AN ETHNOGRAPHIC STUDY OF FACTORS THAT ELEMENTARY SCHOOL PRINCIPALS PERCEIVE CONTRIBUTE TO INCREASED GRADE SIX MEAN COMPOSITE SCORES ON THE CANADIAN TESTS OF BASIC SKILLS OVER A SIX YEAR PERIOD

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GERALD NEIL JAMES MERCER

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BY

© GERALD NEIL JAMES MERCER, B.A.(Ed.)

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ABSTRACT

The Government of Newfoundland Department of Education has administered the Canadian Tests of Basic Skills to grade six students every three years since 1976. Newfoundland schools traditionally score below Canadian norms on these tests and strive to improve by implementing revised policies, guidelines, and up-dated curricula published by the Department of Education. Yet, only 31 schools in the province have succeeded in registering a mean composite score increase between 1985 and 1988 and again between 1988 and 1991. Following case study methodology reported by Yin (1984) and Merriam (1988), an exploratory study was undertaken to identify common factors that school principals perceive have contributed to the grade six increased mean composite scores.

During May and June 1992, a survey was distributed to 31 school principals. Seventy-four percent of the surveys were returned. The analysis of the data revealed five distinct themes: Student Attitudes toward School; Innovation and Planned Change; Resource-based Learning as an Innovation; Public Perceptions of School Life; and Public Support and Principal Accessibility. These themes were explored further in four case study interviews.

A sample of four survey respondents was identified using a purposive

sampling method (Merriam, 1988). In February and March 1993, four focused interviews (Yin, 1984) were conducted and revealed five themes reflecting common principal perceptions and/or school practices. The four schools:

1. implemented interventions with an aim to foster positive student attitudes toward school;
2. implemented innovations that reflect current educational thought and respond to needs identified by teachers and administrators working together;
3. have support for school-wide innovations from educators and members of the community ;
4. serve parents who support their children's educational endeavours and a public that feels school is beneficial for children; and
5. have a staff that is committed to the educational welfare of students and to personal professional development.

The researcher recommends that future studies continue to explore this phenomenon.

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Nature of the Study

Introduction

The purpose of this study was to explore the perceptions of elementary school principals as they relate to factors that contributed to an increase in grade six composite scores on the Canadian Tests of Basic Skills (hereafter referred to as CTBS) over a six-year period.

Background to the Problem

In the Newfoundland and Labrador Government Department of Education publication entitled, The Aims of Public Education (1984), there exists a list of objectives that translates abstract aims of education into objectives that guide expected practice. Objective six states, "to ensure that all pupils master the fundamental skills of learning to the limit of their abilities" (p. 6). These fundamental skills of learning can be referred to as "basic skills". Schools in Newfoundland strive to build learning environments that are conducive to mastering these basic skills.

To achieve these aims, the Newfoundland Government Department of Education provides support and guidance for educators employed by school

districts. Curriculum and policy guides are written and distributed in an effort to improve the means by which school programs are delivered. These documents are based on current research, Department of Education policies, and educational needs in the province of Newfoundland.

One such publication entitled, Learning to Learn, was authorized by the Minister of Education in 1991. The document contains "policies and guidelines for the implementation of resource-based learning in Newfoundland and Labrador Schools" (cover). The 1990 publication entitled, Early Childhood Program Guide is another that reflects current research and educational policy for classroom practice in primary schools. By publishing documents such as these, the Department of Education attempts to provide guidance for the instruction in the province's classrooms, support its educators, and ensure that students learn the skills that enable them to become independent, lifelong learners.

In an effort to assess one aspect of the effectiveness of provincial schools, the Department of Education administers the CTBS to students in grades four, six, and eight - one grade level on a rotating basis, annually. In October, each student completes the age-appropriate battery of tests. Student response sheets are submitted to the Department of Education for computer and statistical analysis. The resulting data are analyzed and reported in two ways:

1. specific student and district data are disseminated to respective school boards for discussion; and
2. a government document entitled, Testing Standards, is published and distributed to the public, the intent of which is to present and discuss provincial results.

The Government of Newfoundland and Labrador has provided schools and school districts with direction for improved curriculum delivery, up-dated or new policies, and regular reports of basic skill achievement, yet the basic skills of Newfoundland students, as measured on the CTBS remain unacceptable to the Department of Education and to the public whose tax dollars support this system. Generally, recent composite scores on the CTBS have been below Canadian norms.

> In the 1991 administration of the Canadian Tests of Basic Skills (CTBS), our Grade 6 students placed at the 37th percentile in overall achievement. This means that the average performance was better than 37% of the students in the norm group. (Government of Newfoundland, 1991, p.1)

The Government of Newfoundland and Labrador has recognized the need to improve the effectiveness of schools in the province. In January 1990, it published the report of the School Improvement/ Effectiveness Committee entitled, Challenge for Excellence. This report acknowledges the challenge of effecting improvement in our province's schools:

In Newfoundland and Labrador, as elsewhere, schools differ in the

> degree to which they meet the real needs of students. Some would say that our schools vary in their level of excellence, while other more critical observers question their basic effectiveness. Perhaps the most relevant observation is that our schools vary significantly in their commitment to narrowing the gap between what they should be and what they are. In effect, our schools vary in their commitment to improvement initiatives which are designed to enhance their overall effectiveness in educating our youth. (pp. 1-2)

This document attempts to provide appropriate rationale and a plan of action to improve the effectiveness of schools in Newfoundland.

The product of millions of tax-payer dollars is disenchanting. The Department of Education has attempted to provide guidance for improved curriculum delivery and a means for tracking student basic skill achievement, yet most schools in our province have failed to provide programs and instruction that foster improved basic skill performance.

There exists a positive corollary to this dismal situation. In this province, a relatively small number of schools have effected a positive change in the mean composite scores on the grade six CTBS over a six year period. This phenomenon forms the basis of this study. It would be beneficial to explore the factors that have contributed to the positive basic skill increases as measured by CTBS

Newfoundland students in grade six wrote the CTBS in 1985, 1988, and 1991. To identify the group that has demonstrated mean composite score improvement over the six years of testing, the author requested and received

from the Government of Newfoundland Department of Education appropriate data sorted by school, year of testing, and number of students participating in the third year, 1991. These data were analyzed to identify schools that reflected the following two criteria:

1. the 1991 grade six population was greater than five students; and
2. the mean composite scores between 1985 and 1988 and again between 1988 and 1991 increased.

Of the original data, the number of schools reporting five or more students writing the CTBS was 288. Of these schools, 31 schools met the population and improvement criteria delineated for the study. Analysis of the circumstances and/or factors that lead to school improvement may reveal information that could enhance school performance.

The school principal is the person who theoretically is responsible for planning, leading, organizing and controlling school life (Sergiovanni, 1991, pp. 17-21). The principal guides and balances response to changing curriculum, use of funds, teacher deployment, community liaison, and other pertinent aspects of administering the school environment. This person is the one who is in control of and is in tune with the factors that affect the daily performance of students.

An increase in the mean composite scores over time suggests that some factors or interventions, whether passive or active, have contributed to bringing

about the increase. The identification of factors common to diverse school environments could be beneficial to other visionary educators who would like an insight into other schools that have successfully fostered an increase in student basic skill competencies.

Significance of the Study

Hakim (1987) states, "Qualitative research may be used for preliminary exploratory work before mounting a larger scale or more complex study" (p. 28). The intent of this study was to use qualitative research methodology to explore principals' perceptions of factors that have contributed to increases in the grade six mean composite scores on the CTBS over a six-year period. No study was found that has explored this phenomenon. These findings could form a basis for initiating a larger, more comprehensive study.

Limitations of the Study

The following limitations were recognized in the planning of this study:

1. The data collected through the administration of the CTBS is limited to the basic skills tested by the standardized test.

2. This study explores the perceptions of the school principal and

therefore the findings are limited to that group of educators.

3. The number of principals involved in these case studies was four and conclusions can be made in relation only to those who participated.

4. The survey instrument, usually a quantitative research tool, served as a focus for the design of the case study interviews. Given the small number of schools that displayed a grade six mean composite score increase over a six-year period, the value of designing a quantitative study was questionable. Therefore, given that a control group was not identified, quantitative statistical analysis could not be applied to the data collected from the survey instrument.

Summary

This thesis reports the findings of a qualitative research study conducted in the spring of 1992 and the winter of 1993. It identified school principals' common perceptions of factors that contributed to grade six mean composite score increases on the CTBS between 1985 and 1991 in the province of Newfoundland.

Chapter Two of this thesis presents an overview of the history and development of the CTBS, effective schools literature, and planned educational change literature.

Chapter Three reports the methodology and the procedures followed to

complete the case studies of four elementary school principals.

Chapter Four presents, in summary form, the data collected in each phase of the research and an analysis of that data.

Chapter Five reports the findings of the study, and a list of recommendations for further research projects.

CHAPTER TWO

Review of Related Literature

The Canadian Tests of Basic Skills

An Historical Perspective

The Canadian Tests of Basic Skills (hereafter referred to as CTBS) is a battery of tests that measures educational growth and development in the areas of vocabulary, reading, language arts, work-study skills, and mathematics. Based on the Iowa Tests of Basic Skills and first published in 1955 by the Nelson Publishing Company, the tests are intended to assess the generalized educational achievement of Canadian school children (Gallivan, 1986). Scores are interpreted using norms established using a standardization sample representing over 100 schools from every Canadian province and territory.

The CTBS has a history of content and standardization changes. The original version, published in 1955, included primary and elementary sections. An elementary battery was published in 1966. Content and standardization changes occurred in 1974 and 1982. A primary battery was added in 1972. Metric versions became available in 1976 and a high school version was added in 1981 (Gallivan, 1986).

The elementary version of the CTBS can be administered by classroom teachers. It takes five hours to complete the test in the classroom setting. It is

recommended that the timed individual tests be scheduled in four to eight sessions over at least a four day period.

The test is divided into various levels. These levels allow students to begin reading at an appropriate point of the test determined by school grade. Grade six students begin at level 12. All test items are presented in multiple choice format. Students are instructed to read each test item and report responses by filling in a bubble on the answer sheet. The elementary battery of the CTBS is comprised of eleven subtests: one vocabulary subtest that measures isolated and contextual word comprehension; one reading comprehension subtest that measures picture, sentence, and story comprehension skills; four language skills subtests that measure spelling, capitalization, punctuation, and usage ability; two work study skills subtests referred to as W-1 that measures map, graph, and table interpretation skills, and W-2 that measures reference materials utilization skills; and three mathematics subtests referred to as M-1 that measures the knowledge of the number system and basic arithmetical terms and operations, M-2 that measures the ability to solve problems presented in verbal form, and M-3 that measures the ability to solve problems presented out of context.

The tests are scored for each student either mechanically or by hand. Norms based on a national standardization sample selected from over 100 schools in every Canadian province and territory are included with the testing

package. Individual student scores can be reported subtest-by-subtest in the form of a raw score, a grade level equivalency, and a national percentile. Composite scores derived from the eleven subtests can be calculated for each student.

The Newfoundland Grade Six Perspective

The Government of Newfoundland Department of Education publishes a summary of findings entitled, Testing Standards in each year that the CTBS are administered. The following discussion is based on the Department of Education's perspective as reported by the 1988 and 1991 editions.

Grade six testing years.

Newfoundland grade six students were tested using the CTBS in 1976, 1979, 1982, 1985, 1988, and 1991.

Reporting composite scores.

The mean composite score for grade six students in Newfoundland schools is reported in two distinct forms: a grade equivalent and a national percentile rank. "When the tests were normed in October, 1980, the score at the 50th percentile (the median score) in Grade 5 was assigned the grade-equivalent score of 52.0, the median score in the grade 6 group was assigned

the value of 62.0" (Government of Newfoundland Testing Standards, 1988, p. 3). Grade equivalent is reported somewhat differently in the 1991 document. "Grade equivalent scores indicate the grade level at which the typical students make the raw score. For example, if a student is assigned a grade equivalent of 6.2, it means that the number of items (s)he has correct is equal to that which an average student in the second month (October) of Grade 6 would have correct" (p. 3).

The 1988 data.

The actual scores reported in the document for Newfoundland students are 60.0 (Grade Equivalent) and 45 (National Percentile Rank). These scores translate into a slightly below average performance. The document explains the implications of this analysis: "If each student in Newfoundland had had one more item correct on each subtest, the provincial mean composite score would have been at the national norm" (p. 5).

The 1991 data.

The actual scores reported in the document for Newfoundland students are 5.8 (Grade Equivalent) and 37 (National Percentile Rank). The document suggests that these scores translate into a below average range when average is defined as 40th to 60th percentile. The document explains, "On the

complete battery of test [sic], however, the average performance of Newfoundland students would have had to increase by 20 items for our performance to approximate the national norm" (p. 5).

General trends in composite scores from 1976 - 1991.

Table 1 presents the composite scores, reported as percentile ranks, from each of the grade six testing years.

Table 1

Percentile Ranks for Grade Six Students in Newfoundland 1976-1991

Composite Scores	36	45	41	46	45	37

Note. These scores are taken from the 1991 and 1988 editions of the Government of Newfoundland Department of Education publications entitled, Testing Standards.

A distinct trend can be seen. Toward the late 1970s, there was a general improvement in the mean composite scores derived from the data collected from grade six students. This trend levelled off in the 1980s. In 1991, the mean composite score declined significantly. In the 1980s Newfoundland students had not improved in their general basic skills competencies as tested by CTBS. In fact, students writing the CTBS in 1991 were registering below average mean composite scores when compared to national norms.

In the summary of the 1991 document entitled, Testing Standards, there exist statements which report the Government of Newfoundland's perspective on the phenomenon. First, there are criticisms of the CTBS "Canadian Tests of Basic Skills are frequently criticized because they do not take into account the processes that students go through as they learn" (p. 45). "The language subtests are criticized because they do not measure how well students can write" (p. 45). "From a mathematics perspective, the criticism focuses on the inclusion of operations with fraction [sic] which receive no emphasis in our primary and elementary programs" (p. 45). The author of the document counters each of the criticisms but the last. It is acknowledged that the difficulties identified in the mathematics portion of the CTBS must be addressed if improvements are to be seen.

The final paragraph of the summary reflects the general view of the use of CTBS in the province of Newfoundland and Labrador:

> Although the acquisition of basic skills in [sic] an important objective of the school program, there are many other important objectives, such as moral and spiritual development that are not easily measured. No attempt is made to measure progress toward the achievement of these objectives. Consequently, the Canadian Tests of Basic Skills can be regarded as an important but not a complete measure of the productivity of the Newfoundland school system. (pp. 45-46)

Historical Perspective of Effective Schools Literature

Introduction

Ronald Edmonds (1982) wrote, "Educators have become increasingly convinced that the characteristics of schools are important determinants of academic achievement" (p.4). This is an opposing view to those held in the 1960s and early 1970s when the Coleman Report (1966) sent shock waves through the educational communities of the United States.

