THE UNIVERSITY OF ALBERTA

EDUCATIONAL NEEDS ASSESSMENT: A FEEDBACK SYSTEM

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

FALL, 1973

ABSTRACT

The purpose of the study was to measure perceptions of the (1) ideal importance, and (2) actual achievement of selected skill and goal statements with a view to identifying the type and extent of educational needs at this level in the sample community. Membership in one of four community sub-groups was identified as the primary variable and information was gathered on seven secondary variables in order to ascertain the possible effects of both types of variables on peoples' perceptions.

Using a situation-specific questionnaire developed for the study, data were collected on location and by mail from 203 respondents in a research sample composed of fifty secondary students, fifty parents of secondary students, the total teaching staff of fifty-three teachers in the sample community and fifty adults who had no secondary school age children enrolled at the time of the study. Collected data were analysed primarily in terms of means scores for (1) ideal importance, (2) actual achievement, and (3) discrepancy scores (DS) which were a product of subtracting actual achievement from ideal importance scores.

Skills and goals were rank ordered on the basis of mean scores in order to determine (1) their relative order of perceived ideal importance, (2) their relative order of perceived actual achievement, and (3) the relative order and extent of educational needs based on mean discrepancy scores for the ten skill and nineteen goal statements selected for use in the study.

When mean scores were analysed using the Scheffé Multiple

Comparison of Means Test to analyse variance, a number of differences significant at the .05 level were obtained between primary and secondary variable sub groups. These significant differences helped in developing a more detailed understanding of differences between respondents' perceptions of (1) ideal importance, (2) actual achievement, and (3) educational needs according to discrepancy scores as they related to each of the skill and goal statements selected for use in the study.

The skills and goals which ranked highest in terms of discrepancy scores were considered to be the ones perceived as primary educational needs in the sample community. Each of the primary educational needs at the skills and goals level was judged to extend beyond the scope of the school. As a result, it was concluded that the cooperative efforts of teachers, students, parents and other members of the community would be necessary if changes were to be made which would assist in meeting these perceived needs.

On the basis of the study's findings, a number of implications and recommendations were made as to what the sample community might now undertake to do in order to meet peoples' perceived needs more effectively in the future. A local task force was recommended as a means of (1) reviewing the findings of the study, and (2) recommending an appropriate course of action. A number of considerations were posed for the local task force to assist it in formulating sound and workable means of coping with the tasks which it would face.

ACKNOWLEDGEMENTS

The writer wishes to express his appreciation for all the assistance, advice and support given freely by a number of people.

Dr. C.S. Bumbarger, my thesis advisor, offered a great deal of his time, advice and assistance at all stages of the study. Thanks are expressed to Dr. J.F. Seget and Dr. S.C.T. Clarke who served on the thesis committee.

Appreciation is extended to researchers who sent materials to me on their work in educational needs assessment as well as the School Board and the residents of Armstrong, British Columbia for their cooperation in and response to this study.

The writer wishes to acknowledge the invaluable assistance of Mrs. C. Prokop in processing data and Mrs. J. Theander for her excellent typing.

A special thanks to my wife, Evelyn, as well as to Bonnie and Brian Joyce, without whose support and encouragement during the past year, this study might never have been completed.

It would be remiss not to acknowledge everyone in the Educational Administration office for all their kindness and assistance through the past year.

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Chapter 1

INTRODUCTION

Most organizations which can be classified as open social systems (Griffiths, 1964:116-17) require both internal and external feedback in order to adapt to changing circumstances and continue to exist in a healthy state. By gathering feedback, organizations can ascertain the extent to which they are meeting the needs and expectations held for them by (1) their members, (2) their clients, and (3) the society in general and make adjustments which will enable the organizations to meet these needs and expectations more effectively in the future. Education may be described as an open social system and therefore requires feedback by which it can judge how well it is doing in its attempts to fulfill the needs and expectations of its members, clients, and community or society in general.

Unlike many commercial organizations which often have more direct and tangible forms of feedback in terms of production data or sales figures, education must contend with the problems of gathering feedback on matters of a more abstract and complex nature. A farmer, for example, can implement a new process for fattening feeder steers. At the end of a specified period of time, he can (1) measure, fairly accurately, the costs and returns of the new feeding process, and (2) compare the overall effectiveness, efficiency and desirability of both the new and the old feeding processes. On these bases, the farmer can judge whether or not to adopt the new feeding process and be reasonably confident in his decision.

On the other hand, an educator can implement a new process for

teaching mathematics. At the end of a specified period of time, he can test students' achievement but he cannot be sure, however, that (1) the obtained results are strictly a product of the new process, (2) that a reasonably complete measurement of all that students have learned in mathematics under the new process has occurred, or (3) that the cost-benefit relationships between the old and the new processes are really comparable in any meaningful and valid way. Although educators do make adoption and rejection decisions on the basis of such testing results, the somewhat imprecise and imperfect nature of such evaluations can put the validity of decisions made upon such information in serious question.

Another problem which complicates educators' attempts to gather feedback involves the individuality of people and the school as a "domesticated organization" (Carlson, 1964:264-67). First, a person's education is a highly individualized process which occurs over an entire lifetime. Second, public education is somewhat monopolistic and compulsory until the ages of fifteen or sixteen years. How can public education, which has compulsory attendance provisions under the law and few direct incentives to change, provide for the individualized education of each person in such a way as to meet both the person's and society's needs and expectations in both present and future contexts?

In order to make changes which will assist education in meeting varied needs, more information is needed regarding such questions as:

1. What are schools attempting to do at present?
2. How well are schools achieving what they are attempting to do?
3. In what ways are schools failing to meet educational needs

and expectations of students, teachers, parents and other members of the community?

4. What alternative approaches to present practices might assist schools in meeting peoples' needs and expectations more effectively?

5. What resources would be required if proposed changes were implemented, and what resources would be reasonably assured under the present circumstances?

6. How can an on-going feedback system, both internal and external, be established?

All of these questions relate to the need for developing adequate feedback systems which will provide information on which educators could make sound decisions.

Even with gathered feedback in hand, educators face another problem with regard to making changes to meet more effectively peoples' needs and expectations. As yet, education appears to have an insufficient scientific knowledge base on which to design and defend change efforts. As Owens noted (1970:146):

> Until the knowledge base of education becomes more orderly, precise and extensive, ways to achieve desirable educational change will remain ambiguous and confusing.

During the latter half of the nineteen-sixties, a number of researchers in the United States were working on a feedback system which could serve education's need for an information base on which to make decisions. The <u>educational needs assessment</u> approach seeks to measure and assess peoples' perceptions of various aspects of education from the points of view of (1) <u>what is</u>, and (2) <u>what ought to be</u>; the actual and the ideal conditions. The work done to date on educational needs

assessment appeared to hold sufficient promise to warrant further testing and refinement. This study was intended to explore the application of educational needs assessment methodology as a potentially useful feedback system for schools in particular, and education in general.

PURPOSE OF THE STUDY

The Purpose

The purpose of the study was to gather feedback from a community which would assist the researcher in ascertaining the type and extent of perceived educational needs in the sample community.

The Problem

The problem of the study was to measure perceptions of the (1) ideal importance, and (2) actual achievement by students of a number of selected skills and goals. The problem necessitated the development of a situation-specific instrument capable of making these perceptual measurements.

The Sub-problems

Four sub-problems identified in the study were as follows:

1. In what rank order, based on mean scores for the total sample, would respondents place the skills and goals in terms of (1) ideal importance, (2) actual achievement by students, and (3) discrepancy scores (which were the difference between mean scores on ideal importance and actual achievement)?
2. Are there any significant differences between the mean scores

of the four community sub-groups on the perceived ideal importance of any of the skills or goals?

3. Are there any significant differences between the mean scores of the four community sub-groups on the perceived actual achievement by students of any of the skills and goals?

4. Are there any significant differences between the mean discrepancy scores of the four community sub-groups on any of the skills or goals?

5. Are there any significant differences between mean discrepancy scores (DS) on any of the skills or goals when the sample population, or identified parts thereof, are grouped according to such secondary variables as:

   a) age

   b) sex

   c) ratepayers and non-ratepayers; ratepayers by property location

   d) present type of occupation or employment

   e) educational record

   f) perception of educational preparation for present situation

   g) perception of awareness of what schools and education are attempting to do.

DEFINITION OF TERMS

Need - anything requisite, lacking or desired (preferred need) by an individual, group or

institution.

Educational Need - any need for which schools are able, or have a responsibility, to provide.

Educational Needs Assessment - a means of determining the nature and extent of the discrepancy which exists between peoples' perception of (1) what is, and (2) what is required or what ought to be within the confines of a specified educational context.

Felt Need - a need which has been identified and for which some measurement or estimate of extent is available.

Community - for this study, 'community' referred to all those residing within the jurisdiction of B.C. School District #21 (City of Armstrong and the surrounding Municipality of Spallumcheen).

Goal - for this study, 'goal' referred to a general statement of desired outcome as a result of public education; a statement which is more specific than an 'aim' or 'purpose' but less specific than an 'objective'.

Skill - for this study, 'skill' referred to a specific goal statement which implies some ability to perform in a specified manner.

Students - for this study, 'students' referred to a sub-group of 50 secondary students in Grades 8 - 12 enrolled in Armstrong-Spallumcheen Secondary School.

Teachers - for this study, 'teachers' referred to the total population of 53 educators on staff in B.C. School District #21.

Parents - for this study, 'parents' referred to a sub-group of 50 parents (or parent units) of secondary students selected for the study.

Other Adults - for this study, 'other adults' referred to a sub-group of 50 adults, nineteen years of age or older, who had no children enrolled in secondary school at the time of this study.

SIGNIFICANCE OF THE STUDY

Periodically, it is necessary to re-examine educational goals and practices with a view to making needed changes and adjustments. In Canada, the provinces have traditionally turned to Royal Commissions for this kind of re-examination. Royal Commissions, and other such major study projects, however, have tended to be (1) costly, (2) time-consuming, and (3) focused on education at the provincial level. There appears to be a need, therefore, for methods of re-examining education which are (1) less expensive, (2) less time-consuming, and (3) focused on education at the local level.

As noted by Robinson (1972:1), school districts in British Columbia have finally begun to gain a greater measure of local autonomy in curricula and program development. Although the British Columbia Department of Education still strikes curriculum revision committees, the approach to curriculum revision and development has changed. First, the committees are now made up of practicing teachers and department heads rather than university professors as used to be the case. Second, curriculum revision committees are tending to work less in isolation than before. The committees hold regional meetings at which teachers and interested members of the public are invited to offer suggestions and ideas for the proposed curriculum. Provincial subject specialists' organizations are invited to make presentations to the revision committees. Third, the current emphasis in curriculum development appears to be on designing general curricula which embody a large number of suggested books and materials. Teachers then draw from the suggested books and materials those which, in their opinions, will best enable them to assist students in meeting the curricular goals.

Another facet of a greater measure of local autonomy involves the development of courses and programs to meet the needs of the people in the district using facilities and services which are available locally. In North Vancouver, British Columbia, for example, an Outdoor School program was initiated in 1967 to provide urban students with learning experiences in an outdoor environment. In 1972, the Outdoor School program became a permanent part of elementary education in the district with full Department of Education approval. The Community School in North Vancouver represents a series of locally developed programs and services which are intended to meet the needs of people residing in the

lowest socio-economic area of North Vancouver. Teachers are encouraged to experiment with and develop more effective ways of educating students. The British Columbia Department of Education now encourages and approves local developments of this nature.

A third facet of the shift toward greater local determination of education involved the elimination of standardized matriculation exams and the reduction of core program requirements to English and Social Studies only. Students now must look to their personal and career needs in constructing their programs. Similarly, teachers are now experimenting with wider offerings in basic subjects so that students now have the opportunity to select courses from a number of academic electives.

These changes indicate that there has been a shift in British Columbia toward greater local determination in program and curricula matters. As a result of this shift in responsibility, there is a need at the local level to gather more feedback regarding peoples' perceptions, needs and expectations. Provincial re-examinations are costly, time-consuming and not always able to provide the kind of information needed to make local decisions because of their provincial concern. This study involved an investigation of a relatively inexpensive, short-term re-examination of education at the local level which could be implemented as the basis for an on-going feedback system for local educators.

Educational literature is replete with ideas for improvement. Differentiated schooling, differentiated staffing, individualized instruction, non-graded schooling and modular-elective programs are just a few. This variety of proposals for change is the basis for a serious problem facing educators. Without an adequate information base,

educators have difficulty in (1) making decisions upon a defensible need for change, and (2) selecting, from the pot pourri of educational innovations, the ones most suited to meeting peoples' needs and expectations. This study investigated educational needs assessment as one possible means of gathering feedback information at the local level to assist educators in making such choices and decisions at the local level.

ASSUMPTIONS

The study assumed that the respondents in the selected community sample were able to give a valid estimation of their perceptions of the ideal importance and the actual achievement by students using the selected skill and goal statements presented in the instrument.

A second assumption underlying the study was that respondents would be willing to participate and that each would give serious and careful consideration to what was being asked.

A third assumption was that a questionnaire presenting selected skill and goal statements is a valid method for gathering peoples' perceptions of ideal importance and actual achievement by students.

DELIMITATIONS

The study was delimited to measuring perceptions of ideal importance and actual achievement by students using ten skill and nineteen goal statements. Based on measurements of ideal importance and actual achievement, the discrepancy scores for each individual were calculated by subtracting his actual achievement from his ideal importance scores for each of the ten skill and nineteen goal statements.

A second delimitation was that the study dealt with a sample population of 203 respondents, composed of primary community sub-groups of Students, Teachers, Parents and Other Adults, drawn from all those residing within the jurisdiction of School District #21, Armstrong, British Columbia.

LIMITATIONS

A major limitation to the study was the difficulty encountered in securing information regarding educational needs assessment research studies. Most of the work done in this area has occurred in the United States during the past three to five years. Very little material relating to either methodologies used or results obtained was available through conventional sources such as journals, periodicals and micro-fiche files. Direct contacts with a number of educational needs assessment researchers produced some material but most projects appeared to be either too embronic in nature, too situation-specific to be of much use in this study or required vast resources in order to be replicated. To date, it appeared that there has been little done in Canada in the field of educational needs assessment.

A second limitation of the study was that, due to time and financial restrictions, the data reported were limited to the responses of those individuals who completed and returned their questionnaires in usable form by April 6, 1973.

A third limitation of the study was that time and financial restrictions prevented either follow-up studies or additional testing with other sample groups for comparison.

OUTLINE OF THE STUDY

This chapter has identified the major research problem and the sub-problems which were investigated, the definitions of terms used, the significance of the study, and the study's underlying assumptions, delimitations and limitations of the study. The remainder of the thesis will be organized as follows:

Chapter 2 - Review of Related Literature and Research.

Chapter 3 - Research Design, Instrument Development and Research Procedures.

Chapter 4 - Description of Sample Population and Data Presentation and Analysis I - The Primary Variable.

Chapter 5 - Data Presentation and Analysis II - Seven Secondary Variables.

Chapter 6 - Respondents' Comments.

Chapter 7 - Summary, Implications, Recommendations and Suggestions for Further Research.

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SUMMARY

There appeared to be a need for research in the development of local feedback systems in education so that educators would be more aware of community needs and expectations. Research in educational needs assessment indicated that this was one possible approach to gathering feedback information which would be useful in educational decision-making. The study sought to measure the perceptions of a representative

sample regarding the ideal importance and actual achievement by students of ten skills and nineteen goals selected for the study. It was hoped that the results would provide a valid indication of how people in the sample community perceived the schools were doing and what they would like to see the schools attempt to change or do in the future. It was further hoped that the results of this study would provide a basis on which the educational needs of the sample community might be assessed in terms of the selected skill and goal statements.

Chapter 2

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

It would be misleading to suggest that the concept of assessing educational needs is new. Spafford (1943) and Tyler (1947) spoke of the need to identify the needs of learners and society in formulating and developing school curricula. The curriculum model developed by the General College at the University of Minnesota (1942) was based on a triangular representation with educators' philosophy at the base, the needs and interests of learners on one side and the needs of society on the other.

While the basic belief in the importance of assessing and taking into account educational needs in curriculum decision-making has been in existence for years, little work has been done until recently to develop some standardized and rigorous procedures for determining these needs. Kurth (1971:1) stated:

> To attempt to assert that assessing educational needs is a concept new to education would be naive. On the other hand, there is little question that this most critical component of planning and decision-making has, over the years, largely been left to the somewhat capricious whims of institutional and educational "guessmanship". What we attempted to do was put it on a sounder and more scientific footing.

This study by Kurth, and other similar studies conducted in the United States during the past three to five years as a direct result of funds made available through the Elementary and Secondary Education Act Title III grants, have made "educational needs assessment" a term in relatively common use in recent years.

The recent nature of educational needs assessment studies explains why little information regarding methodologies used and results obtained is readily available except by direct contact with the researchers. From the limited amount of material obtained to date, it would appear that educational needs assessment researchers have little in common beyond (1) seeing the importance of meeting educational needs more than is presently the case, and (2) taking some kind of measurement of the discrepancy between the what is and the what ought to be or what is required. As yet, there appears to be no consensus among researchers as to the most valid and reliable methodologies to be pursued in assessing educational needs.

Problems of definition and Delimitation

Conventional wisdom and man's tendency toward global concepts often lead people to believe that they understand words which, in fact, they are unable to either define or clearly explain. An example in the context of this study is, "What is a need?". A survey of the available literature and research emphasized that one of the first problems to which education needs assessment researchers addressed themselves was the identification and definition of the terminology and concepts involved.

Problem of defining needs. The foundational work done by Murray (1938) and Maslow (1954) provided a basis on which to develop an understanding of human needs. Peoples' needs, however, are complex and changing determiners of behavior. Human needs could best be described, perhaps, by using a Getzels and Guba phrase: " . . . conceptually independent but phenomenally interactive . . ." (Enns, 1973).

For the purpose of the study, educational needs were defined as those needs for which the schools were able, or had a responsibility, to provide. In a research sense, however, it would appear that educational needs are situationally defined and determined in the light of the particular study undertaken. For example, one researcher might assess the educational needs of students belonging to a particular ethnic minority enrolled in Grades 1 - 3 in School X. His specific focus might be on these students' generic needs and needs-satisfactions as they relate to the development of a more positive attitude toward school, school work and staying in school after each has reached the age limit for compulsory attendance.

Another educational needs researcher might assess the needs of vocational students in Automobile Body Repair programs in all of the western Canadian vocational schools. His particular focus might be on students' needs as they relate to what future employers will expect of them and what skills and attitudes each will have to possess, therefore, in order to be successful.

Yet another researcher might direct his study to assessing the educational needs of Mathematics 10 students of Teacher X. His major concerns might centre around students' perceptions of teacher effectiveness and helpfulness regarding major problem areas in the subject.

In general, educational needs are defined and determined in a situation-specific sense. The educational needs assessment researcher is guided in his definition and identification of educational needs by (1) the purposes, and (2) the context of his study.

Current approaches to definition of educational needs. For the

purposes of educational needs assessment, researchers in Mesa, Arizona divided needs into two categories; (1) generic needs of learners, educators and society which were defined as those needs which were held in common, and (2) individual needs of learners, educators and members of society which were defined as those needs which were unique to the individual, or personally distinctive, at least (Pew, 1972:14-16). The Mesa researchers based this division and definition upon the work of Laswell as outlined in Rucker's, Human Values in Education (1969), Maslow in Motivation and Personality (1954) and Designing Education for the Future: Arizona Project (1967).

An educational needs assessment conducted in Portland, Oregon by the Northwest Regional Educational Laboratory entitled, "Project Trend" (1971), focused on educational needs which were divided into seven categories:

1. Psychological health
2. Physical health
3. Aspirations and interests
4. Home support
5. School work skills
6. Attitudes
7. School achievement

No supportive evidence was offered in the report to justify these distinctions among needs.

The Design Project (1968) educational needs assessments conducted in the Fresno, California area entitled "Brainstorm", "Speak-Up" and "Student Speak-Up" defined educational needs in a working context. Study respondents were asked to discuss and complete such statements as

(1) "We should have more instruction in . . .", (2) "We should have less instruction in . . .", (3) "In helping ethnic minority groups the school should . . ." and (4) "We would like school a lot better if . . .".

Problem of delimiting educational needs. English (1972:4) noted that needs should be delimited within the given context. For example, some needs relate to time contexts such as the present, near future, and far future. Other needs relate to a specific situation; a school subject, career goals or social situations. Some needs relate, at the same time, to the individual, the task he is engaged in, the needs of those around him and society's expectations of him. Peoples' needs, therefore, are involved in complex inter-relationships which require some degree of delimitation in order to be handled.

Attempts to delimit needs for research purposes have had to cope with another issue; where is the dividing line between the satisfaction of needs which are the primary responsibility of the school, as opposed to those which are the primary responsibility of the individual, his peer group, the home or society in general?

There appeared to be little information in the literature which would assist educators and researchers in making these delimitations. In the Mesa, Arizona studies, however, the researchers delimited the time context to present and near future. They narrowed their assessment of needs to (1) the cognitive domain and (2) the affective domain. In order to decide (1) which needs were primarily the responsibility of the school, and (2) which of the identified discrepancies between what is and what ought to be require attention, the researchers assisted Mesa educators in establishing "tolerance criteria" (1972:5). For example, spelling was judged by Mesa educators as a primary responsibility of the

schools. A twenty percent range in scores was set as the "tolerance criterion"; if the range of scores exceeded twenty percent, a change in present practices was warranted. The results obtained indicated that eighty-four percent of students, fifty-nine percent of parents and thirty-eight percent of teachers felt that there should be additional emphasis on spelling. The range of scores exceeded the twenty percent "tolerance criterion" set by the educators so it was concluded that changes had to be made to current practices so that more emphasis was placed on spelling (1972:6).

The whole area of delimiting needs appears to require additional research, however, because it is far from clear as yet.

Problems of defining assessment. Another definitional problem facing educational needs assessors relates to the terms 'assessment' and 'evaluation'. As is the case with 'needs', most people appear to grasp conceptually what is meant but few appear able to provide clear, workable definitions and procedures. Tyler (1950) defined evaluation as "The process of determining to what extent educational objectives are actually being realized by the program of curriculum and instruction". Stufflebeam (1971:40) defined evaluation as, "The process of delineating, obtaining and providing useful information for judging decision alternatives". There are commonalities between these two definitions but a somewhat more precise, working definition is desirable.

Kaufman (1971:46) defined assessment as the "measurable discrepancy between the what is and the what is required or should be". This definition suggested that an assessment of educational needs could be conducted by gathering measurements of peoples' perceptions of

(1) ideal, and (2) actual conditions within a given educational context. First, the measurement of ideal conditions would provide educators with an insight into peoples' ideal priorities. Secondly, the measurement of actual conditions would provide educators with an insight into how well the schools were perceived to be doing in their efforts at present. The difference between the measures of ideal and actual conditions would provide a discrepancy score which, according to Kaufman (1968:13) provides educators with (1) an identification of needs which can be put in rank order of their perceived priority, and (2) a numerical value which denotes the perceived extent of each need.

Current approaches to assessment and evaluation. The current approaches to evaluation and assessment of educational needs are situationally determined by the (1) purposes of the study, (2) the particular orientation of the researcher, and (3) the local situation.

Following the approach of English and Kaufman (1971:1-10) in the Mesa, Arizona studies, a questionnaire is generally used which gathers measurements of peoples' perceptions on given educational issues in terms of (1) what is, and (2) what is required; the actual and the ideal conditions.

Saul (1973:1-5), who is currently conducting an educational needs assessment for the Department of Education in Bermuda, is using a 'strengths-weaknesses' approach to assessment. His instrument contained a list of educational goals, services and issues on which respondents were asked to indicate which they felt were 'strengths' of the present system and those which they perceived as 'weaknesses'. From the results, Saul hopes to be able to identify (1) what the system is

perceived as doing well at present, and (2) what matters will require additional attention or emphasis in order to meet peoples' needs and expectations more effectively in the future.

The instrument developed for the Wisconsin Educational Needs Assessment Study (1969:1-78) employed a priority ranking approach to the assessment of needs. Each of the ten sections of the instrument contained ten sub-issues relating to the section heading. Participants were given each section in turn and asked to rank the ten sub-issues from '1', for the item perceived to require the most additional attention or emphasis, to '10', for the item needing additional attention or emphasis. When participants had completed all ten sections of the instrument, the researchers took the items which had been ranked as '1' in each of the ten sections and asked participants to rank them using the same procedure as before. The results were an overall priority list of the primary educational needs of the system under study.

An educational needs assessment instrument developed at the Abbot and Phillips Academies in Andover, Massachusetts entitled, Student Description of the Classroom (1972), used a client-oriented approach to needs assessment. Students responded to a number of questions regarding the teacher, the course and themselves.

In Part I, students indicated their perceptions of teacher effectiveness and helpfulness regarding a series of specific questions by checking the appropriate box on a four point scale which ran from 'strongly agree' to 'strongly disagree'. In Part II, students responded to a series of questions regarding the course using the same procedure. In Part III, students described themselves as students in the course by checking the most appropriate response on a four point scale

running from 'no interest' to 'great interest' on a series of specific questions.

Most teachers in Abbot and Phillips Academies had their students complete the questionnaire. The results were then used by teachers to make adjustments in their treatment of students and their teaching of the course so that identified student needs might be met more effectively in the future.

