THE DEVELOPMENT OF A MODEL FOR THE ADMINISTRATION OF SPECIAL PROGRAMS FOR THE GIFTED AND TALENTED WITH STUDIES INTO THE IMPLICATIONS OF SUCH PROGRAMS.

by

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# TABLE OF CONTENTS

## CHAPTER 1
- Introduction .................................................. 1
- Statement of Problem ........................................... 3
- Definitions ...................................................... 3
- Rationale ......................................................... 6

## CHAPTER 2
- Review of Literature ............................................... 8
- Picture Model ..................................................... 49(a)

## CHAPTER 3
- Conceptual Model for Administration ............................ 48

## CHAPTER 4
- Analysis of Results: Surveys and Interviews .................. 67

## CHAPTER 5
- Conclusions, Implications and Recommendations ............. 98

## LIST OF TABLES
- Table 1 - List of Possible Devices for Identification .......... 57
- Table 2 - Data from Author's Survey: Percentage of Responses .................................................. 71
- Table 3 - Data from Author's Survey: Actual Responses ....... 72
- Table 4 - Frequency of Responses to Specific Questions in Author's Survey .................................................. 74
- Table 5-8 - Data from Open-Ended Questions in the Author's Survey .................................................. 78-79
- Table 9 - Data from Open-Ended Question in the Author's Survey .................................................. 81

## BIBLIOGRAPHY

## APPENDICES
The Gift

I had a gift but no one ever told me --
I would have thoughts of ribbons if they did --
Binets the teacher gave us must have shown me
Brighter than some, an over-average kid --
Skipped half a grade, then skipped half another
And seemed to be shrinking smaller and smaller and smaller.
"Everyone's older," I cried to my busy mother
And she said, "Eat your spinach and you'll get taller."
I didn't, however--not in junior high --
Where boys begin to boom and girls grew curves --
Having a gift in those days could be lonely
Without the help such difference deserves
And there I was in high school, still behind
My ungifted class in everything but mind.

--- Harold Witt

Commissioned by the California Association for the Gifted for the Thirteenth Annual CAG Conference, San Francisco, 1975.
CHAPTER 1
Introduction

In recent years, educators have given considerable attention to the special needs of exceptional children in school systems. For a time the term "Special Education" seemed synonymous with remedial education and many programs were made possible by additional funding for that segment of pupil diversity in the educational continuum. National and international organizations concerned about disadvantaged students expanded their policies to include new teacher training techniques and many new educational opportunities based on the recognized physical, psychological, social, and intellectual needs of handicapped learners.

At the same time as attention focused on one segment of exceptionality, researchers were indicating needs at the other end of the educational continuum. For a long time, however, the area of gifted and talented students was neglected, and though outstanding thinkers in education were concerned with the urgent need for improvement, educators seemed to turn their backs on this area of exceptionality.

Other priorities in education seemed to override the needs of students who demonstrated an ability to get along by themselves. In a democratic educational system, the
problem of providing equality of opportunity for all exceptional students needed to be met.

Over the past twenty years there has been a reawakening on the part of educational theorists of the importance of providing stimulating and challenging education for gifted and talented students. Researchers, notably L. Terman (1925, 1947), identified outstanding levels of academic ability, creativity, physical ability and social leadership in thousands of elementary school children. L. Hollingworth (1926) related physical, social and personality characteristics to mental ability in her research on gifted children in New York City. Pockets of educational systems established some special programs for gifted and talented students.

The Conant Report, which studied American High Schools, recommended ability grouping, enrichment programs and Advanced Placement Programs for gifted and talented high school students to enable them to earn as much as a year's university credit for course work completed in high school. The study also recommended increased guidance services, more favourable staff-student ratio, and increased spending on individualized programs for gifted students.

After the Conant Report in the U.S., (1959) financial support was given for further research, modifications were made to existing programs, and intensive in-service training was conducted in a number of large cities. However, in many
other areas, few active educational opportunities were yet available for gifted and talented children.

Statement of the Problem

The purpose of this study is to develop a package for the administration of special programs for the gifted. The package will be based on a conceptual model developed from

1) a critical review of the literature indicating the needs of identified gifted and talented children;

2) an analysis of the congruence between the needs of gifted and talented and the curriculum available to gifted and talented children;

3) a critical review of existing curriculum apparently focusing on the needs of the gifted as identified in number one above.

Definitions

A definition of terms employed in this paper will provide some guide for the reader.

The New Webster's Twentieth Century Dictionary (1976) defines "gifted" as "endowed with a natural ability or aptitude". It defines "talented" as "having a special superior ability in an art, mechanics, learning, etc., highly gifted".

