only make decisions for themselves, because decision-making is influenced by one's own background and values" (p. 161, grade 4 teacher book).

It appears that the Explorations Series is proposing that inquiry, of which decision-making is an important aspect (p. 18), should facilitate students' attainment of higher level thinking. Through this inquiry approach to learning, students will acquire concepts, generalisations, and abilities in solving problems and making decisions. But how any of these "processes" or levels of thinking relate to the notion is not specified.

Assessment exercises did not provide further clues. Even though the inquiry approach was the foundation of these materials, it was not part of student assessment activities.

References listed in the teacher's book pertain to a variety of perspectives on topics such as inquiry, thinking, decision-making, problem-solving, cooperative resolution of conflict, citizenship education, questioning strategies, responding techniques, role playing, and values. What role they played in the development of the Explorations Series is not
indicated. However, 45 and 72 have been acknowledged as decision-making consultants for the series. Justification for how the Explorations Series has interpreted the intent of the curriculum is not evident.

IDENTITY SERIES: TEACHER'S EDITIONS

As relevant data are similar for each grade, references will be based upon the grade five publication, unless otherwise indicated.

Like so many implementation-related endeavours, the Identity Series does not explicitly refer to any notion of "critical thinking and problem-solving skills." The program is organised around "learning processes, concepts, affective responses, and learning skills" (p. 8). Of these four strands, "the Identity Taxonomy of learning processes is the basis of the Identity Curriculum Framework" (p. 9) and this appears to be the program's interpretation of the notion. The "taxonomy" is arranged so teachers can select lesson ideas from and create questions according to "various levels of thinking" (p. 9) and so that students can "identify levels of thinking they are using" (p. 9).
Macro-Implementation: Critical Thinking

Evaluation is designated as the highest level of thinking (p. 11). Missing, however, is guidance for the teacher and/or student to determine what counts as "appropriate reasons" or "appropriate evidence." As seen below, the "taxonomy" has incorporated field trip observation (a source of data) and use of the "insider’s perspective" (p. 9) as separate levels:

Identity Taxonomy of Learning Processes (p. 9)

1.0 Collecting Information
   Remembering
   1.1 Collecting facts
   1.2 Collecting terms
   1.3 Collecting sources of information
   1.4 Determining means of validating information
   1.5 Reporting and interpreting facts

2.0 Observing on Field Trips
   2.1 Selecting the SITE
   2.2 Adding new information
   2.3 Confirming new information
   2.4 Rejecting misinformation
   2.5 Reporting

3.0 Using the Insider’s Perspective
   3.1 Selecting the SITUATION
   3.2 Planning
   3.3 Using the plan
   3.4 Making improvements
   3.5 Reporting

4.0 Problem-Solving
   4.1 Selecting the PROBLEM
   4.2 Comparing and contrasting
   4.3 Generating a hypothesis
   4.4 Testing the hypothesis
   4.5 Reporting

5.0 Decision Making
   5.1 Selecting the ISSUE
   5.2 Exploring values
   5.3 Considering alternatives and consequences
   5.4 Making a decision
   5.5 Reporting
5.6 Acting on a decision where appropriate
6.0 Evaluating
   6.1 Pre-evaluation
   6.2 Self-evaluation
   6.3 External evaluation

The use of consensus in decision-making aligns this approach with the curriculum, as well as the inclusion of action. However, how the levels of thinking or "inquiry processes" (p. 15), to be explored via questions at each level, relate to the notion is not explicated.

There is some evidence of developing criteria for decision-making with students, though this seems limited. For example, students are to establish criteria for recording data about "business at each fort" (p. 6). Sample criteria listed are: "neat, suitable headings, capitals, date, complete, accurate" (p. 6). While the use of criteria appears to be an important ingredient in the Identity Series, teachers and/or students are generally left to their own resources in determining what criteria might be employed. Evaluation activities for students frequently entail the inquiry element of the Identity Series, although there is little guidance provided the teacher for judging the proficiency of the students.
Macro-Implementation: Critical Thinking

For specific evidence justifying the "taxonomy," one must refer to 68's doctoral work, cited in the teacher's edition together with the assumption that

this combination of learning processes follows the natural way of 'getting to know' new people, new places, and new ideas and experiencing new things. It allows the student to not only gain insight into a new situation, problem, or issue, but also to develop empathy through an insider's perspective. This integration of cognitive and affective learning is a central feature of the Identity approach. (p. 9)

CULTURE REALMS OF THE WORLD: TEACHER'S MANUAL

Developed prior to the curriculum, this teacher's manual is being examined for evidence of the notion because it is intended to accompany the Intermediate Social Studies Picture Set, authorised for grade six. It is also of interest, in that 67, co-editor of the Douglas & McIntyre Explorations Series as well as one of the authors of the British Columbia Social Studies Assessment 1977 Report, served as a research assistant for the project while 49 and 50, curriculum development coordinators succeeding 22, participated as consultants.

Utilising a "conceptual approach to social studies" (p. 1), the authors link analytic and integrative concepts to analytic (e.g., examine
particular aspect of one or more groups) and integrative (e.g., generalise information about a single group to a larger cultural entity) forms of inquiry, positing that "to adopt a conceptual approach is not to de-emphasize the processes of inquiry (thinking)" (p. 1), some which include:

A. Gathering data
   1. Observing....
   2. Recalling....

B. Organizing data
   1. Comparing....
   2. Classifying....
   3. Defining....
   4. Analyzing....
   5. Synthesizing....

C. Interpreting Data
   1. Inferring....
   2. Generalizing....

D. Applying findings
   1. Hypothesizing. Using known information to make "If...then..." statements.
   2. Predicting.... (pp. 1-2)

As "understanding is a major goal of social studies" (p.2), the authors further advocate that "one must have some knowledge of the belief-value system of its people" (p. 2). By providing experiences for students to imagine being someone else and deciding how that individual would act, students

...develop an understanding and appreciation of another point of view....When values are examined in the light of a particular problem or issue, alternatives and their consequences...can be considered and a course of action recommended.
This mode of inquiry or problem-solving is known as the policy mode. (p. 2)

Thus "problem-solving," a form of inquiry which explores values, is similar to "decision-making" in the curriculum (p. 45), except for the inattention to evaluating the proposed action.

Educators are advised that integration of concepts with the three modes of inquiry, will allow students to "achieve a recommended course of action and to assess its consequences" (p. 2). While awareness of the "thinking processes" allows teachers to plan for the development of "thinking skills" (p. 1), the relationship between "processes" and "skills" is not explained. Concepts are considered "...useful tools to further learning" (p. 1), learning likely being the attainment of understanding, insight, and the ability to make a sound decision. Upon what standards decisions are to be evaluated is not indicated.

How "critical thinking and problem-solving" might relate to "modes of inquiry," "inquiry or thinking processes," "thinking skills," or "problem-solving" is not evident from the authors' description of objectives and suggestions for planning and instruction. Sources or support for the notions and assumptions presented are also lacking.
45, advisor to the Management Committee as well as a member of the Elementary Materials Selection Committee (grades one to six), when asked what he thought the developers intended by the notion, "critical thinking and problem-solving skills," replied, "I haven't the foggiest idea." However, he postulated that the fourth goal statement has things about evaluating information and tolerating points of view and my guess is they probably think that "critical thinking" has something to do with that. And certainly evaluating information does. So that's the only connection I could see.

45 thought that the committee interpreted the notion by taking "a common sense notion of what inquiry is, decision-making and problem-solving." Maintaining that "those are all confused" in the curriculum, 45 added that "they're all related and they [the developers] haven't figured out what the key differences between 'inquiry,' 'problem,' and 'decision' [are]."

Asked if the Elementary Materials Selection Committee considered "critical thinking and problem-
solving" in its final analysis of materials, 45 responded,

No. What happened was, I think we had ideas about approaches to the books that we reviewed. If somebody said, 'All we're going to do is present a narrative,' you may not consider their approach, whereas if they said, 'We are going to incorporate inquiry questions and problems and that sort of stuff,' then you'd take another look if that's what they're going to do. And you leave the Management Committee to make sure that's what they in fact do.

One reason that the committee was so unclear about the notion is that it does not appear to have been clarified for them by either the Management Committee, 29, or the coordinators (31, 45). The Elementary Materials Selection Committee apparently worked much of the time "in the dark" (45), without even a completed curriculum. The only communication it had came down...in terms of the criteria that we had to apply to the textbooks and other materials and the big one was congruence with the curriculum in content. (45)

Describing "critical thinking" as "reasonably deciding what to do or believe," 45 credits Robert Ennis (1985) for what seems to be his conception as well, with the criteria for judging appearing to set this perspective apart from that in the curriculum and most of the materials.
31, a member of the Elementary Review Committee, as well as the Elementary Materials Selection Committee, when queried about implementation considerations such as the complexity or clarity of the notion in her committee work, recalled:

...That was certainly a consideration on materials selection. Yes, it must have been in there. It must have been something we kept harkening back to. You see, again, in those times I would say that people's conceptualisation of thinking was more along the lines of Bloom's Taxonomy and...kind of early work in the skills of thinking. And I would say that now people have a much better or more refined or a clearer idea of some of the thinking processes. But certainly, yeah, we must have kept referring to it because that was of primary importance when we looked at the material.

As for whether fidelity to any particular notion of "critical thinking and problem-solving skills" was a consideration of these committees, 31 remarked, No, I don't think [so]. No, you couldn't say that. No, although I mentioned Bloom,...I don't think anybody bought into one particular framework or notion. In fact, I could just say that...I doubt that anybody had a common conceptualisation and that...could be construed to be one of the difficulties and that's why there is a mushiness about what...do we mean by 'problem-solving' and 'critical thinking.'

Nor did 31 think that the climate for implementation was a consideration (For example, was there any concern about what setting or teaching style would be conducive to students realising "critical thinking" outcomes?).
As the six members of the Elementary Review Committee joined five new members on the Elementary Materials Selection Committee, it is possible that they influenced the selection committee. According to 31, the Elementary Review Committee did not equate "decision-making" with "critical thinking."

31 suggested that she interpreted "problem-solving" in the goal statements as a systematic form of rational inquiry. As she perceived "problem-solving" as "virtually" synonymous to "critical thinking," then this likely depicts her understanding of "critical thinking" as well. Claiming that her understanding of the notion evolved since her work on these committees, 31's current understanding may not be relevant here. Whether 31's interpretation represents the view of other committee members is not known to this researcher except that it would not be illustrative of 45's perspective.

A summary in chart form is included below to illustrate how the Elementary Materials Selection Committee's interpretation of the notion relates to the curriculum, the materials it selected, and 45's perspective. As the coordinator that 45 worked with
was 22, it is not possible to present his interpretation.

Curriculum: CT + PSS = ?  
Explorations: CT + PSS = ?  
CT = DM + Inquiry  
Identity: CT + PSS = ?  
CT = Learning/Thinking Processes (includes DM, PS, IP, Evaluation, Collecting data by recall and observation)  
Materials Selection Committee: CT + PSS = ?  
Inquiry = DM + PS  

45: Curriculum: CT + PSS = ?  
CT = DM re-what to do or believe, based upon reason involving criteria  

31: CT + PSS = ?  
Inquiry = PS + DM  
PS = rational inquiry = CT  
DM ≠ CT (her view and Materials Selection Committee)  
Elementary Review Committee focus: DM + PS  

Key: CT = critical thinking  
PSS = problem-solving skills  
PS = problem-solving  
DM = decision-making  
IP = insider’s perspective  
? = intent unclear  

PILOT TESTING REPORT

Pilot testing was conducted for two purposes: to incorporate recommendations from the field into the Douglas & McIntyre materials and to design and test a model for future piloting endeavours. Of interest to
this study is how the notion was interpreted by 50, the coordinator responsible for the pilot and a Ministry intermediary with 67, editor of the Explorations Series, and whether participant feedback related to the notion, particularly in that 28, one coordinator in the 1983 video, stated that the field-testing feedback precipitated revisions to both textbook series.

Unable to recall specifics related to the notion, 50 indicated that her liaison role with 67 was "just a whole big grey area as to how that was going to work." Queried as to how 67 would know the notion was important, 50 suggested that 67 had "a tremendous background in social studies so she would have a good idea of what she thinks is [important]."

Based upon examination of 50's pilot testing report and the inability of 50 to recall related details, it would appear that the notion, "critical thinking and problem-solving skills," was not a priority in her work. There is some evidence to suggest that the "skills" aspect of the notion received brief attention in a very general way. Participant feedback related to the notion was also limited to the "skills" component. Douglas & McIntyre did not appear
to receive any input regarding the notion as a result of the pilot testing.

50's interpretation, supported by limited evidence, is depicted below, as is 67's, the editor responsible for translating the notion in the Explorations Series, the materials that were field-tested and to have benefitted from the results of the pilot.

Curriculum Guide: CT + PSS = ?

50: CT + PSS = ?
   Focussed on skills component

67: CT + PSS = ?
   CT = DM + Inquiry

Key: CT = critical thinking
     PSS = problem-solving skills
     DM = decision-making
     ? = intent unclear

MINISTRY PUBLICATIONS

ORIENTATION PACKAGE (1983)

59, curriculum development coordinator responsible for the publication of the video and leader's guide in the 1983 orientation package, referred this researcher to the "inquiries" description in the curriculum for an explication of "critical thinking." When queried if "critical thinking" was interpreted as "inquiries," he
suggested that "it was one of the approaches of the program." Admitting that "there were some big grey areas in there" regarding the disappearance of the notion, "critical thinking and problem-solving skills," and discrepant portrayals of "decision-making" and "problem-solving" in the implementation materials, 59 thought that "decision-making" and "problem-solving" were terms that were often used interchangeably. We tried to separate them and give them a separate use because it seemed to us that in what had been written about the curriculum that they were almost used interchangeably. And [what] we saw in 'critical thinking' was having students who were developing a set of skills look at information in a critical way, simply not accept it the way it was written or presented either in textbooks or in the media, but to look at that critically from a background of some knowledge and with some 'skills.'