Each of these situationally defined assessment studies produced data regarding (1) what the educational needs were, (2) the extent to which each was a need in relationship to other identified needs, (3) the extent to which programs, goals or curricular objectives were being reached, or (4) the extent to which present goals, programs and objectives were in keeping with peoples' needs, expectations and priorities. Any particular approach to needs assessment appears to be selected by the researcher in light of the (1) purpose of his research, and (2) the local situation.

The Need for Educational Needs Assessment

English (1971:20-22) supported the need for a more defensible, scientific and responsible approach to planning for relevant and effective education in an article entitled, "Educational Success Planning: Reducing Chance as an Aspect of School Innovation." He stated that schools have been influenced in their change efforts far more by tradition or unrealistic, untested assumptions than by empirical testing and validation. He went on to say that, with this approach to planning, the chances of schools meeting the needs of those directly involved were fairly low. English referred to the book, Crisis in the Classroom

(Silberman, 1968) as one of many attempts to document the ways in which schools are failing to meet the needs of their clients. In direct terms, he stated (1971:20):

> . . . nothing can take the place of rigorously identifying and examining in a systematic manner the needs from which school design [programs, curricula, methodology] should stem.

A number of planning models in education incorporate a needs assessment phase as a primary component. The "Oregon Composite Planning and Evaluation System Model" (1971), a complex model for implementing, assessing and controlling change in educational systems, employed a needs assessment component in "Cluster A" - the first phase in the operation of the model. The Ontario Institute for Studies in Education publication entitled, Developing School Systems (Greenfield, 1969) used a needs identification component as the first phase in its organizational planning model. Tyler (1947) repeatedly stressed the necessity to examine the educational needs from which curriculum design should stem.

The Canadian Teachers' Federation recently commissioned a series of papers by Canadian educators regarding the needs of learners, educators and other members of the society. Lloyd (1970:1-75 reviewed much of the current thinking in Canada and around the world regarding what education should be trying to do in order to combat the social problems facing mankind. Rocher (1972:1-36) outlined his views of what individual students and adults, as well as the "plurality of public" (1972) expected of schools and education today. Both Lloyd and Rocher appeared to be advocating that education should pay closer attention to what people need and expect than is the case at present. By assessing needs and developing on-going information feedback systems, educators would be more aware of what people needed and were currently expecting of

schools.

Cass, education editor for Saturday Review, pointed out that the schools in the United States had seemingly managed to resist many of the change forces prevalent in American society during the nineteen-sixties. In his opinion, the schools have to change in order to meet peoples' needs more effectively than at present. He stated (1970:69):

> The fundamental task of educators in the Seventies will be to help, or force, schools to become more responsive to the needs of children . . . to keep clearly in mind that the objective is the development of children, not the preservation of an institution and, perhaps the most difficult of all, ways must be sought to nurture a wider spectrum of youthful talents and tastes, aptitudes and aspirations.

Cass, and other writers in education, noted the need to pay closer attention to peoples' needs and expectations. In doing so, educators would be assisting people to satisfy some of their needs and thereby promote a greater degree of self-motivation and interest.

Ryan (1972:7-12), described a project conducted in a Toronto, Ontario suburb which sought to assess the needs and expectations of parents and students from four existing secondary schools who were being moved to a new secondary school. The Ryan study is an example of the use of educational needs assessment information in the planning of a school's programs and operation prior to its opening.

Smith (1971:10) regarding the experience of the Mesa Pilot Project, observed:

> Needs assessment offers the educational planner viable data on which education decisions affecting students can be made. Educational needs assessment does not curtail a "solution-oriented" society or education, but it does give educators an opportunity to identify problem areas and educational needs before an alternative is selected. It serves as justification for the decisions that are made and provides a choice of several alternatives to any given problem.

There appeared to be sufficient justification in the literature

to establish the need for assessment of educational needs in planning, development and operation of schools.

Need for Broad Involvement Bases in Needs Assessment

Coombs, in an address to a group of world educators gathered for a United Nations; Educational, Scientific and Cultural Organization conference, spoke of the "crisis in education". The following excerpts from his address indicated that he believed that (1) education needed more on-going evaluation and feedback, and (2) more people should become involved in assessing what education was doing and directing what education should be trying to do (1968:1-14):

> To improve itself, an education system must know what it is doing and how well it is doing it. Further, if a society is to strengthen its educational system, many people besides educators must have access to the essential facts.
>
> . . . . . .
>
> Every educational system should establish effective machinery to evaluate its own performance on a continuing basis.
>
> . . . . . .
>
> Besides continuing self-evaluation, educational systems should periodically subject themselves to friendly but critical scrutiny by their peers.
>
> . . . . . .
>
> A concern for proper information must also be directed toward society itself and particularly those parts which have the deepest interest in education's performance. This concern requires two measures. The first is improved methods by which relevant information is made available. This is the responsibility of education. The second is improved understanding on the part of the media - the press, television and radio - that are the main channels between education and the public.
>
> . . . . . .
>
> . . . education can no longer be regarded as a series of unconnected enterprises, conducted at different levels with purpose independent of each other. Education within any society must be considered a unified whole, its parts in balance and the balance in turn reflecting the society's requirements and resources available to meet them.

Bruner observed that the public attitude toward education was changing and people now wanted to become involved to some extent in

determining where education was going and what it should be attempting to do (1960:3):

> . . . a considerable portion of our population has become interested in a question that until recently was the concern of specialists: "What shall we teach and to what end?"

During the latter half of the nineteen-sixties, British Columbia ratepayers repeatedly turned down referenda requests for funds over and above those provided by the provincial finance formula for several reasons. Ratepayers were concerned, not only with the escalating costs but with what schools were doing with the money and whether the public was getting value in return. Robinson (1971:11,1) noted that British Columbia ratepayers were concerned about (1) whether education was doing what it was supposed to be doing, (2) whether the so-called "frills" were either necessary or desirable, (3) whether education was really responsive to what the public expected of it, and (4) whether education was becoming a self-sustaining, self-directing and perhaps even a protectionist entity of its own? These kinds of concerns indicate that perhaps educators are not keeping in touch with the public and argue for the establishment of feedback systems which will take into account peoples' needs so that the means of meeting peoples' needs can be more adequately reflected in a community's schools.

The need for broad-base involvement in educational needs assessment was supported by a number of researchers in the field. Rose, and a group of associates at the Program Development Center for Northern California, developed a community workshop program for Phi Delta Kappa to assess educational needs. The program employs a committee drawn from the community, composed of people representing three categories (1972:1):

1. Citizens at large.

a) Parents of school age children.

b) Representatives of community businesses, services, religious and cultural organizations.

c) Representatives of school affiliated organizations.

d) Representatives of ethnic and socio-economic groups.

e) Representatives of government organizations.

2. Citizens directly involved in the educational process.

a) School board members.

b) Administrative staff.

c) Classroom teachers and other certified personnel.

d) Classified personnel.

3. Students.

The representative committee, using a combination of consensus decision-making and task force techniques, assesses the educational needs of the community regarding goals and objectives. Rose (1972:1) noted that the success of the committee is determined, in major part, by the extent to which it is actually representative of the community.

Educational needs assessment studies conducted in Florida by Kurth (1971), and in Sarasota County, Florida by Melton (1973) used representative samples drawn from the total population in the areas under study. The rationale offered for this kind of sampling was that education is a matter of public concern and therefore a representative sample of the total public should be involved.

In the previously cited Project Design (1968) educational needs assessment studies, the researchers used three sample groups. "Brainstorm" involved educators, administrators and board members in assessing the educational needs in the Fresno, California area.

"Speak-Up" involved a large number of informal, neighborhood sessions for adults. The adults, invited by neighborhood organizers, gathered to discuss and formulate group answers to a series of questions relating to educational issues, goals, services and needs. "Student Speak-Up" involved similar sessions for students in the secondary schools in the Fresno area. The researchers hypothesized that an educational needs assessment should gather the perceptions and opinions of educators, members of the community and students in order to ascertain what the educational needs and priorities of a community were. Differences in opinions and perceptions were obtained among the sub-groups, thereby substantiating the original hypothesis.

English (1971:20) advocated a tri-level approach to the assessment of educational needs:

> We propose a tri-level assessment model which gathers data from the needs of learners, the needs of the community and society, and the needs of the implementing educators.

In keeping with the English Tri-Level Assessment Model, the Mesa educational needs assessment studies involved three community sub-groups; (1) students, (2) members of the community, and (3) educators. The researchers discovered differences among the three sub-groups in their perceptions of educational needs. Only by gathering information and perceptions from all three groups could a researcher offer a reasonably valid assessment of what a community's educational needs were.

In an educational needs assessment (curriculum focus) which was designed and conducted in Etobicoke (1971), researchers involved 12,546 students, 3,127 parents and 2,728 educators in a questionnaire assessment of their needs. They discovered (1) a reasonably high degree

of agreement within groups, but (2) two overall significant differences between groups; between students and teachers, and between students and parents.

When the Etobicoke study was modified and administered in Vernon, British Columbia as the Vernon Curriculum Inquiry (1972), researchers obtained similar findings to those made in Etobicoke.

Current Methodologies in Educational Needs Assessment

In summary, the following general methodologies have been used or suggested for use in conducting educational needs assessments:

1. Interviews with individuals, either expert in some field or representative of a group.
2. Questionnaires and opinionnaires completed by sample populations.
3. Charette, consensus decision-making and simulation game techniques which involve participants directly in indicating opinions or tackling problems.
4. Q-sort tasks involving goals, objectives or educational issues.
5. Delphi process with near future or far future foci.
6. Combinations of these methodologies.

Interview and questionnaire-opinionnaire techniques appear to be the ones most commonly used in the past in assessing educational needs. In the last two to three years, however, more emphasis has been placed on combinations, and such methodologies as charette, consensus decision making, Q-sort and Delphi processes. These methodologies appear to have the capacity to produce slightly different data than that which

arises from interviews and questionnaires. Charettes and consensus decision-making, for example, offer the advantages of data refinement through consensual processes. The Delphi technique allows for (1) consensual refinement of information, and (2) predictions of what will likely be in the future, with some degree of accuracy and reliability. The Q-sort technique gives participants a physical activity to perform, which is more appealing to some people than conventional pencil-and-paper tasks. It would appear that researchers are beginning to use these latter methodologies because of the particular advantage each offers. Similarly, researchers appear to be using combinations in order to take several measurements of the same thing but from different directions.

For example, a representative community group in St. Albert, Alberta, conducted a week-long charette in October, 1972 to identify and prioritize both community and educational needs. The resulting report (1973:1-32), it was hoped, would provide some guidance to community leaders in their direction of community and educational affairs.

The North Vancouver Community School has used the consensus decision-making approach on a number of occasions since the school's inception in 1970 (Stevens, 1973). Community groups have indicated educational needs, assessed the extent to which the school was meeting their changing needs and planned for future needs using this technique. In almost every case, the results of consensus decision-making sessions have been changes to the school's planning and operation.

The Sarasota County Educational Needs Assessment (Melton, 1973) employed a Q-sort technique for needs assessment. Participants received

a package which contained instructions, twenty-three cards on which were printed goals of the Sarasota school system and a pocket device designed for the study. They were asked to sort the goal cards into the pocket device as instructed. The most important goal in their opinion went into the first slot. The three next most important goals went into the second slot. The next five most important goals went into the third slot and so on in an overall pattern of 1, 3, 5, 6, 5, 3, 1 for all twenty-three goal statements. The results of this study were not available at the time of this writing but the researchers intended that the end result would be a priority ranking of the goals of education in Sarasota County.

The Congress on the Future, held in Edmonton in 1970, utilized the Delphi technique in order to predict what the future educational needs for Alberta would be. The results of the application were incorporated into the Commission for Educational Planning's report entitled, A Choice of Futures (Worth, 1972). In this report a possible choice facing the people of Alberta and their educational system was outlined.

Data Sources for Educational Needs Assessment

There appear to be numerous data sources from which educational needs assessment researchers draw their information. A researcher must select from the sources available, the ones which will provide the most pertinent, reliable, valid and useful data for the study being undertaken.

Educational needs assessors should draw from a number of data sources, if possible, to ensure that sufficient information is

available on which to make conclusions. English stated (1971:20):

> Because of the diverse intentions, and because any educational agency should be responsive to local conditions and requirements, there is no single data source for performing an assessment of needs.

The following list contains the data sources which have been tapped by various educational needs assessment researchers:

1. Students (past and present).
2. Student files, records and test results.
3. Teaching and support staff personnel.
4. Parents and other members of the community.
5. Ancillary social service personnel in the community.
6. Government and professional association reports.
7. Committee, workshop, task force and other group reports.
8. Comparable studies done earlier or elsewhere.
9. Skilled, professional, technical or knowledgeable "experts".
10. Current literature in research journals and periodicals.
11. Business, industry and post secondary institutions.

SUMMARY

The opinions found in the literature and the results obtained by educational needs assessment researchers indicate that:

1. There is a need to develop feedback systems by which educators can keep in touch with peoples' perceptions of how the schools are doing and what they would like to see the schools attempt to do.
2. Educational needs assessment, by measuring the discrepancy between the what is and the what ought to be, is a potentially valuable means of gathering useful feedback for

schools.

3. The terminology involved in educational needs assessment has to be situationally defined.

4. The sample used in educational needs assessment should be a representative one which involves students, educators and other members of the community.

5. The methodology employed and the data sources tapped should be determined by the situation. Where possible, however, combinations of methodologies and data sources should be used to assist the researchers in gaining valid insights into the educational needs of individuals or groups within the community and the community in general.

More research in the field of educational needs assessment appears justified by the literature and research results surveyed.

Chapter 3

RESEARCH DESIGN, INSTRUMENT DEVELOPMENT AND RESEARCH PROCEDURES

This chapter is divided into three sections; (1) research design, (2) development of the instrument, and (3) research procedures.

I RESEARCH DESIGN

Purpose of the Study

The purpose of the study was to gather information from members of a community which would assist the researcher in identifying the nature and extent of educational needs in the community.

Focus of the Study

Public education is designed around a series of goals which society holds to be worthy of attainment by individuals. Periodically, however, it is necessary to review (1) the goals of education, and (2) the efforts being made by schools in promoting student movement toward goal attainment. On the basis of such information, educators can then ascertain (1) the direction education should be taking, and (2) the extent to which schools are presently succeeding or failing in their efforts. It was decided, therefore, that the focus of the study would be a local assessment of needs by measuring perceptions of (1) the ideal importance, and (2) the actual achievement of a set of specified goals.

Research Sample

The work of English (1971) and Rose (1972) suggested that an assessment of a community's educational needs should involve a representative sample of the community in order to provide a valid indication of what the entire community viewed its educational needs to be. From the sample community's total population of approximately 4,500 people, a research sample of 200 respondents was proposed.

Primary variable. Research findings of the Mesa Project (1971) and Etobicoke study (1971) and the recommendations of English (1971) and Rose (1972) suggested membership in four community sub-groups as the primary variable in the study. The proposed sample would be composed of fifty respondents each from community sub-groups of (1) secondary students in Grades 8 - 12, (2) elementary and secondary teachers and administrators, (3) parents of the selected secondary students, and (4) other adults in the community who had no children enrolled in secondary school at the time of the study.

Secondary variables. Seven variables were selected in order to ascertain what effect each might have upon respondents' mean discrepancy scores (DS). The seven secondary variables were (1) age of all respondents, (2) sex of all respondents, (3) adult ratepayers versus non-ratepayers and ratepayers by location of their property, (4) educational record of all adults and of parents and other adults only, (5) type of occupation or employment with (a) students by junior-senior split, (b) teachers by school, and (c) parents and others by occupation type, (6) adults' perception of their educational preparation for present situations, and (7) all respondents' perception of their awareness

of what schools and education were attempting to do.

Data Collection

Data, in the form of respondents' indicated perceptions of (1) the ideal importance, and (2) the actual achievement on each of the goal statements in the questionnaire, would be collected in the following ways: (1) Student and Teacher data would be collected, on location, by the researcher, and (2) Parent and Other Adult data would be collected by mail.

Data Treatment

As the completed questionnaires were returned, the data would be coded on computer cards for analysis. Two programs, NONP04 and ANOVA10, were selected for data analysis from the prepared programs of the Division of Educational Research Services at the University of Alberta. First, the NONP04 program would be used to calculate frequencies, percentages and mean scores on (1) ideal importance, and (2) actual achievement of each item in the questionnaire and for each of the primary variable groupings. Second, the mean scores of the primary variable (the four community sub-groups) would be treated by the Scheffé Multiple Comparison of Means Test, contained in the ANOVA10 program, in order to analyse variance and determine if any significant differences between primary variable mean scores were obtained.

A Datran statement program would be written to calculate a discrepancy score (ideal importance minus actual achievement scores) for each respondent on each item. According to Kaufman (1968:13), the discrepancy score is a numerical indication of the perceived extent of the educational need regarding each item. The discrepancy score data

would then be treated by the Scheffé Multiple Comparison of Means Test contained in the ANOVA10 program, in order to determine if any significant differences existed between the mean discrepancy scores of any of the primary or secondary variable sub-groupings.

A Datran statement would be written which would produce a rank order of questionnaire items for the total sample by (1) ideal importance, (2) actual achievement, and (3) discrepancy scores.

II INSTRUMENT DEVELOPMENT

Introduction

None of the educational needs assessment instruments found in existence were judged to be either suitable for the purpose of the study, or adaptable to the time and financial limitations which existed. First, according to most of the available literature and research, educational needs assessment instruments should be situation-specific. Second, none of the instruments which were discovered focused on measuring perceptions of (1) ideal importance, and (2) actual achievement of goals. Third, time and financial limits necessitated the use of a questionnaire instrument which was (1) reasonably inexpensive and easy to employ, and (2) sufficiently valid in the kinds of data gathered so that defensible conclusions might be reached on the basis of the collected data. On these bases, it was decided to develop an instrument for the study.

Proposed Design of the Instrument

The proposed instrument for the study was divided into three parts. Part 1 was a personal data page on which respondents would be asked to describe themselves, anonymously, in terms of the primary and

secondary variables identified for the study. Part 2 was composed of a series of selected goal statements on which respondents would indicate their perceptions of (1) ideal importance, and (2) actual achievement by circling one of five coded numbers on a Likert-type scale. Part 3 was an open section in which respondents would be encouraged to add any comments, reactions or observations of their own regarding the instrument, its contents, the purpose of the study or education in general.

The basic design of Part 2 was expanded, however, when it was discovered that the selected goal statements lent themselves to a division which is detailed in the following section.

Selection of Goal Statements

The meaning of the term 'educational goal' is not clear as writers and researchers appear to define the term in divergent ways. Many writers and researchers appear to use, interchangeably, the terms 'goal', 'aim', 'purpose' and 'objective' almost to the point of confusion. For the study, the simplest way to identify what is meant by the term 'goal, and differentiate 'goal' from other terms used, is by hierarchical relationship. For the purpose of the study, a 'goal' is a statement which is (1) more specific than an 'aim' or 'purpose', but (2) less specific than an 'objective' as indicated below.

AIMS or PURPOSES (General)

GOALS

OBJECTIVES (Specific)

Figure 1

Hierarchical Relationship between Aims or Purposes, Goals and Objectives

An aim or purpose of education might be to 'socialize the student so that he can take an active part in society". One goal which denotes a more specific aspect of learned behavior in relationship to the stated aim might be to "develop a sense of human rights and interdependence". In order to inculcate the values and attitudes necessary for movement toward this goal, an objective might be to "teach students to interact and cooperate with others by working on group projects involving somewhat complex tasks".

In developing the instrument for this study, a literature survey of educational goals was conducted. A number of goal statements were collected from Departments of Education from across Canada and the United States as well as lists of goal statements used by researchers in both countries. In developing a list of goal statements which would be (1) sufficiently inclusive so as to encompass what society expected of education, and (2) valid for the purpose of this study in a situation-specific context, an analysis of collected goal statements was performed in an attempt to create a common list.

First, it became apparent that goal statements had a great deal in common, no matter their source. Second, many goal statements were abstract, multi-dimensional ideals, often incorporating two or three ideas at the same time. Third, goal statements tended to fall into one of two categories; (1) statements of a general nature, such as "developing a code of behavior to guide personal actions", which could be termed goals, and (2) statements of a more specific nature, such as "developing mathematics skills", which implied some ability to perform and which could be termed skills. For the purpose of the study, it was decided to divide the goal statements into (1) goals, and

(2) skills.

A common list of nine skill and sixteen goal statements was compiled on the basis of goal statements obtained from the British Columbia and Alberta Departments of Education, Ontario's Hall-Dennis Report (1968), the Educational Goals and Objectives Program (Rose, 1972) and the Sarasota County (Florida) Needs Assessment Study (1973). For the purpose of the study, some of the goal statements had to be rephrased so that respondents would be reacting to single issues rather than double or triple-barrelled statements.

The nine skill statements were placed before the sixteen goal statements in the instrument because it was judged that respondents would find it easier to begin with reasonably specific items before moving to the more general and abstract goal statements.

Internal Check on Instrument Reliability

Time and financial limitations which existed prevented either test-retest or a two-community study of the developed instrument. In order to ascertain if the instrument were reliable, another goal statement was added which appeared to be essentially similar to one already selected for the instrument. It was expected that, if obtained data for "developing a code of behavior to guide personal actions" and "developing a sense of morals and values" were similar, this would be indicative of some degree of instrument reliability.

Instrument Validity

Three types of validity appeared to pertain to the instrument developed for the study and attention was paid to each.

Face validity. The superficial appearance of items in the instrument appeared to indicate that the instrument possessed face validity because the items related both to one another and the purpose of the study.

Content validity. The study sought to measure peoples' perceptions of (1) ideal importance, and (2) actual achievement of skill and goal statements relating to public education. The items included in the instrument were all educational skills and goals, therefore it was assumed that the instrument had item validity. The five-point Likert-type scale selected for use in the instrument appeared to represent a reasonably inclusive range of attitudes toward items, therefore it was assumed that the instrument possessed scale validity.

Construct validity. The sample population selected for the study was composed of four community sub-groups about which certain differences could be reasonably expected. It was expected, for example, that Parents and Other Adults would place greater ideal importance on the more traditional skills and goals than would Students. It was expected that ratepayers would perceive ideal importance and actual achievement of various skills and goals differently from non-ratepayers. Differences between primary and secondary variable sub-groupings were expected and, if such differences occurred as expected, the instrument could be said to possess some degree of construct validity.

Validation of the Instrument Prior to Use

Prior to its use in the study, the instrument was submitted to

the following individuals and groups for their reactions in order to ascertain its face and content validity:

1. A group of fourteen graduate students on the Master's program in the Department of Educational Administration at the University of Alberta,
2. The thesis advisor,
3. Five educators in the sample community; one secondary school principal, one elementary school principal, one secondary school vice-principal, the president of the local teachers' association and one secondary school teacher,
4. Five adults in the sample community; two with secondary school age children and three with no children enrolled in the secondary school at the time of the study,
5. The Superintendent of Schools for the sample community, and
6. The Board of School Trustees in the sample community.

Graduate student validation. The graduate student group suggested a number of changes in content and format which were incorporated into a revision of the instrument. Their primary concern appeared to be with the wording used in a number of the items on the personal data page and the goal statements themselves.

Thesis advisor. Several additional changes were made to wording and format upon suggestions made by the thesis advisor.

Educators in the sample community. Two of the five educators suggested that two more goal statements should be added to the instrument in order to cover several traditional goals which had been overlooked by the researcher in the original list. As a result, the

goals of "developing respect for laws and democratic principles" and "acquiring skills and knowledge necessary to get a job" were added. Several other suggested additions were judged by the researcher to be covered already by statements in the instrument and were not acted upon as a result. In general, however, the skill and goal statements in the instrument appeared to reflect the situation-specific requirements for a local needs assessment.

Adults in the sample community. One suggestion for a change in the instrument's content came from an adult in the community with no children in secondary school at the time of the study. As a result, "social" skills was added to the list of skill statements in the instrument.

Superintendent. The Superintendent noted the duplication of "developing a code of behavior: and "developing a sense of morals and values" goal statements. He accepted the rationale for this duplication and had no further changes to suggest.

Board of School Trustees. Upon the recommendation of the Superintendent of Schools, the School Board in the sample community approved the study and instrument with no suggestions for changes.

After the validation process was complete, a final draft of the instrument was prepared. A copy of the instrument is contained in Appendix B.

Post-administration Validity of the Instrument

The data obtained from the instrument when it was administered in the sample community of Armstrong, British Columbia, appeared to

support both the content and construct validity of the instrument.

Content validity. Comments made by respondents on the instrument suggested that the items covered a reasonably complete range of skill and goal statements for the sample community. None of the additions suggested appeared to represent important oversights when subjectively analysed by the researcher. Only two of the 159 respondents indicated any concern that the response scale was restrictive or inappropriate. One respondent felt the scale called for too great a degree of generalization and the other stated that there should have been a category for "couldn't care less". It was concluded, however, that the instrument appeared to possess some degree of content validity in terms of both items and scale.

Construct validity. Expected differences between primary and secondary variable sub-groupings were obtained which supported the pre-study expectations that such differences would likely occur. Age and ratepayers versus non-ratepayers groupings were expected to result in differences and overall significant differences were obtained. It was concluded that the instrument possessed some degree of construct validity.