Milton Gold states that a person is considered "gifted" if he/she demonstrates two standard deviation points from the mean on typical intelligence scales, i.e. 135 to 200 on Stanford-Binet, the top 2 or 3 per cent of a school population, and displays outstanding characteristics in either learning, motivation, creativity, or leadership.

The majority of an advisory panel to the U.S. Office
of Education provides the definition, which is officially employed by the Council for Exceptional Children (U.S. and Canada) "Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities, are capable of high performance." This definition includes approximately 3 to 5 per cent of the school population.

John C. Cowan and Paul Torrance (1967) define gifted children: "Children possessing a superior intellectual potential and functional ability to achieve academically in the top 15 to 20 per cent of school population; and/or talent of high order in such special areas as mathematics, mechanics, science, expressive arts, creative writing, music and social leadership, and a unique creative ability to deal with their environment."

James Gallagher (1964) utilizes a more general definition of giftedness as "consistent excellence in any field of human endeavour". Then, for purposes of educational identification, he proposes varying degrees of giftedness, such as "highly gifted", (Binet 148+) "gifted", (Binet 132+) and "academically talented", (Binet 116+).

For the purpose of this study, I will define gifted and talented children as:
--those who possess outstanding abilities and are capable of major performance. They have demonstrated high achievement or potential ability in any of the following areas: general intellectual ability, specific intellectual aptitude, creative thinking, leadership ability, physical and performing arts,
and/or psychomotor ability.

Though the substance of research in this thesis appears to focus on the cognitive domain, a goal of future studies by either individuals or school boards might be to concentrate on the other, broader aspects of giftedness. It is important to move towards the broad definition as the substance of perceptions of gifted and talented children. The major thrust of the literature to follow will deal with intellectual ability. It is the belief of the author, however, that giftedness appears in all four areas outlined in her main definition.

Having summarized the main definition, several other terms should be explained to further guide the reader.

**Enrichment:** "consists in giving the gifted child an opportunity to go deeper or to range more widely than the average child in his intellectual, social, physical and artistic experience. Enrichment alone, not accompanied by acceleration or special grouping, keeps the talented child in his own age group and with children of various levels of ability." (Havighurst et al, 1955:20)

**Acceleration:** "a gifted pupil moves at a pace appropriate to his ability and maturity and completes an educational program in less than the ordinary amount of time." (Havighurst et al, 1955:29)
Special Grouping: gifted children are picked on intellectual bases and placed together for all or part of the day, "to provide for enrichment of children's experiences, in both depth and breadth, and to permit the children to stimulate one another." (Havighurst et al, 1955:22)

Rationale

Interest in gifted and talented children has waxed and waned in the public school system for the past half century. Feelings of frustration in the classroom are not unique to gifted children, but the problem is intensified due to the greater potential of these children and the ultimately greater talent loss to society. There seems to be a tendency to level any disparate set of gifts to one series so that it can be compared more easily to the same units. This approach often places the gifted student just a little higher on the same continuity scale in our classrooms. Frequent and increasingly strong guidance and educational opportunities have been shown to help gifted and talented individuals develop their potential. It is important, however, that the tendency toward conformity-inducing behaviours by teachers not result in negative attitudes and poor self-concept in gifted children. If neglecting gifted children per se causes these children to hide or lose potential ability, then educators have a duty to provide consistent program alternatives which meet the needs of the children.
This study is important for administrators and educators. All children have individual educational needs and gifted students, as well as other children, have a right to a positive self-image and rich, success experiences which stimulate their unique potential. It is important that educators identify high-ability children early, provide various and satisfying programs that help foster special abilities, and organize on-going consciousness-raising which stimulates community awareness towards the development of gifted and talented children in our school systems.

Administratively, such processes reflect on the potential development of an on-going assessment program, curriculum review, and program development. Concommitant administrative issues to be drawn from this study therefore, may include policies pertinent to hiring, curricular focus, core planning; in all, the policy-making, planning, funding, hiring and in-service training pertinent to programs for the gifted in particular, just as with other children in general.

The following four chapters will comprise 1) a review of literature dealing with gifted and talented children, 2) the author's conceptual model for administration of special programs, 3) analysis of a school board survey and the author's survey on the incidence and perceptions of gifted and talented children, 4) implications and recommendations for administration of the conceptual model.
CHAPTER 2

Review of Literature

Chapter two will present an overview of studies on gifted and talented children in the United States, New Zealand, Great Britain and Canada. The research will include information from 1921 to the present time. In an ever-widening focus, the review will deal with psychological and behavioural concepts of gifted and talented children, the identification and screening, and a number of school programs available in some of the various countries cited. The consistently recurring ideas in each of the areas of research reviewed will then be summarized.