Here, 59 suggests that "critical thinking" is a disposition, rather than as a concept encompassing specific abilities. Not clarifying how "decision-making" and "problem-solving" were delineated, 59 later provided this researcher with relevant portions of the leader's guide to illustrate how the terms had been differentiated. Although 59 did not provide evidence supporting the interpretation of the notion in the leader's guide, he indicated that it had been an attempt to alleviate the ambiguities "in what had been written about the curriculum" and provide help for
teachers. 59 remarked that the video was intended to illustrate and "explain the...biggest changes between that curriculum [1983] and the old curriculum." Of this change, 59 elaborated:

...I think the curriculum guide had some major changes in it from previous social studies guides. I think that having four strands to each year's outline was a major change. And of course the inquiry strand, which almost seemed to take precedence over the content strand in the elementary social studies, was really brought into being by the Douglas & McIntyre and Prentice-Hall materials where lessons evolved out of a series of careful questions or problem-posing. And I think one of the problems that we saw in the implementation was that you had to get teachers focussed on the transmission of content information and into a child actually using that information and working with it and integrating it with the skills that are necessary in working with social studies, all the skills of research and map reading and the use of symbols, geography terminology, and so on. All of those things were a fairly major shift and the implementation branch saw the getting people off the focus of content and onto the inquiry as a major part....

Based upon 59's interpretation of the major changes in the new curriculum and his prior statement about "critical thinking," it would appear that he perceived the notion as portraying an inquiry approach to learning, "critical thinking" being the dispositional component and "careful questions or problem-posing" instigating the inquiries. 59's "inquiry" interpretation correlates to 49's comment in the video about the "inquiry method." Through
"problem-solving" and "decision-making" activities and a "critical thinking" attitude, students would attain learning objectives and program goals.

Implying above that the publishers' interpretations provided direction that was lacking in the curriculum, 59 added, "...During my time with the Ministry, those things were all being worked out and clarified and we were not provided with a set directive." 59 also credited 49 and 28, coordinators involved during the development of the curriculum; 29, a member of the Management Committee; and 45, advisor to the Management Committee; as resource people that he depended on for interpretation of the notion. Although 59 did not mention 31 as a consultant, she was among several credited in the video as such. The inquiries section (p. 7) of the curriculum (1983) and the Douglas & McIntyre and Prentice-Hall materials were also identified by 59 as sources.

Queried about the intended cohesiveness of the notion, 59 responded,

Well, I think the attempt was made that it be that way. From a person outside that whole process, looking at it now, there are probably anomalies that are hard to explain.
The following chart depicts how the interpretations of individuals and other sources utilised by 59 relate to his interpretation.

Curriculum Guide: CT + PSS = ?

Orientation video: CT + PSS = ?
  (1983) Inquiry = PS + X

Orientation Leader’s Guide: CT + PSS = ?
  (1983) Inquiry = PS(+IP) + DM(+IP) + Issues(+IP)

59: Inquiry Approach = DM + PS + CT (disposition) + X
  (Inquiry Processes and the "issues" mode of inquiry, as in Leaders’ Guide)

49: CT = DM + PS + X or CT = DM; PS = X
  Inquiry Method = overall intent of Curriculum

28: CT = PS + DM + Inquiry

29: CT = PS (+CTP) + DM (+CTP) + CTP

31: CT = PS; DM ≠ CT; DM goes beyond CT

45: CT = DM re-what to believe or what to do, based upon sound reason (criteria essential)

Curriculum Guide (p. 7): Inquiries: pursue via questions about issues and information available through research, utilising skills, knowledge, and generalisations

Explorations Series: CT + PSS = ?
  CT = DM (includes PS) + Inquiry Processes via questions
  (Bloom et al., 1956)

Identity Series: CT + PSS = ?
  -Learning or Thinking Processes = DM + PS + IP; Evaluation; and collecting data through recall and observation
  -Inquiry Forms = Thinking Processes =
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DM + PS + IP via questions

Key: CT = critical thinking
PSS = problem-solving skills
PS = problem-solving
DM = decision-making
X = unknown quantity
CTP = critical thinking processes
IP = insider's perspective
? = intent unclear

What is most interesting in these interpretations of the notion is the disparity that is evident. While it would appear that 29's perspective which incorporates "critical thinking processes" may have influenced the leader's guide, it does not seem that her interpretation has been the sole influence on 59's depiction. Nor did 28, the coordinator who 59 indicated worked closely with him, perceive relationships in the same manner as 59. It does not appear that 45 had much influence in these Ministry published materials in that use of "criteria" in "decision-making" are not evident.

SOCIAL STUDIES RESOURCE MANUAL, GRADES ONE-THREE (1983)
AND SOCIAL STUDIES MEDIA RESOURCES, GRADE ONE-GRADE THREE (1983)

As 28 was acknowledged as the curriculum coordinator in the primary resource manual and, according to 23, oversaw the development of the primary
media resources guide (23), his comments will be of interest here, as will 59's, who claimed that as an implementation coordinator, he was involved to some degree as well. Other interviewees who participated in some way with these materials include 23, PEMC coordinator; 62, co-author of the primary resource manual; and 31 and 29 who served on the Resource Manual Advisory Committee with 23 and 59. According to 31, it was basically 29 and herself who worked in an advisory capacity with the authors of the primary resource manual during the final stages of development. Therefore, their interpretations should be relevant.

28's interview did not focus on his role with these publications, only in regard to the development of the curriculum and his liaison with 67, editor for Douglas & McIntyre. However, his interpretation of the notion during development should apply to his liaison work with these materials, particularly in that they were all published in the same year as the curriculum. As the goal statements which include "critical thinking and problem-solving skills" were not developed during 28's participation on the Management Committee, it is understandable that he did not recall discussion about "critical thinking." However, referring to the
curriculum, he indicated that "critical thinking is represented in this guide by a) problem-solving; b) decision-making; and c) inquiry." Yet when called upon to explicate the notion for 67, the Douglas & McIntyre editor, 28 indicated that he did not know what was intended, referring her to 45, who had written a paper for the Management Committee about "issues" which also dealt with "critical thinking" and "inquiry."

Discussing input from the Learning Assessment Branch, 59 recalled,

We submitted the evaluation section of the primary resource book, I believe, to the assessment branch, to get feedback from them. And my recollection is that they did have a look at that evaluation component of the primary resource book and they felt it was a step ahead of what we had in the past. Now you know none of these things happened in a...linear fashion. The whole thing was a kind of an evolutionary thing and it involved changing resource people, different political concerns at the time, different input from the field, and so on.

59's comments about input from the assessment branch imply that it came after the fact and would unlikely have had any affect on the notion, particularly in that there was little in the manual to depict a "critical thinker" or evaluation guidance aside from a "skills" check list. How teachers were to judge when a student became a "critical thinker" did not appear to be a concern.
62, co-author with 68 of the primary resource manual, who would serve later as curriculum development coordinator for social studies, when asked what the intent of the "critical thinking" component of the notion was, replied, "...It's hard for me because I've never been asked to define it." While she did provide this researcher with her interpretation of "critical thinking", as seen below, she implied that her understanding evolved through her communications with resource people following her appointment as coordinator:

Critical thinking is a hard thing to define because it's huge....It's the removal of, it's taking content to a level where you try to create understanding, where you're trying to look at the material in order to formulate generalisations and create understanding....

62 added that, in her opinion, "decision-making" and "problem-solving" were "ways people can think critically." She felt they could "fit under the umbrella of critical thinking," along with other things. Considering that the notion was later depicted by 62 in the Thinking Together videos and the inservice handbook without any explication, it may be that 62's conception has been acquired more recently.

Unaware of what resources the developers of the notion employed, 62 indicated that she and 68 were left
on their own to interpret the curriculum. She explained:

When I worked with 68 on the primary resource manual, nobody said to us, 'This is our definition of critical thinking and problem-solving.' Nobody said to us, 'This is the kind of material that needs to be in that resource manual' in detail. We were given relatively open hand in creating it.

Asked what terms of reference might have been provided for the development of the primary resource manual, 62 referred this researcher to 68 who "started writing with the Management Committee." It seems curious that even though 62 was not initially involved in the authorship of the manual, that she would not have some knowledge of what resources may have been recommended by the Ministry.

29 and 31, each apparently active as advisors to these authors during the summer prior to publication of the primary resource manual, perceived the notion somewhat differently. 29, who saw "critical thinking" as embracing "decision-making" (which could include "critical thinking processes"), "problem-solving" (which also could include "critical thinking processes"), and "critical thinking processes" (e.g., observing, comparing, contrasting, evaluating, analysing, interpreting, inferring) which may be employed separately from "decision-making" and
"problem-solving", did not offer enlightenment as to her specific contributions to implementation endeavors, aside from her liaison role with Douglas & McIntyre.

31, describing her and 29’s advisory role in the review of the primary resource manual, provides some insight as to how the manual was completed and the lack of expertise the authors and reviewers had regarding the notion at that time:

...You see, 68 was hired by 28 to write a lot of the stuff. Okay, there was the advisory committee, 29 and myself, but we said, listen, we can’t write all this stuff. We don’t have the time. And so 28 hired 68 because 68 had worked on a Saanich, Victoria, Sooke primary book which was really good, for social studies, and so she had that background and then 68 herself bogged down so that’s when 28 hired 62 to help 68 and so the two of them wrote and then we reviewed, we being 29 and myself and who was the third person?...It wasn’t really 23. Anyway, I basically recall 29 and myself, you know, working with 68 and 62, so I’m not sure if there was a third person there regularly because I know we met over the summer and you know, we wrestled with things. And I would say that noone’s thinking was as clear as it would be now....If you look in that document, as I said, I could point out the phrases that now just leap off the page at me as being inconsistent.

Attempting to explain the relationship of the notion to "decision-making" and "problem-solving" and the disappearance of the phrase, "critical thinking and problem-solving skills," in the primary resource manual, 31 commented:
Well, I'll tell you my view of it is that...I've been involved in practically all of those projects and I never understood 'critical thinking and problem-solving' as a phrase but I do understand 'problem-solving' and 'decision-making' and that's what's in the skills appendix and that's what teachers have to teach and so [of] all those documents, the primary resource manual is the least tight. Okay? That was because none of us had really worked it out as yet and we were sort of, I think we were carrying along some of the baggage of mushy thinking.

....I know now, because my own thinking clarified over time, I know now that what we put into the primary resource manual is mushy in the sense that often when we called it 'problem-solving,' it was really 'decision-making.' And I could go through that, in fact, I've gone through my own copy and changed it. You know, so that in fact, the units as they were written are good units. They do have either 'problem-solving' or 'decision-making.' But we may not have labelled them correctly, as I now see it. Okay? But we were much clearer, as I said earlier, in the next work that we did.

Admitting that her understanding of "critical thinking" has evolved since her work on the Elementary Review Committee, 31 now saw it as

a redundancy, in my mind, to say 'critical thinking and problem-solving' rather than 'problem-solving and decision-making' which is what appears in the document under the skills list..., especially when you know the literature and when you look at...what 'critical thinking' is and then you look at what 'problem-solving' is and they're very similar.

"Problem-solving," 31 perceived as a "rational inquiry type of problem, the question that is to be researched," which followed systematic steps as
depicted in the curriculum. "Decision-making" went beyond "problem-solving" to include evaluation of alternatives, followed by a decision which may involve action. 31 saw the consideration of values and the establishment of criteria for evaluating decisions as an integral component of the "decision-making process," although the latter she conceded was "imbedded." If as 31 indicates, the intermediate resource manual represents her interpretation of the notion, then higher-level inquiry or thinking "processes" which include analysis, synthesis, prediction, and evaluation are also employed in the "decision-making" and "problem-solving" inquiry "processes." Asked if she was equating "decision-making" with "critical thinking," 31 was emphatic that this was not the intention in any of the projects with which she was involved.

23, PEMC Coordinator who would have been involved with the primary media resources guide, indicated, "It wasn't my job to think about 'critical thinking'." For specifics regarding a curriculum for which media materials were being produced, it was customary for her to hire advisors, preferably one "kosher" with the Curriculum Development Branch who had been involved on the development team and who in this case, had "the
right concept about critical thinking and problem-solving," "right" in the sense that 53, director of the Curriculum Development Branch, concurred that it correlated with the direction the branch was heading. Being that 23's advisor for the notion was 31, it is understandable why 31's interpretation is so evident in the materials.

When queried about "critical thinking," 23 repeatedly responded with details about "decision-making." Asked if the two terms were intended to be synonymous in some of the implementation materials, she responded, "They must mean it. They must mean it." Yet before this affirmation, 23 posited that "everybody had different ideas about the relationship."

Explaining, 23 referred to 79's current draft, "Curriculum Goals and Principles—a Position Paper," which she felt implied that "critical thinking" is being used as "a general term now...because everybody has such a different view of it."

Of her own interpretation, 23 remarked:

The people who instructed me said things like 'Problem-solving is really the first part of decision-making. So decision-making adds a step and critical thinking is a much more general term.' So personally, from what I've read and heard, I would never say 'critical thinking and problem-solving' because it doesn't make any sense
to me. I mean, what's the difference between—to me, problem-solving is part of critical thinking.

If 23's interpretation is representative of 31's view, as 31 was her advisor for "critical thinking," then 31 was not very explicit in describing her conception or this researcher has misconstrued it. Or perhaps 23 depended on other advisors as well. Another explanation could be that she has altered her conception since reading 79's paper, which would mean that her current understanding is not that gleaned from 31 during the development of any materials related to this study.

Apparently, 23 was not provided with any Ministry directives regarding the notion, except that it was to be "critical thinking and problem-solving" that was to be considered in the 1986 materials. Neither were any materials recommended for reference, aside from the curriculum. 23's only resources would have been her advisors.

The chart below relates the interpretations of those individuals who were involved as coordinators, advisors, or authors of the primary resource manual and the primary media resources guide to each other and the materials.
Macro-Implementation: Critical Thinking

Curriculum Guide: CT + PSS = ?