Post-administration Reliability of the Instrument

It was hypothesized that, if the instrument were reliable, the obtained data on the goals of "developing a code of behavior to guide personal actions" and "developing a sense of morals and values" should be similar. As indicated in Table 1, the total sample's mean score for the ideal importance of both goal statements was 3.62. Sub-group mean

score differences between the two statements were .07 for Students, .08 for Teachers, .03 for Parents and .07 for Other Adults.

Therefore, it was concluded that the instrument possessed some degree of reliability.

On the question of actual achievement of these two goal statements, the total sample's mean score was 1.92 for both statements. Sub-group mean score differences between the two statements were .08 for Students, .08 for Teachers, .14 for Parents and .13 for Other Adults.

Table 1

Comparison of Mean Scores for Total Sample and Community Sub-groups on Goals of Developing a Code of Behavior and Developing a Sense of Morals and Values

	IDEAL IMPORTANCE					ACTUAL ACHIEVEMENT				
	Total	Student	Teacher	Parent	Other Adult	Total	Student	Teacher	Parent	Other Adult
Code of Behavior	3.62	3.13	3.79	3.84	3.83	1.92	2.11	2.05	1.76	1.61
Sense of Morals and Values	3.62	3.20	3.71	3.87	3.80	1.92	2.19	1.97	1.62	1.74

III RESEARCH PROCEDURES

Permission to Conduct Research

Permission was given by the Board of School Trustees for British Columbia School District #21, Armstrong, British Columbia, to assist the researcher in conducting research for thesis purposes. Although the Board gave its public approval of the project, the Board was under

no obligation, financial or otherwise, due to this action.

Selection of Sample Respondents

A total sample of 200 consisting of fifty respondents each from community sub-groups of secondary Students, Teachers, Parents and Other Adults who had no children enrolled in the secondary school was planned. The total sample was expanded to 203 respondents when it was discovered that there were fifty-three teachers on staff in the district.

Student sub-group. The Student sub-group represented slightly more than ten percent of the 472 students enrolled in Grades 8 - 12. On the basis of sex balances and up-to-date homeroom class lists, a stratified-random sample of fifty secondary students was selected.

Teacher sub-group. The Teacher sub-group represented the total population of fifty-three teachers and administrators in the community.

Parent sub-group. The Parent sub-group was the parents of the fifty secondary students selected for the study. Either parent was asked to respond but they were allowed to respond as a unit if they desired to do so.

Other Adult sub-group. Controls were implemented to ensure that Other Adult sub-group respondents had no direct contact with the secondary school either as teachers or parents of secondary school students. A random sample of fifty names was drawn from the 1972 Federal Voters' Lists. Names of either teachers or parents of secondary school students were dropped and additional selections were made for the needed replacements until a sample of fifty respondents was selected.

Covering Letter and the Questionnaire

All respondents received the same questionnaire and covering letter. In a personally addressed covering letter, respondents were informed of (1) the purpose of the study, (2) the respondents in the study, (3) the contents of the questionnaire, (4) what would happen with the results, (5) how the completed questionnaires were to be returned, and (6) the date by which questionnaires should be returned. A copy of the covering letter is contained in Appendix A.

Data Collection

Data collection began during the last week of February, so as to coincide with Education Week in British Columbia, and continued until April 6, 1973. Time restrictions upon the study necessitated the April 6th deadline.

Student data collection. With the assistance of the secondary school principal, selected students were notified and informed of the purpose of the study. The Students were given the option to participate and all chose to do so. During school time, the Students, who were divided into two groups for reasons of space and convenience, came to a room in the school where they were briefed on the purpose of the study and what they were being asked to do. Students completed the questionnaire and returned them to the researcher. Some students in the second group required longer to complete the questionnaire than expected and had to leave in order to catch the school bus. As a result, nine students returned their questionnaires to the school office on the following morning where they were picked up by the researcher. One of the selected students was absent due to a prolonged illness so

his questionnaire was mailed to him along with a stamped, addressed envelope to facilitate its return upon completion.

Teacher data collection. Teachers in each of the three schools received a copy of the covering letter and the questionnaire, addressed to each personally, in their staffroom mail boxes. Each teacher was asked to complete his questionnaire and return it, within four days, to the principal from whom all completed questionnaires would be picked up by the researcher. The two elementary school principals called special staff meetings so that the purpose of the study could be explained by the researcher and any questions could be answered. All three principals were highly cooperative in encouraging their staff members to complete their questionnaires and return them by the deadline.

Parent data collection. The secondary students cooperated by taking home, to their parents, an envelope which contained (1) a copy of the covering letter, (2) a copy of the questionnaire, and (3) a stamped, addressed envelope in which to return the completed questionnaire. The material was addressed to both parents with instructions that either parent could complete the questionnaire or, if they chose, both could respond as a unit. In the cases of single parent families or guardians, care was taken to address the envelope appropriately.

Other Adult data collection. The Other Adult sub-group received, by mail, (1) a copy of the covering letter, (2) a copy of the questionnaire and (3) a stamped, addressed envelope in which to return the completed questionnaire.

The local newspaper editor placed an item in the paper, during the week of February 25 to March 3, 1973 when the researcher was on

location, explaining the purpose of the study, giving the phone number at which the researcher could be reached in the event of questions and encouraging respondents to complete and return their questionnaires.

Data Treatment

Upon their return, data from the questionnaires were coded onto computer cards for analysis. The NONP04 program was employed to calculate frequency and percentage distributions as well as mean scores for the total sample and the four primary variables (community sub-groups) on (1) ideal importance, and (2) actual achievement of each of the ten skill and nineteen goal statements.

A Datran statement routine was written and employed to calculate, for each respondent on each item, a discrepancy score (DS) which was the difference between ideal importance and actual achievement scores on each item.

Another Datran statement routine was written and used to create rank orders of (1) skill, and (2) goal statements on the basis of the total sample's mean scores for (1) ideal importance, (2) actual achievement, and (3) discrepancy score.

The Scheffé Multiple Comparison of Means Test, contained in the ANOVA10 program, was employed to ascertain if mean score differences between primary and secondary variable sub-groupings were significant. The Scheffé Test was selected because a relatively rigorous testing procedure was desired in order to ensure that any significant differences obtained between sub-group mean scores would be defensible differences. According to Ferguson (1971:271), "The Scheffé procedure is more rigorous than other procedures and will lead to fewer significant results". For the purpose of the study, the Scheffé

Multiple Comparison of Means Test was judged to be appropriate and valid.

Scheffé tests were run on the mean scores of primary variable groups for both (1) ideal importance, and (2) actual achievement on each of the ten skill and nineteen goal statements. A short series of Datran statements were incorporated into the prepared ANOVA10 program to cope with different numbers responding to each item. Scheffe tests were also run on the basis of mean discrepancy scores for each item using both primary and secondary variable groupings. The purpose of the Scheffé test in each instance was to analyse the variance and determine if any significant differences between sub-group mean scores were obtained.

SUMMARY

A questionnaire was designed to gather measurements of perception of ideal importance and actual achievement of ten skill and nineteen goal statements selected for the study. A sample of 203 respondents, composed of four community sub-groups was selected; secondary Students, Teachers, Parents and Other Adults who had no children enrolled in the secondary school at the time of the study. The questionnaire was administered in the community of Armstrong, British Columbia, starting in the last week of February and continuing until April 6, 1973. The data were treated as follows: (1) frequency and percentage distributions as well as mean scores for the total sample and the four primary variables on the questions of ideal importance and actual achievement were calculated, (2) a discrepancy score was calculated for each individual by subtracting his actual achievement

from his ideal importance scores which, according to Kaufman (1968:13), is a numerical indicator of the extent of the educational need on the item to which the discrepancy score relates, (3) rank orders were created for both skill and goal statements on the basis of total sample mean scores for (a) ideal importance, (b) actual achievement, and (c) discrepancy scores, and (4) analysis of variance tests using the Scheffé procedure were run on primary variable sub-group mean scores for (a) ideal importance, (b) actual achievement, and (c) discrepancy scores and on discrepancy scores of sub-groupings by the seven secondary variables in order to determine if any of the differences obtained between primary and secondary variable sub-groups were significant.

Chapter 4

DATA PRESENTATION AND ANALYSIS I

Introduction

For the purpose of the study, two levels of data analysis were performed. First, the data were examined in terms of the primary variable, the four community sub-groups; Students, Teachers, Parents and Other Adults. Second, the data were examined in terms of sub-groupings according to seven secondary variables. This chapter contains (1) the description of the population, (2) rank orders of both skill and goal statements on the basis of total sample mean scores for (a) ideal importance, (b) actual achievement, and (c) discrepancy scores, and (3) results of Scheffé tests for significant differences between community sub-group mean scores on each of the ten skill and nineteen goal statements.

RESPONSE TO QUESTIONNAIRE

Table 2 represents the sample population's response to the questionnaire. Of the 203 respondents in the original sample, 159 or 78.9% completed and returned their questionnaires in usable form by the April 6, 1973 deadline. With regard to the four community sub-groups, 92.0% of the Students, 73.6% of the Teachers, 76.0% of the Parents and 72.0% of the Other Adults returned usable questionnaires.

POPULATION DESCRIPTION

Respondents were asked to describe themselves by completing

Table 2

Response to Questionnaire

	Number in the Original Sample	Number of Usable Responses Returned	Percentage of Usable Responses
Students	50	46	92.0
Teachers	53**	39	73.6
Parents	50	38	76.0
Other Adults	50	36	72.0
Total	203	159	78.9

** Total teaching staff

eight items at the beginning of the questionnaire. Items one through six asked for objective information regarding (1) sub-group membership, (2) age, (3) sex, (4) ratepayer or non-ratepayer status and, of ratepayers, location of property, (5) present occupation or employment type, and (6) highest level of education achieved. Items seven and eight asked for subjective information regarding (1) perception of educational preparation for present situation, and (2) perception of awareness of what schools and education are attempting to do.

Age of Respondents

Table 3 contains the frequency response of the four community sub-groups by age category. Students were almost evenly divided between the 10 - 14 and 15 - 19 years age categories, however the majority in the 10 - 14 years age category would probably be 13 or 14 years old because these students were drawn from Grades 8 and 9. The largest

number of responding Teachers, 17 or 45.9%, fell into the 20 - 29 years age category. The largest number of Parents, 20 or 52.6%, were in the 40 - 49 years age category. Of the Other Adults, 22 or 62.8% were aged 50 years or older. Three of the 159 total respondents gave no indication of their age.

Table 3

Age Categories of Respondents

N = 156

Age	10-14	15-19	20-29	30-39	40-49	50-59	60-69	70 & Up
Students	21	25	-	-	-	-	-	-
Teachers	-	-	17	8	9	3	-	-
Parents	-	-	-	6	20	9	3	-
Other Adults	-	-	1	6	6	15	5	2
Total	21	25	18	20	35	27	8	2

Sex of Respondents

Table 4 indicates the distribution of sample respondents by sex and sub-group. Students were almost evenly divided between males and females with 4.4% more males responding. Of the Teacher sub-group, 56.4% of those responding were males while 43.6% were females. In the Parent sub-group, 36.8% of respondents were male while 63.2% were female. In the Other Adult sub-group, 55.5% of the respondents were males while 44.5% were females. With regard to the 159 respondents, however, there was an even balance between males and females.

Table 4

Respondents by Sex

N = 159

	Male		Female	
	f	%	f	%
Students	24	52.2	22	47.8
Teachers	22	56.4	17	43.6
Parents	14	36.8	24	63.2
Other Adults	20	55.5	16	44.5
Total	80	50.3	79	49.7

Students by Grade and Sex

Table 5 presents the distribution of Students by grade and sex. The sex balance of respondents was approximately that of the total school population. The number of respondents by grade was approximately 10% of the enrollment in each grade. Of the original sub-group sample of 50, 46 or 92.0% returned questionnaires in usable form.

Teachers by School

Table 6 indicates the number of teachers who responded by school. Of the 53 teachers on staff in the district, 39 or 73.6% completed and returned questionnaires in usable form by the deadline. A 100% return rate occurred in the case of the two elementary schools but only 46.1% of the secondary school teachers returned completed questionnaires.

Table 5

Students by Grade and Sex

N = 46

	Gr. 8	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Total
Male	6	6	5	5	3	24
Female	5	5	5	3	3	22
Total	11	11	10	8	6	46

Table 6

Teacher Response by School

N = 39

School	Total Staff	Responses	Percentage
Armstrong Elementary	16	16	100.
Len Wood Elementary	11	11	100.
Armstrong Secondary	26	12	46.1
Total Teacher Response	53	39	73.6

Ratepayers and Non-ratepayers and Ratepayers by Property Location

Table 7 contains a breakdown of adult respondents by ratepayer and non-ratepayer status as well as ratepayers by the location of their property. Of the 112 adults responding to this item, 87 or 77.7% were ratepayers while 25 or 22.3% were non-ratepayers. Of the 87 ratepayers,

34 or 39.1% were ratepayers in the City of Armstrong, 36 or 41.3% were ratepayers in the Municipality of Spallumcheen, 7 or 8.1% owned property in both and 8 or 11.5% were ratepayers elsewhere in British Columbia.

Table 7

Adults by Ratepayers and Non-ratepayers and Ratepayers by Location of Property

N = 112

		Ratepayer		Ratepayers by Location			
		No	Yes	City	Municip.	Both	Elsewhere
Teachers	f	19	20	6	9	-	5
Parents	f	2	36	9	20	5	2
Other Adults	f	4	31	19	7	2	3
Total	f	25	87	34	36	7	10
	%	22.3	77.7	39.1	41.3	8.1	11.5

Adults by Type of Occupation or Employment

Table 8 presents a breakdown of adult respondents by sub-group and by type of occupation or employment. The majority of the 111 adults who responded to this question, 52.2%, were 'working for salary or wages'. When the Teachers were excluded, however, 29 of the remaining adults were 'self-employed', 21 were 'working for salary or wages' and 22 were classified as 'other' which included those who were retired, housewives and so on.

Adults by Educational Record

Table 9 presents a distribution of all adult respondents by sub-group and highest-level-of-education-achieved category. The

Table 8

Adults by Present Occupation or Employment Type

N = 111

	Self Employed		Working for Salary or Wages		Other**	
	f	%	f	%	f	%
Teachers	-	-	37	94.9	2	5.1
Parents	16	43.2	8	21.3	13	35.1
Other Adults	13	37.1	13	37.1	9	25.7
Total	29	26.1	58	52.2	24	21.7

** Student teachers, housewives, retired persons

Table 9

Educational Record of Adult Respondents by Highest Level Completed

N = 105

	Gr.1-4		Gr.5-8		Gr.9-12		1-2 Yrs. Post-Sec.		Degree or Diploma		Two Degrees	
	f	%	f	%	f	%	f	%	f	%	f	%
Teachers	-	-	-	-	-	-	3	7.9	28	73.7	7	18.4
Parents	1	2.7	4	10.8	23	62.2	3	8.1	5	13.5	1	2.7
Other Adults	1	3.4	1	3.4	11	37.9	6	20.7	10	34.5	1	3.4
Total	2	1.9	5	4.8	34	32.4	12	11.4	43	40.9	9	8.6

Teachers weighted the sample toward the upper end of the scale. When the Teachers were excluded, however, 81.1% of the Parents and Other

Adults had achieved a senior secondary level of education or better. Only 6.7% of the Parents and Other Adults had less than a Grade 8 education while 22.8% had experienced some post-secondary education.

Adults by Perception of Educational Preparation for Present Situation

Table 10 presents a breakdown of adult respondents by sub-groups and by perception of educational preparation for their present situations. Of the 111 respondents, 71 or 63.9% considered that they were 'sufficiently educated'. Of the remainder, 18.9% of the total considered that they were 'under educated', 16.2% considered that they were 'well educated' and only one individual considered herself 'overly educated'.

Table 10

Adult Perception of Educational Preparation for Present Situation

N = 111

	Under Educated		Sufficiently Educated		Well Educated		Overly Educated	
	f	%	f	%	f	%	f	%
Teachers	7	17.9	24	61.5	8	20.5	-	-
Parents	11	28.9	23	60.5	4	10.5	-	-
Other Adults	3	8.8	24	70.6	6	17.6	1	2.9
Total	21	18.9	71	63.9	18	16.2	1	.9

Although 28.9% of the Parents considered themselves to be 'under educated', only 17.9% of the Teachers and 8.8% of the Other Adults felt they fell into the same category. At the other end of the scale, 20.5%

of the Teachers and 17.6% of the Other Adults considered themselves 'well educated' which compared to only 10.5% of the Parents.

All Respondents by Perception of Awareness of What School and Education are Attempting To Do

Table 11 provides a breakdown of all respondents by sub-group, and by their awareness of what schools and education are attempting to do. Of the 158 respondents to this question, 55.7% indicated that they thought they had a 'fairly good idea' of what schools and education are attempting to do. Only 8.8% of the total sample considered that they were 'fully aware' while 20.9% indicated that they perceived they were 'more aware than most'.

There were nine Parents and nine Students who classified themselves as 'don't really know' which represented 23.7% of Parents and 19.6% of Students.

Table 11

Respondents' Awareness of what Schools and Education are Attempting to Do

N = 158

	Don't Really Know		Fairly Good Idea		Know More Than Most		Fully Aware	
	f	%	f	%	f	%	f	%
Students	9	19.6	29	63.0	4	8.7	4	8.7
Teachers	-	-	17	44.7	15	39.5	6	15.2
Parents	9	23.7	22	57.9	5	13.2	2	15.3
Other Adults	5	13.9	20	55.6	9	25.0	2	5.6
Total	23	14.6	88	55.7	33	20.9	14	8.8

DATA ANALYSIS I

Data Analysis I, relating to the four primary sub-groups (Students, Teachers, Parents and Other Adults) in the study, is divided into three sections; (1) ideal importance of the ten skill and nineteen goal statements, (2) actual achievement of the ten skill and nineteen goal statements, and (3) discrepancy scores on the ten skill and nineteen goal statements. In each section, the skill and goal statements are presented in rank order, on the basis of mean scores for the total sample with sub-group mean scores for comparison. Some significant differences between sub-group mean scores were obtained when the data were treated with the Scheffé procedure. In each section, those items on which significant differences between sub-group mean scores were obtained at the .05 level or better are reported along with the obtained probabilities, "p", to three decimal places.

Ideal Importance of Skills

The rank order of skills, based on the ideal importance mean scores for the total sample with community sub-group mean scores for comparison is presented in Table 12. In the rank order of ideal importance of skills, the mean scores covered a range from 3.73 for thinking skills to 2.59 for creative skills. For the purposes of discussion, skills are grouped according to natural breaks in the spread of mean scores for the total sample.

Group 1. The first two skills - thinking and listening - were perceived by the total sample to have the highest ideal importance with mean scores of 3.73 and 3.65 respectively.

Group 2. The next three skills - speaking, social and reading - appeared to group within a mean score range of from 3.55 for speaking

Table 12

Rank Order of Skills by Ideal Importance Mean Scores for Total Sample with Sub-Group Mean Scores for Comparison

N = 158

Skills	Total Sample	Students	Teachers	Parents	Other Adults
Thinking	3.73	3.52	3.87	3.74	3.83
Listening	3.65	3.30	3.76	3.84	3.78
Speaking	3.55	3.35	3.60	3.71	3.58
Social	3.52	3.24	3.85	3.45	3.60
Reading	3.46	3.15	3.45	3.68	3.66
Mathematics	3.21	3.06	3.00	3.45	3.37
Composition	3.12	2.87	2.97	3.37	3.33
Physical	2.86	3.11	2.68	2.81	2.76
Handwriting	2.72	2.69	2.38	2.89	2.92
Creative	2.59	2.51	2.79	2.47	2.56

to 3.46 for reading skills.

Group 3. Mathematics and composition skills ranked sixth and seventh in order of ideal importance to the total sample with mean scores of 3.21 and 3.12 respectively. The spread between the means of these two skills indicated that they grouped loosely, at best.

Group 4. The last three skills in order of ideal importance for the total sample - physical, handwriting and creative - cover a fairly broad mean score range of from 2.86 for physical skills to 2.59 for creative skills. In a sense, the last three skills stand as isolates

from themselves as well as from the remaining skills on the list.

The first five skills on the rank order of ideal importance for the total sample could be grouped for purposes of identifying the skills which have top priority for the total sample.

There appeared to be a relatively high level of consistency across the sub-groups' rank ordering of skills by ideal importance. The only differences occurred between the total sample and (1) Students on physical and speaking skills, (2) Teachers on social and creative skills, (3) Parents on listening, reading and handwriting skills, and (4) Other Adults on speaking, reading and handwriting skills.

Ideal Importance of Goal Statements

The rank order of goal statements, based on the ideal importance mean scores for the total sample with sub-group mean scores for comparison, is presented in Table 13. In the rank order of ideal importance, mean scores ranged from 3.62 for "developing a sense of morals and values", "developing a code of behavior: and "developing respect for human interdependence and the rights of others" to 2.66 for "developing an understanding of cultural and historical heritage". For the purposes of discussion, goal statements are grouped on the basis of natural breaks in the spread of mean scores on ideal importance for the total sample.

Group 1. The goals of "developing a sense of morals and values", "developing a code of behavior to guide personal actions" and "developing a respect for human interdependence and the rights of others" achieved a mean score of 3.62 on ideal importance for the total sample. These three goals could be grouped with "developing the ability to cope with change and the future" which had a mean score of 3.57 on ideal

Table 13

Rank Order of Goals by Ideal Importance Mean Scores for Total Sample with Sub-Group Mean Scores for Comparison

N = 153

Goal Statements	Total Sample	Students	Teachers	Parents	Other Adults
Develop a sense of morals and values	3.62	3.20	3.71	3.87	3.60
Develop a code of behavior to guide personal actions	3.52	3.13	3.79	3.84	3.83
Develop respect for human interdependence and the rights of others	3.62	3.17	3.85	3.84	3.71
Develop ability to cope with change and the future	3.57	3.38	3.77	3.57	3.56
Develop respect for laws and democracy	3.48	3.33	3.21	3.76	3.69
Develop and practice a positive attitude toward life	3.44	3.33	3.46	3.62	3.42
Develop a realistic concern for the environment	3.41	3.23	3.59	3.41	3.42
Acquire new skills and knowledge whenever necessary	3.39	3.17	3.38	3.58	3.50

Table 13 (continued)

Goal statements	Total Sample	Students	Teachers	Parents	Other Adults
Acquire skills and knowledge in order to get a job	3.38	3.58	3.00	3.61	3.29
Develop capacity for curiosity and questioning	3.33	3.27	3.46	3.24	3.35
Develop ability to cope with emotions and emotional issues	3.29	3.07	3.46	3.37	3.32
Acquire a life-long attitude toward education and learning	3.18	2.82	3.21	3.39	3.42
Develop ability to self-evaluate realistically	3.14	2.84	3.46	3.19	3.09
Develop a sense of physical well-being	3.12	3.00	3.23	3.24	3.03
Develop a sense of being Canadian	3.05	3.22	2.89	3.14	3.17
Acquire recreational skills for leisure use	2.87	2.91	3.08	2.81	2.64
Participate actively in community life	2.81	2.76	2.82	2.82	2.85
Develop aesthetic appreciation	2.74	2.67	2.90	2.74	2.67
Develop understanding of cultural and historical heritage	2.66	2.54	2.55	2.73	2.86

importance. These four goal statements were placed at the top of the list by the total sample on the basis of ideal importance.

Group 2. The next seven goal statements appeared to group, on the basis of spread among mean scores on ideal importance for the total sample, within a range of from 3.48 for "developing respect for laws and democratic principles" to 3.29 for "developing the ability to cope with emotions and emotional issues".

Group 3. The next four goal statements - "acquiring a life-long attitude toward education and learning", "developing the ability to self-evaluate realistically", "developing a sense of physical well-being through exercise and activities" and "developing a sense of being Canadian" - could be grouped within a mean score range of from 3.18 for "acquiring a life-long attitude toward education and learning" to 3.05 for "developing a sense of being Canadian".

Group 4. The last four goal statements - "acquiring recreational skills for leisure-time activity", "participating actively in community life", "developing aesthetic appreciation" and "developing an understanding of cultural and historical heritage" - grouped loosely within a mean score range of from 2.87 for "acquiring recreational skills" to 2.66 for "developing an understanding of cultural and historical heritage".

There appeared to be less consistency across sub-group regarding the rank ordering of goals than was the case with skills on ideal importance.

Significant Differences Between Sub-group Ideal Importance Mean Scores

Differences among community sub-group mean scores on perceived

ideal importance were obtained for each of the ten skill and nineteen goal statements. When the differences among mean scores were treated with the Scheffé Multiple Comparison of Means Test to analyse variance however, significant differences between sub-group mean scores were obtained for two of the ten skill and two of the nineteen goal statements. Only those items on which significant differences between sub-group mean scores were obtained at the .05 level or better are reported in Table 14.

Handwriting skills. Two significant differences between sub-group mean scores on the ideal importance were obtained. There was a significant difference between the mean scores of the Teacher and Parent sub-groups ($p = .042$) and the Teacher and Other Adult sub-groups ($p = .034$) at the .05 level. In both cases, Teachers considered the ideal importance of handwriting skills to be less than did the Parent and Other Adult sub-groups.