Research in the United States

Recent years have seen a large number of studies of the gifted child in many countries of the world, but the long-term study by L. Terman (1925) started in 1921 was unique. His research of some 1,500 children of IQ 140 and above continued to their middle age (1947, 1959) with a follow-up after forty years by Oden (1968). A study by L. Hollingworth (1942) furnished data on the difficulties in social adjustment of children of very high IQ (IQ 180+). In further studies she advocated removal of gifted children from the "lock-step systems" of the usual public school grades. She was a strong promoter of homogeneous experience and opportunities. E.g. high-ability children grouped together stimulated and challenged by working with their peers.
Dael Wolfe (1954) reported that "fewer than half of the upper 25 per cent of all high school graduates ever earn college degrees in the U.S.; only six out of ten of the top 5 per cent do". Lack of interest, frustration and/or boredom were given as principal reasons for gifted students' failure to continue in school.

Research dealing with indicators outside of IQ testing gained prominence under Paul Witty (1962) who stressed observation of creative behaviour and thus broadened the early concepts of a gifted student. "High performance in any potentially valuable area might well be considered gifted," stated Witty in 1940. Support for this viewpoint came from the research of J. P. Guilford (1956, 1959) who furnished a wider concept of intellect which provided educational theorists with a logical, coherent system for further measurement of mental ability. His "convergent thinking" and "divergent thinking" model made measurement of various creativity factors more manageable, and this led to important developments in curriculum building for gifted children. Bloom's classification of the verb "to know" (1956) evolved a taxonomy of educational objectives which also enlarged the concepts of intelligence leading to practical application for gifted students. By inverting Bloom's Taxonomy and reproportioning the behaviours of the cognitive and affective domains, one has a logical development for measurement of gifted and talented students. (Appendix 1)
Research by Getzels and Jackson (1958) later supported by Torrance (1962) determined that creativity and intelligence often approximated each other in the identification of high achievement. The correspondence between creative-thinking abilities and high intellectual achievement stimulated the development of further identification techniques for gifted and talented children. Studies began to focus on teaching activities which would increase student response in wider areas of learning, such as tasks involving imagination and inventiveness. Torrance (1962) and Gallagher (1962) were notable among researchers concerned with divergent thinking in gifted children and their experiments dealt with techniques for developing creativity in classrooms of the United States. Observation of creativity and divergent thinking led to more effective identification of gifted and talented children.

For example, from the developments of Getzels and Jackson continuing research in the United States looked more intensely into identification measures. Interest in gifted students resulted in a comparative study in Ohio (Barbe, 1964) which examined the differences between moderately gifted (IQ 120-134) and highly gifted students (IQ 148+). Data concluded that Binet intelligence testing alone is inadequate for identification of gifted students because it places a ceiling on the scores of highly gifted children. Also it implied that parents had more education in families of the highly gifted,
that a relationship seemed evident between high intelligence and high creativity, and that administrative provisions for flexible, rich, curriculum was a great responsibility at all levels of education.

In 1960 a study in Western New York (Farr, Hausdorff, and Rosenbach) examined the achievement of gifted students and the relationship of their needs to achievement. The study concluded that organization of instruction which provided for depth and scope of thinking and creative expression, led to a high level of aspiration and achievement in gifted students. These findings were reinforced by Hampton (1962). He found that gifted children need help in viewing their abilities realistically; they can be then helped to higher achievement through special programming. The study also stated that the development of academic areas and social attitudes must proceed together in gifted students.

Concern about special programming was voiced in an earlier report which criticized secondary schools in the U.S. (Conant, 1959). The Conant Report noted that "the academically talented student, as a rule, is not being sufficiently challenged, does not work hard enough, and his programme of academic subjects is not of sufficient range." Though Conant's comments were favourably received, his recommendations for improved programs seemed to have been substantially forgotten. By 1971 only ten states had a
"Gifted and Talented" staff member full time in the State Department of Education, and only twelve colleges offered graduate programs in Gifted and Talented Education. Apparently, the educational and psychological needs of gifted students were not given high priority in many individual State Departments of Education; however research did continue.

In later studies, high ability children consistently demonstrated intense interest in reading. Increased reading resulted in reading ability several grade levels above the norm in a regular graded classroom. Observation of reading habits and ability was another indicator of many gifted children. These results were affirmed in a comparative study in New Zealand in 1948 (Parkyn).