The Search for Effective Schools

The search for ways to build effective schools is decades old and has taken place not only in North America, but in Europe and Australia. Holmes (1989) identified sources of effective school research that date back to the 1930s and 1940s when specific projects suggested practices that could lead to school effectiveness. The launch of Sputnik in 1957 incited a plethora of criticism of the educational system in the United States for it was generally believed that the U.S.S.R. was quickly becoming technologically superior (Nicholls, 1983, p. 10). The public felt that the educational system was to blame; it was not as effective as it should have been.

Educational researchers began to pursue a magical recipe that would make every school in North America effective. Purkey and Smith (1983)

cautioned against this. They recognized that there was no simple recipe or an easy-to-assemble model that would produce an effective school. Descriptive lists of characteristics of effective schools continued to emerge. Sergiovanni (1991) comments on the proper use of this literature:

> indiscriminate application of school-effectiveness research findings and, in particular, the development of generic lists of correlates or indicators that are subsequently applied uniformly to schools pose serious questions about the proper use of research and can result in negative, unanticipated consequences for teaching and learning. (p. 91)

The direction that the literature took was descriptive, yet there remained an underlying desire to create more effective schools. The reasons for this can be traced back to the mid 1960s.

The catalyst for a vast amount of the most recent effective schools research was the 1966 J. S. Coleman, E. Campbell, C. Hobson, J. McPartland, A. Mood, F. Weinfield, and R. York report of a survey of educational opportunity in the United States of America entitled, Equality of Educational Opportunity (for example see Block, 1983, p. 15; Robinson, 1985, pp. 1-3). This report, referred to in the literature as "The Coleman Report" after its primary author James S. Coleman, was written in response to section 402 of the United States of America Civil Rights Act of 1964. The act specifically called for a survey "concerning the lack of availability of equal educational opportunities for all individuals by reason of race, color, religion, or national origin in public educational institutions". A conclusion cited in the Coleman

report states that:

> schools bring little influence to bear on a child's achievement that is independent of his background and general social context; and that this very lack of an independent effect means that the inequalities imposed on children by their home, neighborhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school. (p. 325)

This conclusion dealt a severe blow to the educational establishment for it suggested that schools, teachers, and the amount of money spent on education had little impact on the academic achievement of its students. Instead, socioeconomic backgrounds, location of school facilities, peer influence, and racial ethnicity - all factors that could not be controlled within the educational hierarchy - determined the student's rate of success (Davis & Thomas, 1989; Robinson, 1985; Block, 1983).

The Coleman Report had devastating effects on the educational community. Since it found that the school had little impact on student success, then academic excellence had to be determined by factors that could not be manipulated by educators. This led to lowered expectations for students, despondency, and decreased confidence in the importance of public education (Robinson, 1985).

During the years that followed the release of the Coleman report, critics of Coleman's methodology emerged. Block's 1983 summary of effective schools research reported a synthesis of these critiques citing shortcomings in the areas

of survey response rate, validity of measures, the cross-sectional nature of the survey, use of school and district averages, and statistical procedures.

Still, there were schools whose lower socioeconomic populations were performing at higher academic levels (Sizer, 1985). The question followed, "Were these schools aberrations or were there other factors that helped determine academic excellence and ultimately successful schools?"

The Search for Determinants of Effective Schools

Researchers who investigated characteristics of effective schools traditionally studied schools whose student populations performed significantly higher than the statistical average in academic endeavours and on basic skill standardized tests. Sergiovanni (1991) suggested that one reason for the popularity of using student outcomes on standardized tests was the ease of obtaining the data. Researchers obtained this data and compared outliers - those schools whose student populations scored consistently lower than the statistical mean with those whose populations scored significantly higher than the statistical mean (Purkey & Smith, 1983). Other researchers used case study methodology to explore the characteristics of these outlier schools (Beare, Caldwell, & Millikan, 1989). Many studies compared highly effective and highly ineffective schools matched on socioeconomic criteria (Davis & Thomas, 1989). In any case, the determinant of an effective school was

unidimensional - academic achievement.

Purkey and Smith (1983) suggested that comparing effective and ineffective schools with average schools was more valuable than comparing outliers. Ineffective schools best benefit from knowing why they have been deemed ineffective and not average. By comparing outlier ineffective schools to outlier effective schools differences are highlighted. These differences, while heralding the effective school, may be unattainable for the ineffective school. Purkey and Smith suggested that it would be more beneficial for educators to identify factors that make ineffective and effective schools outliers.

The literature cites many critics of the research who define effectiveness by the unidimensional criterion of high academic achievement (see Sergiovanni, 1991; Beare et al., 1989). Educational philosophers warned of the return to an early 1900s styled curriculum where effective schools would provide instruction in areas deemed appropriate to effective schools; of university based programs that would focus on basic skills in reading, mathematics, and science while neglecting the arts; of fixed promotion policies; and of a focus on merely the academic (Beare et al., 1989). While there remained a consensus among members of the public that academic achievement was important, there were other factors that had to be considered when affixing to any school the effective school seal of approval.

Effective vs. Successful Schools

More recent authors have found it necessary to separate the notion of an effective school from that of a successful school. Sergiovanni (1991) states that the terms effective and successful "are often used interchangeably to describe the same school or to communicate the same level of accomplishment" (p. 76). The two, he suggests, are distinctly different. Sergiovanni describes the accepted notion of an effective school: "An effective school is understood to be a school whose students achieve well in basic skills as measured by achievement tests." (p. 76). The term successful schools communicates a broader, more comprehensive view of effectiveness. It includes a multi-dimensional approach to describing high quality schooling.

Effective vs. Efficient Schools

Before one can consider the features of an effective school, one must be cognizant of the school environment and its resources. It could be hypothesized that the ideal school - one with unlimited resources, highly trained teachers, low student/teacher ratios, state-of-the-art equipment and facilities, and a supportive community - could graduate students ready to tackle any challenges that face them. In the real world few, if any, ideal schools exist. Instead, administrators struggle to offer effective programs. They balance finite numbers of resources, teachers with varied experience and training, varied

student/teacher ratios, questionable equipment and facilities, and community representatives who challenge educational decisions.

It is true then, that there must be a distinction made between effective and efficient schools. Though both words are derived from the same Latin root, they represent differing circumstances. The word "effective" suggests that goals are accomplished. Beare et al. (1989) report, "the word, 'efficient', implies productivity, accomplishing an end without waste of effort or resources; it implies getting value for money" (p. 11).

Schools can be effective, but not efficient. Perhaps too much money is spent to gain too little product. Schools can be efficient, yet not effective. The school wastes little, yet the product of the school's endeavours is not able to meet the challenges of society. An appropriate balance must be obtained that maximizes effectiveness while ensuring efficiency. This balance must be recognized when searching for the attributes of an effective school.

Effective School Attributes

The multi-dimensional view of effective schools began to develop in the 1970s. Researchers in the 1980s synthesized research projects to identify specific attributes that typified effective schools. Lists began to emerge. For the purposes of this discussion, three of these lists will be reported.

Ronald Edmonds embarked on a group of studies in the middle to late

1970s that led to the identification of five distinct features of effective schools. These features are tangible and indispensable. Edmonds (1984) described the features as follows:

a) Effective schools have strong administrative leadership and have a principal who pays particular attention to instructional quality.

b) Effective schools have a clear set of achievement expectations below which no student is permitted to fall.

c) Effective schools possess an "orderly, safe climate" which is conducive to learning.

d) Effective schools have a well defined instructional focus. School resources and energies are diverted to support that focus.

e) Effective schools have established student monitoring systems which ensure that instructional goals are achieved by its students.

Purkey and Smith (1983) reported that the components of effective schools are found in two nested layers established within the structure of a school. Layer two relies upon the strength and the commitment of those responsible for the components in layer one to accomplish improvement goals. The components of the first layer are found in the organization and structure of a school. They can be manipulated readily by administrative and bureaucratic interventions. These include the following components:

1. The administration and staff determine the means by which needs are addressed.

2. Instructional leaders work to maintain improvement in the

instructional process.

3. Staffs keep together and remain stable.

4. Especially in the secondary school, curriculum is articulated and organized.

5. Schoolwide staff development alters teacher attitudes and behaviours while providing new skills and techniques.

6. Parents are involved in and are supportive of the school's work.

7. There is schoolwide recognition of academic success.

8. Learning time is maximized.

9. The school district supports the school.

The second layer of effective schools components includes "process variables" and helps to determine school climate and culture. The components are conceived by those working in the school and are nourished by internal accomplishment and not by bureaucratic manipulation. These second layer components, identified by Purkey and Smith (1983), are:

1. The staff engages in collaborative planning and shares collegial relationships.

2. There exists a sense of community.

3. Commonly shared goals and expectations are clearly stated and guide the decision making processes within the school structure.

4. Order and discipline are expected.

Reid, Hopkins, and Holly (1987) compiled an extensive list of study

findings which served as information for educators. The list was organized into 11 specific categories of findings which included: school leadership, school management, school ethos, discipline, teachers and teaching, the curriculum, student learning, reading, pupil care, school buildings, and school size (pp. 24-29). From that list, Reid et al. compiled a 14 point summary of effective school findings:

1. The leadership role of the principal and senior management team is critical.
2. Schools must be well-managed. A content, well-managed, and united staff is crucial.
3. The school is characterized by a favourable school ethos or positive climate.
4. The school, both inside and outside classrooms, is orderly at all times.
5. The most important factor of successful schools is the quality of the teaching staff.
6. The school's energy must be on teaching while promoting empathetic pupil care and learning-centred approaches.
7. The curriculum is as important for low as well as high achieving students.
8. Students need regular feedback on performance.
9. Academic demands must be linked to traditional academic and behavioural values.
10. Teachers must reflect high professional standards at all times.
11. All classroom teaching time must be used properly.

12. Schools must emphasize "traditional" subjects, the basic skills of reading, writing, and mathematics.

13. Students should participate in running and organizing their school.

14. School structure should not make students feel out-of-place or lost. Students feel more comfortable in buildings which are clean and well cared for.

The lists presented in the literature identified and described traits of effective schools. Themes emerged that emphasized the components of the curriculum and teaching; the impact of an energetic, effective principal whose leadership focuses on classroom instruction; and the dedication of a highly trained staff that assumes responsibility for the successes and failures of student learning. In light of these descriptive lists, critics of the effective schools movement emerged.

The Value of the Effective Schools Movement

Sirotnik (1985) wrote a scathing review of the school effectiveness movement in which he questionned the energy that had been expended to identify common traits of effective schools when educators already knew what worked. The title of his article, School Effectiveness: A Bandwagon in Search of a Tune, adequately summarized a concern that was gaining momentum. In the same year, Sizer (1985) labelled the findings of effective school researchers

as common sense. He summarized his views by stating, "A good school does not emerge like a prepackaged frozen dinner stuck for 15 seconds in a radar range; it develops from the slow simmering of carefully blended ingredients." (p. 22). The professors of the effective schools movement were, themselves, relating cautionary messages. Purkey and Smith (1985) stated, "educators should approach effectiveness prescriptions cautiously" (p. 355).

This emerging caution signalled a change and a differing view of the effective school literature. Instead of merely accepting descriptive lists of the conditions that existed in highly effective schools, educators applied these lists to their own situations in an attempt to effect improvement. Critics suggested caution when these lists were used as prescriptions for righting the wrongs of the educational community.

Holmes (1989) states:

> The following factors seem to be related to school effectiveness with respect to academic achievement: academic climate of high expectation on the part of teachers and students; universalistic discipline; an orderly atmosphere; frequent and immediate rewards for good performance; regular monitoring of achievement; strong community support; strong leadership. All successful schools do not of course possess all those characteristics. (p. 9)

Holmes continues to express the problem of school effectiveness studies:

> It is one thing to discover relationships between certain school variables and certain output variables in existing environments. It is another thing entirely to reproduce such characteristics in other schools, let alone changes in outputs, in very different situations. (p. 10)

It became clear that schools needed a "quick fix" for their unique circumstances and were willing to prescribe effective schools research findings, even though there were no guarantees that effective schools could be cloned.

There exist many citations in the literature that encouraged school improvement efforts and acknowledged the value of providing a model for effective schooling. Davis and Thomas (1989), when discussing the effective school movement, state:

> There is little doubt that a knowledge of research on effective schools and effective teachers can raise awareness of some of what schools and teachers are doing right and what they are doing wrong. Those who are or will be teachers can be guided by this knowledge to improve their own teaching and classroom management habits. (p. 13)

Supporting the value and usefulness of effective schools attribute lists while acknowledging the limitations of an achievement approach to the research, Sergiovanni (1991) concludes,

> Lists of effectiveness characteristics as proposed by knowledgeable researchers remain useful if viewed as general indicators. They are not so much truths to be applied uniformly, but understandings that can help principals and others make more informed decisions about what to do and how in improving schools. (p. 91)

Research on effective schooling with its overemphasis on achievement has carved its niche in the educational literature. Davis and Thomas (1989) write, "While some consider the effective-school movement to be a passing fad,

most are convinced that the principles are too sound to be ignored" (p.15).

School Improvement

From Planned Change to Educational Reform

Introduction

Clark, Lotto, and Astuto (1984) suggest that school improvement literature can be traced back to the 1930s. Nicholls (1983) suggests that the catalyst for much of the educational change literature can be attributed to the 1957 launching of the Soviet satellite, Sputnik, when the western world perceived that the U.S.S.R. possessed better means to educate and superior levels of technology. No matter what the source, the public has for decades scrutinized systems of education for effectiveness and efficiency.

Reaction to these calls has taken an evolutionary path. Researchers examined the phenomenon of social change with a vision of identifying factors which ultimately led to a positive realignment of the status quo. In the realm of education, researchers embarked on the examination of the educational change process. This, linked with the findings reported in the effective schools literature, led to the deliberate attempt to improve schools - hence the existence of a distinct school improvement literature. The most recent call in the United States has been toward educational reform or restructuring - a call that some believe is an echo that seems to reverberate in waves throughout the educational community over time.

Before embarking on a discussion of recent school improvement literature and the more recent issue of educational reform, it is beneficial to revisit earlier descriptions of innovation and planned change. This discussion will serve as a source for essential definitions and basic assumptions that will enable the reader to understand recent trends

Innovation and Planned Change

Innovation and change literature is decades old. It could be argued that the term, change, is now outmoded and reflects a practice in the educational system that was doomed to failure even before it began. However, research examining these failures established a firm footing for present school improvement and educational reform literature.

Jean Ruddick, a professor of education in the United Kingdom, has endured educational change efforts since the 1950s. In a retrospective view, she states:

> In our efforts at change I think we have generally underestimated the power of the existing culture of the school and classroom to accommodate, absorb or expel innovations that are at odds with the dominant structures and values that hold habit in place. (Ruddick, 1990, pp. 27-28)

Reflecting on the failed efforts of planned educational change, Ruddick continues:

> We should be comforted by the thought that schools are not easily thrown into disarray by curricular fads and fancies, whimsical novelties and light persuasions. The problem is that they seem

> equally impervious to what we think of as our reasoned, relevant and legitimate proposals for curriculum change. (Ruddick, 1990, p. 28)

In light of these statements, it is beneficial to briefly look back at the literature of planned change.