Primary Resource Manual: CT = ?; Focus on Skills/ Processes including DM + PS

Media Resources Guide: CT = ?; Focus on Skills including DM + PS

28: CT = PS + DM + Inquiry

59: CT = disposition
   Inquiry = DM (+ IP) + PS (+IP) + Issues (+IP)

23: CT = PS + DM + X; DM = CT in some materials;
   (interpretation evolved later)

62: CT = PS + DM + X (interpretation evolved later);
   DM ≠ CT

29: CT = PS (+ CTP) + DM (+CTP) + CTP

31: CT = PS
   CT ≠ DM; DM goes beyond CT
   Inquiry Approach = PS (+IP) +DM (+IP)
   (interpretation evolved later);

Key: CT = critical thinking
   PSS = problem-solving skills
   PS = problem-solving
   DM = decision-making
   CTP = critical thinking processes (observing,
        comparing, contrasting, inferring,
        evaluating, etc.)
   IP = higher level inquiry processes including
        analysis, synthesis, predicting, and
        evaluation
   X = other aspects not specified
   ? = intent unclear

Even though there are similarities among the interpretations of the notion of those involved with the primary resource manual, it does not appear that anyone involved in its development was clear about the
intent of the notion at that time. Understandings seem to have evolved since then and in 31's case, appear to be the most removed from the others, even though she worked closely with so many of them. If 31's opinion that it was a "redundancy" to say "critical thinking and problem-solving" and her inability to comprehend or refusal to accept the notion as employed in the curriculum led to its translation as "decision-making and problem-solving" in the primary resource manual, then it would appear that coordinators had little role in maintaining consistency, if that was a consideration. 59 was the only coordinator to suggest that it was.

**THINKING TOGETHER: STRATEGIES IN SOCIAL STUDIES** (1986; videos); **THINKING TOGETHER: STRATEGIES IN SOCIAL STUDIES: INSERVICE HANDBOOK** (1986); and **SOCIAL STUDIES RESOURCE MANUAL, GRADES FOUR-SEVEN** (1986)

The thinking together videos and inservice handbook as well as the intermediate resource manual were developed primarily under the supervision of 62, the curriculum development coordinator. 23, PEMC coordinator, also provided coordination for the development of these materials, depending upon 31 for
the "critical thinking" expertise. According to 31, the videos were 23's idea, resulting from the apparent success of similar efforts for the Young Writers Project. 29 appeared to have input into the inservice handbook as one of several advisors who consulted with 31, author of the original draft. 62 suggested that 29 also took part in the writing of the intermediate resource manual, although 29 did not mention this. 74, a Program Effectiveness Branch coordinator, contributed unofficially as consultant for the video format which evolved from her close work with the Young Writer's Project (31, 23). Hence the interpretations of 62 and 31 will be of prime interest, as will be 23's account for why the notion evolved as it did, being that she has been on the scene throughout the entire revision. 29's perspective will also be reviewed. Due to 74's apparent limited input, she was not interviewed.

As coordinator, 62 stated that she never received any guidance about the intent of the notion, "critical thinking and problem-solving skills." It was left to her to interpret it, which she did through conversing with several resource people including, she recalled,

my predecessors, [28 and 59, and] interactions with individuals in the field like 31, 74, 29.... I often turned, initially in particular, to people
who were in the role of having to translate it for their district.

As mentioned earlier, 62 perceived "critical thinking" as a global term which incorporates "decision-making" and "problem-solving," among other things. Admitting she had never had to define it before, she described it as "taking content to a level where...you're trying to look at the material in order to formulate generalisations and create understanding."

Of the representation of the notion in the Thinking Together kit and the intermediate resource manual, 62 remarked:

...In order to help teachers have a sense of what that could (emphasis by 62) mean, not necessarily only means or does, well, it does mean but could mean, we went into producing the tapes and the resource books and things like that....And the reason that we chose those three topics was in part because of what was available to us that demonstrated 'critical thinking and problem-solving' that we were in a position to put in place.

When queried about why she introduced the videos as representing the intent of the curriculum, "critical thinking and problem-solving skills," when the balance of the videos related to "problem-solving" or "decision-making," without any clarification of the notion, 62, agreeing that "there's no link," indicated that it had been her attempt to "maintain a consistent
definition" with the curriculum, even though she did not perceive there to be "a single model" or "a specific definition" to maintain. She explained:

...I tried to adhere to the steps. I tried to adhere to the programs as they were defined by the publishers and make changes within the bigger structures that they laid out and moved them along with what I saw other things moving so that there was some semblance of similarity between what was happening in the resource manual and what was happening in the AVE [audio visual education] guides and what was happening in other things.

When this researcher shared her conclusion that "decision-making" was intended to be synonymous with "critical thinking," 62 replied, "It wasn't intended." She agreed, however, that the conclusions raised "valid concerns."

31, who was identified by 23 and 62 as an advisor, did not agree with the notion, as depicted in the curriculum. Queried about the intended relationship between "critical thinking" and "problem-solving" in the guide, 31 answered,

Those are all valid questions [for] which I have no answer. All I can say is I agree with you, that it's very confusing and it's even more confusing when you're trying to implement the document.

It was a "redundancy," she felt, to say "critical thinking and problem-solving" when they meant "virtually the same thing." As outlined earlier, she
saw the steps of "problem-solving" and "decision-making" as they were depicted in the guide, with "decision-making" involving more than "problem-solving" and apparently, more than "critical thinking" as well. Within these inquiry "processes," 31 would agree with the intermediate resource manual which lists higher-level inquiry "processes" such as analysing, synthesizing, predicting, and evaluating as parts of each form of inquiry.

Recalling the primary resource manual as being the least tight...because none of us had really worked it out as yet and we were sort of, I think we were carrying along some of the baggage of mushy thinking, [31 maintained that] by the time we got to the intermediate one, we'd got it really clear in our mind that what we meant [by the notion] was 'problem-solving' and 'decision-making.' And so [in] the video tapes and the intermediate resource manual, that's what comes up.

Of the intermediate resource manual, 31 indicated that she had a lot to do with it and that it was "an indication of where my thinking clarified." She commented:

We had a much clearer idea of the difference between problem-solving and decision-making and we eliminated the phrase, "critical thinking and problem-solving."

Explaining this action, 31 remarked,

It was intentional because it was fuzzy and it didn't make sense to us and what was in the guide
was problem-solving and decision-making. So that’s what we were going to show teachers.

When confronted with this researcher’s conclusions about "decision-making" and "critical thinking" being synonymous, 31 maintained that there was "never an attempt" to portray them as such. She explained the inclusion of the notion, prior to a "decision-making" exercise in the inservice handbook:

...The main reason that it’s 'decision-making' is that the video tape focusses on 'decision-making' and this is an introductory activity to the video tape. The reference to the four program goals is working under the assumption that possibly this would be the only session these people have attended. They may not have gone to the introductory one and the first one and so if they came into this one, it would be important to refer to the program goals as being our guideline for the curriculum and that one of the intents of the curriculum is 'decision-making.' But in that discussion there was never any linkage between 'critical thinking' and 'decision-making.'

As a matter of fact, 31 indicated that it was one of those things where we wished it would go away. We never talked about it because by this time, you see, this is totally linked in to the video tapes and the intermediate resource manual. So it’s a consistency that had to be there from those two, 'problem-solving' and 'decision-making.'

Explaining 62's introduction to the videos, 31 recalled that 62 and I ended up in...loggerheads about that very phrase to the point where we don’t talk about it because she has her view and I have mine.
23 discussed the Thinking Together kit, indicating that it was 62 who she "worked most closely with."

Suggesting that 62 had been "very supportive all along," 23 remarked that 62 "really supported developing it in the first place and making it strictly 'critical thinking'."

When queried about why 62's introduction suggested that the videos illustrated the intent of the curriculum, "critical thinking and problem-solving skills" when "problem-solving" and "decision-making" were developed instead, 23 replied,

The people who actually work on the productions [31] tend to have a clearer idea of what they mean, so I think that this handbook that goes with Thinking Together...is very explicit, right? What is meant [by the notion]? And that's because 31 has a very particular view.

When this researcher proposed that the notion and its link with "decision-making" was not explicit in the handbook, 23 rationalised why this might be:

Yeah, well, okay. 31 wrote it but it was reviewed by 62 and a group of several people [including 29] and so again, it gets watered down. Again, it's my personal view but if you're going to ask a committee what they think of something, they'll nit-pick away here and cut there and it means that the essential, clear, strong view gets messed up. That's my own feeling again. In this particular case, there was a lot of reaction and there were a lot of changes.
However, when 31 was queried about the handbook, the implied link between the notion and "decision-making" was not attributed by 31 to such reviewer-motivated changes. At no time did she indicate that the notion, as depicted, was at variance with her interpretation.

Later, when asked if the "critical thinking and problem-solving" phrase was just tacked on as an afterthought to make the materials fit with the curriculum, 23 responded:

No. I think each person...genuinely thinks that they understand what it means. The only problem is that when it has to be used by teachers or used by a producer of a video or whatever, it's not clear enough so then you have to ask more questions and then you have to get into people's individual interpretations. But...it's not written anywhere in the curriculum exactly how it fits and so people go to the publishers for their interpretations and you can look in the Thinking Together handbook for another interpretation....

29 thought that "critical thinking" included the processes of "decision-making," "problem-solving," and other "critical thinking processes" such as observing, comparing, contrasting, evaluating, and analysing which may be employed within "decision-making" or "problem-solving" exercises or separately. Referring to discrepant representations of the notion in the Douglas & McIntyre and Prentice-Hall publications, 29 wondered
if "that is part of where the vagueness emerged...."

As for the resource manuals, 29 posited that perhaps the notion had never been "clearly conveyed" in the curriculum and that "it therefore got lost in the shuffle."

62, 31, 23, and 29 pointed to a lack of clarity in the curriculum as contributing to the interpretations found in the implementation materials. 29 and 23 implied that because of this void in the curriculum, perhaps the publishers' interpretations were relied on by the developers of other materials. 62, 31, and 23 concurred that there was not any Ministry direction regarding the notion or its implementation, except for what appears to be 62's concern that the materials focus on the notion and her effort to maintain consistency through introducing the Thinking Together videos with the phrase, "critical thinking and problem-solving."

23 was the only one who implicated the committee manuscript review process as affecting the notion in the handbook. Data do not support her view. In the case of the videos and handbook, there is indication of conflict between the introductory "critical thinking
and problem-solving" phrase and the actual focus on "decision-making," "problem-solving," and "role drama."

The only evidence of resources utilised is the Bloom et al. Taxonomy of Educational Objectives (1956), though only Bloom is credited in the intermediate resource manual. Aside from this, it appears that 29 and 31, development team members, provided most clarification of the notion for 62 and 23, particularly early in 62’s tenure as curriculum development coordinator. They were not specific about literature contributing to their conceptions. Although 29’s particular contribution to the Thinking Together kit and the intermediate resource manual is not clear, 31, advisor to 23 and 62, appears to have been most influential in these materials (31, 23). Because the notion as expressed in the curriculum made little sense to her, she admitted that it was abandoned intentionally. In that 31 was for the most part successful in promoting her own evolving conception of the notion, aside from evidence of conflict in 62’s brief intervention in the videos and handbook, the liaison role of the curriculum development coordinator might be questioned.
A summary of the interpretations of 62, 23, 31, and 29 have been included below to help illustrate how they relate to each other and the materials.

Curriculum Guide: CT + PSS = ?

Thinking Together - CT = ?
Videos & Handbook: - Introduction or Preface: states materials illustrate CT & PSS
- Body of materials illustrate PS, DM, & Role Drama

Intermediate CT = ?

62: CT = DM + PS + X
23: CT = DM + PS + X
29: CT = DM (+CTP) + PS (+CTP) + CTP
31: CT = PS ("virtually")
  DM ≠ CT (DM goes beyond CT)
  Inquiry = DM (+IP) + PS (+IP)

Key: CT = critical thinking
  DM = decision-making
  PSS = problem-solving skills
  PS = problem-solving
  CTP = critical thinking processes such as observing, comparing, contrasting, inferring, analysing, synthesising, evaluating
  IP = higher level inquiry processes such as analysing, synthesising, predicting, evaluating
  ? = intent unclear

OTHER PUBLICATIONS

Interview feedback from 67, co-editor of the Douglas & McIntyre Explorations Series and the major
developer of its "decision-making" model; 45 who was one of two "decision-making" consultants for the Explorations Series; 66, co-author of the Prentice-Hall's Identity Series and the creator of its "Learning Processes Taxonomy;" and 31 who was credited as consultant for the Identity Series will be considered here in order to corroborate the analysis of related materials and determine how the notion, "critical thinking and problem-solving skills," came to be represented as it was.

DOUGLAS & MCINTYRE'S EXPLORATIONS SERIES

67 indicated that though the definition of "critical thinking"
continues to allude me after a number of years..., it doesn't matter too much how we define it, as long as we are doing it in some form or another. It was "a personal mission" for 67 to integrate her interpretation of "critical thinking" into the Explorations Series in order to effect change in the classroom, to "encourage thinking in our students."

Relating her interpretation to that of the curriculum, 67 explained why the final document had little influence on the Explorations Series:

...Probably by that time [when the curriculum was published] we were well into a particular model
that we had developed which is a very simple model. And probably in spirit and in principle, I think, it is consistent or congruent with the curriculum document in its various phases. But in its terminology and application, I would think the terminology, it certainly is different. In its application, I don't know because I don't know how the Ministry ever imagined this would be applied.

As far as the notion was concerned, 67 was adament that the Ministry did not provide any direction in any way. Postman, Suchmann, and Michaelis, however, 67 identified as having been "very influential" in her thinking. Their specific influence on the notion in the Explorations Series she did not indicate. 45 and 72, she said, contributed to the series by writing student decision-making activities.

67 indicated that within every student activity in the teachers' editions for the Explorations Series, "no matter what choice, integral and inherent in the activity is the inquiry spirit." Unsure about whether any textbook program can develop the "inquiry spirit," 67 suggested that "certain things can be done to encourage it." "Inquiry", the means by which this is possible, is the focus of 67's approach, which she describes and rationalises below, citing Bloom (1956) as providing the basis for the construction of questions which would instigate inquiries:
Now I used inquiry and I defined it very, very simply. I used the Bloom Taxonomy and so because I felt it was the easiest. I had worked with it in the past. I had worked with it with students. In fact that very year after I began work on this I was teaching at UBC the methods course,...and I had developed and worked with this taxonomy. Basically the principle, and again, the same principle was for student teachers, 'Don't do something too difficult here. You know, do something that's really going to happen. You get the kind of thinking you ask for, quite literally'....So you might as well get them to learn how to design and ask questions that encourage various levels of thinking, beginning with level one of the taxonomy and moving through level six or whatever...where you're evaluating and synthesizing information. So, there is in every activity in this book, some level of thinking is involved. Almost all of them have many levels. Every question in the Explorations textbook had to be categorized or classified in one of these categories. And we believed that all levels of thinking are appropriate to all grades. In other words, you don't do just level one and two in grade one and level five in six. And so, we took, we dropped 'critical thinking,' used the word 'inquiry'....