A number of studies completed at the University of Kansas (1967) determined that gifted children identified in Kindergarten advanced more in an accelerated reading program than the control group in the regular Kindergarten classes. Similarly, high school students of IQ 130 or higher who completed special enrichment English classes favourably evaluated the courses finding them challenging, broadening for their knowledge level, and personally satisfying.

Barbe, in his comparative study of moderately and highly gifted school children (1964), indicated the need for individual intelligence testing in early elementary grades, the need for special programs designed for both groups, and
the need for refined identification and evaluation instruments. Wallach and Wing (1969) also concluded that alternative bases for talent identification were essential insofar as intelligence assessment alone resulted in the loss of a wide range of talented accomplishments.

Through an ever-widening focus of research, American thinkers were attempting to delineate the needs of gifted and talented children, to identify these children through various performance observations, and ultimately to provide programs which would utilize the potential demonstrated by their giftedness. In four years, by 1975, forty-six states in the United States had some form of mandatory legislation which provided for gifted and talented education (Khatena). Concrete steps were being taken to implement educational change which would provide equal educational opportunities to meet the needs of high ability students in the U.S.

**Identification of the Gifted in Great Britain**

In Great Britain, in order to identify gifted children more effectively, educators began observing the whole biological and experiential milieu which shaped these children. Research by Burt (1911) provided an important look at gifted children, their needs, attainments, heredity and environment. He focused on the factors of heredity and early environment in the development of gifted children. By dividing the parents in his surveys into occupational classes (Professional class I
to Defectives and other institutional cases VIII) he concluded that in England many gifted children of skilled IV, semi-skilled V, and unskilled VI - VIII parents were not identified early or did not receive early stimulus. Thus, these gifted and talented children in the families classified as non-professional failed to achieve scholarships and thereby, complete university education. He concluded that more than half the talent of children in non-professional classes was wasted.

In 1911, social conditions mitigated against gifted children who came from "middle" or "lower" classes. More attention to the growing concern about education of gifted children was indicated, but it wasn't until after World War II that significant research came to light.

The Brentwood Experiment in Great Britain (Bridges, 1969) provided insight into the needs of gifted 8 to 11 year olds, the difficulties of attending to these needs in the classroom, and the needs of teachers of such children. Special ability grouping seemed to stimulate gifted children to work to their individual ceilings rather than to their under-achievement level as measured by average norms. Enrichment programs, smaller student-teacher ratio and special teacher training all seemed indicated by the results of the Experiment in the education of gifted children.

A later study (Pringle, 1970) of one hundred and three gifted children with learning or behaviour difficulties illustrated the effects of too high or too low parental
expectations, emotional stress in the home, learning adjustment and implications for future action in the education of gifted and talented students. Pringle suggested that without concerned, consistent training, high-potential children may become disadvantaged learners, losing potential as well as incentive for potential achievement. The need for early identification seemed to be strongly indicated by these studies and the focus was widening.

Later Developments in Great Britain

A more recent study from Great Britain (Hitchfield, 1973) collected data on a "cohort" group of children born during the week of March 3 to 9, 1958. Identification measures selected a number of children at age seven who showed "considerable promise". The total, 238 children, were again interviewed and tested at age eleven. The research concluded that there was a need for many types of testing instruments as well as varied opinions and observations in identifying the gifted child. Also, the study agreed with American evidence that homes of gifted and talented children were warm and mainly nurturing. Evidence also indicated that the higher the intelligence of the child, the wider his/her range of interests and emergence as self-appointed leader. The value of alert parents and skilled, organized, sympathetic teachers was greatly emphasized. Based on the numbers of children selected, the eleven-year follow-up and the con-
sistent observation and testing, no study of gifted children and their families has been as comprehensive since Terman. Heredity and environment, as well as intellectual, psychological, social and physical talents were incorporated in the wholistic identification of gifted and talented children in Great Britain. The comprehensive data from "In Search of Promise" is unrivalled anywhere in the world for a national cohort study, and presents important findings on the needs, achievements, adjustments, and developmental problems of gifted children.

Canadian Research in Gifted and Talented Education

Studies of the education of gifted children in Canada have been less extensive than those in the United States or Great Britain. In London, Ontario, a survey of attitudes and opinions of Advancement Class students and their parents (Smith, Smythe, Hardy and Stennett, 1971) concluded that both students and parents were overwhelmingly positive in their evaluation of the ten-year program. 78% of the students and parents who could be located from the Advancement Classes of 1960 to 1970 responded to a lengthy survey authorized by the London Board of Education. Though social isolation and transportation difficulties were common concerns, clear preference for continuance of the advancement program was indicated by both students and parents. It was felt that the segregated classes were an important source of challenge
to the gifted, who, thus stimulated, became good scholars and won over a hundred prizes, medals and scholarships in the ten year span, including two Rhodes Scholarships. Of the advancement graduates who went to university, 85% completed their university degree work. The London survey concluded that their type of segregated program was meeting the assessed needs of a number of gifted children, helping them to achieve individual self-respect and intellectual independence.