Composition skills. Significant differences between sub-group mean scores of Students and Parents ($p = .025$) and Students and Other Adults ($p = .049$) on the ideal importance were obtained. In each case, Students considered that composition skills were of less ideal importance than did the Parent and Other Adult sub-groups.

Ability to self-evaluate realistically. One significant difference was obtained between sub-group mean scores on the ideal importance of this goal. The Student and Teacher sub-group mean scores differed significantly ($p = .004$) at the .01 level. Students attached lesser ideal importance to the goal than did the Teachers.

Table 14

Significant Differences between Ideal Importance Mean Scores of Community Sub-groups According to the Scheffé Multiple Comparison of Means Test

Item	Groups	n	$\bar{X}$	F-ratio	Significant Differences
Handwriting skills	Student	45	2.69	3.86	
	Teacher	37	2.38		Teacher - Parent (p = .042
	Parent	38	2.89		Teacher - Other Adult (p = .034
	Other Adult	36	2.92		
Composition skills	Student	45	2.87	4.72	
	Teacher	38	2.97		Student - Parent (p = .025)
	Parent	38	3.37		Student - Other Adult (p = .049)
	Other Adult	36	3.33		
Ability to self-evaluate realistically	Student	43	2.84	4.73	
	Teacher	39	3.46		Student - Teacher (p = .004)
	Parent	36	3.19		
	Other Adult	32	3.09		
Acquiring a life-long attitude toward education and learning	Student	45	2.82	5.06	
	Teacher	39	3.21		Student - Parent (p = .017)
	Parent	36	3.39		Student - Other Adult (p = .012)
	Other Adult	33	3.42		

Acquiring a life-long attitude toward education and learning. Two significant differences between sub-group mean scores of Students and Parents ($p = .017$) and Students and Other Adults ($p = .012$) on the ideal importance of this goal were obtained. The Student sub-group attached lesser ideal importance to the goal than did the Parent and Other Adult sub-groups.

Actual Achievement of Skills

The rank order of skills, based on the actual achievement mean scores for the total sample with sub-group mean scores for comparison, is presented in Table 15. In the rank order of actual achievement of skills, mean scores ranged from 2.38 for physical skills to 1.93 for speaking skills. For the purposes of discussion, skills are grouped according to breaks in the spread of mean scores for the total sample.

Group 1. Physical skills, with an actual achievement mean score of 2.38, appeared to be isolated as the one skill which is perceived as being achieved at a higher mean score level than any of the other nine skills.

Group 2. The next four skills - mathematics, composition, reading and social - appeared to group together within a mean score range of from 2.29 for mathematics to 2.21 for social skills.

Group 3. Creative and thinking skills ranked sixth and seventh in order of actual achievement for the total sample with mean scores of 2.09 and 2.07 respectively.

Group 4. The last three skills - listening, handwriting, speaking - grouped at the bottom of the list with mean scores on actual achievement for the total sample of 1.95 for listening and 1.93 for both handwriting and speaking skills.

Table 15

Rank Order of Skills by Actual Achievement Mean Scores for Total Sample with Sub-group Mean Scores for Comparison

N = 158

Skills	Total Sample	Students	Teachers	Parents	Other Adults
Physical	2.38	2.70	2.17	2.36	2.16
Mathematics	2.29	2.61	2.26	2.14	2.03
Composition	2.24	2.59	2.22	2.11	1.85
Reading	2.22	2.45	2.22	2.14	1.97
Social	2.21	2.28	2.11	2.25	2.17
Creative	2.09	2.13	2.03	2.17	1.03
Thinking	2.07	2.23	1.85	2.08	2.07
Listening	1.95	2.02	2.09	1.77	1.89
Handwriting	1.93	2.16	2.06	1.76	1.61
Speaking	1.93	1.85	2.05	2.03	1.93

Actual Achievement of Goal Statements

The rank order of goal statements, based on the actual achievement mean scores for the total sample with sub-group mean scores for comparison, is presented in Table 16. In the rank order of goal statements on actual achievement, the mean scores spread over a range of 2.33 for "developing a sense of physical well-being through exercise and activities" to 1.78 for "developing the ability to cope with emotions and emotional issues". There were few clear-cut, natural breaking points in the spread of mean scores but, for purpose of discussion, the goal

Table 16

Rank Order of Goals by Actual Achievement Mean Scores for Total Sample with Sub-group Mean Scores for Comparison

N = 158

Goal Statements	Total Sample	Students	Teachers	Parents	Other Adults
Develop a sense of physical well-being	2.33	2.59	2.05	2.44	2.16
Develop understanding of cultural and historical heritage	2.27	2.44	2.08	2.41	2.08
Develop capacity for curiosity and questioning	2.24	2.40	2.16	2.20	2.14
Acquire skills and knowledge in order to get a job	2.20	2.47	1.94	2.09	2.25
Acquire recreational skills for leisure use	2.17	2.23	2.11	2.06	2.07
Participate actively in community life	2.10	2.22	2.09	2.29	2.00
Acquire new skills and knowledge whenever necessary	2.10	2.11	2.05	2.12	2.12
Develop a sense of being Canadian	2.08	1.98	2.00	2.37	1.96
Develop a realistic concern for the environment	2.07	2.10	2.01	2.06	2.11

Table 16 (continued)

Goal Statements	Total Sample	Students	Teachers	Parents	Other Adults
Develop respect for human interdependence and the rights of others	2.00	2.07	2.19	1.94	1.74
Develop aesthetic appreciation	2.00	2.06	1.83	2.02	1.96
Acquire a life-long attitude toward education and learning	1.99	2.23	1.68	2.06	1.96
Develop respect for laws and democracy	1.99	2.00	2.14	1.94	1.84
Develop ability to self-evaluate realistically	1.98	2.00	1.95	2.07	1.88
Develop ability to cope with change and the future	1.96	2.17	1.73	2.10	1.85
Develop a sense of morals and values	1.92	2.19	1.97	1.62	1.74
Develop a code of behavior to guide personal actions	1.92	2.11	2.05	1.76	1.61
Develop and practice a positive attitude toward life	1.85	1.91	1.88	1.77	1.78
Develop ability to cope with emotions and emotional issues	1.78	1.77	1.81	1.76	1.75

statements are grouped according to the breaks which did occur in the range of mean scores for the total sample.

Group 1. The goal of "developing a sense of physical well-being through exercise and activities" obtained a mean score of 2.33 on actual achievement for the total sample, which suggested a slight isolation from the next group of goals based on the spread of mean scores.

Group 2. The goals of "developing an understanding of cultural and historical heritage", "developing a capacity for curiosity and questioning", "acquiring skills and knowledge necessary to get a job" and "acquiring recreational skills for leisure-time use" appeared to group, according to natural breaks in the range of mean scores on actual achievement, within a mean score range of from 2.27 for "developing and understanding of cultural and historical heritage" to 2.17 for "acquiring recreational skills for leisure-time use".

Group 3. The next four goals - "participating actively in community life", "acquiring new skills and knowledge when necessary", "developing a sense of being Canadian" and "developing a realistic concern for the environment" - appeared to group within a mean score range of from 2.10 for both "participating actively in community life" and "acquiring new skills and knowledge whenever necessary" to 2.07 for "developing a realistic concern for the environment".

Group 4. The next eight goal statements appeared to group, according to natural breaks in the mean score range on actual achievement for the total sample, within a range of from 2.00 for both "developing respect for human interdependence and the rights of others" and "developing aesthetic appreciation" to 1.92 for both "developing a sense of morals and values" and "developing a code of behavior to guide

personal actions".

Group 5. The last two goal statements on the rank order of actual achievement for the total sample were "developing and practicing a positive attitude toward life" and "developing the ability to cope with emotions and emotional issues" with mean scores of 1.85 and 1.78 respectively. In a sense, the last two goal statements are isolates, even from themselves, because there was a .07 difference between their mean scores on actual achievement which was a relatively large gap in the mean score spread for this rank ordering.

Significant Differences Between Sub-group Actual Achievement Mean Scores

Differences among community sub-groups mean scores on perceived actual achievement were obtained on each of the ten skill and nineteen goal statements. When the differences among mean scores were treated by the Scheffé Multiple Comparison of Means Test to analyse the variance, significant differences between sub-group mean scores were obtained for two of the ten skill and three of the nineteen goal statements. Only those items on which significant differences between sub-group mean scores were obtained at the .05 level or better are reported in Table 17.

Composition skills. Significant differences were obtained between the actual achievement mean scores of Students and Parents ($p = .028$) and Students and Other Adults ($p = .001$). In each case, the Student sub-group considered the actual achievement of composition skills to be greater than did either of the Parent or Other Adult sub-groups.

Physical skills. One significant difference between sub-group mean scores on actual achievement was obtained. The difference between

Table 17

Significant Differences between Actual Achievement Mean Scores of Community Sub-groups According to the Scheffé Multiple Comparison of Means Test

Item	Groups	n	$\bar{X}$	F-ratio	Significant Differences
Composition skills	Student	44	2.59	6.90	
	Teacher	36	2.22		Student - Parent (p = .028)
	Parent	36	2.11		Student - Other Adult (p = .001)
	Other Adult	27	1.85		
Physical skills	Student	46	2.70	4.37	
	Teacher	36	2.17		Student - Teacher (p = .025)
	Parent	36	2.36		
	Other Adult	31	2.16		
Developing a sense of morals and values	Student	43	2.19	3.55	
	Teacher	36	1.97		Student - Parent (p = .030)
	Parent	32	1.62		
	Other Adult	23	1.74		
Acquiring a sense of physical well-being through exercise and activities	Student	46	2.59	3.81	
	Teacher	37	2.05		Student - Teacher (p = .030)
	Parent	36	2.44		
	Other Adult	31	2.16		
Acquiring a life-long attitude toward education and learning	Student	44	2.23	3.06	
	Teacher	38	1.68		Student - Teacher (p = .034)
	Parent	35	2.06		
	Other Adult	27	1.96		

sub-group means occurred between Students and Teachers ($p = .025$). The Student sub-group considered that physical skills were being achieved at a higher level than did the Teacher sub-group.

Developing a sense of morals and values. The Student and Parent sub-group mean scores on the actual achievement of this goal differed significantly ($p = .030$). Students perceived the goal was being actually achieved at a higher level than did the Parent sub-group.

Acquiring a sense of physical well-being. There was a significant difference between the actual achievement mean scores of the Student and Teacher sub-groups ($p = .030$) on this goal. The Student sub-group indicated a higher degree of perceived achievement on this goal than did the Teacher sub-group.

Acquiring a life-long attitude toward education and learning. A significant difference between actual achievement mean scores was obtained on this goal. The Student and Teacher sub-group mean scores differed significantly ($p = .034$) on the degree of actual achievement of this goal. Students considered the goal was being actually achieved at a higher level than did the Teacher sub-group.

Discrepancy Score (DS)

The discrepancy score is the result of subtracting the actual achievement score from the ideal importance score. Referred to in the text from this point as DS, the discrepancy score is a measurement of educational need according to Kaufman (1968:13). The greater the DS, the greater the educational need is likely to be.

Rank Order of Skills by Discrepancy Scores

The rank order of skills, based on the mean DS of the total sample with the mean DS of sub-groups for comparison, is presented in Table 18. In the rank order of skills, based on mean DS for the total sample, the mean DS encompassed a range of from 1.70 for listening skills to .49 for physical skills. For the purposes of discussion, skills are grouped according to natural breaks in the spread of the mean DS.

Group 1. The first three skills - listening, thinking and speaking - appeared to group within a mean DS range of from 1.70 for listening to 1.61 for speaking skills. According to the Kaufman rationale for discrepancy scores, these three skills were perceived by the total sample as being the primary educational needs.

Group 2. The next two skills - social and reading - grouped with mean DS of 1.32 and 1.25 respectively. The gap in mean DS range between Groups 1 and 2 suggests these skills may be secondary educational needs.

Group 3. Mathematics, composition and handwriting ranked sixth through eighth on the basis of mean DS for the total sample. The mean DS range was from .91 for mathematics to .78 for handwriting.

Group 4. The last two skills on the mean DS rank order for the total sample - creative and physical - grouped with mean DS of .50 and .49 respectively. The rationale for discrepancy scores suggests that these two skills are the ones which require the least additional attention or emphasis.

Rank Order of Goal Statements by Discrepancy Scores

The rank order of goal statements, based on the mean DS for the total sample with sub-group mean DS for comparison, is presented in

Table 18

Rank Order of Skills by Mean Discrepancy Scores for Total Sample with the Sub-group Mean Scores for Comparison

N = 158

Skills	Total Sample	Students	Teachers	Parents	Other Adults
Listening	1.70	1.29	1.71	2.09	1.89
Thinking	1.66	1.30	2.03	1.64	1.79
Speaking	1.61	1.50	1.53	1.91	1.53
Social	1.32	.96	1.74	1.17	1.29
Reading	1.25	.70	1.20	1.58	1.69
Mathematics	.91	.46	.71	1.37	1.30
Composition	.87	.27	.77	1.25	1.48
Handwriting	.78	.52	.31	1.15	1.25
Creative	.50	.36	.80	.34	.52
Physical	.49	.41	.53	.47	.58

Table 19. In the rank order of goal statements based on mean DS, the mean scores covered a range of from 1.70 for "developing a sense of morals and values" to .38 for "developing an understanding of cultural and historical heritage". For the purposes of discussion, goal statements are grouped according to natural breaks in the spread of mean DS for the total sample.

Group 1. The first two goal statements - "developing a sense of morals and values" and "developing a code of behavior to guide personal actions" - appeared to group together with mean DS of 1.70 and 1.69

Table 19

Rank Order of Goals by Mean Discrepancy Scores for Total Sample with Sub-group Mean Scores for Comparison

N = 158

Goal Statements	Total Sample	Students	Teachers	Parents	Other Adults
Develop a sense of morals and values	1.70	1.99	1.72	2.25	2.04
Develop a code of behavior to guide personal actions	1.69	1.92	1.78	2.06	2.25
Develop ability to cope with change and the future	1.62	1.28	2.05	1.52	1.65
Develop respect for human interdependence and the rights of others	1.60	1.16	1.65	1.91	1.89
Develop and practice a positive attitude toward life	1.58	1.39	1.56	1.84	1.63
Develop respect for laws and democracy	1.49	1.33	1.06	1.83	1.84
Develop ability to cope with emotions and emotional issues	1.48	1.25	1.65	1.58	1.50
Develop a realistic concern for the environment	1.38	1.24	1.55	1.37	1.36

Table 19 (continued)

Goal Statements	Total Sample	Students	Teachers	Parents	Other Adults
Acquire new skills and knowledge whenever necessary	1.26	1.07	1.34	1.44	1.28
Acquire skills and knowledge in order to get a job	1.21	1.09	1.08	1.57	1.11
Acquire a life-long attitude toward education and learning	1.17	.57	1.53	1.37	1.41
Develop ability to self-evaluate realistically	1.16	.84	1.51	1.11	1.24
Develop capacity for curiosity and questioning	1.07	.84	1.32	1.03	1.17
Develop sense of being Canadian	.98	1.05	1.03	.82	1.04
Develop sense of physical well-being	.77	.41	1.04	.83	.81
Participate actively in community life	.71	.71	.77	.51	.89
Develop aesthetic appreciation	.71	.60	1.08	.50	.69
Acquire recreational skills for leisure use	.70	.70	.97	.53	.53
Develop understanding of cultural and historical heritage	.38	.15	.53	.32	.64

respectively for the total sample.

Group 2. The next three goals - "developing the ability to cope with change and the future", "developing respect for human interdependence and the rights of others" and "developing and practicing a positive attitude toward life" - appeared to group within a mean DS range of from 1.62 for "developing the ability to cope with change and the future" to 1.58 for "developing and practicing a positive attitude toward life".

Group 3. "Developing respect for laws and democratic principles" and "developing the ability to cope with emotions and emotional issues" appeared to group with mean DS of 1.49 and 1.48 respectively.

Group 4. The goal of "developing a realistic concern for the environment" appeared to be isolated from the goals above and below in the rank order with a mean DS of 1.38.

Group 5. The next four goal statements - "acquiring new skills and knowledge whenever necessary", "acquiring skills and knowledge necessary to get a job", "acquiring a life-long attitude toward education and learning" and "developing the ability to self-evaluate realistically" - appeared to group within a mean DS range of from 1.26 for "acquiring new skills and knowledge whenever necessary" to 1.16 for "developing the ability to self-evaluate realistically".

Group 6. The next two goals - "developing the capacity for curiosity and questioning" and "developing a sense of being Canadian" - grouped loosely with mean DS of 1.07 and .98 respectively.

Group 7. The next five goal statements - "developing a sense of physical well-being through exercise and activities", "participating actively in community life", "developing aesthetic appreciation" and "acquiring recreational skills for leisure-time use" - grouped within

a mean DS range of from .77 for "developing a sense of physical well-being through exercise and activities" to .70 for "acquiring recreational skills for leisure-time use".

Group 8. The goal of "developing an understanding of cultural and historical heritage" ranked last on the list with a mean DS for the total sample of .38.

Significant Differences Between Sub-group Mean Discrepancy Scores

Differences among sub-group mean DS were obtained on every skill and goal statement. When the Scheffé Multiple Comparison of Means Test was applied to the differences among mean DS, significant differences were obtained between sub-group mean DS on six of the ten skills and eight of the nineteen goal statements. The remaining differences between sub-group mean DS were not significant according to the Scheffé treatment. Only items on which significant differences between sub-group mean DS were obtained at the .05 level or better are reported in Table 20.

Listening skills. Two significant differences between sub-group mean DS were obtained. The Student sub-group mean DS differed significantly from the Parent sub-group ($p = .001$) and the Other Adult sub-group ($p = .040$). In both cases, the Student sub-group perceived the discrepancy between the ideal importance and the actual achievement to be less than did either the Parent or Other Adult sub-group.

Reading skills. The Student sub-group's mean DS differed significantly from the mean DS of the Parent sub-group ($p = .003$) and the Other Adult sub-group ($p = .001$). The Student sub-group considered the discrepancy between the ideal and actual conditions regarding

Table 20

Significant Differences between Mean Discrepancy Scores of Community Sub-groups According to Scheffé Multiple Comparison of Means Test

Item	Group	n	$\bar{X}$ DS	F-ratio	Significant Differences
Listening skills	Student	45	1.29	6.44	
	Teacher	34	1.71		Student - Parent (p = .001)
	Parent	35	2.09		Student - Other Adult (p = .040)
	Other Adult	27	1.89		
Reading skills	Student	44	0.70	7.59	
	Teacher	35	1.20		Student - Parent (p = .003)
	Parent	36	1.58		Student - Other Adult (p = .001)
	Other Adult	32	1.69		
Handwriting skills	Student	44	0.52	5.52	
	Teacher	32	0.31		Teacher - Parent (p = .030)
	Parent	34	1.15		Teacher - Other Adult (p = .017)
	Other Adult	28	1.25		
Composition skills	Student	44	0.27	12.60	
	Teacher	35	0.77		Student - Parent (p = .001)
	Parent	36	1.25		Student - Other Adult (p = .0004)
	Other Adult	27	1.48		
Thinking skills	Student	43	1.30	5.08	
	Teacher	32	2.03		Student - Teacher (p = .003)
	Parent	36	1.64		
	Other Adult	29	1.79		

Table 20 (continued)

Item	Group	n	$\bar{X}$	DS	F-ratio	Significant Differences
Social skills	Student	46	0.96		4.89	
	Teacher	38	1.74			Student - Teacher (p = .004)
	Parent	36	1.17			
	Other Adult	30	1.40			
Developing a sense of human rights and interdependence	Student	45	1.16		5.19	
	Teacher	37	1.65			Student - Parent (p = .009)
	Parent	34	1.92			Student - Other Adult (p = .024)
	Other Adult	27	1.89			
Developing aesthetic appreciation	Student	45	0.60		3.06	
	Teacher	36	1.08			Teacher - Parent (p = .050)
	Parent	36	0.50			
	Other Adult	29	0.69			
Ability to self-evaluate realistically	Student	43	0.84		3.23	
	Teacher	37	1.51			Student - Teacher (p = .027)
	Parent	28	1.11			
	Other Adult	25	1.24			
Developing a sense of morals and values	Student	43	1.09		10.22	
	Teacher	36	1.72			Student - Teacher (p = .042)
	Parent	32	2.25			Student - Parent (p = .001)
	Other Adult	23	2.04			Student - Other Adult (p = .003)
Ability to cope with change and the future	Student	40	1.27		4.35	
	Teacher	37	2.05			Student - Teacher (p = .010)
	Parent	31	1.52			
	Other Adult	26	1.65			

Table 20 (continued)

Item	Group	n	$\bar{X}$	DS	F-ratio	Significant Differences
Developing respect for laws and democracy	Student	46	1.33		5.62	
	Teacher	35	1.06			Teacher - Parent (p = .013)
	Parent	34	1.82			Teacher - Other Adult (p = .014)
	Other Adult	31	1.84			
Acquiring a sense of physical well-being through exercise and activities	Student	46	0.41		3.12	
	Teacher	37	1.14			Student - Teacher (p = .031)
	Parent	36	0.83			
	Other Adult	31	0.81			
Acquiring a life-long attitude toward education and learning	Student	44	0.57		7.14	
	Teacher	38	1.53			Student - Teacher (p = .001)
	Parent	35	1.37			Student - Parent (p = .012)
	Other Adult	27	1.41			Student - Other Adult (p = .016)

reading skills to be less than did either the Parent or the Other Adult sub-group.

Handwriting skills. Two significant differences between sub-group mean DS were obtained. The Teacher sub-group's mean DS was significantly different from the mean DS of the Parent ($p = .030$) and Other Adult ($p = .017$) sub-groups. In both cases, the Teacher sub-group indicated that the perceived discrepancy between the ideal and actual conditions regarding handwriting skills was less than did the Parent or Other Adult sub-group.

Composition skills. Significant differences between the mean DS of community sub-groups were obtained. There were significant differences between the mean DS of the Student and Parent sub-groups ($p = .001$) and between the Student and Other Adult sub-groups ($p = .0004$). In each case, the Student sub-group perceived the difference between ideal importance and actual achievement on composition skills to be less than did either the Parent or the Other Adult sub-group.

Thinking skills. One significant difference between the mean DS of community sub-groups was obtained. The mean DS of Student and Teacher sub-groups ($p = .003$) differed significantly. The Student sub-group considered the discrepancy between ideal and actual conditions regarding thinking skills to be less than did the Teacher sub-group.

Social skills. A significant difference between the mean DS of the Student and Teacher sub-groups ($p = .004$) was obtained. Students indicated a lesser degree of discrepancy between the ideal importance and the actual achievement of social skills than did the Teacher sub-

group.

Developing respect for human interdependence and the rights of others. Two significant differences between community sub-group mean DS were obtained on this goal. The Student sub-group's mean DS differed significantly from the mean DS of the Parent sub-group ($p = .009$) and the mean DS of the Other Adult sub-group ($p = .024$). In both cases, the Students considered the difference between ideal and actual conditions on this goal statement to be less discrepant than did either the Parent or Other Adult sub-groups.

Developing aesthetic appreciation. One significant difference between community sub-group mean DS was obtained on this goal. The Teacher and Parent sub-groups ($p = .050$) differed significantly in their perceptions of the discrepancy between the ideal importance and the actual achievement of the goal statement. Parents considered the discrepancy to be significantly less than did the Teacher sub-group.

Ability to self-evaluate realistically. The Student and Teacher sub-groups' mean DS on this goal differed significantly ($p = .027$). The Student sub-group perceived the discrepancy in the case of this goal statement to be less than did the Teacher sub-group.

Developing a sense of morals and values. The mean DS of the Student sub-group on this goal differed significantly with the other three community sub-group's mean DS. The Student sub-group's mean DS was significantly different from that of Teacher ($p = .042$), Parent ($p = .001$) and Other Adult ($p = .003$) sub-groups. In each case, the Student sub-group considered the discrepancy between ideal and actual

conditions regarding this goal to be significantly less than did any of the other three community sub-groups.

Ability to cope with change and the future. One significant difference between sub-group mean DS was obtained on this goal. The Student and Teacher sub-groups' mean DS on this goal statement differed significantly ($p = .010$). The Student sub-group considered the difference between ideal importance and actual achievement to be less than did the Teacher sub-group.

Developing respect for laws and democracy. Two significant differences between community sub-group mean DS were obtained on this goal. The Teacher sub group's mean DS on this goal differed significantly from that of the Parent sub-group ($p = .013$) and the Other Adult ($p = .014$) sub-groups. In both cases, the Teacher sub-group perceived the discrepancy to be less than did either of the other two community sub-groups of adults.

Acquiring a sense of physical well-being. One significant difference between sub-group mean DS was obtained on this goal. The mean DS of the Student sub-group was significantly different from the mean DS of the Teacher sub-group ($p = .031$). The Students considered the difference between the ideal and actual conditions with regards to this goal statement to be less than did the Teacher sub-group.

Acquiring a life-long attitude toward education and learning. Significant differences were obtained between the mean DS of Students and all three of the other community sub-groups on this goal. The mean DS of Students differed significantly from that of Teachers ($p = .001$), Parents ($p = .012$) and Other Adults ($p = .016$). In all three cases, the

Students considered the discrepancy between ideal importance and actual achievement of this goal statement to be less than did the other sub-groups.