Planned Social and Educational Change

The social system.

According to Rogers (1962), the social system is defined as a "population of individuals who are functionally differentiated and engaged in collective problem-solving behaviour" (p. 14). Rogers explains that the word, individual, can represent a single person, informal groups, industrial firms, or schools that are linked by a common problem for which they seek a solution.

Change.

Rogers (1962) argues that change occurs as the result of imbalance in the status quo of a social system. Nicholls (1983) sees educational change as "a continuous reappraisal and improvement of existing practice and which can be regarded as part of the normal activity of curriculum development" (p. 4). Leithwood (1986) suggests that the term, "change", is, in itself, neutral. Planned change is a "process of 'improvement' of 'getting better' in someone's terms" (Leithwood, 1986, p. 2). He argues that educational change "implies at

least a preferred direction if not a valued outcome" (p. 2).

Leithwood (1986) presents planned change as a process by which schools reduce the gap between two distinct boundaries: (a) those things that are valued for students and the objectives schools hope students will achieve, and (b) images of the educated person - "the most succinct and holistic expression of the public's aspirations for their children's intellectual, social, cultural, and emotional develoment [sic]" (p. 2). He argues that prescriptions for change (innovations, new curriculum guidelines, new assessment procedures, etc.) improve school effectiveness only when that gap is reduced.

Innovation.

The realization that a change is necessary to reduce the gap between what is and what should be is the beginning point of the change process. An innovation is deliberately chosen to address the imbalance in the status quo (Rogers, 1962). Nicholls (1983) provides a definition of innovation that is derived from existing definitions in the educational change literature:

> An innovation is an idea, object, or practice perceived as new by an individual or individuals, which is intended to bring about improvement in relation to desired objectives, which is fundamental in nature and which is planned and deliberate. (p. 4)

The innovation, it is believed, has to be first adopted and then diffused to the members of the social system.

Recent school improvement literature has suggested a different perspective on the notion of innovation. Fullan, Bennett, and Roheiser-Bennett (1990) state, "Innovation should be seen as points of departure or catalysts, rather than as things to l implemented" (p. 14).

Guskey (1989) recognizes the number of innovations available for planned change efforts. "At no other time in the history of education have there been more new ideas and innovations available to educators" (p. 11).

Adoption.

Adoption occurs when members of a social system decide to test an innovation. Adoption implies that individuals or groups of individuals have weighed the potential consequences of implementation and are satisfied with the power and/or the improvement that their deliberations espouse. Havelock (1973) suggests that another name for adoption is acceptance. Adoption has occurred when members of a social system have accepted an innovation.

Diffusion.

Diffusion, according to Rogers (1962), is the process by which an innovation spreads from the source of conception to those who will ultimately use it.

Intervention.

Hall (1988) argues that the term, intervention, has been a crucial concept in the educational change literature, yet it has rarely been defined. In response, he develops a definition of the concept for use in his own research: "An intervention is an action or event, or set of actions or events, that influences the use of an innovation" (p. 51). Hall points out that references to who made the intervention, whether there are observable effects, and when it occurs have been intentionally left out of the definition. These aspects, despite their importance for intervention description, are not critical to defining the concept.

The change agent.

The existence of a person responsible for facilitating change in a social system can substantially increase its rate. Authors refer to this person as the change agent (see for example Rogers, 1962; Schaller, 1972; Havelock, 1973). The change agent may be chosen from inside or outside the social system depending upon the circumstances delineating the need. Havelock suggests four primary ways in which a person can act as a change agent:

1. by acting as a catalyst for change;
2. by providing solutions to problems;
3. by helping the process of change move along; and

4. by linking resources for those involved in the change effort.

In education, change agents can be district administrators, school administrators, or teacher leaders.

The change facilitating team.

Studies from the early 1980s suggest that one of the reasons that educational change failed was that the administrator did not have enough time to facilitate and manage the change. Fullan (1984) reports that "a large percentage of principals (at least one-half) were preoccupied with administrative work and organizational maintenance activities" (p. 100). To address this, it was suggested that the principal play a facilitative leadership role on a change facilitating team (see for example Hall, 1988). The principal would work with other change facilitators and would orchestrate the change effort in a shared, cooperative manner. The traditional role of change agent was reassigned to a change facilitating team.

The change facilitating team, Hall (1988) suggests, typically consists of four members. The principal is regarded as the primary change facilitator. A colleague such as the vice-principal, department chairperson, or teacher with specific specialist knowledge plays a supporting role as the second change facilitator. A third level of facilitator, the teacher, plays a role that is less formalized. Members of this third group model new practices for colleagues,

disseminate information to other teachers, cheerlead, and provide support.

Sparks (1993) recognizes the value of a team approach. One of his 13 tips for managing change in schools suggests that a team approach ensures that all stakeholders have an essential role in the improvement process. He states, "The synergy that flows from people with various perspectives produces higher quality ideas and better solutions" (p. 14).

The change facilitating team is led by the school principal. Sergiovanni (1991) states, "The principals who were most effective in implementing change were team-oriented, working closely with these other levels of change facilitators" (p. 268).

Earlier literature.

One thrust of the planned change literature is to describe the circumstances that lead people to adopt an innovation. Rogers (1962) proposes a five stage decision making process through which each individual passes for a change to occur. These five stages are: awareness, interest, evaluation, trial, and adoption.

Another thrust of the planned change literature is to describe the climate which ultimately leads to change. Schaller (1972) identifies 12 characteristics of a "creative organization" that possesses a climate conducive to change. The creative organization must have a contemporary orientation; be aware that

problems exist; focus on people or their needs rather than product; emphasize problem-solving; be aware of the importance, relevance, and availability of knowledge; monitor the pace of change; evaluate its present operation against its perceived purpose; realize that the organization will frequently attempt to reach a goal; place the emphasis of financial administration on output rather than income; be committed to maximizing the problem-solving capability of the personnel; have leaders open to new ideas; and allow personnel to experience all aspects of the system.

The literature reflects the realization that the pace of change is exasperatingly slow (see for example Schaller, 1972, p. 64). Rogers (1962) refers to the time between the insight of a problem and the introduction of an innovation as a "time-lag". It was observed that in the face of social or technological crisis, the speed of change increases substantially (see for example Schaller, 1972). There is a belief that if one could cause an imbalance in the status quo by intervention and manipulation, then the process of change would proceed more rapidly (see for example Havelock, 1973). Later studies describe social climates that ultimately increase the rate of adoption (see for example Schaller, 1972).

Many of the failures cited in early literature are attributed to the resisters of an innovation. A resister is defined as a member of the social system who hesitates to adopt an innovation because of a perception that change is not

advantageous to the social system or is a threat to its actual being. Nicholls (1983) reflects on the resister's role in planned change. It is through resistance that a social system becomes aware of the consequences of the implementation of an innovation and its impact on the entire efficiency and stability of a social system. The innovator must "win" the support of the resistor(s) by thinking through the reasons for resistance and by embarking on an effective campaign to make the advantages and the positive effects known.

The Process of Planned Educational Change

Fullan (1982) states, "Change is a process, not an event" (p. 42). In his discussion of this complex process, he identifies three phases of educational change reported in the change literature: Phase I: Initiation; Phase II: Implementation; and Phase III: Continuation. These phases are entangled and rarely can be delineated one from another.

Fullan (1982) suggests that entwined in each phase of the change process, there exist numerous factors acting and interacting. One cannot effectively separate them into distinct entities. Instead, change must be viewed as an interactive process where decisions made at one point of the continuum can feed back to alter decisions made at an earlier stage. The opposite is also true. That which occurs at an earlier stage strongly affects that which happens at subsequent stages.

Phase I: Initiation.

The change literature uses a variety of terms to describe the forces that begin the process of change. These terms include initiation, mobilization, and adoption. In this phase, the members of an educational system become aware of an innovation, grasp it, and decide to proceed with implementation.

The pervasive view that innovations are adopted because they are desirable may not be true to all change situations. Instead, Fullan (1982) contends that there are a myriad of factors associated with the decision to adopt an innovation. He identifies a ten point summary list:

1. Existence and quality of innovations
2. Access to information
3. Advocacy from central administrators
4. Teacher pressure/support
5. Consultants and change agents
6. Community pressure/support/apathy/opposition
7. Availability of federal and other funds
8. New central legislation or policy (federal/state/ provincial)
9. Problem-solving incentives for adoption
10. Bureaucratic incentives for adoption

(p. 42)

The presence or absence of each factor or combinations of factors can influence the decision to adopt or reject an innovation.

Phase II: Implementation.

The terms related to the second phase of the educational change process include implementation and initial use (Fullan, 1982). Fullan states:

> Implementation consists of the process of putting into practice an idea, program, or set of activities new to the people attempting or expected to change. The change may be externally imposed or voluntarily sought; explicitly defined in detail in advance or developed and adapted incrementally through use; designed to be used uniformly or deliberately planned so that users can make modifications according to their perceptions of the needs of the situation. (p. 54)

In this phase, the members of an educational system decide to use the innovation in an attempt to assess its value and power. Fullan contends that because more people are involved in this phase of the process and because successful change is at stake, this phase is intricate and must be handled delicately. What people do and do not do can ultimately end in the rejection of the innovation.

Fullan (1982) organizes the major factors affecting implementation into four distinct categories:

1. Characteristics of the Change: Implementation will occur more readily if members of a social system perceive that there is a need for the

innovation; if the innovation is clear about what teachers should do differently; if complex innovations have been broken into small, clear incremental components; and if the materials supplied for the implementation process are practical and well suited to the needs of the teachers.

2. Characteristics at the School District Level: Implementation will occur more readily if the district has in the past experienced successful change; if the process of adoption reflects careful consideration, planning, commitment, and follow-through; if there is support by district administrators; if in-service and preparation time has been provided for staff development; if a realistic time-line and a system of evaluation have been established; and if the school district has effectively prepared and gained the support of the public before introducing an innovation.

3. Characteristics at the School Level: Implementation will occur more readily if the principal actively supports the innovation; if teacher relationships are characterized by supportiveness, openness, collegiality, trust, and helpfulness; and if teachers' own sense of efficacy (whether teachers think and expect that all children, regardless of social background, can reach appropriate levels of achievement) is strong.

4. Characteristics External to the Local System: The external environment provides influences that aid in implementation. If government agencies support the implementation of an innovation and if appropriate external assistance such as technical expertise is available, then implementation is more likely.

In conclusion, there are numerous factors associated with successful implementation. With widespread support, ample professional preparation, detailed planning for implementation and continuation, and access to appropriate materials and expertise, it is likely that an innovation will be implemented successfully.

Phase III: Continuation.

The third phase of successful educational change has been referred to as continuation, incorporation, routinization, or institutionalization (Fullan, 1982). It is in this phase that an innovation becomes a "built-in" part of the daily practices or attitudes of a social system, or is discontinued and allowed to die a quiet, peaceful death.

The importance of the relationships shared by teachers and administrators cannot be overestimated at this stage in the process. Miles (1983) reflects on his experiences with the Study of Dissemination Efforts

Supporting School Improvement, hereafter referred to as the DESSI study:

> Administrators push, demand, support, and think about the organization; teachers react, get involved, struggle with the demands of the innovation, and think about their lives with students. It was very clear that an underlying variable we called teacher-administrator harmony was critical for success. (p. 19)

Harmonious interrelationships among the players in the educational process are crucial for continuation and institutionalization.

Miles (1983) suggests that an innovation must become a part of the internal structures and functions of a school otherwise reversion to past beliefs and practices may result. He states, "Without some sense of 'built-in-ness' the fate of innovations is in doubt" (p. 14).

Fullan (1982) makes two important points about the discontinuance of implemented innovations. First, he suggests that in the period following effective implementation, innovations can be discontinued when external agency funding ends. If this happens, schools could face an extra financial burden that cannot be addressed by reallocating existing funds. The only alternative is to discontinue the use of the innovation. Secondly, Fullan suggests that changes in school staff can also cause discontinuance. New teachers and administrators may not perceive the need to use the innovation or may not possess the expertise or commitment that former staff members did.

In conclusion, the ultimate goal of change is to make an innovation a regular, built-in part of the daily life of a school or school district. Continuance

or institutionalization can be affected by various factors. Although careful planning can counter discontinuance, unforeseen factors can have a devastating effect on the institutionalization of an innovation.

Summary.

Change is an evolutionary process. In this process, there exist three phases: Initiation; Implementation; and Continuance. These phases do not have distinctly delineated boundaries. Actions related to one phase affect the processes in another. The interacting forces determine the ultimate fate of an innovation. People involved in planned change must accept that what they do or do not do can determine the success or failure of a planned change venture.

The Players in the Process and their Roles

In any educational change endeavour, people are involved. Researchers have studied the roles that people have played in successful and unsuccessful change efforts and have reported on the actions that lead to implementation.

District level administrators.

The support of district level administrators and their subordinates determine the success of districtwide change. Fullan (1982) states, "What they [district administrators] do at each of the three main phases of the change - the

initial decision or mobilization, implementation, and institutionalization - significantly affects the destiny of the proposed change" (p. 163). The literature identifies characteristics of district administrators that significantly support each phase of the change process.

During Phase I, the district administrator sets the tone of impending change. Teachers perceive that if the superintendent shows a convincing commitment to the innovation, then it must be important, necessary, and should be taken seriously. This commitment must make more of an impact than simple verbal or general support. Instead, funds must be allocated to purchase appropriate resources and opportunities must be provided for professional staff development. If necessary, professionals with expertise in the innovation must be brought to the district to provide guidance and training for those directly involved in the change process.

Fullan (1982) suggests that the participation of the district administrator in Phase II is more important than the commitment demonstrated in Phase I. He suggests that the way in which the implementation plan is construed will determine the ultimate institutionalization or continuation of the innovation. District administrators must allow the administrative power to be shifted from the central office to the school so that those directly involved in implementation are given the opportunity to adapt, redevelop, and reflect on the innovation in relation to their unique circumstances. The district administrator must provide a

means by which teachers can access technical information about the innovation, address problems encountered in the implementation, and communicate successes and failures to colleagues in the process.

Riffle (1987), while reflecting on school improvement initiatives, discusses the empowerment of schools. For this empowerment to occur, the district administrator must relinquish some power so that schools can develop a commitment to the change. He states:

> The developmental argument is that the empowerment of schools must be seen as a condition for their improvement; people will not undertake development unless they believe that it will be fruitful, that it will give them greater control over their work, and it will increase the likelihood of success. Giving people in schools the autonomy to choose directions, but not the freedom to do nothing, may be the best way to combine a concern for the improvement of all schools in a system with both respect for the professionalism of educators and a recognition that the opportunity for self-direction can be a powerful stimulus to development. (p. 3)

In Phase III, the district must continue to provide funds to ensure that the new needs of the district are met. How the district administrator plans for continuation is crucial. The method by and ease with which the new program is incorporated in district budgets contributes significantly to the continuation of the innovation.