This intentional abandonment of "critical thinking" was explained by 67:

...I knew something about the literature, the particular critical thinking model [in the curriculum], I don't know, it just didn't really appeal to me....I simply, I suppose, was more comfortable. It's sort of a personal preference, really.

Regarding 67's dropping of the notion, 31 stated that she heard 67 stand up at a session and say that it did not make sense to them, the 'critical thinking and problem-solving' phrase, and that they came up
with their own conceptualisation and they have and it's different.

When 67 was asked if she was equating "critical thinking" with the inquiry "process," she replied,

The inquiry 'process' plus 'decision-making.' You see, and this is an interpretation, of course, of the 'critical thinking,' 'problem-solving.'

....And really what this is is a much looser, this is not a tight model at all, this is very loose. So basically it says, 'Questions are very important. Encourage kids to ask questions. Encourage kids to answer questions that force them through certain cognitive behaviours to recall, evaluate and so on. That is really all there is to this. Very simple.

67 also clarified why she did not develop a "problem-solving" model, incorporating it instead within her "decision-making" model:

I used, I like 'decision-making' because... 'problems' bothered me. There's a problem to solve, I mean, and people are problems. We have the Indian problem and we have, you know there's just something about it that--

Regarding this researcher's observation that the Explorations Series opposed consensus in "decision-making" as far as social issues were concerned, 67 did not think it was stated as strongly as this researcher inferred. She explained:

Well, I don't know that we made it that strong. Certainly we felt strongly that diversity of opinion was not necessarily something to be desired, but realistically, would happen in the instance of decisions where significant values are involved. And usually, underlying all of these things, are values that we would expect in a
pluralistic society, a diversity which was totally legitimate and that we wouldn't always be working toward consensus. We didn't want to feel that students had to be pressured into holding a point of view or coming to a decision that everybody else thought was right, if they didn't, in other words, really respect...a minority position as being a valid position.

Further on this topic, 67 remarked,

If I may, though, just make one statement, another thing that we were concerned with, especially in grade six and grade four where we deal with other cultures, that we did not want students to be making decisions from their own cultural perspective about other people's culture. That was another very important concern of ours and I think that, you know, my own opinion is that we've handled that quite well. It's all very well to say that it's wrong that women in India aren't given equal educational opportunities, you see, but you can't be making judgements and decisions about people living in other cultures because of the ethnocentric framework in which you are working. So that's also part of that.

When this researcher commented on the need in a democratic society to resolve issues, at times through consensus, 67 responded,

Our job in the classroom is to develop the 'skills' that are involved in 'decision-making,' not necessarily to teach the kids about political realities. Now, they, you know, certainly, in so far as we would have student governments, for example in the school, that would be the forum in which this kind of thing, I think, would come about.

67's reluctance for teachers to become involved in "political realities" likely explains her avoidance of action in her "decision-making" model. She
rationalised this perspective, pointing to the negative backlash to such a program in Alberta, and the realities of the classroom situation:

I had a lot, we had a lot of trouble with that. Yeah, we had a lot of trouble. But we, in the end, and I've looked at some interesting models developed by Ralph Sabey in particular at the U of A, or he used to be connected with the U of A, about the taking action. Not Sabey, not Sabey, it's somebody else. Anyway,...you are aware of the experiences in 'decision-making' curriculum in Alberta which was then superceded by, they have a whole social inquiry model [unintelligible word] which has now been changed and they built in the action component. And, you know, we felt just, it was just unrealistic. It's just simply unrealistic. We wanted certain things to happen in the classroom and if we were going to deal, especially if issues are going to arise naturally out of the context, it's not necessarily something kids could do, although we always tried to have them write a letter to the editor or do something. But in the end the taking action component was almost arbitrarily [avoided].

As to what this researcher observed to be the absence of criteria for decision-making, 67 suggested that while she was "a little far away from it now" to recall the specifics, "maybe we didn't pay enough attention to it."

When queried about what justification 67 had for her assumption that "skills" would be transferred to students' daily lives, 67 indicated that due to the demands in getting the books published, "basically, we didn't face the problem." Student evaluation
activities, employed throughout the Explorations Series, were "not of the critical order, inquiry, or decision-making." 67 proposed that while she did not "expect to see very much happening for another year or two myself", the publisher would be evaluating in that kind of macro way. We would not be evaluating the students' ability to identify a problem and so on and so forth. But what we would be monitoring was whether this kind of activity was going on in the classroom as part of social studies or any subject.

Unable to recall any Ministry intervention regarding the type of "issues" that could be used, 67 suggested that

the philosophy of Explorations and the philosophy of the developers, mainly 73 and myself as general editors, was that the heart and soul of social studies education is dealing with issues. That's why it's there....

45, one of 67's "decision-making" consultants, felt the "issues" employed within the Explorations Series were "watered down" or "muted." There were apparently "lots of issues" that he would have liked to have dealt with. But according to 45, contrary to 67's recollections, the Ministry did intervene regarding "issues" which pertain to "values." 28, in a letter to 67 (January 24, 1983), stated that "decision-making and valuing seem to be tangled" and that teacher books and
accompanying textbooks if necessary, be re-examined and rewritten so the activities are, in fact, decision-making and problem-solving rather than value judgment.

He added, "Good/bad value judgment is not decision-making." It should be remembered that this critique from 28, written when he was curriculum coordinator during the tense period following the April Draft when Ministry officials became involved personally in decisions, pertains to input from 45, the same individual whose paper on "issues" 28 recommended to 67 as representing the intention of the notion, which he was unable to clarify.

Contrary to this researcher's observation, 45 stated that he worked on the "decision-making" model with 67, providing the three moral standards which were built into it. Located in the focus questions column of the model, these standards are described by 45 who assured this researcher that 67 was aware of them:

There are three standards down there....There's the role exchange test which is basically: you wouldn't want the decision applied to you, then you ought not apply it to someone else. There's the universal consequences test....the standard of would you like everybody to act on that decision? And there's the standard of consistency [new cases test]. If you're going to make this decision in this context, would you make the same decision in a similar context.
As represented in the teachers' books, the moral standards are included with other questions without being highlighted or identified as standards necessary for judging the merit of decisions related to social issues. According to 45, the moral standards only apply to situations in which other people are going to be, there's a likelihood that they're going to be harmed. If it's going to please them, you don't worry about it.

45 concurred that aside from brief consideration of bias in data, Explorations did not attend to other standards which would be required for assessing the merit of facts, arguments, and the meaning of concepts, factors which he discussed in his paper (1981).

In response to this researcher's concern about Explorations being the only implementation material to oppose consensus in decision-making, a citizenship goal expressed in the curriculum, 45 indicated that even where consensus was a goal in group decision-making, that each decision is an individual one which may be adjusted in order for consensus to be achieved. Though 45 indicated that consensus would be desirable where social issues are involved, where the decision is "going to impinge on other people," he does not feel
that it is a "necessary condition for resolving social issues."

It seems to this researcher, that 45's perspective that decisions are made by individuals, whether they involve consensus or not, represents the underlying intention of the notion presented in the Explorations Series. However, it appears that the materials carry this even further by avoiding opportunities for social decisions which as part of the "political realities" (67) of the real world, may benefit from consensus.

45 emphasised the relevance of understanding and reasoning for judgements, as exemplified by the moral standards for deciding social issues; rules of logic for assessing arguments; observation, experiment, and reliance on authority for determining the authenticity of facts; and where meaning is in doubt, recourse to the dictionary, normal usage assessment, concept clarification, or stipulation (p. 2-6 and Appendix A of 45's "issues" paper, June, 1981). His understanding of "critical thinking", which he seemed to attribute to Robert Ennis' (1985) definition of "reasonably deciding what to do and believe" (45), influenced the Explorations Series through the inclusion of moral standards for judging social issues about what one
"should do." "Decision-making" pertaining to matters of meaning and matters of fact does not appear to have benefitted by his input.

It appears that Douglas & McIntyre’s Explorations Series has interpreted the notion, "critical thinking and problem-solving skills," as "inquiry and decision-making," the latter which entails moral standards and incorporates problem-solving, with little guidance or direction from the Ministry, not even in the form of a completed curriculum. When the guide was published, 67 indicated it had little affect as the Explorations Series was too far along in its interpretation.

Created by 67, with some input from 45, the decision-making model relies on the Bloom et al. Taxonomy of Educational Objectives (1956) which provides the basis for the creation of six levels of questions through which students engage in six levels of inquiry encouraging six levels of thinking. While 67 identified Postman, Suchmann, and Michaelis as having influenced her thinking, their specific impact was not indicated.

The dilution of issues involving values would seem to have been partly influenced by the Ministry, judging by 28’s letter, even though 67 did not mention the
occasion. Avoidance of "action" was an arbitrary decision, self-imposed, 67 maintained. 67 implied that the pressures of producing materials on time contributed to her inattention to assessment of "critical thinking" or "inquiry"-related outcomes, as it did her neglect of justification. Classroom change was 67's motivation for her efforts in designing the Explorations Series "decision-making" model. She admitted that she abandoned the curriculum's depiction intentionally because having read related literature, it did not appeal to her. This suggests that rather than interpreting the notion, 67 created her own.

Evident in the translation of "critical thinking and problem-solving skills" in the Explorations Series is negligible input from curriculum coordinators, except the referral of 67 to 45 for clarification of the notion.

In summary, how 67 and 45 perceived the notion, as well as 28, coordinator when 67 developed her interpretation, are charted below, as are translations of the notion evident in the materials.

Curriculum Guide: CT + PSS = ?
Explorations Series: CT + PSS = ?

Inquiry = DM (includes PS) + higher level thinking
67: CT = DM (includes PS) + Inquiry

45: CT = DM (with criteria applicable to type of issue)

28: CT = DM + PS + Inquiry

Key: CT = critical thinking  
PSS = problem-solving skills  
DM = decision-making  
PS = problem-solving  
? = intent unclear

It is of interest to note that 28's interpretation appears to be more in line with 67's than it is with that of the curriculum.

PRENTICE-HALL'S IDENTITY SERIES

66, co-author and developer of the "Identity Learning Processes Taxonomy," and 31 who was credited as a consultant were interviewed. As 31 did not provide input to the notion, as represented by 66, her statements will serve only to corroborate 66's.

Relating her "taxonomy" to the notion, "critical thinking and problem-solving skills," 67 commented on one reason why she digressed from the curriculum:

So that when you look at the 'problem-solving' in that [curriculum],....they didn't call it inquiry. They called it a 'skill.' And this I won't...go along with...because I think it's a thinking 'process' and so I would not just call it a 'skill.' I figure it warrants a separate column. In other words, your 'skills' are not your thinking 'skills.' They're 'skills' that you use for acquiring and using information, communicating, map reading, reading, oral
communication. Those are things that you use to get and to disseminate information or your social 'skills,' right, which are sort of [an] affective component. But they are 'skills.' They are things that you can show by doing.

For 66, "decision-making" and "problem-solving" were among the "processes" within her "Taxonomy of Learning Processes." These thinking or learning "processes" she equated with "critical thinking." According to 31, 66 also dropped the phrase, "critical thinking and problem-solving skills" because it didn't make sense to her.

Within her "taxonomy," 66 identified three modes of inquiry: solving problems via "why" questions, identifying with situations and viewing them from an "insider's perspective," and resolving decisions via "should" questions. When queried about what counted as criteria for "decision-making" and "problem-solving," 66 pointed to references in her "taxonomy" where evaluation is employed at each level on a regular basis, as well as to chapter tests. When it was suggested that guidance for teachers to help students establish criteria was lacking, 66 wondered if this researcher had overlooked it. However, 66 was not able to provide any further clarification. As far as judging evidence was concerned, she assumed that "a
teacher has to know" and would guide children in recognising strong or weak evidence.

The "Identity Learning Processes Taxonomy" was developed by 66 as part of her doctoral work, motivated by the desire to implement change in schools by providing teachers with "effective social studies materials...because you can't change methods if you don't have tools to do it with." She rationalised her "taxonomy" as being a possible key for implementing inquiry, as previous "inquiry" implementation endeavours which had been unsuccessful had involved just the "manipulation of data rather than internalizing the problems and the issues." 66 had a strong feeling that if you could use the methods of ethnomusicology [one aspect which concerns "communication between peoples"] you would have...a start on helping children to internalise the problems of themselves and of other people and the issues that people are faced with....You start with this feeling of identity or communication with the people and sort of work from that base.

Crediting Goodlad, Popham, Baker, Wilbur Dutton, and Charlotte Crabtree for their influence while she was a doctoral candidate, 66 expressed satisfaction that positive results were effected through her working with the "taxonomy" with children. In order to acquire evidence that children were identifying with others and
improving their inquiry abilities, and have teachers help translate her curriculum framework into the language of the classroom, 66 took her Identity program into schools in mining communities in British Columbia and Ontario.

Mentioning that an evaluator monitored the project, 66 specified that such assessments related to "children's attitudes toward people and towards things" rather than "the 'taxonomy' [which] had already been tested by Crabtree and others." When queried further about the evaluation, 66 indicated that it was not her 'taxonomy' that had been tested but instead, "the effectiveness of learning if you're using a systematic, step-by-step approach."

Following this experience, she sought a publisher and Prentice-Hall agreed to have the material submitted to a national marketing survey; on the basis of the survey recommendations, 66 and her co-author 69 revised the materials prior to submitting them to the Ministry for consideration.

Asked if the Ministry provided any input related to the notion, 66 remarked that the April Draft was the only guidance she received. Aside from adding the "decision-making" step, which had previously been part
of Identity's "problem-solving" level, 66's "translation" appears to have been the result of her endeavours and perhaps her doctoral advisor, Charlotte Crabtree, not the curriculum.

31 emphasised the research base to the Identity curriculum framework, and indicated that it was from 66 and 69, the authors, that she acquired her clarity of thinking...in that [I]...saw the distinction between 'problem-solving' and 'decision-making,' at least the distinction that they made. And it seems to be supported in the literature. I mean, certainly 66's work is research-based, strongly research-based. And part of it comes from work that she's developed herself in her doctoral thesis. And so it's...not just pulled out of the air somewhere.