SUMMARY

In this chapter, the sample population of the study was described, the rank ordering of skill and goal statements based on mean scores for the total sample were presented and the results of analysis of variance tests for significant differences between sub-group mean scores on (1) ideal importance, (2) actual achievement and (3) discrepancy scores were reported.

According to a rank ordering of skills based on the mean scores for the total sample on perceived ideal importance, (1) thinking, (2) listening, (3) speaking, (4) social and (5) reading skills were ranked as being the top five in ideal importance. Mathematics and composition skills appeared to rank as skills of secondary importance while the remaining skills - physical, handwriting and creative - appeared to be of tertiary importance according to the rank ordering on ideal importance for the total sample.

The goals of (1) developing a sense of morals and values, (2) developing a code of behavior to guide personal actions, (3) developing respect for human interdependence and the rights of others and (4) developing the ability to cope with change and the future ranked at the top of the list on ideal importance for the total sample. The goals of (1) acquiring recreational skills for leisure-time use, (2) participating actively in community life, (3) developing aesthetic appreciation and (4) developing an understanding of cultural

and historical heritage ranked at the bottom of the list, in relationship to the other goal statements, on ideal importance for the total sample.

On the question of perceived actual achievement of skills by the total sample, physical skills were isolated as the ones which ranked highest. The first five skills - (1) physical, (2) mathematics, (3) composition, (4) reading and (5) social - were perceived as being highest in terms of actual achievement while creative and thinking skills were in the middle and listening, handwriting and speaking skills were perceived to be the lowest on the list.

The goals of (1) developing a sense of physical well-being through exercise and activities, (2) developing an understanding of cultural and historical heritage, (3) developing the capacity for curiosity and questioning, (4) acquiring skills and knowledge in order to get a job and (5) acquiring recreational skills for leisure-time use - were perceived by the total sample as being the highest in terms of actual achievement. The goals of (1) developing and practicing a positive attitude toward life and (2) developing the ability to cope with emotions and emotional issues were ranked as the lowest, in relationship to the other goal statements, in terms of perceived actual achievement.

It should be noted that the range of mean scores for the total sample on ideal importance and actual achievement were mutually exclusive for both skills and goals as indicated below.

	Ideal Importance	Actual Achievement
Skills	2.59 - 3.73	1.93 - 2.38
Goals	2.66 - 3.62	1.78 - 2.33

In terms of discrepancy scores (ideal importance minus actual

achievement), (1) listening, (2) thinking and (3) speaking skills ranked for purpose of description, as the primary educational needs. Social and reading skills ranked as the secondary educational needs for the total sample. Mathematics, composition and handwriting ranked as tertiary needs, while creative and physical skills ranked at the bottom of the list, indicating, perhaps, that these two skills were perceived by the total sample as needing little additional attention or emphasis.

The goals of (1) developing a sense of morals and values and (2) developing a code of behavior to guide personal actions ranked at the top of the list in terms of mean discrepancy scores for the total sample. For discussion purposes, the goals of (1) developing the ability to cope with change and the future, (2) developing respect for human interdependence and the rights of others, (3) developing and practicing a positive attitude toward life, (4) developing respect for laws and democratic principles and (5) developing the ability to cope with emotions and emotional issues could be considered as primary educational needs on the basis of their mean discrepancy scores for the total sample. The goal of developing an understanding of cultural and historical heritage ranked as the lowest in terms of discrepancy score for the total sample, indicating, perhaps, that the total sample perceived that this goal required little additional attention or emphasis.

Although there were surface differences among sub-group mean scores on the questions of (1) ideal importance, (2) actual achievement and (3) discrepancy scores, analyses of these differences using the Scheffé Multiple Comparison of Means test indicated a limited number of significant differences were obtained. The remaining differences,

according to the Scheffé Test, could have occurred by chance. Only those items on which significant differences between sub-group mean scores at the .05 level or better were obtained, were reported in this chapter.

On the question of ideal importance of skill and goal statements, significant differences between community sub-group mean scores were obtained for two of the ten skills and two of the nineteen goal statements. The mean score of Students differed significantly from those of Parents and Other Adults on composition skills and "acquiring a life-long attitude toward education and learning". The mean score of Students differed significantly with that of Teachers on "developing the ability to self-evaluate realistically". The mean score of Teachers was significantly different from the mean scores of both Parents and Other Adults on the ideal importance of handwriting skills. In the first three cases, Students considered the ideal importance to be less than did the other groups identified in each case, while on handwriting skills, the Teachers considered the ideal importance to be less than did either Parents or Other Adults.

On the question of actual achievement of skill and goal statements, significant differences between sub-group mean scores were obtained on two of the ten skills and three of the nineteen goal statements. In all five cases, Students perceived the actual achievement of (1) composition skills, (2) physical skills, (3) developing a sense of morals and values, (4) acquiring a sense of physical well-being through exercise and activities and (5) acquiring a life-long attitude toward education and learning to be higher than did the other sub-groups identified in each instance.

On the question of discrepancy scores, significant differences between sub-group mean DS were obtained on six of the ten skills and eight of the nineteen goal statements. In eleven of the fourteen cases of significant differences between sub-group mean scores, Students perceived less of a discrepancy between ideal and actual conditions than did the other groups identified in each instance. In two of the fourteen cases of significant differences - handwriting skills and "developing respect for laws and democratic principles" - Teachers considered the ideal-actual discrepancy to be less than did Parents and Other Adults. In the case of "developing aesthetic appreciation", Parents perceived the discrepancy between ideal importance and actual achievement to be less than did the Teacher sub-group.

On two goal statements - "developing a sense of morals and values" and "acquiring a life-long attitude toward education and learning" - the mean DS of Students differed from the mean DS of all three adult sub-groups.

Data Analysis I revealed few significant differences between sub-group mean scores on the questions of (1) ideal importance or (2) actual achievement. When the data were examined in terms of discrepancy scores, however, a number of significant differences between sub-group mean scores were obtained. These findings set the stage for Data Analysis II which examined data for significant differences between mean DS on the basis of secondary variable groupings.

Chapter 5

DATA PRESENTATION AND ANALYSIS II

INTRODUCTION

Chapter 5 presents the results of Data Analysis II. Seven secondary variables were identified in the study. Information was obtained from respondents regarding (1) age, (2) sex, (3) whether they were ratepayers or non-ratepayers, (4) present occupation or employment, (5) educational record, (6) perception of educational preparation, and (7) perception of awareness of what schools and education were attempting to do in Part I of the questionnaire. The Scheffé Multiple Comparison of Means Test was employed to ascertain if differences between mean DS of secondary groupings by each of the seven variables were significant at the .05 level or better. Only those items on which significant differences between mean DS were obtained at the .05 level or better are reported in this chapter.

DATA ANALYSIS II

Age

For the purpose of analysis in the study, respondents were grouped into four age categories with relatively equal numbers in each. The first category, 10 - 19 years, contained 45 Students, while the remaining three categories contained mixtures of Teachers, Parents and Other Adults. The second category, 20 - 39 years, contained 44.7% of Teachers, 15.8% of Parents and 19.4% of Other Adults with no children at

all. The third category, 40 - 49 years, contained 52.6% of the Parents, 23.7% of the Teachers and 25% of the Other Adults. The fourth category, 50 years of age and older, contained 7.92 of the Teachers, 31% of the Parents and 61.1% of the Other Adults in the sample.

The results of Scheffé tests on differences between mean DS of age categories is presented in Table 21. Significant differences between the mean DS of age categories were obtained for five of the ten skills and nine of the nineteen goal statements. An overall significant difference between the mean DS of age groups was also obtained.

Reading skills. Two significant differences were obtained between the mean DS of age categories. The mean DS of the 10 - 19 years age group differed significantly from the mean DS of the 40 - 49 years age group ($p = .030$) and the 50 years and older age group ($p = .001$). In both cases, the 10 - 19 years age group perceived the differences between ideal importance and actual achievement on reading skills to be less than did the other two groups.

Handwriting skills. Three significant differences between the mean DS of handwriting skills by age category were obtained. The mean DS of the 50 years and older age group was significantly different than the mean DS of the 10 - 19 years age group ($p = .002$), the 20 - 39 years age group ($p = .001$) and the 40 - 49 years age group ($p = .046$). In all three cases, each of the other three groups considered the difference to be less than did the 50 years and older age group.

Composition skills. Three significant differences between mean DS by age category were obtained. The mean DS of the 10 - 19 years age group differed significantly from the mean DS of the 20 - 39 years age

Table 21

Significant Differences between Mean Discrepancy Scores of All Respondents by Four Age Categories According to Scheffé Multiple Comparison of Means Test

N = 155

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Reading skills	10 - 19 yrs.	45	0.71	6.75	
	20 - 39 yrs.	38	1.29		10-19 - 40-49 (p = .030)
	40 - 49 yrs.	35	1.40		10-19 - 50 & older (p = .001)
	50 yrs. & older	37	1.68		
Handwriting skills	10 - 19 yrs.	45	0.53	6.91	
	20 - 39 yrs	38	0.47		10-19 - 50 & older (p = .002)
	40 - 49 yrs.	35	0.74		20-39 - 50 & older (p = .001)
	50 yrs. & older	37	1.46		40-49 - 50 & older (p = .046)
Composition skills	10 - 19 yrs.	45	0.29	10.98	
	20 - 39 yrs.	38	0.89		10-19 - 20-39 (p = .033)
	40 - 49 yrs.	35	1.29		10-19 - 40-49 (p = .001)
	50 yrs. & older	37	1.30		10-19 - 50 & older (p = .001)
Mathematics skills	10 - 19 yrs.	45	0.51	7.48	
	20 - 39 yrs	38	0.82		10-19 - 50 & older (p = .001)
	40 - 49 yrs.	35	1.09		20-39 - 50 & older (p = .030)
	50 yrs. & older	37	1.49		

Table 21 (continued)

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Social skills	10 - 19 yrs.	45	0.93	4.83	
	20 - 39 yrs.	38	1.68		10-19 - 20-39 (p = .007)
	40 - 49 yrs.	35	1.51		
	50 yrs. & older	37	1.24		
Developing a code of behavior to guide personal actions	10 - 19 yrs.	45	1.00	12.46	
	20 - 39 yrs.	38	1.68		10-19 - 20-39 (p = .010)
	40 - 49 yrs.	35	2.14		10-19 - 40-49 (p = .0007)
	50 yrs. & older	37	1.95		10-19 - 50 & older (p = .001)
Developing a sense of human rights and interdependence	10 - 19 yrs.	45	1.33	4.81	
	20 - 39 yrs.	38	1.68		10-19 - 40-49 (p = .012)
	40 - 49 yrs.	35	1.86		10-19 - 50 & older (p = .038)
	50 yrs. & older	37	1.76		
Ability to self-evaluate realistically	10 - 19 yrs.	45	0.73	4.01	
	20 - 39 yrs.	38	1.16		10-19 - 40-49 (p = .010)
	40 - 49 yrs.	35	1.46		
	50 yrs. & older	37	1.08		
Developing a sense of morals and values	10 - 19 yrs.	45	1.02	12.47	
	20 - 39 yrs.	38	1.74		10-19 - 20-39 (p = .008)
	40 - 49 yrs.	35	2.29		10-19 - 40-49 (p = .001
	50 yrs. & older	37	1.73		10-19 - 50 & older (p = .010)

Table 21 (continued)

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Ability to cope with change and the future	10 - 19 yrs.	45	1.09	4.41	
	20 - 39 yrs.	38	1.84		10-19 - 20-39 (p = .010)
	40 - 49 yrs.	35	1.69		
	50 yrs. & older	37	1.49		
Developing respect for laws and democratic principles	10 - 19 yrs.	45	1.33	3.48	
	20 - 39 yrs.	38	1.18		20-39 - 50 & older (p = .050)
	40 - 49 yrs.	35	1.71		
	50 yrs. & older	37	1.78		
Acquiring a sense of physical well-being through exercise and activities	10 - 19 yrs.	45	0.42	5.01	
	20 - 39 yrs.	38	1.11		10-19 - 20-39 (p = .038)
	40 - 49 yrs.	35	1.17		10-19 - 40-49 (p = .022)
	50 yrs. & older	37	0.57		
Acquiring a life-long attitude toward education and learning	10 - 19 yrs.	45	0.56	6.27	
	20 - 39 yrs.	38	1.42		10-19 - 20-39 (p = .004)
	40 - 49 yrs.	35	1.34		10-19 - 40-49 (p = .013)
	50 yrs. & older	37	1.30		10-19 - 50 & older (p = .020)
Acquiring new skills and knowledge when necessary	10 - 19 yrs.	45	1.04	3.98	
	20 - 39 yrs.	38	1.18		10-19 - 40-49 (p = .014)
	40 - 49 yrs.	35	1.74		
	50 yrs. & older	37	1.22		

Table 21 (continued)

Item	Groups	n	$\bar{X}$	DS	F-ratio	Significant Differences
Overall	10 - 19 yrs.	45	24.87		8.08	
	20 - 39 yrs.	38	34.92			10-19 - 20-39 (p = .016)
	40 - 49 yrs.	35	39.03			10-19 - 40-49 (p = .001)
	50 yrs. & older	37	36.19			10-19 - 50 & older (p = .005)

group ($p = .033$), the 40 - 49 years age group ($p = .001$) and the 50 years and older age group ($p = .001$). In every case, the 10 - 19 years age group perceived the difference between ideal importance and actual achievement of composition skills to be less than did the other three groups.

Mathematics skills. Two significant differences between age category mean DS were obtained. The mean DS of the 50 years and older group was significantly different from the mean DS of the 10 - 19 years age group ($p = .001$) and the 20 - 39 years age group ($p = .030$). The other two groups considered the discrepancy between the ideal and actual conditions regarding mathematics skills to be less than did the 50 years and older age group.

Social skills. On the question of social skills, one significant difference between the mean DS of age categories was obtained. The mean DS of the 10 - 19 years age group was significantly different from the mean DS of the 20 - 39 years age group ($p = .007$). The 10 - 19 years age group indicated the perceived difference between the ideal and the actual was significantly less than did the 20 - 39 years age group.

Developing a code of behavior to guide personal actions. Three significant differences between age group mean DS on this goal were obtained. The mean DS of the 10 - 19 years age group was significantly different from the mean DS of the 20 - 39 years age group ($p = .010$), the 40 - 49 years age group ($p = .0007$) and the 50 years and older age group ($p = .001$). In all three cases, the 10 - 19 years age group considered the discrepancy to be less than did the other age groups.

Developing a respect for interdependence and the rights of

others. Two significant differences between the mean DS of age groups for this goal were obtained. The mean DS of the 10 - 19 years age group was significantly different from the mean DS of the 40 - 49 years age group ($p = .012$) and the 50 years and older age group ($p = .038$). In both cases, the 10 - 19 years age group considered the difference to be less than did either the 40 - 49 years or the 50 years and older age groups.

Ability to self-evaluate realistically. One significant difference between the age category mean DS on this goal was obtained. The mean DS of the 10 - 19 years age group differed significantly from that of the 40 - 49 years age group ($p = .010$). The 10 - 19 years age group perceived the discrepancy to be less than did the 40 - 49 years age group.

Developing a sense of morals and values. The mean DS of the 10 - 19 years age group differed significantly from the mean DS of all three of the other age categories regarding this goal. The mean DS of the 10 - 19 years age category was significantly different from the mean DS of the 20 - 39 years age group ($p = .008$), the 40 - 49 years age group ($p = .001$) and the 50 years and older age group ($p = .010$). In all three cases, the 10 - 19 years age group perceived the discrepancy to be significantly less than did the other groups.

Ability to cope with change and the future. One significant difference between the mean DS of age groups on this goal was obtained. The mean DS of the 10 - 19 years age group differed significantly from the mean DS of the 20 - 39 years age group ($p = .010$). The 10 - 19 years age group indicated less of a perceived discrepancy.

Developing respect for laws and democratic principles. One significant difference between age group mean DS was obtained for this goal. The mean DS of the 20 - 39 years age group was significantly different from the mean DS of the 50 years and older age group ($p = .050$). The 20 - 39 years age group perceived the discrepancy to be less than did the 50 years and older age group.

Acquiring a sense of physical well-being through exercise and activities. Two significant differences between the mean DS of age groups on this goal were obtained. The mean DS of the 10 - 19 years age group differed significantly from the mean DS of the 20 - 39 years age group ($p = .038$) and the 40 - 49 years age group ($p = .022$). In both cases, the 10 - 19 years age group considered the discrepancy to be less than did the other two groups.

Acquiring a life-long attitude toward education and learning. Three significant differences between mean DS of age groups were obtained on this goal. The mean DS of the 10 - 19 years age group was significantly different from the mean DS of the 20 - 39 years age group ($p = .004$), the 40 - 49 years age group ($p = .013$) and the 50 years and older age group ($p = .020$). In all three cases, the 10 - 19 years age group indicated less of a perceived discrepancy than did the other groups.

Acquiring new skills and knowledge whenever necessary. Only one significant difference between age category mean DS was obtained for this goal. The mean DS of the 10 - 19 years age group differed significantly from the mean DS of the 40 - 49 years age group ($p = .014$).

The 10 - 19 years age group considered the ideal-actual discrepancy to be less than did the other group.

Overall significant difference between age categories. Three overall significant differences between age category mean DS were obtained. The overall mean DS of the 10 - 19 years age group was significantly different from the overall mean DS of the 20 - 39 years age group ($p = .016$), the 40 - 49 years age group ($p = .001$) and the 50 years and older age group ($p = .005$). In all three cases, the 10 - 19 years age group perceived less discrepancy than did each of the adult age groups.

Sex

The sample population was grouped by sex to ascertain if any significant differences between mean DS were obtained on any of the skills and goal statements. The results of Scheffé tests on differences between the mean DS of males and females are presented in Table 22. Significant differences between male and female mean DS were obtained for two of the ten skill and none of the nineteen goal statements.

Speaking skills. The mean DS of males and females differed significantly ($p = .023$). The males perceived a lesser discrepancy than did the female group.

Listening skills. A significant difference between the mean DS of males and females ($p = .012$) was obtained. The males considered that there was a lesser discrepancy than did the females in the sample.

Adults as Ratepayers and Non-ratepayers

Adults were grouped as ratepayers and non-ratepayers to

Table 22

Significant Differences between Mean Discrepancy Scores of Males and Females According to Scheffé Multiple Comparison of Means Test

N = 154

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Speaking skills	Males	79	1.47	5.31	
	Females	75	1.81		Males - Females (p = .023)
Listening skills	Males	79	1.51	6.52	
	Females	75	1.87		Males - Females (p = .012)

ascertain if any significant differences between mean DS were obtained on any of the skills and goal statements. Grouping adults in this way produced unequal numbers - 87 ratepayers and 25 non-ratepayers. The results of Scheffé tests on differences between the mean DS of ratepayer and non-ratepayer groups are presented in Table 23. Significant differences between mean DS of ratepayers and non-ratepayers were obtained for four of the ten skill and five of the nineteen goal statements. An overall significant difference between the mean DS of ratepayers and non-ratepayers was also obtained.

Speaking skills. The mean DS of ratepayers and non-ratepayers was significantly different ($p = .022$). Non-ratepayers considered the discrepancy to be less than did the ratepayer group.

Reading skills. The mean DS of ratepayers was significantly different from the mean DS of non-ratepayers ($p = .011$). The non-ratepayer group perceived a lesser discrepancy than did the ratepayer group.

Handwriting skills. The mean DS of ratepayers and non-ratepayers differed significantly ($p = .002$). The non-ratepayers indicated a lesser difference than did the ratepayers.

Composition skills. The mean DS of ratepayers was significantly different from the mean DS of the non-ratepayer group ($p = .0002$). Non-ratepayers considered the discrepancy to be significantly lesser than did ratepayers.

Developing a sense of morals and values. The mean DS of

Table 23

Significant Differences between Mean Discrepancy Scores of Adult Ratepayers and Non-ratepayers According to Scheffé Multiple Comparison of Means Test

N = 112

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Speaking skills	Ratepayers	87	1.76	5.38	
	Non-ratepayers	25	1.28		(p = .022)
Reading skills	Ratepayers	87	1.59	6.78	
	Non-ratepayers	25	1.04		(p = .011)
Handwriting skills	Ratepayers	87	1.03	10.49	
	Non-ratepayers	25	0.28		(p = .002)
Composition skills	Ratepayers	87	1.31	15.36	
	Non-ratepayers	25	0.52		(p = .0002)
Developing a sense of morals and values	Ratepayers	87	2.05	5.61	
	Non-ratepayers	25	1.56		(p = .020)
Capacity for curiosity and questioning	Ratepayers	87	1.26	4.26	
	Non-ratepayers	25	0.84		(p = .041)

Table 23 (continued)

Item	Groups	n	$\bar{X}$	DS	F-ratio	Significant Differences
Developing respect for laws and democratic principles	Ratepayers	87	1.70		12.59	
	Non-ratepayers	25	0.96			(p = .0006)
Developing a life-long attitude toward education and learning	Ratepayers	87	1.48		4.09	
	Non-ratepayers	25	1.00			(p = .046)
Acquiring new skills and knowledge when necessary	Ratepayers	87	1.53		10.66	
	Non-ratepayers	25	0.88			(p = .002)
Overall	Ratepayers	87	36.80		10.66	
	Non-ratepayers	25	30.52			(p = .008)

ratepayers and non-ratepayers were significantly different ($p = .020$). The non-ratepayer group perceived the discrepancy to be less than did the ratepayer group.

Capacity for curiosity and questioning. The mean DS of ratepayers was significantly different from the mean DS of non-ratepayers ($p = .041$). The non-ratepayer group considered discrepancy to be less than did the ratepayer group.

Developing respect for laws and democratic principles. The ratepayer's mean DS was significantly different from the non-ratepayer's mean DS ($p = .0006$). The non-ratepayers perceived the difference to be less than did the ratepayers.

Developing a life-long attitude toward education and learning. The mean DS of ratepayers and non-ratepayers differed significantly ($p = .046$). The non-ratepayers indicated a lesser discrepancy than did the ratepayers.

Acquiring new skills and knowledge whenever necessary. The ratepayers' mean DS was significantly different from the non-ratepayers' mean DS ($p = .002$). Non-ratepayers considered the difference to be less than did ratepayers.

Overall significant difference between ratepayers and non-ratepayers. An overall significant difference was obtained between the mean DS of ratepayers and non-ratepayers ($p = .008$). The non-ratepayer group perceived the overall discrepancy between the ideal importance and the actual achievement of the ten skills and nineteen goal statements

to be less than did the ratepayer group.

Ratepayers by Location of Property

When the 87 ratepayers in the sample were grouped by the location of their property - Armstrong, Spallumcheen, both and elsewhere in British Columbia - no significant differences were obtained between the mean DS of any of the ratepayer sub-groups on any of the ten skill and nineteen goal statements.

Type of Occupation or Employment

The sample population was divided into three types of occupation or employment groups to ascertain if any significant differences between mean DS were obtained. For the purposes of this section, the occupation or employment groups were (1) Students, (2) Teachers, and (3) Parents and Other Adults.

1. Students by Junior-Senior Secondary Split

Secondary students in the research sample were divided into two groups - Junior (Grades 8 and 9) and Senior (Grades 10 - 12) - to ascertain if any significant differences between mean DS were obtained. The results of Scheffé tests on the differences between the mean DS of junior and senior secondary students are presented in Table 24. Significant differences between junior and senior students' mean DS were obtained for two of the ten skill and one of the nineteen goal statements.

Speaking skills. The mean DS of junior and senior secondary students were significantly different ($p = .040$). Junior students perceived a lesser discrepancy than did senior secondary students.

Table 24

Significant Differences between Mean Discrepancy Scores of Junior and Senior Secondary Students According to Scheffé Multiple Comparison of Means Test

N = 46

Item	Groups	n	$\bar{X}$	DS	F-ratio	Significant Differences
Speaking skills	Junior (Gr. 8-9)	21	1.14		4.46	
	Senior (Gr. 10-12)	25	1.80			(p = .040)
Social skills	Junior (Gr. 8-9)	21	0.57		4.83	
	Senior (Gr. 10-12)	25	1.28			(p = .033)
Acquiring a positive attitude toward life	Junior (Gr. 8-9)	21	0.76		17.01	
	Senior (Gr. 10-12)	25	1.80			(p = .0002)

Social skills. The mean DS of senior secondary students was significantly different from the mean DS of junior secondary students ($p = .033$). The junior secondary students indicated a lesser perceived discrepancy than did the senior secondary students.

Acquiring a positive attitude toward life. The mean DS of junior and senior secondary students were significantly different ($p = .0002$). The junior secondary students considered there was a significantly lesser discrepancy than did the senior secondary students.

2. Teachers Grouped by School

Teachers were grouped by the schools in which they taught to ascertain if any significant differences between their mean DS existed. The results of the Scheffé tests are presented in Table 25. Significant differences were obtained for one of the ten skill and two of the nineteen goal statements.

Composition skills. Two significant differences between the mean DS of teachers grouped by school were obtained. The mean DS of teachers in Len Wood (Grades 5 - 7) was significantly different from the mean DS of teachers in Armstrong Elementary (Grades 1 - 4) ($p = .009$) and the mean DS of teachers in Armstrong Secondary (Grades 8 - 12) ($p = .002$). In both cases, the teachers in Len Wood considered the discrepancy to be less than teachers in either of the other two schools.