School principals.

The school principal is ultimately responsible for preparing a school for

change and for directing the change process. The principal's behaviour can affect the outcome of a school improvement effort. Clark et al. (1984) suggest that principals influence the members of a social system through "suasion and the assertion of high expectations" (p. 54). They report that the actions of effective principals include communicating the innovation's importance and implementation success, arranging for training and materials, and rescheduling time for practice and reflection. Sergiovanni (1991), reflecting on school improvement, states:

> School improvement does not occur by happenstance. Someone must decide to do something to change the status quo for the better. Sometimes the decision to embark on school improvement efforts emerges from a teacher or a group of teachers; generally, though, such efforts result from deliberate action by the school principal. (p. 255)

Hall (1988) suggests that the school principal should be viewed as the leader of the change facilitating team. Through frequent discussions, this team facilitates the change process by modelling the innovation, disseminating pertinent information to teachers, providing support, anticipating the results of specific actions, and troubleshooting where necessary. The more effective leaders are team-oriented and can work closely with other leaders of a change facilitating team.

Hall, Rutherford, Hord, and Huling (1984) describe three change facilitator styles: Initiators, Managers, and Responders. The following

discussion provides a summary description of these principals.

1. Initiators - Initiators have a vision of what good schools and teaching should be like. They have clear, decisive long-range policies and goals that are based on current educational research. Initiators work intensively to implement these policies and goals. When changes in district programs and policies are sought, input from staff is solicited. Decisions are based on the goals of the school.

2. Managers - Managers exhibit a broad range of behaviours. Their reactions are linked to their rapport with teachers and central office staff. They are sensitive to teacher needs and work without fanfare to support teachers as they use an innovation. Managers do not generally initiate attempts to move beyond that which has been imposed.

3. Responders - Responders allow teachers and others to take the lead. Their focus is on administrative tasks, keeping teachers content, and treating students well. Responders view teachers as strong professionals who are able to carry out their instructional roles with little guidance. They provide everyone with an opportunity to voice an opinion before making a decision; sometimes decision-making is passed to

> others. Responders have a limited vision of the future of their schools and their staffs and tend to make decisions based on immediate circumstances rather than on long-range goals. They try to please others.

Hall et al. (1984) report that Initiator principals are most associated with successful change efforts. Responder principals are least likely to be associated with successful change endeavours. Sergiovanni (1991) states,

> Initiators have a clear sense of what needs to be accomplished and take more active roles in planning, prodding, encouraging, advising, participating, checking, stimulating, monitoring, and evaluating change efforts. Further, they assume more direct roles in obtaining and providing the necessary material and psychological support for successful change efforts. (p. 266)

Teachers.

Fullan (1982) summarizes the teacher's role in the educational change process: "Educational change depends upon what teachers do and think - it's as simple and complex as that" (p. 107). Innovations must work for teachers as well as for students. This point can be easily overlooked for school improvement efforts are evaluated primarily on improved student outcomes. If an innovation does not fit into the daily work of a teacher, then the probability of institutionalization is small (Clark et al., 1984).

Early research reports that in order for change to be successful, teachers have to be involved in the initial phase of the change process. They have to develop a personal commitment for the innovation. Whether by active intervention on the part of a change agent, or by some other powerful means, teachers have to believe that change is beneficial and have to be involved in choosing the appropriate innovation. Recent studies have found that the administrator, not so much the teacher, must believe in and adopt the innovation. Teachers develop an appreciation for the innovation as it is being implemented. Guskey (1987) observes, "The most significant changes in teacher attitudes and beliefs come after they begin to use a new practice successfully and see changes in student learning" (p. 57).

Sparks (1993) proposes that some teachers act as "paradigm shifters" and should be sought out at the beginning of a change effort. He suggests, "Paradigm shifters create innovative approaches to solving intractable problems long before others see the need for a new set of rules and procedures" (p. 15). These teachers can experience the innovations first and can provide collegial support as others embark on their part of a school's mission.

There have been inconsistent literature claims about teacher characteristics of and the probability of successful school improvement efforts. One trait, however, has emerged - the teacher's sense of efficacy. If teachers feel that they can be effective in teaching students and can effectively change,

then the chance of school improvement success is great. Davis and Thomas (1989) state,

> Apart from any district-wide or school-wide formal improvement program, an individual teacher who wishes to improve his or her skills must be highly motivated (and sufficiently secure) to engage in self-examination and self-improvement. (p. 182)

Crandall (1983), reflecting on his involvement with the DESSI study, lists factors that contribute to the success of teachers engaged in improving classroom practice: commitment, exemplary practices, training, and administrator leadership. He comments on the interaction among these factors:

> We found these factors interacting in some quite uncommon ways that resulted in, among other things, highly committed teachers using with a high degree of fidelity innovations they had neither developed or [sic] chosen. (p. 17)

The message is clear. Teachers do not have to choose an innovation. Instead, they must play a role in planning for and making decisions about the implementation, not the adoption, of an innovation. It is through this process, with continuous support and assistance, that commitment and ownership are developed.

Internal assisters.

Internal assisters are school district personnel who have expertise in specific areas of curriculum or in grade-level programming. The planned change literature labels these specialists differently. Fullan (1982) refers to

them as internal district consultants; Cox (1983) writes about the central office staff; the Newfoundland Department of Education refers to them as program coordinators, and Clark et al. (1984) fail to mention them or their contributions at all. By whatever name, internal assisters "can perform critical functions that make school improvement really work" (Cox, 1983, p. 13).

Fullan (1982) warns about drawing broad-based conclusions regarding the role of internal assisters. He argues that few research projects exist that have as their focus the internal assister. Generalizing from a small number of case studies and surveys, he suggests, is dangerous.

To understand the internal assister's role in planned change, it is valuable to revisit the conclusions of the DESSI study. The role of the internal assister was examined by Cox, the result of which was the identification of a nine point list of contributions that aids in the institutionalization of an innovation. Cox (1983) found that central office staff (internal assisters):

1. Became familiar with the needs of students in individual schools in their districts.
2. Located and helped select the new practices.
3. Knew the content of the new practice, its purpose, and the benefits that were to result from its use.
4. Helped arrange and conduct training in the new practice, working with external assisters.
5. Arranged funding and other support from the district or other sources.

6. Obtained endorsements for the practice from the superintendent, school board, principal, and teachers.

7. Worked with the teachers using the classroom, working out 'bugs' and overcoming obstacles.

8. Assisted in evaluation.

9. Helped plan how to continue and institutionalize new practices. (p. 12)

Cox states,

> Their [internal assisters] help contributed to more implementation outcomes than any other single group of assisters, having impact on the amount of change in teachers' practice, the level of mastery teachers achieved, the commitment teachers developed, and the benefits they perceived from using the practice. (p. 12)

External assisters.

Fullan (1982) reports that although few studies have examined the contributions of external assisters to enduring change, those that do exist place external assisters toward the bottom of the list of influential resources (p. 184). In his discussion, he names the limited number of external assisters available to support Canadian educational change endeavours. These assisters include government ministry of education personnel whose primary responsibility is policy and program dissemination and effectiveness research; members of a university faculty involved in professional development research; and teacher unions or associations.

Clark et al. (1984) suggest that despite conflicting research evidence, the role and the value of external assisters in the school improvement process is valuable. They state,

> Because of the resocialization needs of the change process, external assisters must have continuous contact with the school-level implementers. To be effective at the school level, the assistance offered must be personal and practical. In addition to technical expertise, external facilitators must be knowledgeable of the change process and be sensitive to the critical role played by building and district level administrators. (p. 55)

Cox (1983), reflecting on the DESSI study, compiled an 11 point list of external assister contributions found to be the most effective and most valuable for school improvement success. External assisters:

1. Made school people aware of the existence of new practices.
2. Helped school people choose among a range of new practices, matching local needs with an adequate resource.
3. Sometimes helped arrange funding for the new practice.
4. Worked with local administrators, teachers, and school boards to develop commitment to the new practice and arrange for it to be installed.
5. Arranged and conducted training in how to do the new practice.
6. Worked with a local content person on the new practice.
7. Provided new materials for the new practice.
8. Worked through the details of the new practice with teachers, planning implementation schedules, and paying attention to the specifics of actually using the practice in the classroom.

9. Evaluated new practice and analyzed data.

10. Provided follow-up help as implementation progressed.

11. Helped develop plans for continuation and institutionalization, for example, securing additional funds and developing new users at school. (pp. 11-12)

Cox suggests that "of these activities, the most helpful for teachers were the efforts to actually work through the specifics of using the practice in the classroom" (p. 12).

In summary, Cox (1983) states:

> their [external assisters] major contribution to school improvement appears to be preparing a congenial environment for the new practice (ensuring that resources, facilities, and so forth are in place), rather than assisting with the content of the new practice. (p. 12)

School board and community.

Clark et al. (1984) argue that school boards, parents, and communities do not have a distinct role in the decision to implement innovations (p. 55). Fullan (1982) states:

> by far the most prevalent case is that school boards and communities do not initiate or have any major role in deciding about innovative programs; that is, administrators and teachers develop or make recommendations about most new programs, or governments legislate new policies. (p. 194)

The school board and the community play a role in the realization that change is necessary and in the rejection of innovations.

Fullan (1982) states that school boards and communities "can be radically powerful in the smaller number of cases where, for whatever reasons, they become aroused" (p. 194). One of the more prevalent reasons for becoming aroused, he suggests, is a shift in population. To support his contention, he provides an example of a community that underwent a demographic change. The stagnant school system was targeted by the new members of the community; new educators were hired; a new school board was elected; and positive changes were implemented. He warns that these kinds of community initiatives that result in positive change are relatively few. More often, these population changes can cause enduring conflict.

A second influence of school boards and communities on planned change is that they can, if members have been ignored in the change process and if members possess the appropriate resources, bring about the end of an adopted innovation. Fullan (1982) suggests that these endeavours reflect process failure. The board and the community act as gate-keepers to bar ill-conceived innovations from schools. The price of such rejections can be failed and abandoned innovation, poor morale, and attrition of administrations and teachers (p. 195).

According to the literature reviewed on the change process, school boards and communities play a minuscule role in planned change. Generally, they do not actively participate in the adoption and implementation processes,

but can effectively prevent change when members are dissatisfied with the results of implementation.

Converging Literatures

The school improvement literature has a purpose that is different from all other educational inquiry. It explores the ability of a school or school system to adopt an innovation and reduce the gap between what is and what should be. It measures the level of adoption while assessing the means by which the adoption occurs. It examines the impact of leadership on a school's ability to change and reflect contemporary expectations while describing the roles of other key players in the pursuit of improvement.

Clark et al. (1984) argue that school effectiveness research and school improvement research share input and output variables. They support this contention by citing common themes found in both literatures. "They have examined leadership, school climate, teachers, students, curricular materials, patterns of curricular organization, instructional tactics and strategies, financial resources, facilities and equipment, and parental and school-community involvement in education" (Clark et al., 1984, p. 42). School improvement researchers examine the role of the principal in institutionalizing an innovation.

As the early literatures of educational change and effective schools evolved, they followed parallel paths. Toward the late 1970s and early 1980s,

these paths began to converge. The characteristics of effective schools, as reported in the effective schools literature, were being construed as innovations. Many administrators saw these lists as quick fixes for their ineffective schools. If an administrator perceived that the academic achievement of students needed improvement, then implementing the characteristics reported in the effective school literature was a means for success. The school improvement literature provided guidance and a focus for implementing innovations. Later, as models of school improvement emerged, the school improvement literature was used to guide the implementation of other innovations.

School Improvement

Susan Loucks-Horsley and Lesley F. Hergert (1985) suggest a broad meaning for the term, "school improvement". They state:

> We use this term quite broadly to include the pursuit of any goal that benefits students and that has as its focus the classroom and school building. These goals may include, as have our own experiences, the following:
>
> - Changing an elementary school's reading program in response to low achievement scores.
>
> - Developing and implementing a districtwide science curriculum for elementary grades.
>
> - Implementing Edmond's "correlates of effective schools" in high schools.
>
> - Applying advances in technology to a district's special education

program.

- Increasing equitable treatment and opportunities for all students in a large urban school district. (p. viii)

In the preface of Huberman and Miles's 1984 publication entitled, Innovation Up Close, there exists a paragraph that adequately states the challenge of true school improvement efforts:

> School improvement, like motherhood, has many advocates. Everyone is for it, without having to campaign actively on its behalf. And just as the 100% of people who have had mothers think they know how mothering could be done better, so the (nearly) 100% of people who have been pupils in schools, or have even taught in or managed them, think they know how schools can be improved. More precisely, they are sure that schools *ought* to be improved. The trouble is that they propose a staggering, conflicting range of methods of improving schools, from 'back to the woodshed' to teacher merit pay, a stiffer curriculum, a stronger tax base, reorganization, a more humane climate, 'teacher-proof' innovations, community involvement - the list is nearly endless. (p. v)

Huberman and Miles continue the discussion and highlight the problematic nature of the word improvement. "*Improvement* sometimes turns out to be a code word for the directives that administrators have successfully put into place, or for the agreements that teachers have lobbied into being" (p. v).

The theme of school improvement.

Clark et al. (1984) summarize the pervasive theme of the school improvement literature:

> The basic message to be derived from the research on school improvement is as unambiguous and optimistic as that of the school effectiveness research:
>
> 1. Public schools and school systems can and do improve;
> 2. School improvement programs (federal, state, and local) work; and
> 3. Professional educationalists are capable of effecting positive educational changes. (p. 50)

This optimistic view, however, has not always existed in the minds of all educational change researchers. Philip Runkel (1984) candidly shares his view of educational change:

> I worry about the fact that the more things change, the more they stay the same. It is also true that the most of those things soon fade away, and things go back to normal. It has almost come to the point where, when we speak of an innovative school, we mean one that tries one new thing after another without making any of them work. (p. 178)

Educational researchers continue to study the forces that ensure enduring change.

Summary of school improvement research.

Clark et al. (1984) summarize the school improvement research findings by presenting a set of propositions.

> Proposition 1 - Public schools, individual classrooms, and school systems can and do improve, and the factors facilitating school improvement are neither so exotic, unusual, or expensive that they are beyond the grasp of extraordinary leaders in ordinary situations.

Proposition 2 - People matter most in school improvement programs:

(a) Teachers can and will implement new practices and programs given active leadership from building and central office administrators, a chance for planning the implementation process, appropriate training, opportunities for interaction, breathing space to try and fail, and continuous assistance and support;

(b) Building level administrators make a difference in school improvement programs by establishing a climate of expectations that teachers will successfully improve practice and by providing on-site coordination, communication, assistance, and support;

(c) District level administrators affect school improvement programs by exhibiting active backing in the form of communicated expectations for success, psychological support, needed resources, and local facilitation assistance; and

(d) External assisters are most effective at the school level providing concrete and practical assistance on implementation issues, such as planning, scheduling, problem solving, and follow through.