....They did not, [she felt], equate 'critical thinking' with 'decision-making.' They said 'critical thinking and problem-solving' don't make sense but we believe in what's in the [curriculum] skills list....The one which deals with citizenship in the skills list talks about points of view and...that particular area links most closely with the using the insider's perspective level of 66's 'taxonomy' where you're helping kids to reverse their roles, to take a role and be someone else so that you can break down some of the prejudices.

When asked what levels were the equivalent of "critical thinking" or whether "critical thinking" was a component at all, 31 offered that "problem-solving...would be the closest link." Yet when queried about evaluation, 31 allowed that it too fits. She then remarked, "...Sure, it's problem-solving and
evaluation, then, if you like. It’s decision-making and evaluation" but 31 was not more specific about what the relationship was. She said that the levels of the "taxonomy" were unlikely arranged in an hierarchical sequence because more than one level could be employed at the same time. For instance,

...Often in decision-making, kids would go into role so you've got role, decision-making, and evaluation all clumped together. So it really can't be chopped up.

How the notion is represented in the Identity Series is charted below, along with 66's perspective and 31's interpretation, as well as with 49 and 50's, who were coordinators when 66 was revising her submissions. 50 was the individual asked to respond to 66's submission during her twenty-five day summer contract prior to her September appointment as coordinator.

Curriculum Guide: CT + PSS = ?

Prentice-Hall's \(-\text{CT} + \text{PSS} = ?\)

Identity Series:
- Learning or Thinking Processes = Collecting Data through recall and observation, PS, DM, Using the Insider's Perspective, and Evaluation
- Forms of Inquiry = Thinking Processes = PS + DM + IP

66: CT + PSS = did not make sense to her
CT = Taxonomy of Thinking or Learning Processes
Learning Processes = see Identity Series above
31: In Identity: DM ≠ CT
CT + PSS = ? (did not make sense)
CT closest link = PS
CT related to DM + PS + Evaluation

Own view: CT + PSS = ? (did not make sense)
Inquiry = DM + PS + Inquiry Processes
CT = PS; DM ≠ CT

50: CT + PSS = ?; focussed on Skills

49: CT = DM; PS = somewhat different;
or CT = PS + DM + X

Key: CT = critical thinking
    PSS = problem-solving skills
    DM = decision-making
    PS = problem-solving
    X = other entity
    IP = using Insider's Perspective
    ? = intent unclear

While 31 and 66 both were troubled by the notion, "critical thinking and problem-solving," as represented in the curriculum, they did not seem to perceive "critical thinking" in the same manner. With 50's apparently limited understanding of the notion, it would not appear that any feedback she provided 66 would have affected the notion in the Identity Series. The latter interpretation by 49 is not unlike 66's, except that 66 perceived the "insider's perpective" as central to her "taxonomy" and criteria as an integral factor in each level. It appears that 66 adapted her conception to the curriculum by adding the "decision-making" level to her "taxonomy." Opposed to
classifying "problem-solving" and "decision-making" as "skills," she insisted on labelling them "processes."
Although different aspects of each level of 66's "taxonomy" correspond to various parts of the curriculum's skills appendix, it does not appear that this was the result of 66's interpretation of the curriculum, but rather, her creation.
APPENDIX 4.1

MACRO-IMPLEMENTATION: PHASES OF DECISION-MAKING

If, as the interview evidence supports, Ministry publications as well as commissioned works by Douglas & McIntyre and Prentice-Hall digressed from the notion, "critical thinking and problem-solving skills," one could reasonably question the value of a curriculum document. Factors that interviewees implied contributed to this digression might help show how this occurred.

Three general factors from the macro-implementation literature were identified in Chapter One: clarity of expectations, liaison, and capacity. These three factors are talked about (in more specific terms) in the present chapter as qualifications, directives, inservice provisions, liaison and time. How these factors may have affected the development and translations of the notion are of concern here and will be examined in terms of the preparatory, developmental, and implementation facilitation phases of the revision.

PREPARATORY PHASE (1975-1978)

Beginning with the secondary social studies review in 1975, the preparatory phase of the revision
continued through the province-wide social studies assessment (1976-1977) to the establishment of the Secondary Social Studies Revision Committee in September, 1978. Evidence pertaining to qualifications of participants, directives, allowances for staff inservice, and liaison among committees are examined to assess their relevance to the macro-implementation of the notion, "critical thinking and problem-solving skills."

QUALIFICATIONS

Data pertaining to the qualifications of individuals who contributed to the preparatory phase of the revision are not complete. However, 22 indicated that the Secondary Social Studies Review Committee was comprised "entirely of teachers nominated by the BCTF and school districts" ([*Horizon*, 20(1), pp. 43-44]). 60a, who was on this committee, identified 93, a university academic with expertise in social studies and evaluation, as a member, as well as 28, 96, and 99.

100, 93, 94, and 67, each who had university affiliations as social studies specialists, created the tests for the assessment, and served as major authors for the [*British Columbia Social Studies Assessment*,}
1977 Report. According to John Collins (Horizon 15(1), pp. 4-5), this "contract team" was "guided by a management committee" whose members included 101, a university academic with social studies credentials; a school trustee; two teachers, one who was 25, a later member of the Management Committee; and 60a who was then a principal. The entire project was being monitored by a "Joint Evaluation Committee" comprised of a Curriculum Development Branch consultant; 12, who was then assistant director of the Learning Assessment Branch, as well as acting director of the Provincial Learning Assessment Program; three BCTF representatives; a university education faculty representative; and one school superintendent.

While it seems reasonable to assume that teachers selected to participate on the review committee and the assessment had some practical experience with social studies at the secondary level, their credentials are otherwise unknown to this researcher. Aside from a short essay in the Assessment Report (1977) by Aoki and Harrison about ways of knowing—including a general account of "critically reflective knowing"—there is little in the Assessment Report to assist developers in clarifying the notion (26).
As for 22, he was described as having a strong academic background in social studies (23, 31) but beyond this, his credentials are not known to this researcher. The curriculum planning model (1979), which was likely the product of his labour, does not reflect an understanding of curriculum implementation literature. Without providing justification, the model promotes separate functions for the Ministry's different branches, yet stresses the need for a "close working relationship" (Foreward).

For example, Program Implementation Services becomes involved "when [italics added] a new curriculum is approved (p. 9) while the Learning Assessment Branch, "in addition to conducting broad provincial surveys of student achievement, develops and norms provincial tests....after [italics added] the new curriculum is prepared" (p. 11). Nor does the April Draft, which 22 alone coordinated, portray knowledge of implementation literature.

In summary, qualifications in social studies appeared to be a major criterion in Ministry appointments, with some attempt to facilitate carryover from one project to the next. There is little evidence to suggest that expertise in other areas was a
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priority, though 93 and 12 had experience in evaluation.

DIRECTIVES AND INSERVICE

The Secondary Social Studies Review Committee's function was to assess the need for a revision of the secondary social studies curriculum (60a, 28), whereas the provincial assessment was initiated to facilitate province-wide comparison of student achievement (Annual Report, 1975/1976, p. 10) and provide means for "monitor[ing] the whole public school system" (Annual Report, 1976/1977, p. 10). While data are lacking regarding Ministry directives or inservice relating to the notion and its implementation during the review and assessment, 22 did not seem to benefit from much guidance, if the experiences of other coordinators are indicative, aside from his mandate to develop a curriculum planning model, gather together a revision committee, and conduct the revision (26).

LIAISON PROVISIONS

There is some evidence to suggest that the Ministry attempted to facilitate communication between the review, the assessment, and the revision by its
assignment of individuals who worked on the earlier projects to later endeavours. 60a and 93 were identified by 60a as working for the review and the assessment. 60a also indicated that he had been approached informally by 12 to chair the Management Committee, but that he had refused, later becoming the chair of the Select Committee when the revision ran into trouble. 28, a member of the Secondary Review Committee, served on the Management Committee for its first year and later as a coordinator in the Program Implementation Services Branch and the Curriculum Development Branch. 25, who had been a member of the assessment team, was also on the Management Committee.

Aside from this overlapping of personnel and inclusion of two Ministry representatives on the Assessment Joint Evaluation Committee, it does not appear that there was much communication between the Secondary Review Committee, the assessment team, or the coordinator in the preparatory phase of the revision. Neither 28 nor 60a indicated such liaison existed. Consistent liaison was not in evidence.

While the Curriculum Development Branch and the Learning Assessment Branch were represented on the Joint Evaluation Committee for the assessment, their
input does not seem to have been related to clarifying the notion. How might this apparent lack of Ministry monitoring and inattention to credentials beyond evaluation and experience or expertise in social studies during this phase of the revision have influenced the notion and its implementation? The qualifications of those who planned the revision would have influenced the type of data that were collected and how these were interpreted. If expertise in "critical thinking" and "curriculum implementation" were not criteria for participation in this stage, it would be surprising to find such knowledge or priorities reflected in the products of this period.

DEVELOPMENT PHASE (1978-1985)

With the establishment of the Revision Committee, the development phase of the revision was underway and would continue through to the publication of the elementary curriculum in 1983, followed later by the release of the secondary curriculum in 1985. Factors that may have influenced the notion during this period are now examined.
QUALIFICATIONS

A lack of relevant expertise among participants was implied as having some influence on the development of the notion (31, 23, 60a). It seems that the Curriculum Development Branch was perceived as moving away from the criterion of having social studies specialists as curriculum coordinators, favouring management capabilities after the publication of the April Draft (23, 31).

Development teams were basically practitioner-oriented (26, 60a, 45). 22 selected a practitioner-oriented revision committee, in part because he may have attributed Saskatchewan's difficulties in social studies to its committee's "blend of academicians, educational theorists, and teaching practitioners" (Fowler, 1980, p. 35). 26, the only university representative on the committee, described the membership as being practitioner-oriented, "credible in terms of social studies education," having "similar outlooks," and with representation from the assessment. Yet 24's recollection of the "disparate" views held by the Revision Committee members, who she indicated also included a school trustee, does not confirm 26's assessment of the membership. When its mandate was
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expanded after the first six months to include a review of the elementary curriculum, two elementary level educators joined the committee. Judging by all related interviewee comments, criteria for selection of development workers were not related to the notion or to curriculum implementation, though 26 was credited by 45 as having exhibited a good understanding of "issues resolution" in his writings. A paper by 26 was included in the monograph, Implementation Viewpoints (1980), apparently made available to committee members, illustrating some knowledge of implementation literature.

Members of the Elementary Review Committee included one principal, three elementary teachers, and one school board consultant. 31, a participant on this committee, was active in social studies as a school district coordinator and in the provincial teachers' association. As for expertise regarding "critical thinking," she claimed to have acquired her understanding of it after her work on the committee. It seems reasonable, therefore, to conclude that related expertise in "critical thinking" or "implementation" were not criteria for committee selection.
If the Select Committee's critique of the secondary component of the April Draft was accurate—that it lacked a rationale and clarity for the user, contained many conceptual flaws, included "issues" that were not "true issues...[that did not allow] for diverse points of view" (60a), and had not considered teachers' professional readiness or a realistic timeline—then this may be a result of the practitioner rather than expert-oriented developers.

Yet, "expert" input was available through 45's paper on "issues" (June, 1981) which provided considerable information on "critical thinking" and was noted as a reference by 26, 29, 49, and 28. As well, there was the monograph on implementation (1980) and the recommendations of the Select Committee whose members included, among others, three post-secondary academics (one who had been deputy minister prior to 17).

But it appears that input from academic specialists relating to the notion and its implementation was not incorporated into the final curriculum document. Might this be because "expert" input may require "expert" recipients to comprehend the advice, a suggestion implied by 26, the only university
academic on the Management Committee? While this question warrants consideration, had more experts been involved earlier in the process, the clarity of the notion may have benefitted.

DIRECTIVES AND INSERVICE PROVISIONS

Limited directives and inservice provisions appear to have had some influence on the development of the notion. Coordinators and development committee members maintained that "interpretations had to be made all the way through" (59, 49, 40, 28, 62). Devoid of ongoing guidance regarding social studies, curriculum development/implementation, or the notion, coordinators and developers struggled on their own. The *Curriculum Planning* (1979) model provided some instructions on what to do but few specifics of what that entailed. For example, on page 5, one learns that a provincial curriculum guide is limited to "what is to be taught" (emphasis in document). "Key" information to be included are "the rational [sic], philosophy and general goals," as well as "a conceptual curriculum model as it applies to the subject area" and "student learning outcomes."
A few procedural expectations are found on page 15:

It is expected that committees will draw to the attention of the Ministry any aspects of individual courses that may be subject to public controversy. The purpose of this procedure is not to eliminate controversy from a curriculum but rather to ensure that accountable authorities are fully aware of potential problems.

....It is expected that committees will reach decisions using a consensus model.

....To provide a degree of protection to individual committee members from both commercial and vested interest pressures, it is expected that committees will operate with a degree of confidentiality. In addition, it is important to safeguard against rumours or expectations being raised by premature announcements.

It is expected that committees will give serious consideration to various inputs such as briefs, research findings and current studies.

In addition, on page 16 one learns that committees will prepare guides in sufficient detail and clarity with adequate emphasis on content and application to allow for appropriate local interpretation and ease of implementation.

Judging by this curriculum planning pamphlet, procedural expectations for curriculum development at the time of the revision would have included: development workers advise the Curriculum Development Branch administration of potential controversy, arrive at decisions through consensus, maintain confidentiality, seriously consider "briefs, research
findings and current studies," provide sufficient clarity and details to facilitate implementation, and maintain an "adequate emphasis on content and application." Along with "the rational [sic], philosophy, and general goals of the curriculum," "a conceptual model," and "student learning outcomes," developers were expected to concentrate on "what is to be taught" [emphasis in pamphlet].

It is not clear how these expectations were to be realised by the Management Committee. In order for the Management Committee to be aware of potential controversy, they would need some understanding of the various purposes for social studies and how these relate to teachers. What considerations the Management Committee should give to the rationale, philosophy, general goals, and student outcomes were not clarified. How the Management Committee was expected to sift through submissions and research and 1) make sense of it, 2) evaluate alternatives and arrive at decisions, and 3) test the worthiness of decisions were not indicated either.