Developing a code of behavior to guide personal actions. One significant difference between the mean DS of teachers grouped by school was obtained for this goal. The mean DS of teachers in Armstrong Elementary was significantly different from the mean DS of teachers in

Table 25

Significant Differences between Mean Discrepancy Scores of Teachers Grouped by School According to Scheffé Multiple Comparison of Means Test

N = 39

Item	Groups	n	$\bar{X}$	DS	F-ratio	Significant Differences
Composition skills	Elementary	16	0.94		8.29	
	Len Wood	11	0.15			Elementary - Len Wood (p = .009)
	Secondary	12	1.18			Secondary - Len Wood (p = .002)
Developing a code of behavior to guide personal actions	Elementary	16	1.31		3.22	
	Len Wood	11	1.64			Elementary - Secondary (p = .050)
	Secondary	12	2.36			
Acquiring a life-long attitude toward education and learning	Elementary	16	1.06		3.70	
	Len Wood	11	1.64			Elementary - Secondary (p = .036)
	Secondary	12	2.18			

Armstrong Secondary ($p = .050$). The teachers in Armstrong Elementary considered that the difference was less than did the teachers in Armstrong Secondary.

Acquiring a life-long attitude toward education and learning. One significant difference was obtained between the mean DS of teachers grouped by school on this goal. The mean DS of Armstrong Elementary teachers was significantly different from the mean DS of Armstrong Secondary teachers ($p = .036$). The Armstrong Elementary teachers perceived the ideal-actual discrepancy to be less than did the Armstrong Secondary teachers.

3. Parent and Other Adults by Type of Occupation or Employment

The parents and other adults in the research sample were divided into three groups - Self-employed, Working for salary and wages, and Other - to ascertain if any significant differences between mean DS existed on the basis of type of occupation or employment. The results of Scheffé tests on differences between employment type groups are presented in Table 26. Significant differences between mean DS were obtained for none of the ten skill and three of the nineteen goal statements. An overall significant difference between the mean DS of employment type groups was also obtained.

Developing aesthetic appreciation. One significant difference between occupation type groups was obtained for this goal. The mean DS of the 'Self-employed' group was significantly different from the mean DS of the 'Other' group ($p = .022$). Those who classified themselves as 'Self-employed' considered the discrepancy

Table 26

Significant Differences between Mean Discrepancy Scores of Parents and Other Adults According to Scheffé Multiple Comparison of Means Test

N = 72

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Developing aesthetic appreciation	Self-employed	29	0.28	4.85	
	Salary or wages	21	0.81		Self-employed - Other (p = .022
	Other	22	0.91		
Acquiring new skills and knowledge when necessary	Self-employed	29	0.93	12.71	Self-employed - Salary/Wages (p = .047)
	Salary or wages	21	1.48		Self-employed - Other (p = .00001)
	Other	22	2.00		
Acquiring recreational skills for leisure-time use	Self-employed	29	0.21	5.08	
	Salary or wages	21	0.48		Self-employed - Other (p = .009)
	Other	22	1.00		
Overall	Self-employed	29	31.90	5.67	
	Salary or wages	21	37.14		Self-employed - Other (p = .005)
	Other	22	43.00		

to be less than did those who classified themselves as being 'Other' (housewives, retired people and so on).

Acquiring new skills and knowledge whenever necessary. Two significant differences were obtained between mean DS of employment type groups on this goal. The mean DS of those who were 'Self-employed' was significantly different from those who were 'Working for salary or wages' ($p = .047$) and those who classified themselves as 'Other' ($p = .00001$). In both cases, the 'Self-employed' group perceived the discrepancy to be significantly less than did either of the other two occupation type groups.

Acquiring recreational skills for leisure-time use. The mean DS of the 'Self-employed' group was significantly different from the mean DS of the 'Other' group ($p = .009$). The 'Self-employed' group considered the difference between ideal and actual conditions to be less than did the 'Other' group.

Overall significant difference between the mean DS of employment type groups. An overall significant difference between the mean DS of the 'Self-employed' group and the 'Other' group ($p = .005$) was obtained. The 'Self-employed' group perceived the discrepancies for all ten skill and nineteen goal statements to be less than did the 'Other' group.

Adults by Educational Record

In Part I of the questionnaire, adult respondents were asked to indicate one of six possible categories which contained the highest educational level they had achieved. For purposes of analysis, the six original categories were compressed to two; (1) those whose highest

achieved educational level fell within the parameters of Grades 1 - 12, and (2) those who had experienced post-secondary education. In the first analysis of data by educational record, all adults in the sample were used. Because the Teachers in the sample weighted the numbers in favour of those having at least some post-secondary education, a second analysis of data was performed using only Parents and Other Adults.

1. All Adults Grouped by Two Educational Record Categories

There were 40 respondents whose highest achieved educational level fell within the parameters of Grades 1 - 12 and 64 respondents who had experienced at least some post-secondary education. Differences between means were obtained on each skill and goal. When the Scheffé test was applied to differences between the mean DS of the two groups, significant differences were obtained for three of the ten skill and seven of the nineteen goal statements. Items on which significant differences between mean DS by educational record were obtained are reported in Table 27.

Handwriting skills. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .010$). The Post-secondary group perceived a lesser discrepancy than did those whose education fell within the Grades 1 - 12 parameters.

Thinking skills. The mean DS of the Grades 1 - 12 and the Post-secondary groups differed significantly ($p = .018$). The Grades 1 - 12 group considered the difference to be lesser than did the Post-secondary group.

Mathematics skills. The mean DS of the Grades 1 - 12 group was

Table 27

Significant Differences between Mean Discrepancy Scores of All Adults Grouped by Two Educational Record Categories According to Scheffé Multiple Comparison of Means Test

N = 104

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Handwriting skills	Gr. 1 - 12	40	1.20	6.95	
	Post-secondary	64	0.66		(p = .010)
Thinking skills	Gr. 1 - 12	40	1.58	5.73	
	Post-secondary	64	1.95		(p = .018)
Mathematics skills	Gr. 1 - 12	40	1.42	8.56	
	Post-secondary	64	0.87		(p = .004)
Developing aesthetic appreciation	Gr. 1 - 12	40	0.35	13.92	
	Post-secondary	64	0.97		(p = .0003)
Ability to cope with change and the future	Gr. 1 - 12	40	1.42	5.55	
	Post-secondary	64	1.89		(p = .020)
Developing respect for laws and democratic principles	Gr. 1 - 12	40	1.87	10.02	
	Post-secondary	64	1.30		(p = .002)

Table 27 (continued)

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Ability to cope with emotions and emotional issues	Gr. 1 - 12	40	1.22	4.35	
	Post-secondary	64	1.64		(p = .039)
Developing a sense of physical well-being through exercise and activities	Gr. 1 - 12	40	0.55	9.66	
	Post-secondary	64	1.19		(p = .002)
Developing a life-long attitude toward education and learning	Gr. 1 - 12	40	1.07	4.56	
	Post-secondary	64	1.53		(p = .035)
Acquiring skill and knowledge necessary to get a job	Gr. 1 - 12	40	1.47	4.31	
	Post-secondary	64	1.05		(p = .040)

significantly different from the mean DS of the Post-secondary group ($p = .004$). The Post-secondary group indicated a lesser perceived discrepancy than did the Grades 1 - 12 group.

Developing aesthetic appreciation. The mean DS of the Grades 1 - 12 and Post-secondary groups were significantly different ($p = .0003$). Respondents from the Grades 1 - 12 group perceived a lesser discrepancy than did the respondents who were from the Post-secondary group.

Ability to cope with change and the future. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .020$). The Grades 1 - 12 group considered the ideal-actual discrepancy to be less than did the Post-secondary group.

Developing respect for laws and democratic principles. The mean DS of the Grades 1 - 12 group differed significantly from the mean DS of the Post-secondary group ($p = .002$). The Post-secondary group perceived a lesser discrepancy than did the Grades 1 - 12 group.

Ability to cope with emotions and emotional issues. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .039$). The Grades 1 - 12 group considered the discrepancy to be less than did the Post-secondary group.

Developing a sense of physical well-being through exercise and activities. The mean DS of the Grades 1 - 12 and Post-secondary groups differed significantly ($p = .002$). The Grades 1 - 12 group considered the ideal-actual discrepancy to be less than did the Post-secondary group on this goal;

Developing a life-long attitude toward education and learning. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .035$). The Grades 1 - 12 group viewed the difference between ideal and actual conditions to be less than did the Post-secondary group.

Acquiring skills and knowledge necessary to get a job. The mean DS of the Grades 1 - 12 and the Post-secondary groups differed significantly ($p = .040$). The Post-secondary group perceived a lesser ideal-actual discrepancy than did the Grades 1 - 12 group.

2. Parents and Other Adults Grouped by Two Educational Record Categories

Excluding all teachers, there were 40 respondents whose highest achieved educational level fell within the parameters of Grades 1 - 12 education and 26 who had experienced some post-secondary education. Significant differences between mean DS of Parents and Other Adults by educational record are presented in Table 28. Significant differences between mean DS were obtained for two of the ten skill and four of the nineteen goal statements.

Thinking skills. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .016$). The Grades 1 - 12 group considered the discrepancy to be less than did the Post-secondary group.

Creative skills. The mean DS of the Grades 1 - 12 and Post-secondary groups were significantly different ($p = .017$). The Grades 1 - 12 group perceived a lesser discrepancy than did the Post-secondary

Table 28

Significant Differences between Mean Discrepancy Scores of Parents and Other Adults Grouped by Two Educational Record Categories According to Scheffé Multiple Comparison of Means Test

N = 66

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Thinking skills	Gr. 1 - 12	40	1.57	6.12	
	Post-secondary	26	2.00		(p = .016)
Creative skills	Gr. 1 - 12	40	0.22	6.02	
	Post-secondary	26	0.77		(p = .017)
Active participation in community life	Gr. 1 - 12	40	0.45	4.81	
	Post-secondary	26	0.96		(p = .032)
Developing aesthetic appreciation	Gr. 1 - 12	40	0.35	8.96	
	Post-secondary	26	0.92		(p = .004)
Developing a sense of physical well-being through exercise and activities	Gr. 1 - 12	40	0.55	6.42	
	Post-secondary	26	1.15		(p = .014)

Table 28 (continued)

Item	Groups	n	$\bar{X}$-DS	F-ratio	Significant Differences
Developing a life-long attitude toward education and learning	Gr. 1 - 12	40	1.07	3.90	
	Post-secondary	26	1.58		(p = .050)

group.

Active participation in community life. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .032$). The Grades 1 - 12 group indicated less of a perceived discrepancy than did the Post-secondary group.

Developing aesthetic appreciation. The mean DS of the Grades 1 - 12 and the Post-secondary groups were significantly different ($p = .004$). The Grades 1 - 12 group considered the difference to be less than did the Post-secondary group.

Developing a sense of physical well-being through exercise and activities. The mean DS of the Grades 1 - 12 group was significantly different from the mean DS of the Post-secondary group ($p = .014$). The Grades 1 - 12 group perceived a lesser discrepancy than did the Post-secondary group.

Developing a life-long attitude toward education and learning. The mean DS of the Grades 1 - 12 and the Post-secondary groups were significantly different ($p = .050$). The Grades 1 - 12 group indicated less of a difference between ideal and actual than did the Post-secondary group.

Adult Perception of Educational Preparation for Present Situation

Although there were differences among the mean DS of respondents in the four categories of perceived educational preparation for present situation - under educated, sufficiently educated, well educated and

overly educated - none of the differences between mean DS were found to be significant when the Scheffé Multiple Comparison of Means Test was applied to the data.

All Respondents by Perceived Awareness of What Schools and Education are Attempting To Do

All respondents were grouped by their indication of their perceived awareness of what schools and education are attempting to do. This resulted in four groups; (1) 23 respondents who considered that they "didn't really know", (2) 88 respondents who indicated that they "had a fair idea", (3) 33 respondents who perceived they "knew more than most", and (4) 14 respondents who considered themselves "fully aware". Table 29 presents the items on which significant differences between mean DS were obtained when the data were treated by the Scheffé test. Significant differences at the .05 level or better were obtained for one of the ten skill and five of the nineteen goal statements.

Thinking skills. Two significant differences between the mean DS of school awareness groups were obtained. The mean DS of the "Know more than most" group was significantly different from the mean DS of the "Have a fair idea" group ($p = .002$) and the "Fully aware" group ($p = .050$). In both cases, the "Know more than most" group perceived a greater discrepancy existed between the ideal importance and the actual achievement of thinking skills than did either the "Have a fair idea" or the "Fully aware" groups.

Active participation in community life. Two significant differences were obtained between the mean DS of school awareness groups

Table 29

Significant Differences between Mean Discrepancy Scores of All Respondents Grouped by Perception of Awareness of What Schools and Education are Attempting To Do According to Scheffé Multiple Comparison of Means Test

N = 158

Item	Groups	n	$\bar{X}$ DS	F-ratio	Significant Differences
Thinking skills	Don't really know	23	1.70	5.56	
	Have a fair idea	88	1.49		Fair idea - More than most (p = .002)
	Know more than most	33	2.15		Fully aware - More than most
	Fully aware	14	1.43		(p = .050)
Active participation in community life	Don't really know	23	0.43	3.83	
	Have a fair idea	88	0.82		Fair idea - Fully aware (p = .038)
	Know more than most	33	0.88		More than most - Fully aware
	Fully aware	14	0.15		(p = .048)
Capacity for curiosity and questioning	Don't really know	23	1.30	4.15	
	Have a fair idea	88	0.92		Fair idea - More than most (p = .038)
	Know more than most	33	1.45		
	Fully aware	14	0.71		

Table 29 (continued)

Item	Groups	n	$\bar{X}$	DS	F-ratio	Significant Differences
Developing a sense of physical well-being through exercise and activities	Don't really know	23	1.70		3.81	
	Have a fair idea	88	0.65			Fair idea - More than most (p = .032)
	Know more than most	33	1.30			Fully aware - More than most (p = .050)
	Fully aware	14	0.36			
Acquiring skills and knowledge to get a job	Don't really know	23	1.87		3.96	Don't really know - Fair idea (p = .015)
	Fair idea	88	1.07			Don't really know - More than most (p = .047
	Know more than most	33	1.06			
	Fully aware	14	1.00			
Acquiring recreational skills for leisure-time use	Don't really know	23	0.65		2.87	
	Fair idea	88	0.68			More than most - Fully aware (p = .040)
	More than most	33	1.00			
	Fully aware	14	0.07			

on the goal of active participation in community life. The mean DS of the "Fully aware" group was significantly different from the mean DS of the "Have a fair idea" ($p = .038$) and the "Know more than most" groups ($p = .048$). The "Fully aware" group indicated less of a perceived difference than did either the "Have a fair idea" or "Know more than most" groups.

Capacity for curiosity and questioning. One significant difference between the mean DS of school awareness groups was obtained for this goal. The mean DS of the "Have a fair idea" group was significantly different from the mean DS of the "Know more than most" group ($p = .038$). The "Have a fair idea" group considered the ideal-actual discrepancy to be less than did the "Know more than most" group.

Developing a sense of physical well-being through exercise and activities. Two significant differences between the mean DS of school awareness groups were obtained for this goal. The mean DS of the "Know more than most" group was significantly different from the mean DS of the "Have a fair idea" group ($p = .032$) and the "Fully aware" group ($p = .050$). In both cases, the "Know more than most" group perceived a greater discrepancy.

Acquiring skills and knowledge necessary to get a job. Two significant differences were obtained between the mean DS of school awareness groups on the goal of acquiring skills and knowledge necessary to get a job. The mean DS of the "Don't really know" groups was significantly different from the mean DS of the "Have a fair idea" group ($p = .015$) and the "Know more than most" group ($p = .047$). In each case,

the "Don't really know" group indicated a greater perceived discrepancy than did either the "Have a fair idea" or the "Know more than most" groups.

Acquiring recreational skills for leisure-time use. One significant difference between school awareness mean DS was obtained for this goal. The mean DS of the "Know more than most" group was significantly different from the mean DS of the "Fully aware" group ($p = .040$). The "Know more than most" group considered the difference between ideal importance and actual achievement of this goal to be greater than did the "Fully aware" group.

SUMMARY

Significant differences between the mean DS of sub-groupings were obtained for each of the seven secondary variables with the exceptions of (1) ratepayers by location of property, and (2) respondents' perception of their educational preparation for their present situation. Table 30 is a quantitative summary of the significant differences between mean DS obtained for each skill and goal statement.

Three overall significant differences between mean DS of secondary variable groupings on all ten skill and nineteen goal statements were obtained. First, when all respondents were grouped according to four age categories, the mean DS of the 10 - 19 years age group was significantly different from the mean DS of each of the other three age groupings. No significant differences were obtained among the three adult age groupings, however. Secondly, when adults were grouped by ratepayers and non-ratepayers, an overall significant difference between the mean DS of ratepayers and non-ratepayers was obtained. Thirdly, when

Table 30

Summary of Significant Differences Obtained between Mean Discrepancy Scores of Secondary Variable Sub-groups

SKILLS AND GOAL STATEMENTS	AGE	SEX	RATEPAYER - NON-RATEPAYER	RATEPAYERS BY LOCATION	OCCUPATION-EMPLOYMENT: STUDENTS	OCCUPATION-EMPLOYMENT: TEACHERS	OCCUPATION-EMPLOYMENT: PARENTS OTHER ADULTS	EDUCATIONAL RECORD: ALL ADULTS	EDUCATIONAL RECORD: PARENTS AND OTHER ADULTS	PERCEPTION OF ED. PREP.	PERCEPTION OF ED. AWARENESS
Speaking skills	-	1	1	-	1	-	-	-	-	-	-
Listening skills	-	1	-	-	-	-	-	-	-	-	-
Reading skills	2	-	1	-	-	-	-	-	-	-	-
Handwriting skills	3	-	1	-	-	-	-	1	-	-	-
Composition skills	3	-	1	-	-	1	-	-	-	-	-
Thinking skills	-	-	-	-	-	-	-	1	1	-	2
Mathematics skills	2	-	-	-	-	-	-	1	-	-	-
Creative skills	-	-	-	-	-	-	-	-	1	-	-
Physical skills	-	-	-	-	-	-	-	-	-	-	-
Social skills	1	-	-	-	1	-	-	-	-	-	-

Table 30 (continued)

SKILLS AND GOAL STATEMENTS	AGE	SEX	RATEPAYER - NON-RATEPAYER	RATEPAYERS BY LOCATION	OCCUPATION-EMPLOYMENT: STUDENTS	TEACHERS	PARENTS OTHER ADULTS	EDUCATIONAL RECORD: ALL ADULTS	PARENTS AND OTHER ADULTS	PERCEPTION OF ED. PREP.	PERCEPTION OF ED. AWARENESS
Developing a code of behavior to guide actions	3	-	-	-	-	2	-	-	-	-	-
Active participation in community life	-	-	-	-	-	-	-	-	1	-	2
Sense of human rights and interdependence	2	-	-	-	-	-	-	-	-	-	-
Developing aesthetic appreciation	-	-	-	-	-	-	1	1	1	-	-
Ability to self-evaluate realistically	1	-	-	-	-	-	-	-	-	-	-
Developing a sense of morals and values	3	-	1	-	-	-	-	-	-	-	-
Developing a positive attitude toward life	-	-	-	-	1	-	-	-	-	-	-

Table 30 (continued)

SKILLS AND GOAL STATEMENTS	AGE	SEX	RATEPAYER - NON-RATEPAYER	RATEPAYERS BY LOCATION	OCCUPATION-EMPLOYMENT: STUDENTS	OCCUPATION-EMPLOYMENT: TEACHERS	OCCUPATION-EMPLOYMENT: PARENTS OTHER ADULTS	EDUCATIONAL RECORD: ALL ADULTS	EDUCATIONAL RECORD: PARENTS AND OTHER ADULTS	PERCEPTION OF ED. PREP.	PERCEPTION OF ED. AWARENESS
Ability to cope with change and the future	1	-	-	-	-	-	-	1	-	-	-
Developing a realistic concern for environment	-	-	-	-	-	-	-	-	-	-	-
Developing capacity for curiosity and questioning	-	-	1	-	-	-	-	-	-	-	1
Developing respect for laws and democratic principles	1	-	1	-	-	-	-	1	-	-	-
Developing a sense of being Canadian	-	-	-	-	-	-	-	-	-	-	-
Understanding of cultural and historical heritage	-	-	-	-	-	-	-	-	-	-	-
Ability to cope with emotions and emotional issues	-	-	-	-	-	-	-	1	-	-	-

Table 30 (continued)

SKILLS AND GOAL STATEMENTS	AGE	SEX	RATEPAYER - NON-RATEPAYER	RATEPAYERS BY LOCATION	OCCUPATION-EMPLOYMENT: STUDENTS	OCCUPATION-EMPLOYMENT: TEACHERS	OCCUPATION-EMPLOYMENT: PARENTS OTHER ADULTS	EDUCATIONAL RECORD: ALL ADULTS	EDUCATIONAL RECORD: PARENTS AND OTHER ADULTS	PERCEPTION OF ED. PREP.	PERCEPTION OF ED. AWARENESS
Sense of physical well-being through exercise & activities	2	-	-	-	-	-	-	1	1	-	2
Developing a life-long attitude toward education	3	-	1	-	-	1	-	1	1	-	-
Acquiring skills and knowledge necessary to get a job	-	-	-	-	-	-	-	1	-	-	2
Acquiring new skills and knowledge when necessary	1	-	1	-	-	-	1	-	-	-	-
Acquiring recreational skills for leisure-time use	-	-	-	-	-	-	1	-	-	-	-
Overall	-	-	1	-	-	-	1	-	-	-	-
Total	31	2	10	-	3	4	5	10	6	-	10

Parents and Other Adults were grouped by type of occupation or employment, an overall significant difference between the mean DS of those who were 'Self-employed' and those who were classified as 'Other' (housewives, retired and so on) was obtained.

Of the seven secondary variables examined in this chapter, (1) age, (2) whether respondents were ratepayers or non-ratepayers, and (3) educational record were discovered to be major factors in explaining significant differences between the mean DS of secondary sub-groupings based on the number of significant differences obtained. Of the seven secondary variables, (1) sex, and (2) respondents' perception of educational preparation for their present situations were found to be the secondary variables which had the least capacity to explain differences between the mean DS of sub-groupings based on the number of significant differences obtained.

Of the ten skills, the largest number of significant differences between the mean DS in terms of secondary variables occurred on composition skills (6) and handwriting skills (5). Of the ten skills, the least number of significant differences between mean DS in terms of secondary variables was obtained on physical skills (0), listening skills (1) and creative skills (1).

Of the nineteen goal statements, the two on which the largest number of significant differences between the mean DS in terms of secondary variables occurred were "developing a life-long attitude toward education and learning" (7) and "developing a sense of morals and values" (5). Of the nineteen goal statements, no significant differences between mean DS in terms of secondary variables were obtained for "developing a realistic concern for the environment", "developing a sense

of being Canadian" and "developing an understanding of cultural and historical heritage".

In general, it would appear that the younger respondents perceived less discrepancy between ideal importance and actual achievement of most of the ten skill and nineteen goal statements than did the older respondents. Non-ratepayers perceived less of a discrepancy between the ideal and actual conditions with regard to most of the ten skill and nineteen goal statements than did ratepaying respondents. Junior secondary students perceived a lesser discrepancy between ideal and actual than did senior secondary students. Elementary teachers tended to perceive a lesser ideal-actual discrepancy than did secondary teachers. Adults who were 'Self-employed' indicated less of a perceived discrepancy between ideal importance and actual achievement than did those who classified themselves as 'Other' (housewives, retired and so on).

When all adults were grouped by educational record, those whose education fell into the Grades 1 - 12 category perceived a greater ideal-actual discrepancy on the more traditional skills, such as handwriting and mathematics, and more traditional goals, such as "developing respect for laws and democratic principles" and "acquiring skills and knowledge in order to get a job", than those adult respondents who had experienced some post-secondary education. On the other hand, those who had experienced some post-secondary education perceived a greater discrepancy between ideal and actual conditions with regards to such skills as thinking and such goals as "developing the ability to cope with change and the future" and "developing aesthetic appreciation" than did those respondents whose education fell into the Grades 1 - 12 category. When only Parents and Other Adults were grouped by educational record, the

post-secondary education group tended to perceive a greater discrepancy between ideal and actual conditions than did the Grades 1 - 12 group on almost all items.

When respondents were grouped by perception of their awareness of what schools and education are attempting to do, there appeared to be some confusion. Of the six items on which significant differences between mean DS were obtained, four of the significant differences were between those who classified themselves as "Know more than most" and those who felt they were "Fully aware". Follow-up analyses of data revealed that respondents in the "Know more than most" category tended to rate the ideal importance of items in the questionnaire similarly to those who classified themselves as "Fully aware" but rated the actual achievement noticeably lower than did the "Fully aware" group.

Chapter 6

RESPONDENTS' COMMENTS

Respondents were given the opportunity in the last part of the questionnaire to make any additional comments or observations they might wish. Some of the comments could not be reproduced for a variety of reasons but many appeared to be enlightening regarding peoples' perceptions of what was going on in the sample community and what they perceived the educational needs to be. For these reasons, Chapter 6 contains a sample of respondents' comments, verbatim, which is intended to provide another dimension to the study of educational needs in the subject community. For purpose of presentation, comments are divided into four sections: (1) Students', (2) Teachers', (3) Parents', and (4) Other Adults'.