Proposition 3 - An innovation is more likely to be adopted and implemented if it is perceived as having relative advantage, compatibility, simplicity, and legitimacy. Implementation is more effective when the innovation focuses on a specific need and demonstrates clarity in purpose and techniques.

Proposition 4 - Specific resources are necessary to support effective school improvement programs:

(a) Staff development programs that are task-specific and provide on-going, continuous assistance and support; and

(b) Monetary resources that are adequate to provide the

> people, materials, and time needed in the program. (p. 59)

The set of propositions offered by Clark and his colleagues are a synthesis of the planned change and school improvement literature discussed earlier in this chapter.

A theme has emerged from these literatures. In any successful school improvement venture, the principal is the prime facilitator, teachers are the key players, and all others expend their energies and resources to ensure that the venture is successful.

Models.

Models of school improvement have been highlighted in the literature. Sergiovanni (1991) reports that the systems view of change has driven the conceptualization of specific models. In this systems view, four individual units of change interact and all require attention:

1. The Individual Teacher - In any change endeavour teachers count. Though most teachers usually work in isolation, in a school improvement endeavour, all teachers must be included. They are the ones who directly influence the student in the classroom.

2. The School - School culture is the unique sense of order and being that emerges from norms, customs, and traditions existing in a school. It defines acceptable behavioural limits, beliefs, and worth. Culture is a powerful factor in fostering school improvement. Improvements that are consistent with a school's value system are more likely to be accepted.

3. The Workflow of Teaching and Schooling - Principals must place a great amount of effort in developing the commitment of its staff to improve schools. Making the specifics of the improvement known to teachers; communicating how the improvement will manifest itself; and providing the necessary support resources, evaluation, supervision, and in-service training will ensure that the improvement attempt is successful.

4. The Political System - For institutionalization of an improvement, the superintendent, school board, and teacher's association must embrace it. Manipulation and intervention on the part of the principal may be necessary to communicate the successes of an improved practice.

It is suggested that when each unit of change in the system has been addressed appropriately, school improvement will result. Sparks (1993) suggests, as one of his 13 tips for managing change in schools, that those

planning a change endeavour should use a systems approach. Changes will not occur when the innovation touches a fragment of the system.

Many models have emerged that are based on this systems view of change. Beare et al. (1989) document the Caldwell and Spinks school management model entitled, The Collaborative Management Cycle which incorporates school management and change with policy writing and implementation. In 1978, Hall and Loucks proposed The Concerns-Based Adoption Model that Loucks-Horsley and Hergert (1985) authored and the Association for Supervision and Curriculum Development published as An Action Guide to School Improvement. To understand the thrust of a school improvement model, the author will briefly highlight the latter.

The concerns-based adoption model.

Teachers and administrators involved in school improvement initiatives express concerns about the innovation. In 1978, Hall and Loucks proposed a continuum of seven hierarchical stages of concern through which teachers and administrators pass when engaging in the process of school improvement. The first set of concerns are self-oriented: What is the new practice? How will the innovation affect me? These soon give way to management concerns: How do I do it? How can I keep it from taking too much time? When the management tasks are mastered, the final set have to do with the impact of the new

practice(s) on the student: Are they learning? What can I do better? This continuum aided in the development of The Concerns-Based Adoption Model (hereafter referred to as CBAM).

CBAM is a model of school improvement that is based on a seven step linear progression. Loucks-Horsley and Hergert (1985) argue that

> the linear process imposes some order on a complex situation. However, if you pick up the book in the middle of your project, you may find that you have already done some of the early steps instinctively. And even if you start at the beginning, you may find yourself working on two steps at once. (p. xii)

The following discussion is a brief overview of the model.

Step 1: Establishing the School Improvement Project - In implementing the first step of the model, schools are encouraged to clarify their visions, negotiate for resources, build relationships and identify allies, consider using outside consultants, and form a school improvement team.

Step 2: Assessment and Goal Setting - Although it is recommended that school improvement teams should not spend a great amount of time assessing existing school circumstances, there must be a sense of where the school is at the start. The school improvement team must define the problem, collect data, analyze the data, and determine a shared vision of the improved school. Then, goals for the school improvement effort should be set.

Step 3: Identifying an Ideal Solution - Keeping the present school circumstances in view, the school improvement team embarks on a quest to

find the ideal solution. The team identifies local resources and constraints, develops criteria for the solution (while recognizing that these criteria may change as the project unfolds), locates outside resources, applies criteria for solutions, makes a decision about the actual solution, and transforms the solution into a definable practice.

Step 4: Preparing for Implementation - At this point in the model, the school improvement team prepares to implement the solution. This preparation includes seven activities: creating awareness, selecting implementors, assessing current practice, setting expectations, assigning support roles, making logistical arrangements, and creating a timeline of activities and events.

Step 5: Implementing the Project - Here, the focus shifts from the school improvement team to those implementing the solution. The management of this stage involves continued training, and providing on-going support.

Step 6: Reviewing Progress and Problems - Following the early stages of implementation, the school improvement team must assess the success of the implementation. The members must analyze the perceptions and the progress of those involved in the implementation, evaluate the initial outcomes of the implementation, and make appropriate refinements.

Step 7: Maintenance and Institutionalization - Planning for maintenance and institutionalization should be a continual goal in all steps of this model. Specifically, however, the school improvement team must ensure that all

administrators continue to support the improvement and all staff members renew their commitment and their skills.

As can be ascertained, CBAM embraces the planned change literature and provides schools with a conceptual framework for school improvement.

Reform: A Call for Restructuring the Education System

There has been a recent cry in the United States for educational reform. In Canada, the cry has not been as strong, yet Canadian educators are again beginning to listen to neighbours involved in restructuring schools. Since the initial cries, "a more recent wave of reform initiatives - commonly labeled under the rubric of restructuring - calls not for repair of the current system but for a reshaping of the entire educational enterprise" (Hallinger, Murphy. & Hausman, 1992, p. 330).

Hallinger et al. (1992) explain the thrust or new wave of restructuring schools:

> Basically, restructuring includes endeavours to (a) decentralize the organization, management, and governance of schooling; (b) empower those closest to the student in the classroom (i.e., teachers, parents, and principals); (c) create new roles and responsibilities for all the players in the system; and (d) transform the learning-teaching process that unfolds in classrooms. (p. 330)

Fullan and Miles (1992) suggest that this new wave of reform comes as the result of planned change failures. Earlier attempts at making schools

better, failed because of the lack of cohesive plans based on solid educational change knowledge. Instead, Fullan and Miles suggest, "Rather than develop a new strategy for each new wave of reform, we must use basic knowledge about the do's and don'ts of bringing about *continuous improvement*" (p. 745).

Joyce (1991) argues that rhetoric attached to the call for restructuring leads him to believe that restructuring is the current name for school improvement. The call for collegiality within a faculty, sharing site-specific information such as student achievement with the faculty, and providing curriculum initiatives are echoes from the school improvement movement.

Summary

The school system has been involved in educational change for decades. Historically, there have been waves of interest in changing the educational system. These waves have been named educational change, school improvement, and restructuring. Each has been built upon the findings of the previous wave making its thrust more powerful and ensuring more success.

The message of the evolving literature is clear. Change (or improvement, or restructuring) is a slow, arduous process that requires a clear vision, knowledge of the change process, knowledge of a proposed innovation, careful planning, exceptional leadership, constant support, unfaltering insight,

calculated risk-taking, and common sense. As Riffle (1987) suggests, mistakes will be made. People are involved. However, through commitment, practice, and feedback change will become a normal part of a dynamic school system.

CHAPTER THREE

METHODOLOGY

Research Design

According to Yin (1984), "a research design is an action plan for getting from here to there, where 'here' may be defined as the initial set of questions to be answered and 'there' is some set of conclusions (answers) about these questions" (p. 28).

Research Phases

This research was completed in two distinct periods using two data-gathering techniques. Each phase was characterized by a specific research question. Data were gathered in the first phase using a survey instrument. In the second phase, data were gathered by conducting a case study of four of the 23 survey respondents.

The First Research Question

The first research question, intended to be of an exploratory nature, is stated below:

> Research Question #1: According to individual school principals, what factors contributed to the increase in the mean grade six composite scores on the Canadian Tests of Basic Skills in their respective schools during the period between 1985 and 1991?

The intent of this question was to isolate school principals' perceptions of factors that had contributed to the increase in composite scores over the six-year period. To gather these data, Yin (1984) suggests that the researcher use a quantitative research tool, the survey. According to Yin, research questions that seek to find answers to "what" questions, can effectively be answered using a survey or questionnaire strategy (p. 17).

The Survey

Development of the Instrument

The survey was designed in April 1992 following an extensive search of effective school literature. It was found that many authors cite J. S. Coleman's 1966 report to the congress of the United States of America entitled, Equality of Educational Opportunity, as the catalyst for much of the effective schools research (for example see Robinson, 1985; Davis & Thomas, 1989). Robinson reported the Coleman Report finding that factors that could not be manipulated within the structure of the school determined the achievement level of its students. In later years, researchers acknowledged the power of

socioeconomic status in determining achievement. They did, however, feel that other factors that could be manipulated within the school setting played a valuable role in determining student achievement levels.

Because of these literature findings, the survey contained five sections. The first two were entitled Community Changes and Curricular Changes. Community Changes included statements about changes in the school's population, the community's socioeconomic situation, and the community's population. Curricular Changes contained statements that explored recent curriculum initiatives, innovations, staffing changes, and other factors that could have contributed to the increased composite scores.

A third section entitled, Community Factors, was included to address another burgeoning area of effective school research. It is believed that the perceptions and participation of the public can affect the achievement levels of students. The statements in this section of the survey explore the principal's perceptions of the community's support for the school, the school system, and the school's programs.

To provide a framework for the data collected and to link the respondent's school to the initial CTBS data, a demography section was included in the survey. Specific data about the informant's school were collected so that school and class size, information about the administration and teachers, and other pertinent factors could be considered when designing the

second part of this study.

The fifth survey section offered each respondent an opportunity to comment on and delineate other factors that were perceived as contributing to the increase in CTBS composite scores. This was a particularly important section for it provided the respondent an opportunity to reflect upon the experiences of the school in relation to the increased scores.

Administration of the Survey

The 31 schools in the sample were sorted according to provincial school board. A letter was drafted to each school board superintendent asking for support in conducting this research project and assistance in distributing the survey to principals. Accompanying each letter was an unsealed, stamped envelope addressed to each of the potential respondents. This survey package contained three items: a letter to the administrator explaining the purpose of the survey and suggesting a return date; the survey; and a return envelope ready to be mailed. It was requested that the superintendent peruse the contents of the envelopes, seal them, and place them in the mail.

The superintendent's package was mailed on May 22, 1992 and the requested return date for the surveys was Friday, June 12, 1992. A copy of the survey has been included in Appendix A.

Data Analysis Procedures

Upon receipt of the completed surveys, data were analyzed. The distracters, "definitely agree" and "mostly agree", were recoded and were given a new variable name, "agree". The distracters, "definitely disagree" and "mostly disagree", were recoded and were given a new variable name, "disagree". Any statements written in a negative form were recoded so that all data could be compared in its positive form. The data were analyzed to obtain frequencies, percentages, means, and standard deviations.

Any item whose frequency of response was 85% or greater was isolated. These items were regrouped into new categories and were used to guide the design of the second part of the research.

The Second Research Question

The second research question was intended to further explore the principals' perceptions of how the factors identified by most of the respondents contributed to the increased CTBS composite scores. This research question is stated:

> According to individual school principals, how do the factors identified on the initial survey contribute to the increase in the mean grade six composite scores on the Canadian Tests of Basic Skills in their respective schools during the period between 1985 and 1991?

The Case Study

According to Merriam (1988), case study research in education "should be used when certain questions are raised about a phenomenon and when a certain end product is desired." (p. 36). Yin (1984) lists five components of a case study research design that include: "a study's questions; its propositions, if any; its unit(s) of analysis; the logic linking the data to the propositions; and the criteria for interpreting the findings" (p. 29). This study followed the methodology described by Yin.

Case Study Propositions

"Each proposition in a case study directs attention to something that should be examined within the scope of the study" (Yin, 1984 p. 30). The analysis of the survey data revealed that a high percentage of respondents (greater than or equal to 85%) agreed with 13 statements from the initial survey. These statements were used as a basis for identifying five propositions for this case study:

1. The principal felt that students have displayed a positive change in attitude since 1985 and that this positive attitude has contributed to the positive increase in CTBS composite scores.

2. The principal felt that the school is characterized by innovation and change and that these innovations and change processes have contributed to the positive increase in CTBS composite scores.

3. The principal felt that the school promotes "resource-based learning" and the students are actively involved in resource based learning activities. This focus on resource based learning has contributed to the positive increase in CTBS composite scores.

4. The principal felt that the public has a positive perception of life in the school and that this perception of school life has contributed to the positive increase in CTBS composite scores.

5. The principal felt that the parents of students in the school feel that the principal is an accessible administrator and the parents are aware of the school's programs and accomplishments. These public relation initiatives have contributed to the positive increase in CTBS composite scores.

Unit of Analysis

The unit of analysis has been called "the case" by many researchers (Yin, 1984; p. 31; Merriam, 1988; p.44). Merriam states, "the unit of analysis or 'the case', can be an individual, a program, an institution, a group, an event, a concept" (p. 44). The focus of this case study was the principal's perceptions of the factors which contributed to the positive changes in the CTBS composite scores over a six-year period. The principal's perceptions, therefore, are the units of analysis in this study.

The Logic Linking the Data to the Propositions and Criteria for Interpreting the Findings

Merriam (1988) states, "data analysis is the process of making sense of one's data" (p. 127). There are "several dimensions of data analysis including

analysis during data collection, the devising of categories, and the building of theory" (Merriam, p. 123).

Analysis during data collection.

Merriam (1988) advises that data analysis and data collection "should be a simultaneous process" (p. 123). Merriam continues,

> The process of data collection and analysis is recursive and dynamic. But this is not to say that the analysis is finished when all the data have been collected. Quite the opposite. Analysis becomes more intensive once all the data are in, even though analysis has been an ongoing activity. (Merriam, 1988, p. 123)

Four separate interviews were conducted to collect data. A prepared questionnaire was used to guide these interviews. Supplementary questions were inter-dispersed in the conversation to clarify responses.

The devising of categories.

Yin (1984) states, "the propositions would have shaped the data collection plan and therefore would have given priorities to the relevant analytic strategies" (p. 100). Once the data from the four interviews were gathered, an outline of each interview was generated. The outline was organized topically using the five categories identified during the analysis of the survey data. This method is supported by Merriam (1988) who suggests that once the data have been gathered, it should be organized "topically or chronologically" (p. 131).

Through a process of note-taking, reading, and rereading, "the notes are developed into a primitive outline or system of classifications into which data are sorted initially" (Merriam, 1988, p. 131). The outlines were scrutinized to compare the individual units of information searching for recurring regularities or themes. These common threads were related to the stated propositions of the research.