In Saskatchewan several studies have been conducted since the inception of classes for gifted elementary school children in Saskatoon in 1932. Howsam (1951) determined there was no negative social status for children in special classes for the gifted in Saskatoon. Kloposhak (1967) researched the leadership ability and high performance in extra-curricular activities as shown by gifted students. He found that 67% of bright students who graduated from enrichment classes in Saskatoon had Grade Twelve averages of 70% or better. The majority of these gifted students joined extra-curricular activities in high school and more than 50% of these students went on to hold executive positions in the extra-curricular or community-related groups. His findings also listed a high number of scholarship and award winners among gifted high school graduates. These findings were supported by the research of Gelmon and MacLean in 1974, who reported that 97.15% of the high school graduates of the classes for the
gifted attained some degree of post-secondary education. The high potential of these students was in evidence.

With respect to needs and special classes for gifted children, there are several pertinent studies to consider. In Toronto and in Ottawa, streaming of gifted and talented pupils into special classes had occurred since the early fifties. A study in several Toronto Secondary Schools found that patterns of under-achievement apparent by Grade 5 in gifted students resulted in negative attitudes to school and poorer achievement by secondary school. In 1958, a small study by the Etobicoke Board of Education (Toronto) concluded that special grouping was "important for the development of superior intellectual power". After studying the results of student achievement in special enrichment classes in high school, the report supported the continuation of segregated classes for gifted and talented students. It appears that evaluation of gifted productivity pointed to expanded special curriculae for gifted children in Toronto, whether they be segregated or enriched programs.

In Ottawa in 1963, a study of twenty-six special enrichment classes concluded these classes provided for the "fullest development" of children identified as gifted. The Ottawa Board of Education declared a commitment to providing enrichment programs to develop the abilities and talents of all students. To this end, the Board provided special
enrichment classes and rich, differentiated curriculum to achieve this goal. A study committee in 1972 composed of parents, teachers, consultants, principals, high school and university students strongly supported the benefits of the enrichment program in Ottawa. Due to falling enrollment and increased resource centres in individual schools, the number of enrichment classes decreased to eighteen in 1974, but commitment to the needs of gifted students remained a high priority and a more effective city-wide program to meet these needs was projected in Ottawa.

"Project Equity", a study by the Carleton Board of Education, Ontario in 1970, recommended withdrawal programs and specialized educational experiences appropriate to the needs of gifted and talented students. It also concluded that greater emphasis on teacher training and community resources were needed. Gifted and talented students' needs were being recognized along with those of other children with exceptional needs. It is significant that "Project Equity" was commissioned to study exceptionality in the Carleton educational system and both ends of pupil diversity in an educational continuum provided a wide focus for recommendations.

Because the Federal Government in Canada held no power to set provincial educational policy, it became necessary for provincial governments to provide incentives to encourage additional programming for perceived priority items. Thus,
by 1968, three provinces, Ontario, Quebec, and Saskatchewan, had special legislative provision for education for the gifted student. Additional grants were made available in these provinces to special classes for gifted pupils. Though Manitoba had special enrichment classes, they were not financed by provincial grants at that time. Local Boards set priorities and paid the expenses. At the Kootenay Centre for the Gifted in B.C., efforts were expanded to identify pre-school gifted children and then to provide special help when the youngsters entered the school system, but funding was all from private sources. The struggle to meet the needs of identified gifted and talented children was rather sporadic throughout Canada, though differing psychological and intellectual needs were being recognized in certain centres. Without greater provincial exchange of educational curriculum, a trusting acceptance of other province's established, effective innovations, and a commitment to a consistent standard of educational opportunities across the country, no widespread programming for gifted and talented studies could ensue in Canada. "Band-aid" measures from occasional provincial funding could not effectively serve the needs nor challenge the potential of our nation's gifted students.

It appears that gifted and talented children have special needs which should be met early at home and at school. The literature points to early identification in order to
integrate their needs with a school program which best satis-
fits those needs. Effective school programs depend on the
commitment of administration to provide the necessary resources,
teacher training and adaptable curriculum which best suit the
gifted and talented children in a school system. Small steps
have been taken in various parts of the world, and interest is
growing in equal educational opportunities for all.