STUDENT COMMENTS

Although only seven of the forty-six students made comments, the following examples appeared to represent commonly-held perceptions. The comments have been reproduced verbatim with minor corrections to spelling only.

> There should be more counsellors to help students find out what they want to do and to help pick out courses and careers as well as to help students know what they will need after Grade 12.

> The curriculum should allow for students to develop the skills and knowledge necessary to do whatever it is they want to do in the future. There's too much 'have to' and not enough 'want to' in schools these days.

> A lot of goals are personal and no one is really responsible but

you though its the schools and not the home which force you the most. Our school tries to do a good job but it makes stupid rules which take away from all the things which the school says are important. This is dumb but true.

I used to like school but I am now feeling like I'm in a factory. Why does this happen?

Sometimes I wonder if anyone really cares. Some teachers do but a lot don't seem to care. There are a lot of people in this town who just want to put young people down all the time too. Sometimes things do go wrong but we're not all wrong all the time.

There's too much French and I don't see why I have to take P.E. every year.

Our school is doing a good job but everybody seems to want to just complain about everything.

TEACHER COMMENTS

Of the thirty-eight teachers who responded to the questionnaire, eleven made comments. Several thought the study was a good opportunity to counter a previous study conducted in the area while four teachers thought that the current study was a waste of their time and energy. Three teachers made detailed comments which appeared to summarize the teachers' apparent perceptions of what was happening in education.

> The skills of listening, evaluating what has been listened to and acting upon it seems to be lost, or in the process of becoming lost. The modern child has everything in front of him, yet somehow they look but do not see, listen but do not hear, touch but do not feel. With the increased use of media and the increasing alienation of teacher and student, child and adult, in terms of genuine human interaction, the sense of both are becoming increasingly dulled. Unless the child comes from a home where sensitivity to feelings exists or unless some "super teacher" impresses the child at some point in education, all the mechanical skills of math., science and so on will be useless unless the person can interact with other persons on the human plane.

> Since the turn of the century, schools have assumed more "areas" of discipline as well as educational and social responsibilities. More is being asked of the schools and the teacher, greater and more extensive responsibilities are expected from the schools and results are evaluated in light of the school alone. The community appears

to feel that simply by supplying space and money, results can be automatically expected. The student, in turn, is expected to be a carbon copy of his parents, a miniaturized version of the community and all of its values.

I believe that the school system could improve by

1. Closer parent-student-community-teacher cooperation.
2. Taking students out of the schools more often than is the case (field trips, especially).
3. Stressing individual differences in students.
4. Giving students more influence in deciding curriculum and rules.
5. Giving teachers a better education.
6. Letting skilled people enter schools and participate in teaching.
7. Having qualified counsellors and psychologists in all schools.
8. Giving teachers more education in child psychology.
9. Giving students more freedom in choice of goals and freedom to advance at their own speed, especially in secondary school.
10. Giving students more freedom in attendance of classes and more privacy within the school (having a place to smoke, perhaps!)
11. Educating parents in child psychology.

PARENT COMMENTS

Of the thirty-eight parents who responded to the questionnaire, thirty-one made comments. Many of the comments appeared to reflect a general realization of the difficulty facing schools but twelve of the thirty-one parents indicated they perceived the elementary schools were doing a more adequate job than the secondary school was in meeting their children's educational and social needs. The following examples appear to reflect the type of comments made by parents.

> My feeling about our present inadequate educational system has been expressed by Alvin Toffler in "Future Shock" far better than I could express them. Education should be creative, our system destroys creativity. Education should turn people on to life, our system turns them off!
>
> We must help our young people to shoulder their responsibilities in life with enthusiasm but . . .
>
> Teachers are doing a fairly decent job of teaching with the facilities available but there is too much emphasis on the academic and the professional. We promote defeatism in the rest. Although we stress moral responsibility in the home, there is too much coarse

language used at school. Also the age of courtesy has passed. Teachers try to be pals too much with students when we feel they should be "parents away from home". I guess I expect too much in today's permissive society but one can always hope.

They should never have taken the strap away!!!!!

I am firmly convinced that parents should be more help to their children, though not necessarily help (?) with their homework as some do. They should show a genuine interest in what "Johnny and Mary" are doing.

I have no business answering questionnaires like this. It's too complicated and should be left to the professionals.

Teachers should be like policemen and bankers and moved to other schools as some teachers dislike a child because he/she disliked an older brother or sister, and even the parents socially too sometimes.

There's too much memorization and reguritation of facts.

The home is the ideal place to develop goals but it has fallen down in so many cases - now we blame the school because it has had to take over and is having trouble too.

We should have more variety in education, more types of schools (academic, open area, free schools, training schools) and more variety in learning activities because pupils have different styles of learning; some are auditory, some are visual and some kinesthetic. Some do well in traditional schools while others do best on correspondence courses.

I don't like to see the lack of discipline in the schools. In some classes, the kids run the teachers. I wonder how many parents were consulted before the strap was eliminated?

Most of my children's teachers are conscientious and hard-working but they are handicapped by too large a class to help or crammed into a schedule which just exhausts them.

There just doesn't seem to be a place for God in our schools anymore.

The new math. is a flop! There's too much time spent on nonsense and not enough time spent on the three R's. Why do girls have to take P.E.?

I'm afraid we expect too much of the schools and it's time a lot more people offered to help instead of criticize. Times are changing but too many people hang on to thinking that it was better in the past and it's never been as bad as it seems in the present. The schools can't work without support from the home and the community.

OTHER ADULT COMMENTS

Of the thirty-six Other Adults who responded to the questionnaire, twenty-one made comments. Although there appeared to be little consensus among the respondents, the following examples appear to summarize the types of comments made by Other Adults.

> After completing the questionnaire and reading it over, I felt that I have been expecting almost the impossible from our schools and that they can't possibly be anywhere near achieving the results I have expected. I still feel, however, that it is more important than ever for our schools to start doing the impossible and start graduating more mature individuals who will be able to improve the quality of life in their own homes.

> It would appear that both the home and the school have lost touch with education - unless they both maintain strong principles as to dress, manners and discipline and what is morally right and wrong, all basic teaching in all fields will be lost to a great extent.

> People criticize that there is too much emphasis on sports and creative things. We disagree because we think that there is a need for them as well as the academic and the job-training in the well-rounded education of any individual.

> This study is a waste of my time but I would like to see the results.

> There has been too much emphasis on organized sports and not enough on the humanities - ie. language arts, history, literature, behavioral sciences.

> Why can't school turn out people who can spell, read, write and do arithmetic, who are worth hiring and who wish to work a 40 hr. week? School should stop "baby sitting" after Grade 9 and work only with those who want to learn. Stop the vandalism of time, equipment and school buildings.

> It seems that, although we have a great many well adjusted young people, we also have a growing proportion of highly emotional ones as well. I feel that there should be a cut-off point after Grade ten for those who find the regulatory demands of High School too much for them and are no longer responding. We need a greater opportunity for continuing education so that people can continue at a later date when they realize the importance of an education.

> I feel that the home, the church and the community should take on more responsibility for the upbringing of children. Too many

functions have been relegated to the school system and, with the limited time available, some of the more basic educational functions are not receiving the emphasis that they should as a direct result.

For the majority of students, teachers are made into glorified "baby sitters" but no one seems to be prepared to take responsibility for this having happened.

As I grow older, I find that it is becoming more important to trust young people instead of jumping to the conclusion that, just because they were spared the "Dirty Thirties" and two World Wars they neither know what life is about nor will they ever be able to cope as we did - WE DIDN'T DO ALL THAT WELL AT TIMES EITHER!

SUMMARY

Respondents' comments appeared to encompass a full range of perceptions regarding what the schools were attempting to do and what the school should be trying to do in the near future. Some respondents offered constructive suggestions as to what the system might try to do while others appeared more interested in voicing their concerns and complaints. From the comments, however, it is reasonable to conclude that people are both interested and concerned with what the schools are doing in the sample community. There are unhappinesses but there is also approbation and understanding as well. Although it would be impossible to satisfy everyone at the same time, the findings of the study indicate areas which could benefit from some attention in the near future.

Chapter 7

SUMMARY, IMPLICATIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This chapter is divided into four sections: (1) summary of the study's design and findings, (2) possible implications of the research findings, (3) recommendations for local consideration, and (4) suggestions for further research.

SUMMARY OF THE STUDY

Purpose and Problems of the Study

The purpose of the study was to gather feedback information from a community which would assist the researcher in ascertaining the type and extent of educational needs in the community. The problem of the study was to measure peoples' perceptions of (1) ideal importance, and (2) actual achievement by students of ten skill and nineteen goal statements selected in a situation-specific sense for the study.

Sub-problems of the study were to determine (1) in what rank order, based on mean scores for the total sample, would respondents place the skills and goals in terms of (a) ideal importance, (b) actual achievement, and (c) discrepancy scores, (2) if there were any significant differences between the mean scores of the four community sub-groups on the perceived ideal importance of any of the skills or goals, (3) if there were any significant differences between the mean scores of the four community sub-groups on the perceived actual achievement of any of the skills or goals, (4) if there were any

significant differences between the mean discrepancy scores of the four community sub-groups on any of the skills or goals, and (5) if there were any significant differences between mean discrepancy scores for any of the skills or goals when the sample population, or identified parts thereof, were grouped according to the seven secondary variables.

Sample Population

A total sample of 203 respondents, composed of four community sub-groups, was selected for the study: (1) fifty secondary students in Grades 8 - 12, (2) the total staff of fifty-three teachers and administrators in the community, (3) fifty parents, or parent units, of the selected secondary students, and (4) fifty other adults in the community with no secondary school age children enrolled at the time of the study. Of the 203 respondents, 159 or 78.9% returned questionnaires in usable form by the April 6, 1973 deadline.

Instrument

A situation-specific instrument was developed for the study which attempted to measure peoples' perceptions of (1) ideal importance, and (2) actual achievement by students of ten skill and nineteen goal statements selected for the study. Respondents indicated their perceptions by circling the most appropriate number on a coded, five-point Likert-type scale for both questions on each item.

Pre-administration validity and post-administration reliability checks tended to indicate that the instrument possessed a reasonable degree of validity and reliability for the purpose of the study.

Data Collection

Data collection began during the last week of February and

continued until April, 1973. Student and Teacher data were collected on location by the researcher. Parent and Other Adult data were collected by mail.

Data Treatment

Collected data were coded onto computer cards for analysis. The NONP04 program was employed to calculate frequency responses, percentage distributions and mean scores for the total sample and the four community sub-groups on each item. Special Datran statement programs were written to (1) calculate discrepancy scores for each individual respondent by subtracting the actual achievement from the ideal importance scores, and (2) rank order of the ten skill and the nineteen goal statements on the basis of the total sample's mean scores for each item on (a) ideal importance, (b) actual achievement, and (c) discrepancy scores.

Analysis of variance, using the Scheffé Multiple Comparison of Means Test as performed by the ANOVA10 program, were run on the data to determine if any significant differences between sub-group mean scores were obtained at the .05 level or better on any of the ten skill and nineteen goal statements when the sample was grouped according to (a) primary variable, and (b) seven secondary variables selected for the study.

Findings of the Study in Data Analysis I - Primary Variable

1. Rank order of skills by ideal importance. In relationship to other skill statements and natural breaks in the range of mean scores, the total sample perceived (1) thinking, (2) listening, and

(3) speaking skills to be of top ideal importance and (1) physical, (2) handwriting, and (3) creative skills to be of bottom ideal importance.

2. Rank order of goals by ideal importance. In relationship to other goal statements and natural breaks in the range of mean scores, the total sample perceived (1) developing a sense of morals and values, (2) developing a code of behavior to guide personal actions, (3) developing respect for human interdependence and the rights of others, and (4) developing the ability to cope with change and the future as being the top goals in terms of ideal importance. The total sample perceived (1) acquiring recreational skills for leisure-time use, (2) participating actively in community life, (3) developing aesthetic appreciation, and (4) developing an understanding of cultural and historical heritage as goals which, in relationship to the other goal statements, ranked at the bottom of the list in terms of ideal importance.

3. Significant differences between community sub-group mean scores on ideal importance of skills and goals. Significant differences between sub-group mean scores were obtained on two of the ten skill and two of the nineteen goal statements. Teachers differed with Parents and Other Adults on the ideal importance of handwriting skills. Students differed significantly from Parents and Other Adults on the ideal importance of composition skills and "developing a life-long attitude toward education and learning". Students differed with Teachers on the ideal importance of "developing the ability to self-evaluate realistically". In each case, the first-mentioned sub-group perceived

the ideal importance to be significantly less than did the other groups.

4. Rank order of skills by actual achievement. In relationship to other skills and natural breaks in the range of mean scores, the total sample perceived (1) physical, (2) mathematics, and (3) composition skills to be the ones which were being achieved at the highest level and (1) listening, (2) handwriting, and (3) speaking skills to be the ones which were being achieved at the lowest level.

5. Rank order of goals by actual achievement. In relationship to other goal statements and natural breaks in the range of mean scores, the total sample perceived the goals of (1) developing a sense of physical well-being through exercise and activities, (2) developing an understanding of cultural and historical heritage, (3) developing a capacity for curiosity and questioning, (4) acquiring the skills and knowledge necessary to get a job, and (5) acquiring recreational skills for leisure-time use as the goals which were being achieved at the highest level. The total sample perceived (1) developing a sense of morals and values, (2) developing a code of behavior to guide personal actions, (3) developing and practicing a positive attitude toward life, and (4) developing the ability to cope with emotions and emotional issues as ranking at the bottom of the list, in relationship to the other goal statements, in terms of actual achievement.

6. Significant differences between community sub-group mean scores on actual achievement of skills and goals. Significant differences between sub-group mean scores on actual achievement were

obtained at the .05 level or better for two of the ten skill and three of the nineteen goal statements. In each case, Students perceived a higher level of actual achievement than did (1) Parents or Other Adults on composition skills, (2) Teachers or Other Adults on physical skills (3) Parents on "developing a code of behavior to guide personal actions", and (4) Teachers on "developing a sense of physical well-being through exercise and activities" and "developing a life-long attitude toward education and learning".

7. Rank order of skills by discrepancy scores. In relationship to other skills and natural breaks in the range of mean discrepancy scores, the total sample perceived (1) listening, (2) thinking, and (3) speaking skills as having the greatest discrepancy between ideal importance and actual achievement. The total sample perceived (1) handwriting, (2) creative, and (3) physical skills as having the lowest discrepancy between ideal and actual conditions in relationship to the other skills.

According to the Kaufman rationale (1968:13) the greater the discrepancy, the greater the educational need. Consequently, the skills which were perceived to have the greatest discrepancy scores in relationship to the items are ones which the total sample perceived to need additional attention or emphasis. Conversely, in relationship to other skills, those which were perceived to have the lowest discrepancy scores would require the least additional attention or emphasis at this time.

8. Rank order of goals by discrepancy scores. In relationship to other goal statements and natural breaks in the range of mean scores,

the total sample perceived (1) developing a sense of morals and values, (2) developing a code of behavior to guide personal actions, (3) developing the ability to cope with change and the future, (4) developing a respect for human interdependence and the rights of others, and (5) developing and practicing a positive attitude toward life as being goals which need additional attention or emphasis because of the degree of discrepancy between their perceived ideal importance and their actual achievement. The total sample perceived the goals of (1) developing a sense of physical well-being through exercise and activities, (2) participating actively in community life, (3) developing aesthetic appreciation, (4) acquiring recreational skills for leisure-time use, and (5) developing an understanding of cultural and historical heritage as being goals which, in relationship to the other goal statements, had a lesser degree of ideal importance-actual achievement discrepancy than did the other goal statements used in the study.

Again, according to the Kaufman rationale for educational needs, the goals for which the highest mean discrepancy scores were obtained in relationship to the other goal statements are those which the sample population perceived as needing the most additional attention or emphasis. On the other hand, those goals for which the lowest mean discrepancy scores were obtained, are goals which, in relationship to the other goal statements, would require the least additional attention or emphasis.

9. Significant differences between community sub-group mean discrepancy scores on skills and goals. Significant differences between community sub-group mean discrepancy scores were obtained at the .05

level or better for six of the ten skill and eight of the nineteen goal statements. With the exceptions of (1) handwriting skills, and (2) developing respect for laws and democratic principles, Students perceived less discrepancy between ideal and actual conditions than did others in each case of significant differences. Students differed with Parents and Other Adults on (1) listening skills, (2) reading skills, (3) composition skills, and (4) developing respect for human interdependence and the rights of others. Students differed significantly from Teachers on (1) thinking skills, (2) social skills, (3) developing the ability to self-evaluate realistically, (4) developing the ability to cope with change and the future, and (5) developing a sense of physical well-being through exercise and activities. Students differed from all three adult sub-groups on (1) developing a sense of morals and values, and (2) acquiring a life-long attitude toward education and learning. Teachers differed significantly from Parents on "developing aesthetic appreciation" and with both Parents and Other Adults on (1) handwriting skills, and (2) developing respect for laws and democratic principles. In both of these latter cases, Teachers perceived less of a discrepancy than did the other groups.

Findings of the Study in Data Analysis II - Seven Secondary Variables

Data Analysis II, in Chapter 5, was concerned with analysis of variance, using the Scheffé Multiple Comparison of Means Test, to determine if any significant differences between mean discrepancy scores (DS) of secondary variable groupings were obtained at the .05 level or better on any of the ten skill and nineteen goal statements. This

section is divided into seven sub-sections, one for each of the seven secondary variables selected for use in the study.

1. Age with all respondents grouped by four age categories.

When all respondents were grouped by four age categories, significant differences between age category mean DS were obtained on five of the ten skill and nine of the nineteen goal statements at the .05 level or better. An overall significant difference was obtained as well. In every case, with the exceptions of (1) handwriting skills, and (2) developing respect for laws and democratic principles, the 10 - 19 years age group perceived the discrepancy between ideal importance and actual achievement to be less than did the other three age groups. The 10 - 19 years age group differed from the 20 - 39 years age group on (1) social skills, and (2) developing the ability to cope with change and the future. The 10 - 19 years age group differed from the 40 - 49 years age group on (1) developing the ability to self-evaluate realistically, and (2) acquiring new skills and knowledge whenever necessary. The 10 - 19 years age group differed from the 20 - 39 years and 40 - 49 years age groups on "developing a sense of physical well-being through exercise and activities". The 10 - 19 years age group differed from the 40 - 49 years and 50 years and older age groups on (1) reading skills, and (2) developing respect for human interdependence and the rights of others. The 10 - 19 years age differed from all three adult age groups on (1) developing a code of behavior to guide personal actions, (2) developing a sense of morals and values, and (3) developing a life-long attitude toward education and learning.

The 50 years and older age group differed from the 20 - 39 years age group on "developing respect for laws and democratic principles".

The 50 years and older age group differed significantly from the 10 - 19 years and 20 - 39 years age groups on mathematics skills. The 50 years and older age group differed from all three other age groups on handwriting skills. The 50 years and older age group perceived a greater ideal-actual discrepancy in each of these cases.

2. Sex with all respondents grouped by male and female. Only two significant differences between mean DS of all respondents grouped by sex were obtained at the .05 level or better. The female respondents perceived a greater discrepancy between ideal and actual conditions than did the males on (1) speaking, and (2) listening skills.

3. Adults grouped by ratepayers and non-ratepayers. Significant differences between mean DS of ratepayers and non-ratepayers were obtained on four of the ten skill and five of the nineteen goal statements at the .05 level or better. An overall significant difference between ratepayers and non-ratepayers was obtained as well. Ratepayers perceived a greater discrepancy between the ideal importance and the actual achievement than did non-ratepayers on (1) speaking skills, (2) reading skills, (3) handwriting skills, (4) composition skills, (5) developing a sense of morals and values, (6) developing the capacity for curiosity and questioning, (7) developing respect for laws and democratic principles, (8) developing a life-long attitude toward education, and (9) acquiring new skills and knowledge whenever necessary.

When ratepayers were grouped by the location of their property, however, no significant differences among the mean DS of ratepayers in (1) the City of Armstrong, (2) the Municipality of Spallumcheen, (3) both the city and the municipality, and (4) elsewhere in British

Columbia were found.

4. Respondents grouped by type of occupation or employment. In this sub-section, three divisions were made to obtain a clearer picture of the possible effect of this variable upon mean DS. These divisions were (1) Students by junior-senior split, (2) Teachers by school, and (3) Parents and Other Adults by type of occupation or employment.

4a. Students by junior-senior split. Three significant differences between the mean DS of students grouped by junior secondary (Grades 8 and 9) and senior secondary (Grades 10 - 12) were obtained at the .05 level or better. In each case, the senior students perceived a greater ideal importance-actual achievement discrepancy than did the junior secondary students. Senior secondary students differed from junior secondary students in the sample on (1) speaking skills, (2) social skills, and (3) acquiring and practicing a positive attitude toward life.

4b. Teachers by school. Significant differences were obtained at the .05 level or better when teachers were grouped by school on one of the ten skill and two of the nineteen goal statements. Teachers in Len Wood School (Grades 5 - 7) differed from teachers in both Armstrong Elementary and Armstrong Secondary schools on composition skills. Len Wood teachers perceived less of a discrepancy between the ideal and actual than did teachers in either of the other two schools. Teachers in Armstrong Elementary differed significantly from teachers in Armstrong Secondary on (1) developing a code of behavior to guide personal actions, and (2) acquiring a life-long attitude toward education and learning. In both cases, the secondary teachers perceived a greater discrepancy between ideal importance and actual achievement than did the

teachers in Armstrong Elementary.

4c. Parents and Other Adults by type of occupation or employment. When Parents and Other Adults were grouped by (1) self-employed, (2) working for salary or wages, and (3) other, significant differences between occupation or employment type mean DS were obtained on none of the ten skill and four of the nineteen goal statements. An overall significant difference between those who were 'Self-employed' and those who classified themselves as 'Others' (retired, housewives and so on) was also obtained. Those who were 'Self-employed' differed significantly from those who classified themselves as 'Others' on the goals of (1) developing aesthetic appreciation, and (2) acquiring recreational skills for leisure time use. Those who were 'Self-employed' differed from both 'Working for salary or wages' and 'Other' groups on the goal of "acquiring new skills and knowledge whenever necessary". In each case, those who were 'Self-employed' perceived less of a discrepancy between ideal importance and actual achievement than did the other groups.

5. Adults grouped by educational record. In this sub-section of Data Analysis II, two subdivisions were made to obtain a clearer picture of the possible effects of educational record on adult perceptions and the discrepancy between ideal and actual conditions regarding the ten skill and nineteen goal statements. First, all adults were grouped by two educational record categories; (1) those whose highest level of achieved education fell within the parameters of Grades 1 - 12, and (2) those who had experienced at least some post-secondary education. Second, only the Parents and Other Adults were grouped by the same two

educational record categories.

5a. All adults by two educational record categories. Significant differences were obtained between educational record category mean DS on three of the ten skill and seven of the nineteen goal statements. Those who fell into the Grades 1 - 12 category perceived a greater discrepancy between ideal importance and actual achievement on (1) handwriting skills, (2) mathematics skills, (3) developing respect for laws and democratic principles, and (4) acquiring skills and knowledge necessary to get a job. Those in the Post-secondary category perceived a greater ideal-actual discrepancy on (1) thinking skills, (2) developing aesthetic appreciation, (3) developing the ability to cope with change and the future, (4) developing the ability to cope with emotions and emotional issues, (5) developing a sense of physical well-being through exercise and activities, and (6) developing a life-long attitude toward education and learning.

5b. Parents and Other Adults by two educational record categories. Significant differences between educational record category mean DS were obtained on two of the ten skill and four of the nineteen goal statements when just Parents and Other Adults were grouped by two educational record categories. In each case, those who fell into the Post-secondary category perceived a significantly greater discrepancy between ideal importance and actual achievement than did those respondents in the 'Grades 1 - 12' group. The mean DS of the Post-secondary group differed from the mean DS of the Grades 1 - 12 group on (1) thinking skills, (2) creative skills, (3) active participation in community life, (4) developing aesthetic appreciation, (5) developing a

sense of physical well-being through exercise and activities, and (6) developing a life-long attitude toward education and learning.

6. Adults grouped by their perception of educational preparation for their present situations. No significant differences between sub-group mean DS were obtained when adult respondents were grouped according to four perceptual categories: (1) under educated, (2) sufficiently educated, (3) well educated, and (4) overly educated. For the study, this variable was viewed as one which had no significant effect upon the discrepancy between peoples' perceptions of ideal importance and actual achievement regarding any of the ten skill or nineteen goal statements used in the study.

7. All respondents grouped by their awareness of what schools and education are attempting to do. Significant differences were obtained between the mean DS of 'awareness of what schools and education are attempting to do' sub-groups on one of the ten skill and five of the nineteen goal statements. The 'Know more than most' group perceived a greater discrepancy between ideal and actual conditions than did the 'Have a fair idea' group on the goal of "developing the capacity for curiosity and questioning", than the 'Fully aware' group on (1) active participation in community life, and (2) acquiring recreational skills for leisure-time use, and both of these groups on (1) thinking skills, and (2) developing a sense of physical well-being through exercise and activities. The 'Have a fair idea' group perceived a greater discrepancy between ideal importance and actual achievement than did the 'Know more than most' group on the goal of "active participation in community life". The 'Don't really know' group perceived a greater

ideal-actual discrepancy than did either the 'Have a fair idea' or the 'Know more than most' groups on the goal of "acquiring skills and knowledge necessary to get a job".