Building of theory.

The intent of this study was to explore a phenomenon. If unifying themes or recurring regularities were to emerge, then the process of theory building could begin as other researchers conduct related studies. Only then could a theory be explored.

The Interview Strategy

Yin (1984) suggests three types of case study interviews: open-ended interviews in which the interviewer seeks to identify facts and opinions about an event; focused interviews in which the interviewer has but a short period of time to collect data and is therefore more likely to follow a certain set of questions while seeking open-ended answers; and surveys which contain structured questions and look for specific, closed responses (pp. 83-84). Given the nature of a school principal's duties during school time, the amount of time that can be

reasonably committed to an interview of this type, and the purpose of this study, it was decided that a focused interview would be utilized with the author acting as interviewer.

Development of the instrument.

In focused interviews, "interviews may still remain open-ended and assume a conversational manner, but the interviewer is more likely to be following a certain set of questions derived from the case study protocol" (Yin, 1984, p. 83). Given the 45 minute duration of each interview, a list of questions based on the five categories identified in the survey was generated to use as an interview guide. The sole intent of this interview guide was to keep the interview focused while allowing the interview style to remain open-ended, within the pre-determined structure.

Sample Selection

Four school principals were interviewed in this study. Goetz and LeCompte (1984) refer to the method used to select them as criterion-based selection.

> Criterion-based selection requires that the researcher establish in advance a set of criteria or list of attributes that the units for study must possess. The investigator then searches for exemplars that match the specified array of characteristics. (p. 73)

Merriam (1988) suggests that this study's sample can be described as purposive, nonprobabilistic, and criterion-based. Merriam states, "Purposive sampling is based on the assumption that one wants to discover, understand, gain insight; therefore one needs to select a sample from which one can learn the most" (p. 48).

Given the purpose and exploratory nature of this study, a set of criteria was developed to choose the sample for the study. Four school principals were chosen based on the following criteria:

Primary criterion.

1. The change in the grade six composite scores between 1985 and 1991 is a positive 15 points.

Secondary criteria.

Five secondary criteria were used to identify the sample:

1. The principal of the school participated in the initial survey.
2. The principal has been an administrator in the school since the most recent testing year (1991).
3. The sample includes principals who are administrators in schools that come from various community settings. There must be representation from both rural and urban settings.
4. At least one principal is an administrator in a school that can be categorized as a "small school" by definition.
5. The schools are accessible to the researcher given the time of the year and personal resources.

Administration of the Case Study

The case study was administered in four distinct phases.

Superintendent contact.

On February 6, 1993, a letter was mailed to three superintendents of education in the province of Newfoundland representing the four respondents identified for the sample. The letters requested permission for the researcher to meet with and to conduct an interview with the four principals. Permission was granted by each superintendent.

Principal contact.

The researcher contacted each principal by telephone to explain the study, to gain support, and to establish a convenient interview time. Following the telephone conversation, a letter confirming the time and the date of the interview and a copy of the questionnaire was mailed to the principal. In each circumstance, the date of mailing was two weeks prior to the interview date.

Interview.

All interviews were conducted in the principals' offices in the school identified in the case study sample. The principals were encouraged to elaborate on their responses to the questions.

Data verification.

Following the interviews, the audio tapes were transcribed in note form. A copy of these notes, and a certificate verifying the authenticity of the transcript were mailed to the respondents. Principals were encouraged to read the notes, make any corrections, and provide any additional information that would contribute to the study. The author received the annotated transcripts and certificates by return mail.

CHAPTER FOUR

Report and Analysis of Results

Introduction

The purpose of this study was to explore an existing phenomenon identified when mean composite scores on the Canadian Tests of Basic Skills (hereafter referred to as CTBS) were compared. By administering a survey and interviewing four elementary school principals using case study research methodology, the researcher sought to find similarities and differences in principals' perceptions of factors that could contribute to the composite score increases.

Organization of the Findings

The study was conducted in two distinct phases. In the first phase, a survey was administered. In the second phase, case study interviews were conducted.

In the first phase, 31 surveys were mailed to school principals whose schools were identified by the researcher as registering increases in mean grade six composite scores on the CTBS between 1985 and 1988 and again between 1988 and 1991.

In the second phase of the study, four school principals representing schools selected using the selection criteria identified in chapter three, were interviewed in one 45 minute session each. During the interview, five specific topics were discussed: student attitudes toward school, innovation and planned change, resource-based learning as an innovation, public perceptions of school life, and principal support and accessibility. Each respondent was given the opportunity to discuss any aspect of these topics that they felt contributed to the increase in CTBS scores. At the end of the interview, the respondents were invited to share any other factors which could have contributed to the composite score increases. Demographic data were gathered on the survey form in the initial phase.

The interviews were conducted by the author in the school principals' offices. Each interview was recorded on audio tape with the permission of the respondents; the tape was transcribed in note form; and the transcript was returned to the respondent for verification, changes, and certification that the transcript was an accurate reflection of the principal's statements. Each interview lasted approximately 45 minutes.

For reporting convenience and anonymity, the four principals who agreed to participate in the case studies will be referred to as P1, P2, P3, and P4. The four schools will be referred to as S1, S2, S3, and S4. P1 is the principal assigned to S1; P2 is the principal assigned to S2; P3 is the principal assigned

to S3; and P4 is the principal assigned to S4.

Phase One: Survey Information

The survey was mailed to superintendents representing 31 school principals in the province of Newfoundland in May 1992. Of the surveys, 29 reached the respondents at that time. One superintendent held back two surveys until September 1992. These were completed and returned at the end of September 1992. The total number of surveys returned was 23 which translates into a 74% return rate.

Each respondent was provided the opportunity to relate personal perceptions of the factors that contributed to the increased mean composite scores in their schools. In this section, one respondent indicated that the CTBS was administered using a method that differed from the standardized procedure specified in the documentation accompanying the tests. As a result, this survey was disqualified leaving the number of qualifying respondent surveys at 22.

Part I: Community Changes

This section of the survey explored factors which may have had an impact on the population of the school, but are not directly controlled by decisions made by school personnel. Table 2 is a report of the survey

statements and the percentage of respondents who agreed or disagreed with those statements.

The data presented in Table 2 indicated that further exploration of community factors would not shed light on the observed phenomenon.

Table 2

Percentage of Respondents Agreeing and Disagreeing with Statements

	Percentage of Responses (n/22)*100	
Survey Statement: Part I	Agree	Disagree
More parents are working now than in 1985.	54.55	45.45
Many families have left the communities we serve over the past seven years.	22.73	77.27
Significant numbers of families have moved into the area since 1985.	18.18	77.27
Since 1985, our students are more actively participating in community activities.	45.45	54.55
Since 1985, community facilities (such as arenas, swimming pools, community centres, etc.) have been built or upgraded.	45.45	54.55
A significant number of families with professional backgrounds have moved into our area.	22.73	77.27

Part II: Curricular Changes

The curriculum is the course of study which, directed by the Department of Education, guides content of instruction in the classroom During the seven

years, many new programs and curriculum documents were made available to teachers. In this part of the survey, respondents were given the opportunity to agree or disagree with statements that reflected curricular changes. Table 3 (Appendix B) is a report of those findings.

Any statement whose frequency of response was greater than or equal to 85 percent was accepted as a factor which principals felt was common to the schools demonstrating increases in composite scores. These statements were isolated, grouped by theme, and were assigned appropriate headings: Student Attitudes Toward School, Innovation and Planned Change, and Resource-based Learning as an Innovation. The headings served as guides for developing the interview questionnaire used in phase two of the study.

Part III: Community Factors

Student learning is influenced by forces which exist in the home, the school, and the community. When the members of the community support the activities of the school, it is perceived as legitimate. Sergiovanni (1991) states,

> principals face the problem of legitimizing what they do and how their school functions in the eyes of important publics. Let's face it - if the school board does not believe that a school is successful, problems will arise regardless of the facts attesting its success. The same can be said for perceptions by parents and other interest groups. It is important for schools to be perceived as legitimate, and much of what the principal does is to seek this environmental legitimacy. (p. 85)

An awareness of the significance of these factors and a creative, active method of harnessing the power of these influences might affect the students' drive to perform well academically. The third part of the survey provided statements about how the school shares its accomplishments with the community and how the principal views his/her role in communicating with members of the school's community. Table 4 (Appendix C) lists the statements and the frequencies of response.

Any statement whose frequency of response was greater than or equal to 85 percent was accepted as a factor which principals felt was common to the schools demonstrating increases in composite scores. These statements were isolated, grouped by theme and were assigned the appropriate headings, Public Perceptions of School Life and Public Support and Principal Accessibility. These themes served as guides for developing the interview questionnaire used in phase two of the study.

Phase Two: Case Study

Section four of the survey was used to gather demographic information about the principals and their respective schools. By combining the data gathered from this part of the survey with the data received from the Department of Education, the sample of four principals was selected for phase

two of the study. Tables 5, 6, and 7 report the pertinent data used for the selection of the respondents.

One requirement of the schools selected for phase two of the study was that the difference between the Grade VI mean composite scores between 1985 and 1991 was at least 15 composite points. Table 5 reports the mean composite scores and the difference from the first testing identified in the study and the most recent.

Table 5

Grade VI Mean Composite Scores on CTBS and Increase Organized by School

	Grade VI Mean Composite Scores - CTBS			Mean Composite Score Increase from 1985 to 1991
School	1985	1988	1991	(v1991 - v1985)
S1	24	32	40	16
S2	26	36	44	18
S3	36	48	54	18
S4	12	21	40	28

Another criteria for the selection of schools was that one school had to be, by definition, a small school. The Government of Newfoundland Department of Education sponsored a "Small Schools Project" in 1987. In the final report, recommendation 4.1 states,

That a 'small school' be defined as

(a) each primary and elementary school in which the enrollment divided by the number of grades is not greater that twelve.

(b) each all-grade, central or regional high school in which the enrollment divided by twenty-five is not greater than the number of grades in the school. (Riggs, 1987, p. 38)

S4 is a primary and elementary school whose enrollment was 48 students in 1991. The school offered six grade levels, grades one through six. The quotient, found by dividing the enrollment by the number of grades, qualifies S4 as a small school by definition. Table 6 reports pertinent population data of the four schools selected for the study.

Table 6

Student Populations

	Grade VI Population			School Population		
School	1985	1988	1991	1985	1988	1991
S1	45	41	40	561	530	533
S2	44	42	30	280	284	247
S3	95	82	92	702	686	738
S4	11	11	9	57	57	48

Another criteria for selecting the sample was that all principals had to have been the principal in the school during the last year that the CTBS, was administered. The most recent year of testing was 1991. In each case, the

respondent was the principal during that year. Table 7 reports pertinent principal employment and qualifications data.

Table 7

Principals' Qualifications and Employment Data

		Respondent Served as Principal in Testing Year		
Principal	Degree(s) Held	1985	1988	1991
P1	B.A. B.Ed. M.Ed. (Admin.)	No	Assistant Principal	Yes
P2	B.A. B.Ed. M.Ed.(Teach.)	No	No	Yes
P3	B.A. B.Ed. M.Ed. (Admin.)	Yes	Yes	Yes
P4	B.A.(Ed.)	No	No	Yes

The Four Schools

S1.

S1 is located in an urban area and provides programming for students in kindergarten to level III. There have been relatively few staff changes over the past number of years particularly in the primary and elementary areas. Most staff changes occur in the high school specialist areas. There is a full-time resource teacher on the staff and an active Parent/Teacher Association in the school. The school plant is used as a community recreation centre after school hours.

S2.

S2 is located in a coastal community. The school board recently closed an older school and constructed a new facility able to meet the educational needs of the children in the area. As the new school was being planned, there was a resurgence of parental support. The school board sought and received input from the members of the community as plans for the new school were being made. The students moved into the new building during the 1988-89 school year. The new school provides programming for students in kindergarten to grade eight.

The faculty of this school is quite young by Newfoundland standards. The principal reported that the average age of the teachers is 32 years. Four staff members possess Master degrees and three others are enrolled in graduate programs. Most teachers reside outside the communities served by the school.

S3.

S3 is a large school located in a coastal town. The school provides programming for students in kindergarten to grade seven. The teaching faculty is older by Newfoundland standards. Many teachers obtained their teaching credentials by completing distance education and "off campus" courses. There has not been much teaching staff turnover in the recent past.

Parent volunteers work in the school supporting the work of teachers and students. Recently, a Parent/Teacher Association representing two schools in the town, the primary/elementary school and the intermediate/high school, was disbanded due to leadership conflict.

S4.

S4 is located on the side of a hill overlooking a small fishing community and an enclosed harbour. Behind the building, there is a wooded area that separates the school from the closest house. During the interview with the school principal, ski-doos could be heard travelling up and down paths cut through these woods. S4 serves two communities and is, by definition, a small school. The school plant has been upgraded in stages over the past number of years.

The staff, consisting of one teaching principal, two full-time teachers and one half-time teacher, teach in multi-graded classrooms. The principal takes responsibility for grades five and six, supervises the use of the resource centre, and completes administrative duties after school hours. Under normal circumstances, the school offers the complete kindergarten to grade six program. This year, due to a lack of enrollment, the kindergarten program is not being offered. Staff meetings do not occur at regularly scheduled times throughout the year. Instead, pertinent discussions take place during the lunch

or recess breaks.

The principal reported that the school is slated to close in two years. Parents of students in the school have participated in school board meetings to discuss future plans for the students.

Student Attitudes Toward School

S1.

Six years ago, S1 began piloting a school improvement program that was initiated by its school board in response to the effective schools literature. The staff and administration consulted and decided that the focus of the school improvement effort in the first year would be self-esteem. The principal reported that although students began to feel better about themselves, student academic achievement did not improve significantly. Recognizing that students who feel good about themselves are more likely to strive to achieve, the administration and teachers felt that a change in school improvement direction would be beneficial. In the second year, the focus broadened to include academic achievement. Other school improvement efforts have since been added. These have included whole language in the primary and elementary grades and a daily compulsory "stop everything and read" program for students in kindergarten to grade six.

S2.

P2 felt that the building of a new school positively affected the attitudes of the students. As members of the community worked together to plan the new facility, students' attitudes toward school changed.

P2 reported that families in the community had been negatively affected by a downturn in the fishery. Although the downturn is a relatively recent phenomenon, the community felt the impact years before the federal government publicly recognized the crisis. Traditionally, members of the community and students had regarded the school merely as a place to spend time until gainful employment could be secured in one of the community's fishery related industries. This downturn signalled a change in perspective. Parents of students realized that employment prospects for their children were dim and a good education guaranteed gainful employment outside the community. As a result, there was a positive change in parental support for and student attitudes toward education and the school.

S3.

P3 explained that student attitudes became more positive for a variety of reasons:

1. Parents of students are themselves graduates of the school and therefore have a positive attitude toward the facility and the programs

offered within it. This attitude is passed on to the students.