The latter is evident in the words of the Ontario
Minister of Education. In an address in October, 1975, Thomas
Wells defined a quality educational system as "a system where
the academically talented can sharpen their intellectual wits
to the highest possible standard....It means a chance for the
fast learner to gallop ahead." Studies cited above done in
the U.S. and Great Britain appeared to indicate these concerns
will only be realized when specific policies are defined and
consistent program implementation for gifted and talented
students is practised. Unless educators and communities are
prepared to support the integration of additional methods and
resources for bright students, the potential they offer will
be lost.

At the first World Conference on Gifted Children held
in London, England, 1975, Margaret Branch, organizer of the
conference and general secretary of the British National
Association for Gifted Children, stated: "Every nation must
have two per cent super-gifted children in its school age
population. Terman and his successors proved that these children don't 'burn out'. They go on and render immense services to the community. No nation can afford to miss the potential they offer."

There are no fewer than 2% of gifted students in our own schools. In light of this information, three basic ideas inherent in the research deserve attention.

Summary

(1) Common to all studies considered is the growing interest in providing for the education of gifted and talented children.

(2) A second theme suggests that early identification and screening of gifted and talented children lead to healthy psychological and behavioural development, whereas ignorance of this potential is not only wasteful of its potential value, but also may lead to maladjustment in the educational milieu.

(3) It appears that organization for instruction of the gifted takes many forms and administrative provision for flexible curriculum is a great responsibility for educators. What are the characteristics of gifted and talented children who have such a potential for productivity? The following section will explore this question.
The following section will deal with specific mental and physical traits of gifted and talented children. Complex cognitive processes will include creativity traits. Intelligence will be sub-divided into visible creativity ("first-order gifted") and disadvantaged gifted ("second-order gifted"). Factors regarding leadership and social abilities will also be reviewed. A philosophy based on utilization of human potential will then be linked to the integration of human needs for the purpose of developing an effective educational system.

General Overview

Because there are many manifest forms of human ability, individuals will demonstrate varied characteristics as well as varying degrees of ability in different categories of behaviour. The amount and quality of development of one child's ability will vary from one activity to another. Similarly, the combination of abilities will vary from one child to another and each child will use his abilities to stamp personal experiences in his unique way. It follows that high ability has as many forms as there are persons manifesting it. The realization that intelligence is multidimensional makes identification of gifted children difficult. Piaget said gifted children are "endowed with a certain organizing quality of mind that is able to see relations and
to make deductions and generalizations." Furthermore, the
recognition that giftedness can occur in areas such as cre-
ative ability, leadership and psychomotor ability, the visual
and performing arts, singly or in combination, makes identi-
fication even more difficult. Considering all these factors,
general characteristics pertaining to the totality of gifted-
ness will be examined.

Early studies by Terman, Haggerty, Hartshorne and
May and Hollingworth established knowledge of the character-
istics of gifted children and their behaviours. Precocious
general achievement was evident in Kindergarten classrooms.
Traits that differentiated gifted children from the average
were: independence of thought, perceptiveness, understanding,
keen powers of observation, strength of memory, conceptua-
ization, trustworthiness, strength of influence on others,
persistence, desire to excel, concern with social problems
and relationships with others. In his TIP Rating Scale,
Piper (1975) listed thirty-one discriminating traits which
could be displayed by gifted and talented students. (Appendix 2)
Due to their capacity for sustained work these children are
often quite happy to work on their own. Early verbal pro-
ficiency often indicated a gifted child, while tendencies
to explore special interests at an early age in the home are
also clear manifestations.

There is ample evidence which indicates that gifted
children are generally tall, heavy, strong, healthy, and fine looking as a group. (Terman, 1926, Hollingworth, 1942) They are more stable emotionally, superior in their resistance to temptation, morally dependable and of above-average reliability. Despite these factors, many gifted children suffer feelings of inferiority when in classes with larger, older children; the gifted are often at a disadvantage in physical competition. Studies show that they often choose physical activities not involved with a group: swimming, walking, riding, etc. (Hollingworth, 1942:256)

New information regarding the processes of cognitive ability of gifted children (Guilford, 1958, Gallagher, 1967, Wallach and Kogan, 1965, Wallach and Wing, 1969, Torrance, 1965, Burt, 1975) indicates that these children are capable of complex mental operations. A list of skills in learning, as well as processes in the cognitive and affective domain which could be demonstrated by gifted children is presently used by the Sunnyvale Elementary School District in California. (Appendix 3)

Connecticut also uses an "Intellectual Functioning" checklist which identifies characteristics of productive thinking in many gifted children. Generally, they demonstrate more rapid performance of problem solving, an ability to analyze situations in depth, and a facility to relate thoughts more fluently.
In a study in Kansas (Hammer, 1967), gifted high school students perceived themselves as very social, persevering, goal-oriented and relatively free from sensitivity. When an individual has a healthy concept of self, genetic endowments, and an advantageous home environment (Burt, 1975, Hitchfield, 1973, Cornish, 1967), he is more likely to take advantage of opportunities and thus the quality of behaviour associated with giftedness is more likely to emerge.