IMPLICATIONS

The implications of the research findings are presented in two sections: (1) general implications for the sample community, and (2) specific implications for (a) students, (b) teachers, administrators and the schools, (c) parents and other members of the community, (d) the school board and its officials, and (e) the local teachers' association.

General Implications

On the basis of the study's findings and work done elsewhere in North America regarding educational needs assessment, a number of general implications can be offered for consideration. The implications are phrased in terms of 'needs' or posed as questions or suggestions for local consideration, although they might also apply to other districts in which similar studies were done.

1. Those skill and goal statements for which the highest mean discrepancy scores were obtained may be regarded as the primary educational needs in the sample community (1) according to the perceptions of respondents selected for the study, and (2) in relationship to the other skill and goal statements examined in the study. The first general implication of the study's findings is that those skill and goal statements which ranked as the primary educational

needs are the ones which should receive additional attention or emphasis in the near future. More research and investigation would be helpful in (1) ascertaining what is involved in each case, and (2) what might be done in order to meet more effectively these felt needs.

2. In light of the study's findings, there is a need, perhaps, to examine the 'ideal' nature of both goal statements themselves and peoples' perception of their importance in public education. For example, are goal statements constant ideals which can never be reached? If schools managed to approach an ideal state regarding a particular goal, would peoples' perceptions of its ideal importance keep pace by moving ahead as well? Are the goals of public education realistic in terms of life in present day society or, perhaps more importantly, with regard to the future? Whose perception of ideal importance should serve as the benchmark? Are there differences between the ideal importance of a goal for people with differing abilities and purposes? A second general implication of the research study's findings is the need to examine the ideal nature of both goals and peoples' perceptions of their ideal importance in public education.

3. A third general implication of the study centers around the questions of (1) who is responsible for the development and achievement of skills and goals, and (2) to what extent? There may be little argument, for example, that mathematics skills are a primary responsibility of the schools but what

of speaking skills or the goal of developing a sense of morals and values? Can the schools be held legitimately and morally responsible for the development of a sense of morals and values, for example? Are educators capable of inculcating or developing this goal in students? Is the school's influence great enough to actually affect students' values and behavior patterns along this line? Has the school become responsible, perhaps by default, for things which more traditionally were the responsibilities of the home, the church or even the individual himself?

Respondents in the study indicated that the goals of (1) developing a sense of morals and values, (2) developing a code of behavior to guide personal actions, (3) developing the ability to cope with change and the future, (4) developing respect for human independence and the rights of others, and (5) developing and practicing a positive attitude toward life were the top five in terms of educational needs. The whole question of responsibility requires additional study and examination.

4. Peoples' needs and priorities tend to be in a constant state of change (Pace, 1950:411-419). A number of months have passed since respondents indicated their perceptions on the questionnaire. The results of the study are available for people in the sample community to consider. Has anything of importance changed? If respondents were given the opportunity to redo the questionnaire, would any significant

changes in peoples' perceptions be obtained? The Student sub-group perceived the ideal importance of handwriting skills, for example, to be significantly less than did the Parent and Other Adult sub-groups. Do findings of this nature have any effect upon peoples' perceptions now? This fourth general implication of the study concerns the need for individuals to re-examine and re-assess their own perceptions of needs and priorities in light of the perceptions of others in the community.

5. The study measured peoples' perception in isolation. Consensus decision-making methodology suggests that peoples' perceptions change through consensual refinement when they come to see the opinions and viewpoints of others. In light of the study's reported findings and discussion with others, would there be any significant changes in peoples' perceptions? This fifth implication of the study is the need for dialogue and discussion among people in the sample community regarding the ideal importance and actual achievement of skills and goals. Some members of the community may perceive something of importance which others do not see. There is a need to share and discuss, to re-examine and re-assess the findings of the study in consultation with others.

6. The identification of educational needs is the first step in a process toward improving education and is not intended to be an end in itself. A sixth general implication of the study's findings is the need to generate, locally, means

whereby changes can be made to meet peoples' needs more effectively in the future. There are two sub-implications involved which should be considered, however.

First, who should be involved in more detailed investigations of needs, generating and selecting alternative approaches to present practices and evaluation of the results of selected alternatives after implementation? Should the involvement be limited to professionals and those most directly associated with education such as teachers, administrators, school trustees and the superintendent? Should students, parents and other members of the community be involved in any way? If so, in what ways and to what extent should members of the community, other than educators, be involved?

Second, what method or process would best serve the community's needs? Should educators be entrusted to make individual modifications in light of the study's findings? Should a task force, or series of task forces or ad hoc committees, be struck to investigate and report back? Should something akin to the processes developed for Phi Delta Kappa by Rose (1972) or for Mesa, Arizona by English and Kaufman (1971) as outlined in Appendix D be employed? Are there existing groups within the community who could undertake the task or should new groups be formed? Now that some educational needs have been broadly identified, where should the sample community go from here, who should be involved, in what ways and to what extent?

Specific Implications

The findings of the study have some bearing upon particular groups of people in the sample community. This section deals with specific implications of the study for (1) students, (2) teachers, administrators and the schools, (3) parents and other members of the community, (4) the school board and its officials, and (5) the local teachers' association. The implications are phrased in terms of questions which are meant to be neither harsh nor indictments of current efforts.

Students. Perceptual data arising from the study tended to indicate that the Student subgroup perceived the ideal importance, actual achievement and the resulting discrepancy score in a significantly different way that did other community sub-groups on a number of the ten skill and nineteen goal statements. A specific implication of this finding might be the need for students to re-examine their perceptions in light of others' perceptions in the community. Are students setting less demanding criteria for themselves than are other members of the community? Similarly, students might be well advised to re-examine to what extent they are waiting for the school to do things for them rather than seeing their personal responsibilities and pursuing them. Are students engaging in any kind of on-going dialogue with teachers, parents and other members of the community regarding their needs and concerns or has the supposed "distemper of the times" provided a rationalization for cynicism, doing nothing and waiting for others to take the first step? To what extent do students perceive education as a personal opportunity as opposed to a "twelve-years-or-more sentence"

by the twentieth century ogre, the Establishment?

Teachers, administrators and the schools. The findings of the study indicated a number of possible implications for educators and the schools. First, to what extent are the stated and the actual goals of education the same in the community's schools? Second, are educators showing educational leadership in the community and promoting discussion of educational concerns with members of the community they serve? Third, to what extent are educators keeping in real contact with students and the community and making changes to current practices based on known needs? Fourth, what alternatives to present school-community interaction might be more effective? Fifth, to what extent are the restrictions and requirements of the Department of Education and post-secondary institutions explained to students and other members of the community so that these external exigencies might be better understood and accepted?

If a gulf exists between the school and the student, the home or the community, it is really unimportant who is responsible; the important question is, will educators take the lead and redouble their present efforts to bridge the gulf?

Parents and other members of the community. The findings of the study imply a need for parents and other members of the community to re-examine their own perceptions and contributions to local education. Are expectations of the schools realistic and practical? How much is being done by parents and other members of the community at present to (1) understand what the schools are attempting to do and the problems they face, (2) support and commend what is being done well, (3) assist

in bringing about changes to what is not succeeding as well as it might, and (4) taking a more active, supportive and contributory part in local education in general? To what extent are gulfs which exist between ideal and actual, between schools and the community, a product of insufficient or inappropriate concern and activity on the parts of parents and other members of the community? To what extent are the schools left standing alone, or subjected to criticism instead of being afforded the interest and concern they need? To what extent are criticisms of the schools, students, teachers and education in general a product of unfair scapegoating and transferred indictment from other parts of society which appear to be failing as well?

If parents and other adults in the sample community are unhappy, what are they going to do about it that is constructive and worthy of mature adults in a community with a heritage worth perpetuating?

The School Board and its officials. Is the board showing the leadership in the community it might regarding education and local improvements in it? Is the board making the best possible use of the personnel at its disposal? Does the board trust and entrust its employees and help to promote a corporate effort toward quality education in the community? Does the board make an effort to see that the community is informed regarding what it does and why? In turn, does the board make an effort to become aware of the total community's perceptions of its efforts on the community's behalf? Is the board willing to support follow-up research and activities based upon the study's findings?

The board and its officials have a responsibility to provide educational leadership in the community above and beyond their system-

administration functions.

The local teachers' association. Teachers' associations can act as prime change agents in a community if they perceive their responsibility to perform a leadership role. Teachers' associations have both the trained personnel and the organization with which to accomplish their purposes. Local associations, however, tend to lose their potential effectiveness if they fall into the trap of short-sighted unionism only. Learning Conditions committees can help to initiate sound changes or merely become clearing houses for complaints and unhappiness. Curriculum committees can foster local development of curricula or fade into obscurity and ineffectiveness, depending upon their perception of the tasks involved. Public relations programs can ensure that the public is constantly informed regarding what the schools are doing or lose their potential effectiveness if only employed at salary negotiation time.

The local teachers' association can bring about a great deal of improvement in education if it chooses to do so. Much that is good occurs in schools but the community is seldom made fully aware of it. Much of the adverse criticism of schools often goes unchecked because local associations do not seek to correct misconceptions.

Teacher task forces are able to bring a great deal of experience and expertise to bear on problems if the local association will undertake to initiate and finance such groups. The findings of the study indicate that the primary educational needs perceived by the respondents in the study go beyond the confines of the schools themselves. Community interest and expertise could be brought in to assist in solving some of these problems. The results of such task forces may well be improvements

in working and learning conditions which are fringe benefits no contract negotiating team could ever achieve.

A direct implication of the study's findings lies in the need for the local teachers' association to show leadership in establishing a broader basis for community contribution to and involvement in education.

RECOMMENDATIONS FOR LOCAL CONSIDERATION

The report contains the results of efforts to identify educational needs in the sample community within the broad context of skills and goals. The recommendations of the report concern (1) how the sample community might proceed from this point, and (2) a number of matters which should be given consideration as a result.

Recommendation 1

The results of the study and work done elsewhere in North America in educational needs assessment suggest that some method of utilizing the data obtained from a needs assessment is necessary. It is recommended that a task force be struck by either the school board or the local teachers' association to investigate the report more fully with a view to recommending a suitable course of action.

Task force membership. The task force should be kept to a workable number of people who represent those in the community with an interest in and concern for local educational matters. It is suggested that the task force membership should include two educators, one school trustee, two parents of school age children, two adults who have no school age children at present and two secondary students.

Terms of reference. The following terms of reference would be appropriate for the task force; (1) review the findings of the study, its implications, recommendations and suggestions for consideration, and (2) recommend an appropriate course of action by which changes might be suggested in order to meet peoples' needs more effectively in the future.

Recommendation 2

Consideration should be given to the following matters by the task force:

1. Sub-division of the total task so that no one group of people in the community is required to undertake the entire responsibility. Other task forces or ad hoc committees, preferably of a representative nature so as to spread the involvement base in the community, are reasonable possibilities. Some matters will require the expertise and training of professional teachers but other matters can and should be handled by either other members of the community or representative groups.
2. Some attention should be given to a long-range plan so that current efforts become a part of a larger pattern. Some of the identified educational needs could be treated in the near future, for example, but others are on-going problems which will require continuous attention over a long period of time. Only by establishing some kind of long-range plan for on-going evaluation and improvement of local education can the community co-ordinate its efforts.
3. More detailed research and investigation would be

profitable, if not essential, in order to (1) understand what is involved in the skills and goals which were perceived by respondents as being primary educational needs in the community, and (2) generate alternative approaches to present practices which would best enable educators to make changes in order to meet more effectively with peoples' needs in the future. Additional research should be directed toward aspects of the cognitive and affective domains (Bloom, 1956) as well as specific courses and programs presently being offered in order to ascertain the type and extent of educational needs which may exist.

4. Some consideration should be given to the question of responsibility and more joint sharing, in a planned way, of the responsibility for developing and achieving various skills and goals. The findings of the study tend to indicate that more cooperative efforts in the community are necessary in this regard.

5. The question of community involvement should be given some consideration by the task force. First, is there sufficient interest in the community for sustained involvement in assisting education to meet peoples' needs more effectively? Second, who should be involved in deciding what education should be trying to do? Third, what kinds of community involvement would be most suitable and productive?

6. The task force should also consider whether there is

sufficient information and expertise available locally to handle the task in hand. What kinds of information would be helpful or essential? Is there a need for outside consultants or people with access to information to assist local groups in making changes?

Recommendation 3

Greater efforts should be made to not only establish, but maintain, on-going feedback systems and open lines of communication between all segments of the community regarding education. Discussion and interaction should be promoted. People should make an effort to voice their opinions and feelings as well as come to understand the feelings and opinions of others around them. The role of the teacher is not an easy one but neither is the role of the student, the parent, the school trustee or other members of the community. Members of the community must make an effort to understand the problems and concerns of others and try to generate a greater sense of cooperative effort in the community regarding education. Unless people make the effort to participate and contribute, there is little legitimation for condemnation of the failure of others in achieving lofty ideals set for them.

SUGGESTIONS FOR FURTHER RESEARCH

Apart from the suggestions for further research in the sample community, several areas of general concern appear to warrant further research and investigation.

1. The chronic nature of educational needs assessment suggests that further research into all aspects of needs

assessment is necessary. Needs assessment has to be situation-specific but more work in standardized approaches and processes would be advantageous. Local needs assessment researchers could then modify standardized approaches to suit situation-specific criteria.

2. More research is necessary into how best to handle the data obtained from educational needs assessments. For each researcher to re-invent the wheel each time is a waste of time and effort. Researchers should bear in mind, however, that any processes developed for this purpose should be workable within local contexts and not be totally dependent upon special expertises and facilities which are often not available at the local school or district levels. Similarly, the developed processes for assessing needs and dealing with the obtained data should be able to produce results with a minimum of effort as the time and energy of people with full-time duties and on-going responsibilities are severely limited at the outset. If the process appears to mean hundreds of hours of work, people are apt to opt for leaving things the way they are.

3. More research and investigation into the questions of (1) responsibility for development and achievement of skills and goals, and (2) community involvement in educational decision-making would appear to be necessary. Although both of these questions border on matters of basic philosophy and policy, the effects of each upon educational decision-making can be extensive. Optimal involvement and shared

responsibility by the total community are ideals which may be impossible to achieve. Perhaps people do not want to be involved. Perhaps the professional educator should be left to do his job the way he sees fit. Perhaps public involvement should be limited to present avenues of influence either as parents of students or as electors of school trustees. Whatever the case might be, it would appear that there is a need to conduct further research into the questions of responsibility and community involvement.

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APPENDIX A

(Covering Letter)

March 1, 1973

Dear

I believe it is important to find out how people think the schools are doing in educating students. The enclosed questionnaire is one experimental way in which you can express your opinions and I would really appreciate your assistance in filling it out.

I have selected 4 sub-groups of people in the Armstrong area: 50 secondary students, 50 parents of secondary students, 53 teachers and 50 adults in the community who have no children in secondary school at present. From your responses, I will be able to develop an idea of how each group feels the schools are doing and what differences, if any, exist between these 4 groups.

The questionnaire is divided into 3 parts; Part I focuses on "skills", Part II deals with "goals" and Part III gives you a chance to add anything you would like to say. Please read the instructions and complete the questionnaire as best you can.

In exchange for the permission to conduct this research work, I will turn the results of this study over to the Armstrong-Spallumcheen School Board as soon as analysis is completed. By filling out the questionnaire, you will be helping me with my thesis research but it also means you will be providing useful information to the schools, the Board and even yourselves.

I have included an addressed, stamped envelope. Won't you fill out the questionnaire in the next few days and drop it in the mail? The more people respond, the better the chances are that the results are really reflective of opinion in the Armstrong area.

Thank you for your assistance. I am,

Yours truly,

Mat. Hassen,
Graduate student.
Dept. of Education Administration

N.B. PLEASE RETURN QUESTIONNAIRES BY _____

APPENDIX B

THE QUESTIONNAIRE

Please complete the following items by checking the responses which best describe you.

1. I am
   (a) a student in Grade _____.
   (b) a staff member in _____School.
   (c) a parent with a secondary school-age child.
   (d) an adult with no secondary school-age children.

2. My age is
   (a) 10 - 14
   (b) 15 - 19
   (c) 20 - 29
   (d) 30 - 39
   (e) 40 - 49
   (f) 50 - 59
   (g) 60 - 69
   (h) 70 or older

3. I am _____Male: _____Female

4. I am a ratepayer: _____Yes. _____No.
   If "Yes", I am a ratepayer in
   (a) City of Armstrong
   (b) Municipality of Spallumcheen
   (c) Both
   (d) Elsewhere

5. I am, at present,
   (a) a student
   (b) self-employed
   (c) working for salary or wages
   (d) other (specify if you wish)

6. Educational record - indicate the category which contains the highest level you have achieved. (Students ignore this item).
   (a) Grades 1 - 4
   (b) Grades 5 - 8
   (c) Grades 9 - 12
   (d) 1 - 2 years Post Secondary
   (e) A degree or diploma program
   (f) More than one degree or diploma program

7. For my present situation, I consider myself
   (a) under educated
   (b) sufficiently educated
   (c) well educated
   (d) overly educated

8. In terms of schools and education today, I feel I
   (a) don't really know what is going on
   (b) have a fairly good idea about what is going on
   (c) know more about what is going on than most
   (e) am fully aware of what is going on

9. I would like to have more information on
   (Check as many as you wish)
   (a) Marks, evaluation and grading standards
   (b) Curriculum and content of courses
   (c) Specific course in school (specify)
   .....
   .....
   (d) Extracurricular activities
   (e) Counselling service
   (f) School Board policy
   (g) Adult education
   (h) Use of school facilities after the normal school day
   (i) School budgeting and finance
   (j) Other topics - please specify:
   .....
   .....
   .....
   .....
   .....
   .....
   .....

PART I - SKILLS

Each of the following items is a "skill" which people develop. In each case, indicate your opinion by circling the best responses. The following code explains what the symbols mean.

4 - Very important or very well | 3 - Important or well | 2 - Average or satisfactory | 1 - Unimportant or poorly | 0 - Don't know or can't answer

Prim. Grs. 1-3, Int. Grs. 4-7, Jr. Grs. 8-10 | Sr. Grs. 11-12, All Grs. 1-12

SKILLS	Ideally, how important is this skill?	How well are schools developing this skill?	At which level(s) should this skill be most emphasized?	Which is most responsible for developing this skill?
SPEAKING SKILLS - being able to speak clearly and effectively	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
LISTENING SKILLS - being able to listen and understand what is heard	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
READING SKILLS - being able to read quickly and with understanding	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
HANDWRITING SKILLS - being able to write legibly	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
COMPOSITION SKILLS - being able to write understandable, "correct" standard English	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both

PART II - GOALS

Each of the following items is a "goal" which people attempt to achieve. Indicate your opinion by circling the best response. The basic questions asked and the code used are the same as for Part I.

GOALS	Ideally, how important is this goal?	How well are schools helping the student to reach this goal?	At which level(s) should this goal be most emphasized?	Which is most responsible for helping students to achieve this goal?
Develop a code of behavior to guide personal actions	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Participate actively in community life	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Recognize that people have to depend on each other and respect the rights of others	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop the ability to appreciate such things as art, music or literature	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop the ability to self-evaluate realistically	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop a sense of morals and values	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Acquire and practice a positive attitude to life	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both

SKILLS	Ideally, how important is this skill?	How well are schools developing this skill?	At which level(s) should this skill be most emphasized?	Which is most responsible for developing this skill?
THINKING SKILLS - being able to think clearly and logically	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
MATHEMATICAL SKILLS - being able to use basic mathematics accurately	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
CREATIVE SKILLS - being able to function well in Art, Music, Crafts, etc.	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
PHYSICAL SKILLS - being able to work well in P.E., Home Economics, Industrial Education and so on	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
SOCIAL SKILLS - being able to get along with people and take part in cooperative efforts	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Other skills - please list and indicate how each rates, as you have done above				
	4 3 2 1 0	4 3 2 1 0		
	4 3 2 1 0	4 3 2 1 0		

GOALS	Ideally, how important is this goal?	How well are schools helping the student to reach this goal?	At which level(s) should this goal be most emphasized?	Which is most responsible for helping students to achieve this goal?
Develop the ability to cope with change and whatever the future may hold	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop a realistic concern for the environment	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop capacity for curiosity and questioning	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop respect for laws and democratic principles	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop a sense of being Canadian	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop an understanding of our cultural and historical heritage	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop the ability to deal with emotions and emotional issues	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both

GOALS	Ideally, how important is this goal?	How well are schools helping the student to reach this goal?	At which level(s) should this goal be most emphasized?	Which is most responsible for helping students to achieve this goal?
Acquire a sense of physical well-being through exercise and activities	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Acquire a life-long attitude toward education and learning	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop skills and knowledge necessary to getting a job	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop the ability to acquire new skills and knowledge when needed	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Develop basic skills in sports and other forms of recreation for life-long enjoyment of leisure time	4 3 2 1 0	4 3 2 1 0	Prim. Int. Jr. Sr. All	School Home Both
Other goals - please list and indicate how each rates as you have done above	4 3 2 1 0	4 3 2 1 0		
	4 3 2 1 0	4 3 2 1 0		

PART III

NOW IT'S YOUR TURN! If there are any comments you would like to make, please feel free to do so. Try to explain or carefully support your comments so what you mean to say is as clear as possible. Thank you.

SKILLS

GOALS

IN GENERAL

APPENDIX C

PART I

Educational Goals and Objectives: A Model Program for Community and Professional Involvement, developed by Rose and associates at the Northern California Program Development Center and distributed by the Commission on Educational Planning - Phi Delta Kappa. Summary printed with the written permission of Dr. B. Keith Rose, Director.

The following is an abbreviated summary of the program developed by Rose and associates for community and professional involvement in (1) ranking goals in terms of their priority, (2) assessing the extent to which goals are presently being achieved, and 3) developing performance objectives in order to meet program goals and objectives.

Initiating group - an area task force which seeks local support for program.

Co-ordinating group - a District Task Force empowered to conduct program; it is suggested that the District Task Force be limited to six members who represent the schools, the school board and the community.

Program group - a Representative Community Committee.

Phase I - Ranking goals and assessing degree of actual achievement.

1. Distribute goals to selected Representative Community Committee members.
2. Committee members rank goals independently.

3. Small groups of a representative nature re-rank goals at first meeting of the Representative Community Committee using consensual methodology.
4. Mathematical consensus of total committee calculated from small group rank orders.
5. Results of total committee's consensus returned to Representative Community Committee for endorsement.
6. Representative Community Committee assesses degree of actual achievement of each of the goals.

Phase II - Development of performance objectives.

1. District Task Force selects teachers for training cadre in writing performance objectives.
2. Training sessions held for teachers in the district.
3. Performance objectives for present programs are written.
4. Performance objectives to meet felt needs as perceived by the Representative Community Committee are written.

Phase III - Evaluation of programs as a result of changes made.

PART II

Steps in process developed by Mesa Project researchers for assessing needs and making changes to present programs and operations. Summary printed with permission.

The educational needs assessment researchers in Mesa, Arizona developed a five step process whereby needs were assessed, alternative approaches were generated and the best selected, changes were implemented and re-assessment of success after implementation occurred.

Step 1 - Educational needs assessment.

A thorough educational needs assessment was conducted using the Tri-Level Assessment Model approach. Data were gathered from (1) students, (2) the community, and (3) implementing educators regarding the questions of "What is?" and "What ought to be?" in terms of various aspects of the educational program.

Step 2 - Establishment of task forces, "tolerance criteria" and needs priorities.

Gathered data relating to educational needs were divided into three classifications; (1) generic needs which the whole school, the home and the community must attempt to meet, (2) specific needs which could be best met through specific subjects or programs, and (3) individual needs which required individual attention. Task forces established "tolerance criteria" for each need; that is, the extent to which a need was either reasonable or extreme. The needs identified in the assessment were then ranked on the basis of the need for more emphasis or attention due to divergence from the established

'tolerance criteria'.

Step 3 - Generation of alternative approaches to meet needs.

The task forces then addressed themselves to generating possible alternatives, as well as a rationale for each, which would assist educators in meeting the felt needs more effectively. In some cases, relatively minor shifts in emphases were judged to be sufficient, while in other cases, major changes were apparently necessary. Along with the series of possible alternatives, the task forces attempted to provide an indication of cost-benefit-feasibility information on which choices could be made.

Step 4 - Selection of alternatives for implementation.

Once possible alternatives had been generated, it was necessary to select the ones for implementation. In the case of subject areas, these decisions could be made by the subject teachers. In other cases where the whole school was involved, staff participation in the selection was necessary. The simpler and least expensive changes were implemented first while those requiring more money, information and so on were placed on a longer time-to-implementation schedule.

Step 5 - Implementation and re-assessment of effectiveness.

In most cases, the generated alternatives involved sufficient detail for actual implementation upon acceptance. In other cases, more work on the details, content, process, personnel and so on were necessary before a selected alternative could be implemented. Once an alternative had been selected and sufficient work had been done on it, it was implemented on a

trial basis. After an appropriate period of time, the effects of the implemented change were assessed to ascertain the extent to which the change was meeting with peoples' needs more effectively. In cases where subsequent changes were indicated by the re-assessment, the process began again at Step I or wherever the situation indicated.