2. Teachers are interacting with students more than ever before and are building a better understanding of their individual needs.
3. Students do not socialize outside the school environment. Televisions and video games have effectively placed socialization patterns in disarray. The only opportunities for socialization occur in school.
4. For most students, the school has become an extension of the home. It is a happy place.
5. Teachers are motivating students indirectly. This motivation improves self-esteem and student attitudes toward school.
6. Teachers have responded to changing times. Student attitudes and achievement are linked directly to teacher attitudes and comfort levels in the school.

S4.

P4 and the former principal set out to build a relaxed and open atmosphere in the school. They have been successful in fostering the feeling in students that the school belongs to them and that they should take pride in it. Students are comfortable in approaching teachers about any matters of concern. The school is used as a central gathering point - a use that is encouraged by P4.

Common factors that affect basic skills.

All principals indicated that student attitudes have become more positive during the period from 1985 - 1991. In each case, the principal attributed the change in attitude to manipulation of the status quo by changes at the school level. S1 was involved in a school improvement initiative whose focus was self esteem and student achievement. S2 was involved in the planning and the building of a new school as the fishery faced crisis. S3 reported that teachers have become more aware of the needs of students and recent methodologies. S4 deliberately manipulated the atmosphere in the school to make it a conducive place for teacher/student interaction.

All principals indicated that their school is used by the community as a central gathering point. Teachers seem to be in contact with students for a greater period of time. This extension of contact time is not always curriculum related.

P1, P3, and P4 reported that teachers have responded to changing times and curriculum by upgrading their skills and adapting teaching methodologies. They have ensured that students feel comfortable in the school setting and are using newer classroom management techniques. (It should be noted that on the average, the teachers in S2 graduated from teacher training programs more recently than teachers in other schools and have entered a changing educational setting equipped with more recent attitudes and methodologies.)

Innovation and Planned Change

S1.

The school embarked on a school improvement project which has been described in the section entitled, Student Attitudes toward School.

Primary teachers attended a professional development workshop in "whole language". The teachers were enthusiastic about the methodology and requested that the school adopt and implement a primary whole language program. The principal supported the teachers' request. Since the implementation of this methodology, a new whole language reading program entitled, Books Alive! was introduced for use in grades four, five, and six.

In kindergarten to grade six, inclusive, the students and teachers embarked on yet another reading program. For 20 minutes daily, students read without interruption. Other facets of the innovation include regular home reading checks, reading promotions, and student rewards.

P1 reported that teachers were enthusiastic about the innovations implemented in the school. Teachers were involved at each stage of the implementation process.

S2.

P2 reported that the introduction of a special needs policy improved the basic skill competencies of special needs students. Students whose basic skill

competencies were low required extra support from the teachers in the school. Initially, there was concern that programs for these students would be delivered in the regular classroom - a practice that differed from other remedial models. These concerns were successfully addressed and special needs students began to receive individual programs in the classroom. It should be noted that four teachers possess specialized training in developing individual program plans for special needs students.

S3.

S3 has been involved in many innovative program changes. P3 reported that:

1. teachers are planning cooperatively;
2. students are preparing units of work for presentation to peers in other classes;
3. school personnel have written and are continuing to write, modify, and implement policies that address special circumstances in the school (These policies include: (a) Tragic Response Policy; (b) Special Needs Policy; (c) Assertive Discipline Policy; and (d) Teacher Advisory Policy.); and
4. the school has piloted various models of parent orientation seminars in an effort to identify the approach that best communicates information

about the school, its programs, its teachers, and its facilities.

S4.

P4 reported the following three innovations in his school:

1. an on-going, deliberate attempt to instill a family atmosphere,
2. a new reading and writing program that addresses basic skill competencies and habits (Teachers now use a variety of creative activities that encourage students to read and write more.); and
3. provision for extra classroom time to address low student scores in solving non-routine problems.

P4 noted that the teachers are constantly involved in innovative practices because of the nature of their school. The curriculum prescribed by the Department of Education lends itself best to single graded classroom settings. The multi-graded classroom requires a more flexible, creative, and innovative approach to program delivery.

Common factors that affect basic skills.

P1, P2, P3, and P4 reported that they have been involved in some form of innovative practice. Teachers have been involved in the recognition and the communication of a need, the development of an innovation that responds to that need, and the activity that occurs after the implementation of the

innovation. The four principals reported that the innovative programs, policies, and practices are evolving and can be plotted at different points along a planned change continuum.

These principals reported that they have implemented innovations that address a need to improve the basic skills of their students.

Resource-based Learning as an Innovation

S1.

While P1 served as vice-principal in the school, the principal attempted to implement resource-based learning in all sections of the school. Since P1's appointment as principal, the use of resource-based learning has been inconsistent in various grade levels. The administration is actively attempting to raise teacher awareness and commitment to the methodology. In light of this, P1 reported that a special effort has been made to monitor the implementation of resource-based learning, keep in contact with the resource teacher, and support the growth of the methodology in the school.

Computers are housed in two separate rooms outside the school's resource centre. The principal reported that although primary and elementary teachers have used computers to provide resource-based instruction, high school students use the computer room facilities and equipment to complete prescribed computer courses. Barriers for continued primary and elementary

use of the computers include the inflexible computer room schedule and the lack of a computer literate teacher who is enthusiastic about the instructional use of computers at the primary and elementary levels. The principal has recognized these barriers.

S2.

Before the Department of Education released their 1991 policy publication entitled, Learning to Learn, the principal and the resource teacher attended a three-day resource-based learning symposium. Upon their return to the school, they planned and delivered to their colleagues two resource-based learning workshops. As a result of these workshops:

1. teachers work in conjunction with the resource teacher to plan and deliver resource-based units;
2. students use computers to write stories, research information, and practice skills (P2 stated that students are motivated when they use computers and good educational software provides immediate reinforcement of basic skills.); and
3. students in grades seven and eight receive specific instruction in word-processing and the use of spreadsheets.

P2 reported that the basic skills of students are positively affected when they are completing resource-based learning units. As more time is used to

complete these units, students become more proficient in the basic skills tested in the visual materials, mathematics, and language sub-tests of the CTBS

S3.

In the adoption, planning, and implementation stages of resource-based learning, school administrators worked very closely with the program coordinator responsible for resource-based learning. Many teachers adopted the methodology and became role models for others to get involved. When the policy document entitled, Learning to Learn was released by the Department of Education in 1991, the principal and the program coordinator already had experienced success with implementing resource-based learning and were asked to become part of a large, district committee struck to devise an action-plan for district-wide implementation. P3 reported that the committee met once and was disbanded because school board personnel lacked the ownership required for implementation in all schools throughout the school district. In light of this failed attempt at district-wide change, the school adminstration, with the support of the program coordinator and enthusiastic teachers, continued to implement its own action plan. P3 reported that most teachers in his school have "bought-in" and are presently using the resource-based learning methodology.

S4.

P4 reported that in order to deliver a successful program to students in multi-grade classrooms, teachers have to use some form of resource-based learning. Because the school lacks the substantial number and variety of resources required to implement a good program, funding from a small school budget has been allocated yearly to purchase additional resources.

Students are allowed to use two computers in the school - an Apple computer situated in the primary classroom and an I.B.M.-compatible computer with a CD-ROM drive on loan from the school board office. A staff member has located and gained possession of computer parts and is trying to assemble the pieces to provide another computer for student use in the school.

P4 reported that "resource-based teaching" is going on in the school. The principal deliberately referred to the practice as resource-based teaching - not resource-based learning. It was argued that because students are not directly involved in choosing the direction of their own learning, true resource-based learning has not been implemented. Resource-based teaching better describes what happens when teachers have a finite number of resources that can be used to deliver the prescribed curriculum.

Common factors that affect basic skills.

P1, P2, P3, and P4 reported that their schools were involved in

implementing resource-based learning before the Department of Education published its policy document entitled, Learning to Learn in 1991. P1, P2, and P3 reported that a school-based resource-based learning action plan was put into place. P4 reported that the nature of the school and available resources required teachers to use a modified version of resource-based learning.

The four principals have a personal commitment to resource-based learning and are actively involved in the implementation process.

P2, P3, and P4 are committed to purchasing computers and software for student and teacher use. P1 expressed an awareness that the school must refocus its school improvement efforts to include resource-based learning.

The four principals support and encourage the use of resource facilities during class time for varied resource-based learning activities.

Public Perceptions of School Life

S1.

The discussion of this aspect of the study was limited in scope. However, it was expressed that the administration of the school plays an active role in shaping the public perceptions of school life through communication and public relations initiatives.

At various times during the interview, the following two points became clear:

1. Parents feel that the school is serious about the education of their children and is striving to do its best for them.
2. Parents perceive that their opinions about the school count. They have confidence in relating their ideas to the school principal.

S2.

The principal reported that the public has a positive perception of the school. This view is communicated directly to the principal by members of the community, as second-hand information through relatives, and from members of the Parent/Teacher Association. The public praises the work of the teachers and recognizes their dedication to the education of their children.

The principal pointed out that some members of the public associate the number of cars in the parking lot early in the morning and late in the afternoon with staff dedication. Teachers do work long hours, do arrive early at the school, and do remain at the school for hours after students are dismissed. This positively affects public perceptions.

S3.

The principal reported that generally, parents now have a positive perception of the school. This is the result of an active campaign to change the habits and attitudes of the public. In particular, a story was related about

school concerts. Traditionally, concerts in this community had always started late. Audiences arrived after scheduled curtain times and still were able to see complete performances. Children had traditionally gone home tired and had trouble getting out of bed to go to school the next day. Early in the principal's tenure, he resolved this problem. As always, he scheduled a concert taking into account the age of the student performers, the length of the concert, and what he thought was appropriate bed-times for the children. Although the curtain time was set and published, he started a concert early. Late-comers missed parts of their child's performance. As a result, audiences now arrive at all school functions early to avoid disappointment.

The principal reported that although legitimate complaints are welcomed, the number received has been minimal. When a complaint is received, the principal acts as a judge. He listens to the complaint, considers the circumstances, and places blame where it belongs. He believes that this straight-forward approach has aided in fostering a positive public perception of the school. In the past, complaints were aired and discussed in the lobby of the post office.

S4.

P4 reported that he resides in one of the small communities served by the school, is well-known by most, is on a "first-name basis" with most, and

socializes with some parents. Parents do not hesitate to telephone the principal at home to question school procedures, decisions, or program-related issues. Generally, members of the community have a positive perception of the school.

Common factors that affect basic skills.

In all four cases, the principals related information and incidents illustrating that members of the public support the school, its staff, and its programs.

These principals reported that parental support has had a positive effect on student basic skill competencies.

Public Support and Principal Accessibility

S1.

P1 reported that parents are able to support their children more than they have ever been able to before. This new generation of parents possesses more education and is more able and willing to supplement the work of teachers by supervising homework assignments. This has had a substantial effect on basic skill competencies of students.

Many factors were discussed that illustrate positive public support for the school, its programs, and its policies:

1. The number of telephone calls that register complaints has decreased in

number. Parents may not always agree with decisions that the school is forced to make, however, they do support the school's programs.

2. There has been tremendous support for fund-raising initiatives in the school.
3. Parent attendance at school functions has been extremely high. The principal reported that teachers who have been on the staff for many years attest to a change in school function support.
4. Parents make telephone calls to the school looking for ways in which they can support the education of their children.
5. Radio stations have been very supportive and have publicized school events.

The principal stated that the public supports him in his job. He hesitated to comment on how he was aware of the support. P1 reported that he makes a special effort to accommodate meetings with members of the public when requested. He feels that this use of administration time is valuable.

S2.

P2 reported that members of the public support him. This perception is based on second-hand information that has been shared with relatives who reside in the community. The principal is seen as a "regular person" rather than an authoritative ruler. Members of the community feel at ease when

approaching him with a problem. It was reported that former principals did not always enjoy this kind of community support.

Parental support for homework has increased. There has been more of an effort on the part of parents to ensure that homework assignments are completed correctly. There is still room for further support in this area.

Parents supported the school board when designing and planning the new school building.

S3.

Parents can request meetings with the principal whenever a need arises. The principal grants these meetings when they are requested.

There is an active parent volunteer program in place in the school.

S4.

P4 reported that there is support for him among the parent population. This support was reported in a variety of ways:

1. At a recent meeting to discuss the eventual closure of the school, the parents in attendance raised a concern about the fate of the principal once the school was closed. (While relating the incident, the principal had to be prodded to provide the details. It seemed that parents support and respect the professionalism of the principal and the staff and are

generally concerned for their future well-being.)

2. There has been an attempt to increase the amount of time parents spend in the school. Periodically, parents come into the school to serve hotdogs to students at lunchtime. Other parents shelve books in the resource centre.

3. The principal has developed good rapport with the public. Members of the community feel free to approach the principal about educational matters at any time - ten miles in the country, in the school, or at community functions.

It was reported that a small number of parents do not support the school. The principal recognizes this and has actively campaigned to regain their support.

Parents' efforts to support the education of their children receive positive reinforcement from the school. This reinforcement translates into greater educational support for the student and higher basic skill competencies.

Common factors that affect basic skills.

The four principals reported a perception that the public was supportive of them in their administrative roles.

P1, P2, P3, and P4 reported that parents are more able to support students in their educational endeavours. P1, P3, and P4 reported that parents

of younger students support the school more than parents of older students. P1 and P3 reported that many young parents are themselves graduates of the school. P1, P2, and P3 reported that increased parental support translates into increased basic skill competencies.

The four principals encourage parents to participate in school activities and frequently communicate with them by means of memos, newsletters, or a combination of both.

Other Factors

S1.

The principal reported that the following points must be considered when looking at factors that contribute to basic skill increases:

1. Teacher attitudes toward the community and teacher perceptions of student capabilities have changed positively over the past few years.
2. Teachers have a positive impression of their own professional accomplishments in the school.
3. The school is a community school and is supported by all.
4. Although positive progress has been made in all aspects of the school's program, all staff members recognize that the school must continue on in its quest for improvement.

S2.

The principal reported that the following must be considered when looking at factors that contribute to basic skill increases:

1. There used to be too much opportunity for employment in the community. There is a new realization that education is a vehicle that will ensure future employment.
2. The teaching staff in the school is highly qualified and competent.
3. Teachers strive for personal excellence. This excellence is reflected in the academic achievement of students.
4. The principal supports the professional decisions of members on the staff.
5. The principal sees himself as an instructional leader who uses democratic principles when making decisions.
6. The principal and vice-principal work well together.

S3.

The principal reported that the following must be considered when looking at factors that contribute to basic skill increases:

1. The principal takes a "hardline" approach to school administration and demands the best from the teaching staff while creating a balance of collegial rapport and professionalism.

2. The principal and the vice-principal work closely as a team.
3. The principal professes a clear vision for Canadian education and seeks to ensure that students leaving the school are given the tools required to be a part of that vision.
4. The principal identifies many objectives and goals for the school yearly and actively sets out to ensure that they are met.

S4.