 Creativity Traits

In any discussion of gifted and talented children, the aspect of creativity must be considered. It has been said that creativity is like an iceberg: it is easier to discuss than to observe because two-thirds of it is not even visible. Substantial differences exist between gifted and normal children in creativity variables, while at the same time too many discrepancies occur in trying to measure visible creativity. Creativity may be defined as one of the two basic modes of the intellect: the "right brain" hemisphere which tends towards the novel and speculative, which is predominant in synthesizing, in the process of intuition and innovation, and in responding to sensory data (Phillips, 1976). According to J. S. Bruner (1976), creativity takes the form of effective surprise: "surprise of the fitting, but unlikely". An act could be "shockingly new" but yet obvious, a new connection
in awareness, or a new relationship where relations were not before suspected. From this viewpoint, the creative enterprise takes one beyond common ways of experiencing the commonplace in the world.

However, creativity might be independent of, or only moderately related to intelligence. Early studies by Chassel (1916), Welch (1946) and Guilford (1950) concluded that high intelligence test scores were not always synonymous with giftedness in creativity. Later studies by Torrance (1960, 1963) pointed to similar conclusions. Nevertheless, creative thinking abilities and creativity in the visual or performing arts are admirable forms of talent and, as such, should be included in a list of characteristics of gifted and talented children. A certain amount of intelligence is required for creativity and once ascertained, novel and speculative performance can be promoted along with other gifted abilities in our educational systems, keeping in mind that individual differences are as great within group variability as between individual creative students.

**Intelligence Traits**

Assuming that not all gifted children are highly creative or high achievers in classroom activities, what distinctions can be made for the moderately gifted or the underachieving gifted student? According to Barbe (1964), moderately gifted children could be classified between IQ120 and
IQ 134. Highly gifted children could be above IQ 148. He allowed an overlap, the standard error of ten points, between IQ 135 to IQ 147 and concluded that one child in every thousand children is above IQ 148. Recognizing that there is no clear-cut definition of moderately gifted and highly gifted that would satisfy all people, Barbe's distinction can provide one useful point of reference for classification of gifted children.

Another frame of reference was developed by Stallings (1972). He labelled his classification of gifted children into "first order gifted" and "second order gifted", the latter being the disadvantaged gifted. He concluded that disadvantaged gifted students were less easily recognized because there was less observable excellence, outstanding performance or visible creativity. Often traditional methods of testing missed these "second order gifted". If a student displays less verbal proficiency, limited capacity for sustained work, and/or inconsistent performance, it may be that life experiences have acted in such a way as to suppress the capabilities of the individual. Einstein was perceived to be a slow learner in grade school because he took so long to reach a conclusion. A wide and varied system of identification measures based on the latest research seems indicated.

It is important that one not assume that all gifted and talented children, be they moderately gifted, highly gifted or disadvantaged, will display all the "first order"
characteristics outlined in this thesis. The more traits which a child exhibits, the more superior he may prove to be. All children are different, but using general characteristics developed through a study of the literature, it is assumed that gifted and talented children can be identified, and should form approximately 2 - 5% of a school population (VanOsdol, Shane, 1972). If identification techniques are effective and reliable, there should be congruence between national figures and the percentage of gifted students identified in a local system.

In California, pupils who score in the 98th percentile on individual intelligence tests and at 98th percentile in two group standardized achievement tests are identified as gifted. In many other areas, an IQ of 130 and above scored on standardized tests such as the Weschler (WISC) are classed as gifted. However, the complexity of characterizing a group of children appears to be a major problem and identification is still inconsistent in many areas.

A report to the Congress of the United States by the U.S. Commissioner of Education in March, 1972, stated:

"Identification of the gifted and talented in different parts of the country has been piecemeal, sporadic, and sometimes non-existent. Very little identification has been carried on in depth....The United States has been inconsistent in seeking out the gifted and talented, finding them
early in their lives, and individualizing their education.

Neglect of the gifted in this country is a universal, increasing problem." (Congressional Record, 1974) It appears that a philosophy based on the development of individual potential is required as a foundation for education of gifted and talented children.