It is possible that a lack of clear expectations influenced the Management Committee's decisions regarding the notion. 26 posits that how the committee
functioned, concentrating first on "philosophical considerations" (confirmed by 24) and then focusing on the curricular design and putting the objectives into language that made sense to practitioners, might have contributed to the lack of cohesiveness of the notion. For example, he thought that the committee felt that "problem-solving and decision-making made more sense at a practitioner level than a general discussion on critical thinking." 28 also felt this was the case.

Decisions were arrived at, 26 recalled,
basically [through] give and take around the committee table in which you argue for and against a particular model or paradigm or... approach. And the argument is won or lost, depending upon how readily it can be formulated into practice.

A decision-making model, as described by 26, which arrives at consensus through "give and take" trade-offs is no guarantee that the resulting decision will have merit or be understood by the developers. Nor does it mean that the concessions made enhance the original goals, which seems to be the case with the 1983 curriculum.

These directives, regarding "what" belonged in a curriculum guide, were suggested as having influenced the notion in the April Draft. 26, 29, 49, and 31 all commented on the limitations of the guide and how this
led to the Management Committee's neglect of considerations that might have brought more clarity to the notion. 26 explained:

But one thing we did stress in the early going was that there would be some type of teacher's guide that would go along with the curriculum guide. And then we pretty soon found we were dumping everything in the teacher's guide. People would say, 'Well, we should say this in the curriculum guide' and we would say, 'No, no, no. We put that in the teacher's guide.' But we kept talking that way, but we never got to a stage, by '81, of saying what are we going to put in this teacher's guide. We became solely concerned with the curriculum design.

The Elementary Review Committee had little guidance regarding the intent, source, and rationale for the notion, 31 suggested, which resulted in the committee "rely[ing] on the abilities of individuals within the committee and if you have strong voices and strong philosophies, then that tends to lead the committee in a certain direction." This could have influenced the interpretation of the notion.

With its mandate limited to providing an opinion about the proposed curriculum, the Select Committee worked according to its own priorities (60a). As recommendations related to the notion that were submitted by the Select Committee were not incorporated in the final document, limited direction to this
committee would not appear to be a factor in the development of the notion.

It therefore seems feasible that the nature and paucity of direction and guidance contributed to how the curriculum was developed, as well as the notion, "critical thinking and problem-solving skills."

LIAISON PROVISIONS

Important to consider is the liaison mechanism set in place to facilitate communication between and within different Ministry levels, branches, and committees. Data gathered from interviewees along with information gleaned from Annual Reports were analysed for evidence of liaison, how it was manifested, and what affect this had on the notion.

Although personnel were put in place to facilitate communication, the intent, source, and justification for the notion did not appear to be a priority in such communication. According to 31, the Elementary Review Committee lacked relevant information, even though 29 and 22 were intended to facilitate communication between committees. Further weaknesses evident in intra-committee interaction could have contributed to the lack of a cohesive understanding of the notion. By
assigning "research" to 26, for example, the Management Committee as a whole did not appear to have grappled with the notion and related concepts, as evidenced by the disparate interpretation of members, 24's referral of this researcher to 26 for information about the notion, as well as an admission by one member to 50 that the committee had never delved into the concept of "issues" prior to her working with them.

While 49 suggested an "excellent relationship" existed between the development branch and the assessment branch, and although Annual Reports indicated that inter-branch cooperation was standard practice during the revision, there is little evidence of any constructive input from the Learning Assessment Branch and the Program Implementation Services during the development phase (28, 29, 24). For that matter, the Management Committee seems to have been directed to leave implementation considerations to the implementation branch (24).

Communication links between levels of the Ministry and across and within branches and committees appear to have suffered when coordinators, the major means of liaison, were left to their own resources to interpret and translate the intent of the curriculum. Lacking
guidance on how to achieve curricular clarity and integrity, as well as how to predict difficulties and work them through, developers seem to have proceeded via trial and error. It seems reasonable to conclude that inadequate liaison contributed to how the notion was developed, including its lack of clarity and cohesiveness throughout the curriculum.

TIME

The working conditions of the participants, affected as they were by time limitations, might have affected the notion, "critical thinking and problem-solving skills," as it appeared in the April Draft and the final 1983 document. For example, the Schools Department mandate, cited in the Ministry’s 1980-1981 Annual Report, was to "ensure high quality and efficient delivery of all school programs from kindergarten to grade twelve" (p. 20). Such global responsibilities for officials at this level of the Ministry would suggest that the time they could afford to social studies would be limited. This may explain why there was no evidence of the minister’s (37) or deputy minister’s (17) involvement in the revision until public dissension following the April Draft
brought the contentious new curriculum to their attention (49, 24, 26, 29, 28). Their work load may also account for the lengthy delay when 37, the Minister of Education, held up the final selection of materials and in so doing, endangered the utility of the field-testing which had to be put on hold, with the result that Douglas & McIntyre did not seem able to incorporate many changes recommended by the field (50, 67).

12, who served first as the Curriculum Development Branch Director and later as the Executive Director of Programs; 53, the Curriculum Development Branch Director; as well as the Assistant Director of the Curriculum Development Branch appear to have been responsible for all curricular areas except in some years where the assistant directorship was shared (Annual Reports and 62). Being responsible for all curricular areas would preclude management from having a lot of time to devote just to social studies, particularly with all the reorganisation that occurred in those years. As well, the preoccupation with the new Consumer Education 9/10 program would have occurred during the 1981-1982 school year (Annual Report, 1981/1982; 28) when much of the early implementation
plans for commissioned social studies materials were being laid. There was not even a mention of social studies in the Curriculum Development Branch’s report in this 1981-1982 Annual Report. 62, in describing the assistant director’s responsibilities in the Curriculum Development Branch, said that "there’s not a strong system built in the branch that facilitates the maintenance of a vision. There’s just not the personnel or the money."

As for the Management Committee, 24 described the way meetings were set up:

...You’re called out for two days a month from your job and you kind of parachute in, get your mind on it, you express your concerns, and off you go back to your job again.

26 spoke of the other employment responsibilities of committee members:

...I think that the other problem, Carole, is the way committees function. You see, they only meet three days every month....Now you can say we can give homework to the committee members, tell them to read. Well, that just doesn’t happen because they’re doing a multiplicity of other things as a classroom teacher.

30 also related how committee members gathered at their two day monthly meetings, finding it necessary to first "refresh" themselves as to what progress had been made at the prior meeting; they sometimes discovered that "much changed" without anyone being sure why
alterations to the curriculum had transpired (30). 29 confirmed this view, attributing the changes to the "interpretation process:"

...We as a committee would make revisions and then all of a sudden we'd see it in type and it didn't look like what we had suggested. And that could be because of the interpretation process. You know, 22's making all the notes and somehow it didn't look quite the way we had originally intended.

28, agreeing with 26's analysis regarding other job commitments, recalled that he wasn't attending to the committee business. I was attending to the business I was paid to do. So I said, 'Look, I can't do this. I'm reading the stuff on the ferry on the way over that I should have digested.' So I resigned.

45 also commented on the situation:

It's ridiculous to try and write a curriculum document...in a meeting once a month and holding down jobs....It's totally unreasonable. And to start asking questions about the assumptions you are making.

It is also possible that the timing of "expert" input (e.g., 45's 1981 paper; the 1980 implementation monograph; the Select Committee report) which came after the release of the 1980 April Draft contributed in part to the inattention that it seemed to receive. Had this information been available to the developers earlier in the development phase, it may have been more readily incorporated.
The duration of the revision (23, 60a), and the overlapping of development and implementation endeavours were mentioned as possible influences on the integrity of the notion. If the 1980 April Draft, which did little more than the 1983 guide to clarify "critical thinking and problem-solving skills," satisfied the developers regarding the notion (23, 29, 49), it seems unlikely that the delays in publishing the final document contributed to the notion's lack of integrity. It is possible, however, that the overlapping of development and implementation (45, 50, 49, 59, 67) meant that the coordinator in the final stage of the revision may have had insufficient time to monitor the notion's integrity.

Based upon interview feedback, it seems that had working conditions been more conducive to wrestling with inherent curriculum complexities, the notion might have reflected it. Developers worked under inadequate time restraints (they had additional employment demands) for any intensive study of the notion. Had management and coordinators more "reflective time" and relevant "expert" input earlier in the development phase, it is feasible that some of the difficulties
with the integrity of the curriculum would have been
lessened.

IMPLEMENTATION FACILITATION PHASE (1979-1986)

The discrepancies in how the notion is represented
in implementation materials, as contrasted to the
curriculum, makes one curious about why the variance in
translations. Factors examined here are the
qualifications of the implementation workers, inservice
provisions, liaison inconsistencies, and time.

QUALIFICATIONS

The chairperson of the Select Committee, 60a,
suggested that provincial curricula have long suffered
from a lack of expert input. It may be that
qualifications of those involved with the
implementation of the 1983 curriculum affected the
translations of the notion, "critical thinking and
problem-solving skills." Curriculum development
administrative staff (12, 53) did not seem to have any
strong expertise related to social studies, "critical
thinking," or curriculum implementation. Liaison
personnel, some who were apparently hired for
management capabilities (23 and 31, speaking of 49, 28,
62), had prior involvement with the revision in various ways: 28 and 29 were members of the development team; 62 was an author of materials. Experience in teaching social studies was an attribute of 28, 49, 50, and 29, and 50 also had experience in curriculum development and evaluation. However, what these individuals lacked was expertise in the area of "critical thinking" or extensive understanding of curriculum implementation.

Two factors related to the qualifications of liaison personnel had potential for influencing the varied translations of the notion. First, if the Ministry favoured management capabilities in order to get the job finished (23, 31), it is possible that the goal of completion superceded the attention given to maintaining consistency. Second, the apparent lack of understanding that these liaison personnel had of the notion, not only as it was intended but also of "critical thinking" generally, may have limited their effectiveness. Without such knowledge, they may have been ill-equipped to 1) recognise when digressions occurred; 2) interact knowledgeably with developers of implementation materials who held discrepant interpretations of the notion (50, 49, 28, 59, 62, 29); and 3) judge the merit of different interpretations.
As well as meeting the criteria of regional representation and compatibility (45), most members of the Elementary Materials Selection Committee, had experience teaching social studies. There was little evidence that any had expertise in "critical thinking," except for 45 who as a university professor, had taught and written in the area of social studies and "critical thinking" and was knowledgeable about curriculum theory. 45 had also served as consultant to the Management Committee and advised Douglas & McIntyre's 67 regarding some aspects of the notion (28, 45, 67), apparently prior to the final selection of materials. (This inference is based on 45's admission that he did not vote, one of the Ministry's stipulations for members in potential conflict, and shortly afterward he signed a formal contract with the company.) It is possible that 45's association with the publishing company influenced the committee's decision, particularly considering that his opinion was said to be valued by the committee (49). Another potential conflict of interest was seen in 31's prior association with 66 in the University of British Columbia Social Studies Curriculum Research Project, in that the
materials involved were later published as the Identity Series.

29 and 31 were advisors for most of the Ministry publications. Both were social studies educators who were active in their school districts and in their provincial association, participating as well in the development of the curriculum. 29 joined the Management Committee after its first six months to provide articulation between the secondary and elementary grades. 31 had been a member of the Elementary Review Committee. While each suggested that the curriculum's intent was unclear, 31 disagreed with the notion as represented. Neither had any expertise related to "critical thinking."

67, co-editor for Douglas & McIntyre's Explorations Series, was a noted social studies educator who had been research assistant for the Culture Realms Picture Set in 1974 as well as on the assessment contract team in 1977. Claiming to have some understanding of the "critical thinking" literature, 67 disagreed with the notion as represented in the curriculum.

66 and 69, authors of the Identity Series, each had background in social studies, 69's specialty being
in history and much of recent work stemming from her interest in ethnomusicology and the development and implementation of social studies materials. authored the Social Studies Media Resources, Grade One-Grade Three (1983), a PEMC publication supporting the revised curriculum. translated the notion in terms of her "Taxonomy of Learning Processes," created and piloted much earlier.

It would appear that the qualifications of those involved in implementation endeavours did influence the translation of the notion. Their priorities and understandings were evident in the materials. Of most importance to this study, however, would appear to be the ineffectiveness of liaison personnel to recognise and judge these translations. Without a thorough understanding of the notion, they were not in any position to compare digressions, or if they did, to rationalise them. The authors/editors of the commissioned materials and the ministry materials seemed to have a relatively free hand in promoting their own conceptions.

Therefore, the implementation materials for the 1983 curriculum reflect the understandings and priorities of their authors and advisors. For this
situation to have been otherwise, coordinators would have required expertise at least equivalent to the authors, sufficient to challenge their ideas. Coordinators seemed to be in a weak position to function effectively in their liaison role.

INSERVICE PROVISIONS

The only inservice provision for anyone involved in implementation projects was the EPIE training course provided to members of the Materials Selection Committees and the Management Committee (45). The inservice provided a way to analyse the internal content of a curriculum, as well as congruency between the curriculum and related materials. How congruency was to be assessed, considering that the notion was so vague in the curriculum, does not appear to have troubled anyone sufficiently for him/her to have sought clarification (49). Neither committee members nor writers/advisors/editors were given inservice on "critical thinking and problem-solving skills" or on curriculum implementation (49, 28, 31, 29, 24, 26, 23, 59, 62, 67, 66).

There was some effort by the Ministry to provide clarification of "issues" when 22 commissioned 45 to
write a paper which analysed types of "issues" and how they might be incorporated into a program. This paper also delineated how "critical thinking" fit in the judgement of "issues." While 45's paper was intended for the Management Committee, it was also provided to 67, the co-editor for the Explorations Series, by 28, who as coordinator was not able to clarify the notion himself. There is no evidence to suggest that it was made available to the Materials Selection Committees or to Prentice-Hall authors. As 59 and 23 observed, the notion was left to the publishers to define, and they did. Evidence is unanimous in depicting limited inservice for Ministry staff and implementation workers related to the notion and its implementation.