The principal reported that the following must be considered when looking at factors that contribute to basic skill increases:

1. The principal is an instructional leader on the staff of the school.
2. There is a community atmosphere felt by all who have contact with the school.

Common factors that affect basic skills.

The four principals felt that teachers have a commitment for their students and for their own professional development. This personal commitment has had a positive effect on the basic skill competencies of the students.

CHAPTER FIVE

Conclusions and Recommendations

Summary

This study was conducted to explore perceptions of elementary school principals as they relate to factors that have contributed to local increases in grade six composite scores on the Canadian Tests of Basic Skills (hereafter referred to as CTBS) over a period of six years . The study was conducted in two distinct phases.

Included in the first phase was the distribution and collection of a survey and the collation and analysis of the data. The survey contained statements of a variety of factors that could have contributed to the increased performance of students on the CTBS The principal of each school that registered a positive grade six composite score increase between 1985 and 1988 and again between 1988 and 1991 was sent a copy of the survey for his/her consideration. Twenty-three of thirty-one surveys were returned for analysis.

The data collected from the surveys indicated that, generally, principals did not attribute the positive increases to demographic changes in the communities they served. Instead, the data reflected general principal agreement of factors relating to five specific themes: Student Attitudes toward School, Innovation and Planned Change, Resource-based Learning as an

Innovation, Public Perceptions of School Life, and Public Support and Principal Accessibility.

The second phase of the research included four case study interviews. Four principals who had participated in the survey sample agreed to participate in an interview designed to explore the five common themes identified from the survey data. The qualitative data collected during the interviews were analyzed to determine common factors that principals felt had contributed to the increased performance of grade six students on the CTBS in their schools. The interviews served to answer the primary question identified for the research:

> According to individual school principals, how do the factors identified on the initial survey contribute to the increase in the mean grade six composite scores on the Canadian Tests of Basic Skills in their respective schools during the period between 1985 and 1991?

Conclusions

Principals generally found it difficult to articulate how any factors had contributed to the increased performance on the CTBS However, they were sure that they and their teachers have been and continue to be engaged in practices that lead to positive changes in student achievement and more specifically to increased basic skill competency.

During the interviews, principals identified specific influences that they

felt had contributed to increased student basic skill performance and described specific interventions that they felt had contributed to the composite score increases on CTBS Not surprisingly, the four principals reported some common influences and interventions. These common factors are summarized under their appropriate theme:

Student Attitudes Toward School

1. The four principals reported that student attitudes had become more positive over the course of the three testing periods.
2. The four principals reported that teachers are in contact with students for longer periods of time now than in the past. This contact is not necessarily for instruction.
3. The four principals reported that teachers have upgraded their professional qualifications and now use methodologies and classroom management techniques that contribute to positive attitudes toward school.

Innovation and Planned Change

4. The four principals reported that the school has implemented some innovative practices and that teachers were involved in the identification, adoption, and implementation process.
5. The four principals reported that they have implemented some innovation that has addressed the need to improve basic skill performance of

students.

Resource-based Learning as an Innovation

6. The four principals reported that their schools have implemented a form of resource-based learning. (Some resource-based learning modifications have been made to suit special school circumstances.)

7. The four principals reported a personal commitment to resource-based learning and are actively involved in the implementation process.

Public Perceptions of School Life

8. The four principals reported that members of the public support all aspects of the school, its staff, and its program.

9. The four principals reported that positive parental support has had a beneficial effect on the basic skill competencies of students.

Parental Support and Principal Accessibility

10. The four principals reported that they perceived support for their role as principal from most parents.

11. The four principals reported that, in general, today's parents have a stronger academic background that enables them to support their children's educational endeavours.

12. The four principals reported that they encourage parents to participate in school activities.

13. The four principals reported that they communicate with parents

frequently by means of newsletter, memorandum, or a combination of both.

Other Factors

14. The four principals reported that teachers demonstrate a commitment for their students and for their own professional development. This commitment positively affects the basic skill competencies of students in schools.

Summary

Principals of schools whose grade six students demonstrated an increase in basic skill composite scores on the CTBS between 1985 and 1988 and again between 1988 and 1991 agree that the following factors have contributed to the local increase in basic skill composite scores:

1. The implementation of interventions aimed at fostering positive student attitudes toward school;
2. The implementation of innovations that reflect current educational thought and address needs identified by teachers and administrators, working together;
3. A demonstration of support by educators, parents, and members of the community for all school-wide innovations;
4. A positive public perception that school is beneficial for children and

active parental support for students in all educational endeavours; and

5. A staff committed to the educational welfare of students and to personal professional development.

Recommendations

Based on the summary and conclusions and recognizing the exploratory nature of this study, the author makes the following recommendations:

1. that subsequent research be carried out to compare schools that have registered a constant increase in CTBS composite scores with schools that have not registered a constant increase;
2. that subsequent research be carried out to replicate the findings of this study following the 1994 CTBS testing period;
3. that subsequent research be carried out to identify common factors that superintendents, program coordinators, teachers, parents, and students perceive have contributed to the increases in basic skill composite scores on the CTBS; and
4. that subsequent research be carried out to explore the same phenomenon using grade four and grade eight CTBS composite scores as a beginning point.

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APPENDIX A - Survey

School Name: _____

School District: _____

Present Principal: _____

School Telephone: _____

Convenient Phone Contact Time: _____

PART I: COMMUNITY CHANGES

Place an X in the column which best reflects your views about variations of conditions in the communities served by your school.

	Definitely Agree	*Mostly Agree*	*Mostly Disagree*	*Definitely Disagree*
More parents are working now than in 1985.				
Many families have left the communities we serve over the past seven years.				
Significant numbers of families have moved into the area since 1985.				
Since 1985, our students are more actively participating in community activities.				
Since 1985, community facilities (such as arenas, swimming pools, community centres, etc.) have been built or upgraded.				
A significant number of families with professional backgrounds have moved into our area.				

PART II: CURRICULAR CHANGES

Place an X in the column which best reflects your views about the changes which have occurred in your school between 1985 and 1991.

	Definitely Agree	*Mostly Agree*	*Mostly Disagree*	*Definitely Disagree*
Department of Education curriculum changes over the last seven years have contributed to our increase in basic skill scores.				
There have been significant policy changes implemented by our school board during the past seven years.				
There has been a new program added (such as French Immersion) which has contributed to an increase in our basic skill scores.				
We have established a successful parent volunteer program.				
Our school is characterized by innovation and deliberate, planned change.				
A resource centre has been added to our school.				
We have purchased computers over the last seven years.				
Our school has modern, up-to-date facilities and equipment.				
There have been considerable staff changes over the past seven years.				
A resource teacher has been allocated to our staff since 1985.				
Our staff members continue to upgrade their credentials by reading current journal articles and/or by taking university courses.				

	Definitely Agree	*Mostly Agree*	*Mostly Disagree*	*Definitely Disagree*
The average teacher certification of our staff has increased during the last seven years.				
Our staff has become more attuned to the effects of stress and over the last seven years has become better stress managers.				
The amount of daily teacher planning time has increased over the past seven years.				
The amount of work that teachers take home with them has decreased over the past seven years.				
Resource-based learning is "alive" in our school.				
The chalk board is being used as much as it ever was.				
Our students spend more time working with resources than ever before.				
Our students have been engaged in an increasing number of co-operative learning activities.				
Our students are encouraged to use computers during instructional time.				
Our students take an active role in planning their educational experiences.				
Students have a positive attitude toward the school's facilities, programs, and staff.				
During the last seven years the number of disruptive students has decreased.				

	Definitely Agree	*Mostly Agree*	*Mostly Disagree*	*Definitely Disagree*
Students have become better able to stay on-task when working through activities.				
Our students today appear to be more confident and have higher self-esteem.				
Our school funding is adequate and allows us to keep up with changing educational demands.				

PART III: COMMUNITY FACTORS

Place an X in the column that best reflects your views about any outside influences which may have affected basic skills scores from 1985 to 1991.

	Definitely Agree	*Mostly Agree*	*Mostly Disagree*	*Definitely Disagree*
Public media messages have positively influenced attitudes toward school.				
We have a very active Parent/ Teacher Association.				
Generally, parents are playing a more active part in supervising homework activities.				
The general public is viewing our school as more successful.				
The members of our community are becoming more aware of and more supportive of the educational activities in our school.				
Parents are feeling more welcome to visit our school at any time - even when classes are in session.				
We are promoting our accomplishments publicly more than we ever did.				
The staff and administration publishes a newsletter for parents and distributes it regularly throughout the year.				
Parents generally feel that I am an accessible administrator and feel comfortable when approaching me with concerns.				
Parents actively volunteer to help prepare and/or participate in classroom activities.				
Many of our school's families have purchased computers since 1985.				

PART IV

To complete the following questions, it may be necessary to consult some past school records. Please be as accurate as possible.

In this section, we are interested in data from three separate and distinct school years. Please record the answer in the appropriate column.

School Years

	1985-86	*1988-89*	*1991-92*
Total student population.			
Grade Six student enrollment.			
Number of Grade Six classes.			
Number of elementary teachers. (Count only teachers responsible for a homeroom class.)			
Number of teachers on staff.			
I was the administrator of this school during these years. (Please check.)			
Number of teachers who have been in the same Grade Six teaching position over the past seven years.			

PART V

In this section, please delineate any aspects of your school which you think might have affected the increase in basic skill scores among your Grade Six students.

_____

_____

_____

_____

_____

_____

Thank-you for your time and assistance.

APPENDIX B - Table 3

Table 3
Percentage of Respondents Agreeing and Disagreeing with Statements

Survey Statement: Part II	Percentage of Responses (n/22)*100 Agree	Disagree
Department of Education curriculum changes over the last seven years have contributed to the increase in basic skill scores.	54.55	45.45
There have been significant policy changes implemented by our school board during the past seven years.	72.73	27.27
There has been a new program added (such as French Immersion) which has contributed to an increase in our basic skill scores.	31.82	68.18
We have established a successful parent volunteer program.	36.36	63.64
*Our school is characterized by innovation and planned change.	90.91	9.09
A resource centre has been added to our school.	45.45	54.55
*We have purchased computers over the last seven years.	90.91	9.09
Our school has modern, up-to-date facilities and equipment.	77.27	22.73
There have been considerable staff changes over the past seven years.	31.82	68.18
A resource teacher has been allocated to our staff since 1985.	31.82	68.18
Our staff members continue to upgrade their credentials by reading current journal articles and/or by taking university courses.	77.27	18.18
The average teacher certification of our staff has increased during the last seven years.	68.18	31.82

Our staff has become more attuned to the effects of stress and over the last seven years has become better stress managers.	40.91	59.09
The amount of daily teacher planning time has increased over the past seven years.	36.36	63.64
*Resource-based learning is "alive" in our school.	86.36	13.64
The chalk board is being used as much as it ever was.	31.82	68.18
*Our students spend more time working with resources than ever before.	95.45	4.55
*Our students have been engaged in an increasing number of co-operative learning activities.	86.36	13.64
Our students are encouraged to use computers during instructional time.	81.82	18.18
Our students take an active role in planning their educational experiences.	63.64	36.36
*Students have a positive attitude toward the school's facilities, programs, and staff.	100.00	0.00
During the last seven years the number of disruptive students has decreased.	68.18	31.82
*Students have become better able to stay on-task when working through activities.	86.36	13.64
Our students today appear to be more confident and have higher self-esteem.	77.27	22.73
Our school funding is adequate and allows us to keep up with changing educational demands.	22.73	77.27

Note. * indicates a statement whose frequency is greater than or equal to 85 percent.

APPENDIX C - Table 4

Table 4

Percentage of Respondents Agreeing and Disagreeing with Statements

Survey Statement: Part I	Percentage of Responses (n/22)*100 Agree	Disagree
Public media messages have positively influenced attitudes toward school.	63.64	36.36
We have a very active Parent/Teacher Association.	36.36	63.64
Generally, parents are playing a more active role in supervising homework activities.	68.18	31.82
*The public is viewing our school as more successful.	90.91	9.09
*The members of our community are becoming more aware of and more supportive of the educational activities in our school.	95.45	4.55
*Parents are feeling more welcome to visit our school at any time - even when classes are in session.	95.45	4.55
*We are promoting our accomplishments publicly more than we ever did.	86.36	13.64
The staff and administration publishes a newsletter for parents and distributes it regularly throughout the year.	72.73	27.27
*Parents generally feel that I am an accessible administrator and feel comfortable when approaching me with concerns.	95.45	4.55
Parents actively volunteer to help prepare and/or participate in classroom activities.	59.09	40.91
Many of our school's families have purchased computers since 1985.	45.45	54.55

Note. * indicates a statement whose frequency is greater than or equal to 35 percent.

APPENDIX D - Interview Questions

INTERVIEW QUESTIONS

Student Attitudes Toward School

You have indicated that generally the students in your school have displayed a positive change in attitude since 1985.

To what do you attribute this change?

How has this change affected your students' general basic skills achievement?

In your opinion, how much of the increase in basic skills would you attribute to student attitudes toward school?

Innovation and Planned Change

You have indicated that your school is characterized by innovation and planned change.

What innovations and changes have been encouraged by you in your school since 1985?

Who has been involved in this (these) planned change(s)?

What has (have) their role(s) been?

What has your role been in this planned change?

How have your students been affected by the implementation of this (these) innovation(s)?

How has planned change affected your students' basic skills?

In your opinion, how much of the increase in basic skills do you attribute to the planned change initiatives?

Resource Based Learning as an Innovation

You have indicated that resource based learning is "alive" in your school and that your students are actively involved in a number of resource based learning activities.

What makes you believe that resource based learning is "alive" in your school?

Does or did your school have a resource based learning implementation plan? (If so, please describe the plan.)

What is and has your role been in the implementation of the resource based learning model?

How are resource facilities being used by your students?

How has this affected the basic skills of your students?

In your opinion, how much of the increase in basic skills can be attributed to resource based learning?

Public Perceptions of School Life

You have indicated that the general public has a positive perception of life in your school.

What do you think has contributed to this perception?

Have you had a direct role in shaping that perception? What leads you to that conclusion?

How have these perceptions affected the basic skills of your students?

In your opinion, how much of the increase in basic skills can be attributed to the public's perception of life in your school?

Public Support and Principal Accessibility

You have indicated that you believe that the parents of students in your school

(a) feel that you are an accessible administrator, and
(b) are aware of the schools programs and accomplishments.

How do you think the general public perceives you and your role in the school? What leads you to these beliefs?

How do you communicate the accomplishments of your teachers and students to your parents?

Are the parents of the students in your school generally supportive? To what factors do you attribute this?

How has this supportive atmosphere affected the basic skills of your students?

In your opinion, how much of the increase in basic skills can be attributed to public support and administrator accessibility?

Other Factors

There may be other factors which you feel have contributed to the increase in CTBS composite score increases in your school during the period between 1985 and 1991 but have not been explored in this interview.

What other factors have contributed to the positive increase in CTBS composite scores during the period between 1985 and 1991?

How have these factors contributed to this increase?