LIAISON PROVISIONS

Liaison considerations pertinent to implementation endeavours included the placement of development people on the Materials Selection Committee and the Primary Resources Advisory Committee (49); PEMC's coordinator, 23, hiring advisors who had been on the development team; the appointment of 28 who had been an original member of the Management Committee as a coordinator in the Program Implementation Services and the Curriculum
Development Branch; 62 who had been a co-author of the primary resource manual as a curriculum development coordinator; and 59 as a curriculum development coordinator, following his work in the Program Implementation Services where he was responsible for the implementation of the curriculum; the designation of 29, the elementary representative on the Management Committee, as liaison between it and the Elementary Review Committee, the Elementary Materials Selection Committee, and Douglas & McIntyre, the publisher of the primary grade materials; and the provision of coordinators whose main function appeared to be to serve as intermediaries between and among development and implementation projects, as well as with Ministry officials.

Publication dates of implementation materials, Annual Reports, and interview data illustrate the specific involvement of these individuals. 22 and 29 would have been the major links with the Elementary Materials Selection Committee (45), although there must have been some contact with 49 and 50 during the end of their mandate (49, 50). It would seem that 50, 28 and 29 were the major liaison personnel with Douglas & McIntyre. 50 was requested by 22 to respond to
Prentice-Hall's proposal as 22 was preparing to depart, while 59 and 62 would have interacted with Prentice-Hall later on. The Ministry publications for primary grades would have been developed under the coordination of 28 and 59, with advice from 29 and 31, among others. The intermediate materials were supervised by 59 and 62, with considerable input from a PEMC advisor, 31, and in at least one instance, 29.

How is it, then, that in spite of these efforts to assure linkage between developers of the curriculum and developers of implementation projects, that consistency was so lacking in how the notion was translated? A look at the nature of interactions that occurred provides some clues.

1. Liaison within the Curriculum Development Branch

While a major responsibility of curriculum coordinators was that of liaison between the various implementation activities, the communication network did not appear to be consistent. 50 learned from the publisher that the field-testing had been cancelled, not having been party to the meeting where the decision had been made. Unclear about some of her
responsibilities, 50 expressed concern that she had not understood what was expected of her in her liaison role with Douglas & McIntyre. Whether she was describing her function as liaison between the field and the publishers, between the Curriculum Development Branch administration and the publishers, or among all three is not known to this researcher. Perhaps this troubled 50 as well. In any case, 50 did not appear to receive direction regarding the notion and her field-testing efforts did not portray it as a priority, if at all. Being that her pilot testing responsibilities did not allow her the same contact with development team members that most other coordinators had access to, she may have been at an added disadvantage.

49, 28, 59, and 62 all concurred that any input from Curriculum Development Branch administration was unrelated to the notion. Provisions for the transition between coordinators seemed to be lacking, except when 22 tried to introduce 49 and 50 to committee workings during the summer prior to his departure (50). Even then, neither 49 or 50 gave any indication that consideration of the notion was part of their introduction. Apparently, the assistant director was normally expected to facilitate transitions but due to
other responsibilities, may not have been able to do so (62).

There did not seem to be much liaison among the relevant committees. 50, covering for 49 when he was ill, discovered that the Management Committee had never met with the Materials Selection Committees (50). Whether the single meeting that evolved from this discovery led to any explication of the notion is doubtful, considering 31 and 45's comments suggesting that such information was not shared with either the Elementary Review Committee or the Materials Selection Committee. According to 45, the Materials Selection Committee worked much of the time "in the dark," without even a completed curriculum. Initially, the only communication it received came down...in terms of the criteria that we had to apply to the textbooks and other materials, and the big one was congruence with the curriculum in content. (45)

2. Liaison with Authors

Except for 62's concern that the Thinking Together orientation kit should focus on the notion, and apparent Ministry concern about student decision-making activities that focussed on "values" or contentious "issues" (28, 26, 45), particularly following the April
Draft (28, 29), there is not much evidence that coordinators or other liaison personnel attempted to guide the translation of the notion in implementation materials (49, 28, 29, 31, 23, 62, 66, 67, 59).

Even awareness of discrepancies did not appear sufficient to alter the translations in implementation materials. 29, who had been on the Management Committee for all but its first six months, recognised the differences in how the Douglas & McIntyre and Prentice-Hall materials treated the notion. Likely her role did not entail the power to do more than communicate this information and perhaps, even if she had, the matter would not have concerned anyone. 49 indicated that the Management Committee recognised that the two series "took quite different perspectives" and saw this as "healthy." Perhaps this implies that cohesiveness of the notion was not a priority, contrary to 59 and 24's suggestion that some adherence was hoped for.

62, the coordinator responsible for liaison and, in her opinion, maintaining consistency, tried to link the Thinking Together videos and handbook to the curriculum; her introductory statement in the videos and handbook said that the lessons therein illustrated
"critical thinking and problem-solving skills."

However, this introductory statement is not entirely consistent with the body of the material which seemed to represent 31's conception of "decision-making" and "problem-solving."

The attempt by coordinators to promote continuity by hiring or seeking advice from development team members may have been confounded by the selection of personnel who may have been either unclear about the Management Committee's intent (29, 28, 31, 62) or disagreed with it (31). 29 was unaware of how others on the Management Committee interpreted the notion, perhaps because she was not there during those first six months and because her responsibilities were more oriented to elementary grades. 31 was not a member of the Management Committee at all. As a member of the Elementary Review Committee, she had not benefitted by any explication. Yet she and 29 were asked to serve on the Primary Resources Advisory Committee and 31 was hired as advisor by 23, PEMC coordinator. 28, the coordinator apparently most involved with Douglas & McIntyre, had insufficient understanding of the notion to communicate it to 67, and referred her instead to 45 for clarification. Although he had been a member of
the original Management Committee, 28 had left before the final goals were established in their present form.

3. Inter-Branch Liaison

It seems that interactions between Ministry officials and coordinators involved with implementation projects did not focus directly on the notion (49, 50, 28, 59, 62). Inter-branch coordination occurred at the discretion of the coordinators (49, 28, 59, 23, 31). Although the Annual Reports implied such liaison was ongoing, this did not seem to be the case. There is not any indication of input from the Learning Assessment Branch regarding the notion in any implementation materials (31, 23, 28, 66, 67). 59 suggested that the people in the assessment branch reviewed the evaluation component of the primary resource manual and remarked that it was better than what existed before. This appears to have been the extent of its contribution, certainly not affecting the notion because it came after the fact.

It appears that the Program Implementation Services had little to do with the curriculum until it was almost completed. 28, who had been a coordinator in the implementation branch, suggested that his term
ran out before there was a curriculum to implement, although he did interact on an informal basis with 49 in this regard (28, 49). 59's involvement with the 1983 orientation package and primary resource guide would have occurred just prior to the folding of the implementation branch in July, 1983. Hampered in his efforts by a notion that was still being clarified, 59 depended upon development people such as 28 and 29 for guidance, as well as upon the notion as represented by the publishers, Douglas & McIntyre and Prentice-Hall.

PEMC seemed to have interacted officially on a regular basis with the Curriculum Development Branch (23). However, the only input that 23 received regarding the notion was that the 1986 Thinking Together orientation kit was to focus on the notion, a concern expressed by 62, the curriculum coordinator (23). As understanding the notion was not 23's responsibility, she hired 31, a member of the development team as her advisor in this regard (23). The only other evidence of inter-branch involvement was seen in the unofficial participation of 74 of the Program Effectiveness Branch in the production of the Thinking Together videos (23, 31), a result of 74's
interest in the use of videos as an inservice vehicle rather than any interest related to the notion.

4. Liaison Between the Ministry and Local Delivery Organisations

The Social Studies Advisory Committee (Kindergarten to Grade Twelve) was established, according to the Ministry Information Circular #167 (June, 1986), "to discuss current issues and provide recommendations on the revision of the Social Studies 1-12 curriculum" (p. 3). Local delivery organisations were advised that "time is allocated at each Advisory Committee meeting for identifying current field concerns" (p. 3). Because of the timing of this liaison, input from local delivery organisations to the Advisory Committee would have little affect on the development of the elementary curriculum, unless perhaps to the grade seven content.

62, curriculum coordinator at the time of this communication and responsible for the Advisory Committee (comprised of at least ten individuals located in schools throughout the province), said that the function of the committee included "alerting us [the Ministry] to problems that are coming up that we
may not have heard of." There was not any indication that the committee would serve in a clarifying capacity for the notion.

Most communication forthcoming from Ministry officials or management levels of the Curriculum Development Branch seemed unrelated to the notion, except for directives regarding avoiding contentious "issues" following the April Draft. Although considerable effort was taken to assure overlap of personnel in development and implementation endeavours, it was apparently ineffective in facilitating the implementation of the notion. The mere presence of liaison personnel did not guarantee cohesiveness. Ministry efforts to promote carryover through its dependence on development people (e.g., 28, 29, 31) or individuals who had been previously involved with related endeavours (e.g., 59, 62) appeared to be in part responsible for the multi translations.

TIME

Considering that coordinators' contracts were being renewed yearly during the implementation phase, their workloads may have been overwhelming, particularly when they may have had curricular
reponsibilities for more than one subject (28, 59).
62's comment, based upon her experience as coordinator
during later implementation efforts, illustrates how
the work load may have made it difficult for her to
maintain consistency of the notion:

You know, one of the dilemmas in working with the
Ministry is there's a minimal number of
people....You're working on an eighteen hour
day....There's not that reflective time.

Field-testing seemed to be hit hardest by time
limitations, resulting it seems, from the minister's
intervention (50). Put on hold while he decided which
publishers would be awarded the contract, the "cushion
of time" (50) for field-testing was lost. As a result,
the publisher, in this case Douglas & McIntyre, did not
seem to have time to incorporate input from the field
(67, in a communication to 50; pilot testing report),
even though 49 (in an interview) and 28 (in the 1983
orientation video) both remarked that materials from
both publishers benefitted from changes recommended in
the report. On the other hand, when 28 was asked to
explain Douglas & McIntyre's seeming inattention to
field-testing recommendations, he commented that:

You cannot dump onto a publisher a gravel truck
load of...minority viewpoints and expect them to
react to them all. And so number one, the manner
in which that material was collected, the manner
in which it was presented, the failure to come out
with a comprehensive list of what was really necessary, meant that the publishing firm managed simply to dismiss it all as being impossible to react to. That's what finally happened.

67 suggested that time limitations were responsible for the inattention to evaluation and justification for her interpretation of the notion in the Explorations Series. Douglas & McIntyre's apparent disregard of incorporating piloting feedback seems in contrast to Prentice-Hall whose authors were required to make numerous adjustments to the Identity materials on the basis of many critical reviews. This contributed in part to the inability of the Prentice-Hall authors to meet the Ministry publishing deadline.

The Elementary Materials Selection Committee also seemed to work under stressful conditions, their task proving more than anticipated, as evidenced by the quantity of materials received for the initial sort, the variations in new proposals, and the need to balance full-time jobs with monthly committee meetings (two days long, and seven to ten days during the summers of 1980 and 1981). Whether these conditions affected their selection is not known, even though 66 recalled 22 saying that he "didn't think it was fair because people...don't get much time to read a lot and people on the committee were seeing these pretty
pictures and glossy print," implying that the time was insufficient to allow for careful analysis.

As for Ministry publications, time was a concern, judging by the fact that 62 was hired to help 68 complete the primary resource manual when she got "bogged down" (31). Also, 31 admitted that her conception of the notion changed over time as she gained experience in related endeavours.

Considering that the coordinator was the key person in the revision, the one who monitored and mediated development and implementation projects and who communicated with the various players, it would appear that heavy demands on their time made it very difficult to oversee implementation and maintain consistency of an innovation that they may not have understood well. The turnover of coordinators might well reflect the nature of demands made upon them.

62, a curriculum coordinator involved in the implementation stage, responding to queries about a lack of cohesion between the curriculum document and implementation materials, wondered if

...what has happened is because the curriculum has been developing over such a great period of time that...cohesion is missing because the original people who developed the curriculum are no longer available or involved.
Six interviewees commented on the overlapping of development and implementation endeavours and its effect on their efforts which had the potential for influencing the translation of the notion in implementation materials (59, 49, 50, 45, 67, 66). Working only with the April Draft complicated the Materials Selection Committee's efforts to assess "content congruency." 66, co-author of the Identity Series translation, added "decision-making" to accommodate the April Draft. What she did not agree with in the draft she ignored. 67, co-editor of the Explorations Series, is the only one who suggested that the curriculum document's late arrival meant that she was too far along in her translation to change; however, it is apparent that she disagreed as well with the notion as represented in the April Draft and provided her own conception instead.
The two contexts focussed on here are the Ministry organisation itself and the broader policy sector context. Of particular interest are the organisational changes within the Ministry, which interviewees suggested may have had some affect on the notion, "critical thinking and problem-solving skills."

MINISTRY CONTEXT: ORGANISATIONAL CHANGES

To assist in this analysis, it was necessary to supplement interview feedback with data from the Ministry of Education Annual Reports (1978-1986).

Organisational changes were experienced in the Ministry during the revision. Changes in staffing occurred within the existing framework, as well as the addition or removal of positions within departments, adjustments in job descriptions, and alterations to normal communication channels.

For example, over the course of the revision, Ministers of Education numbered five, if one includes the transition between 15 and 37 in November, 1979. During the 1980/1981 period, one of the more turbulent times for the revision, the Ministry was reorganised
under 37’s leadership. Twenty-eight of fifty-nine posts (which did not include the ten district superintendents) were new assignments while five positions were left vacant. The following year saw thirty-two of seventy-eight positions (not including the superintendents which now numbered five) with new personnel.

While 37 was the only Minister of Education who was in office during the revision for more than two years, 17 was in office during the entire process, either as Assistant Deputy Minister of Schools (1978-1980) or deputy minister (1980-1986). 16, deputy minister from 1978-1980, disappeared for a few years, appearing later as a member of the Select Committee for the 1982-1983 school year.

During 1980-1981, a difficult period for the revision following the publication of the contentious 1980 April Draft, 12’s position of Director of the Curriculum Development Branch was one of the five left vacant when he became Executive Director of School Programs. At the same time, two program superintendent positions were deleted. After its first year of work, the Management Committee lost 28 and gained 40 and
following the dissemination of the April Draft, 26 departed the Management Committee, leaving a void.

While 22 remained coordinator for the revision until a year after the release of the 1980 April Draft, during each of the next two years of the development phase, coordinators were replaced. Those individuals responsible for interpreting the curriculum for implementation materials experienced six different coordinators. When 22 resigned in the summer of 1981, he was replaced by 49 and 50. 28 picked up the pieces, responsible for final touches to the curriculum as well as monitoring implementation projects for the primary grades during the 1982/1983 period, followed by 59 for the 1983/1984 term. 62 succeeded 59, remaining coordinator for the next two school years.

In addition to organisational changes involving staff readjustments and restructuring of departments and positions within them, there was also a relocation of the actual plant just prior to the 1984/1985 school year (62). Offices were moved from Richmond to Victoria.

50, a coordinator, provided a first-hand perspective, illustrating how rapport may also have been affected by the upheavals:
...In that...spring, summer, and fall of '81, there were a lot of jobs open and changes in the hierarchy—coordinators, directors, and so forth, a lot of changes there. In other words, a whole bunch of people...going into jobs, very, very vulnerable....The other thing that made the job difficult...was the shifts that would go on in the structure of the bureaucracy itself where they would have meetings and change some jobs. I know one job, one fellow went away in the summertime and when he came back they had reorganized the structure, the bureaucracy, and his job had literally gone. He came back and said, 'Where's my job? I'm out.' 'Oh, we've got to do something about this,' [was the response].

....The next thing that was volatile is that when I went in, 58 was the Minister of Education and the next one that came in was 37. So you have ...people changing jobs, new jobs, changes in the structure of the bureaucracy, changes in the ministerial set....All that too, then, is overlaid overttop of a seething mass of human emotions, people protecting themselves at their jobs, people's personalities, people's dislikes....

A visual summary of the organisational changes pertinent to the social studies revision and ensuing implementation efforts is included below.

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Macro-Implementation: Critical Thinking

Academic Year (continued)

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Key:

* indicates academic year committee struck.
** indicates academic year committee disbanded.

X indicates an individual who was not coded.

? indicates data lacking.

Abbreviations:

MIN.: Minister of Education

D.M.: Deputy Minister of Education

A.D.M. Schools: Assistant Deputy Minister of Schools Department

Sr. Super. Programs: Senior Superintendent of Schools Department, Programs Division

Super. Programs: Superintendent of Schools Department, Programs Division

Exec. Dir. Programs: Executive Director of Schools Department, Programs Division

Dir. Curr. Dev.: Director of Curriculum Development Branch, Schools Department, Programs Division

A.D. Curr. Dev.: Assistant Director, Curriculum Development Branch, Schools Department, Programs Division

C.D. Coord.: Curriculum Development Branch Coordinator, involved in some way with revised social studies curriculum development/implementation, in the Curriculum Development Branch, Schools Department, Programs Division

PEMC Coord.: Provincial Educational Media Centre Coordinator

Pr. Imp. Serv. Coord.: Program Implementation Services Coordinator
Committees:

M.C.: Management Committee (Sept. 1978 to summer of 1983)


S.C.: Select Committee (work completed apparently during the 1982/1983 academic year)

The following diagram represents the formal communication channels employed in the Curriculum Development Branch.

Minister of Education
    ▼
    Deputy Minister
    ▼
    Assistant Deputy Minister of Schools
    ▼
    Executive Director, Schools Department, Programs Division
    ▼
    Director of Curriculum Development Branch
    ▼
    Assistant Directors of Curriculum Development Branch
    ▼
    Coordinators
    (Responsibilities may entail one subject area or more that one, depending upon the circumstances, and may be shouldered by only one individual, or shared by two or more who may work with separate or related tasks.)
    ▼
    Committees (e.g., Management Committee
    ▼
    Elementary Review Committee
    ▼
    Materials Selection Committees)
DEVELOPMENT PHASE: INTERVIEW ANALYSIS

Of those interviewees involved in the development of the revision, 24, 31, and 28 maintained that changes in organisation had some effect on the development of the notion whereas 49 and 29 suggested this was not the case. However, it would seem that the potential for varied interpretations of the notion certainly existed as a result of organisational changes.

During the early development phase of the revision, some organisational changes occurred, although they do not seem to have affected the notion directly. Until the controversy that erupted following the April Draft (1980), there appears to have been little related input from Ministry officials or Curriculum Development Branch management personnel (24, 29, 28, 49), aside from the suggestion that the Management Committee avoid the term "values" (26). Even when the minister and deputy minister, 37 and 17, became involved, according to 24, 26, 28, 49, 50, and 60a, their interest was not related to the notion. 17 established the Select Committee who submitted recommendations related to the secondary component of the April Draft (60a) while 37 decided which publisher
should be awarded the contract for the elementary materials (28, 50).

26's departure from the Management Committee left a significant void, as indicated by 24 when she referred this researcher to 26 for details about the notion, and 50, when she noted that the Management Committee had never dealt with terminology such as "issues" as a group. 26, the only member formally responsible for reviewing related literature, departed after the April Draft was released. It seems that this left other development workers (29, 24, 31) ill-prepared to explain some aspects of the notion (e.g., its literature base and justification), an observation noted by 60a, the chairperson of the Select Committee who interviewed members about the rationale for the curriculum.

Although coordinator turnover was also suggested as having influenced the notion (24), the position of coordinator (22) remained stable until a year after the release of the April Draft, a document for which developers expressed satisfaction with how the notion was portrayed (24, 29, 49). Adjustments to the notion in the 1983 guide (e.g., the removal of a bibliography and two pages in the appendix that provided some
teacher guidance for dealing with "issues;" the
dilution of some "issues;" and re-wording of goal four) could have resulted from later coordinator changes. However, as neither document clarified the notion, it seems reasonable to conclude that while organisational changes would have made the monitoring of policy integrity more difficult, they unlikely contributed largely to the notion's vagueness. Yet, had 22 and 26 continued in their roles, it is possible that input following the April Draft (e.g., 45's paper on "issues") may have been better understood and accommodated.

IMPLEMENTATION FACILITATION PHASE: INTERVIEW ANALYSIS

The implementation facilitation phase of the curriculum would have begun with the work of the Elementary Materials Selection Committee and its early screening of existing publications during the summer of 1980 and its later analysis and selection of new submissions by July 1981, both occurring during what appears to be periods of significant upheaval in the Ministry. Work on Ministry publications also began prior to the release of the curriculum, with materials for grades one to three disseminated in 1983, and the
intermediate resource manual for grades four to seven and the Thinking Together: Strategies in Social Studies Kit in 1986. 67 for Douglas & McIntyre and 66 for Prentice-Hall both developed their translations of the notion by the summer of 1981.

While the context for implementation was anything but stable, one wonders how influential the organisational fluctuations were on how the notion was interpreted, considering that the authors for publishers had their own conceptions, in part because the notion as represented in the curriculum did not make sense to them (31, 66, 67). Other than adapting her "taxonomy" to incorporate "decision-making," 66's conception of critical thinking was in place prior to the April Draft.

Yet coordinators who were to monitor implementation endeavours appeared to suffer from the constant upheavals, particularly in that after 22's departure, their assignments never lasted more than one year (except for 62 who remained coordinator for two years). For example, 50 was unsure about the intent of the notion and about the nature of her role, which affected the nature of her field-testing and her interactions with 67, one of Douglas & McIntyre's
editors. 28, who appeared to have interacted most with 67, had to refer her to 45 for clarification of the notion, even though he had been a member of the Management Committee for its first year. 59 and 62, each who was in charge of different aspects of implementation materials, indicated that organisational changes meant that they each were left to their own devices in determining what the notion meant. (59 had been responsible for the early primary orientation video and its accompanying in-service handbook. 62 not only co-authored the primary resource manual, she later, as coordinator, supervised the development of the intermediate resource manual and oversaw the Thinking Together orientation kit.)

Queried about whether fidelity to the notion was a concern, 59 and 24 proposed that some cohesiveness was originally desired. Yet 62, unsure of what was intended, said that flexibility "became the intent," even though she tried to instill some semblance of cohesiveness among materials. This is one example illustrating disparate views for implementation of the notion, possibly a result of organisational changes.

If coordinators who interacted with editors and authors had remained in their role throughout the
revision, they may have had a clearer understanding of the notion. The independence exhibited by the developers of implementation materials may have been a reflection of the inability of coordinators to guide them. However, 22 was in place as coordinator throughout the curriculum development until a year following the April Draft’s release, and yet the Elementary Material Selection Committee received little input regarding how the notion was to be translated. One therefore has to query how influential the role of organisational changes was on the discrepant translations.

POLICY SECTOR CONTEXT

The political, economic, and curricular contexts in British Columbia were mentioned by some interviewees as contributing to the development of the notion as well as to inconsistencies in its translations. These contexts are examined via data made available through interviews, Ministry of Education Annual Reports, and other relevant literature.
POLITICAL CONTEXT

Throughout the revision there was an escalation of discontent in the BCTF, fostered by a perceived threat to teacher's independence and increased standardisation and accountability being promoted by a Social Credit Government seeking to "reassert" (15, Annual Report, 1976/1977, p. 10) itself following a three year absence when the New Democratic Party was in office (Annual Reports; 45's paper, "The Politics of Curriculum Materials Selection"). When the Ministry introduced the core curriculum and provincial assessments in 1977, it was perceived by some educators as being done in an authoritarian manner, as evident in core curriculum statements about "goals and learning outcomes...which must be taught" (Guide to the Core Curriculum, p. 4, italics added). After having relatively more freedom in planning curriculum and assessing student progress, this centralisation contributed to discontent within the membership of the BCTF. Crawford Kilian's School Wars exemplifies what one educator perceived to be as a growing attack on educators by the Social Credit Government.

It was in this climate that revision efforts proceeded. Non-compliance instructions dispensed by
the BCTF were intended to prevent teachers from participating in related curriculum enterprises. While this action did not appear to affect development efforts, it seemed to have complicated the coordinators' implementation responsibilities. In spite of this, they seemed successful in gathering together teachers to facilitate field-testing (50) and the production of the 1983 Ministry implementation materials (59, 49).

ECONOMIC CONTEXT

As the Ministry continued to increase centralisation and tensions between it and the BCTF grew, economic restraints within education were also on the rise. As early as 1975, one reads in the Annual Reports about "financial restraint" (p. 10), "the economic crisis our society has been facing" (1976/1977, p. 11), and the need for "strong managerial capability and keen fiscal responsibility" (1976/1977, p. 11). Restraint was being espoused by 15, the Minister of Education, even prior to the establishment of the Management Committee in September, 1978.

While seven interviewees implied that restraint affected the revision in some way, it did not appear to
affect the early development years (31, 24, 26). 23 and 31 commented that the swing away from academic qualifications for coordinators to management capabilities was due partly to restraint.

29, 60a, 24, 59, and 50 all indicated that available implementation funding seemed less sure as the time grew closer to putting it to use. As well, 60a implied that the costs incurred with the primary grade materials had proved more than anticipated. 59 indicated that the first casualty of the July 10, 1983 budget speech was the Program Implementation Services.

While restraint brought with it cutbacks, the folding of the implementation branch, and delays to some publications, these factors really did not seem to affect the translation of the notion. Implementation materials were more than what primary grade teachers had been accustomed to. The notion, as represented in the primary grade materials, was not altered in teachers' editions for grades four to six which were published later when restraint was more of a factor. How the notion was represented in Ministry produced materials for grade four to seven did not appear to have been affected by restraint either, except that they arrived late and that the developers claimed to
have been clearer about their conceptions by then (31).

As for the loss of Program Implementation Services, development of the notion as well as the materials for primary grades would have been nearly completed by the time the branch folded. It may be that such a loss was an advantage, providing it meant that development and implementation would now be handled by the same parties. However, if such a move added to the already considerable burden placed upon the coordinators, then restraint might be an additional factor contributing to the lack of time they had for reflection and thus, affected the development of the notion and its translation in later implementation endeavours.

CURRICULAR CONTEXT

Broader curricular conflicts were implicated as affecting how the notion was represented in implementation materials. Interviewees commented on the contention in Alberta following the introduction of an issues-based, multi-disciplinary social studies curriculum, the repercussions which some speculated may have been felt by the development team in British
Columbia (31, 26, 28), as well as by Douglas & McIntyre (67, 45).

While many interviewees seemed to be aware of the controversy that resulted from the Alberta curriculum, 45 remarked that the Ministry had been reluctant to introduce "values" education "ever since [he had]...been in British Columbia." It is likely that the Ministry was opposed to any curriculum which focussed on issues that might be treated insensitively or be misconstrued by the voting public.

67's desire to avoid contention would seem more related to her role as a publishing editor rather than a social studies educator (45). It is unlikely that the publishers would need Alberta's experience to steer clear of contentious content that may not satisfy the varied value stances within their potential market.

The curricular context in British Columbia, however, following the release of the April Draft, was so tense that it would have been difficult for the Ministry to ignore it (23, 24, 26, 29, 31, 28, 49, 59). Changes to the April Draft appeared to be the result of Ministry efforts to appease educators unhappy either about a multi-disciplinary approach or the prospect of teaching "issues" (26, 29, 28, 60a). Interviewee
statements paint a clear picture of a dissatisfied community of social studies teachers, opposed primarily to content arrangement, omissions, or the focus on "issues." Consequently, the dilution of "issues" in implementation materials appears to have emanated from broader curricular contentions.

It therefore seems reasonable to conclude that while political tensions between the BCTF and the Social Credit Government and restraint had little direct impact on how the notion was translated, apparent Ministry apprehension about evoking controversy after the April Draft led to the changes in the grade seven content and the monitoring of and dilution of "issues" in the curriculum and in implementation materials. In so doing, the notion would have been affected as well, in that issues content was to be taught through "critical thinking and problem-solving skills." With "issues" lacking in significance, much of the motivation for critical thinking would be lost. However, the notion itself in all its vagueness was not altered by any of these contextual factors.

In summary, organisational changes within the Ministry, as well as broader political, economic, and
curricular climates within the context of the overall policy sector did not seem to significantly influence development of the notion, "critical thinking and problem-solving skills." It is feasible that the organisational changes, particularly the frequent turnover of coordinators, affected the later monitoring of the policy's development, as well as implementation endeavours. Without sufficient time to acquire an understanding of the notion, coordinators were at a disadvantage in their liaison role, particularly with the developers of implementation materials. There is evidence, however, to suggest that organisational changes made little difference to the clarity of the notion.