**Philosophy**

Each human being has unique talents and gifts. The learner should be the important centre of education and he must gain insight and control of his function as a learner. Education must assist in every child's development by emphasizing the unique strengths and abilities of each individual. Waller (1961) observed: "A scholastic regimen that forces the dull and the clever to go at the same pace and imposes upon the capable a load of routine work intended only for the mediocre eliminates many brilliant persons by its very boredom."

By uncovering and enlarging personal giftedness, either potential or demonstrated, education contributes to the self-realization of each learner and may facilitate important contributions which could come from gifted and talented persons. As one school district stated, "Gifted and talented children are the greatest of our natural resources." (Arizona, 1975) Ecologists remind us to preserve our natural resources and use them well. Education should develop comprehensive plans to encourage, prod, and motivate these students to greater
use of their talents for themselves and for society as a whole.

Individuals who recognize their special talents and feel comfortable using them and expanding the limits of those talents, achieve a personal satisfaction that comes from personal need fulfillment. Gifted students who recognize that they can excel in some way cannot realize personal achievement in an educational system which modifies their intellectual, creative and/or social behaviour towards a group mean which is lower than the individual's potential. Education should assist gifted and talented students to function at or near their potential in order that they attain satisfying personal reactions to their own behaviour. From this base, a recognition of personal utilization of talents could then expand to encompass societal utilization of talents.

Effective organization in industry seeks maximum use of human abilities. Recognition of employee potential and utilization of these abilities in organizational systems leads to improved production and improved work environment. As Drucker (1962) pointed out: "It was our fuller use of human resources of leadership, ambition, and ability which gave the American economy its dynamic quality." The same human resources, be they leadership, intellectual, visual or performing arts, or psychomotor abilities, are there in our gifted and talented students. Since, in childhood, the
gifted boy or girl is nurtured by guardians/teachers whose duty is to know the child's nature and his needs, it is fundamental that (1) recognition, (2) motivation and (3) utilization of these human resources occur in education. Lack of any one of these three factors accounts for a high percentage of under-achievement in gifted and talented students. (Jacobs, 1970).

Under-achievement can occur where a bright child has ability much in excess of what he/she is called on to use in school. Such a child may be first in class, have A's on a report card, and still be an under-achiever. Effortless existence, indifference, plus poor work habits can lead to intolerable boredom and/or truancy (Hollingworth, 1942, and Burt, 1924). Relatively low demands upon the talents of under-achievers lead to normative expectation by the school; the children often learn to play down their abilities in order to function at the accustomed level of under-achievement. This point is underscored in the Brentwood Experiment in England. Its results concurred with the findings of Hollingworth and Malone (1975): "For years they (gifted and talented children) had mostly been coasting because they had found it easy with a certain amount of effort to maintain a good position in class, and since this position proved satisfactory to both school and home, they were satisfied." It appears that without consistent, concrete class programs,
under-achievers might not be helped to become better adjusted achievers in post-secondary institutions. The conditioning of limited effort might also result in limited achievement in community activities in later life.

Since our democratic society bases its educational system on a policy of equal educational opportunities for all pupils and since under-achievers or other maladjusted learners are not being provided with equality in our educational organizations, then human potential is being lost. A philosophy of education in our democratic society must meet the varying needs of our gifted and talented children, helping them towards greater self-actualization.

Any system which misinterprets the needs of its clients, causing them to suppress their needs and conform by "conditional acceptance" to the perceived level of productivity within an organization, is short-changing the individual and the potential effectiveness of the organization. Argyris (1962), in his studies of personality and organizational effectiveness, concluded that: "Internal commitment exists when the motive for particular behaviour resides from within....if rational, intellectual aspects of the job are consonant with the individual's abilities and expressed needs."

Educators can benefit from organizational research by translating effective utilization of human personality to increased integration of the total needs and potential of gifted and
talented students in our schools. The concept of individual differences is not only held, but translated into behaviours which ensure equal educational opportunity, which advances the educational birthright of all children. How can we justify an educational system which does less than help each child fulfill his potential?

Screening and Identification of Gifted and Talented Students

Based on the stated philosophies, a series of screening and identification measures will be explored. The consistently recurring ideas will then be recapitulated.

Screening Programs

Research points to the importance of early screening of gifted and talented children to overcome behaviour modification toward the lower mean in Kindergarten. "Early experiences in social adjustment are complicated for gifted youngsters," stated Malone (1974). Lazow (1974) concurred when he stated: "The earlier diagnostic data can be obtained from young children, the sooner proper guidance and desirable experiences can be provided." Keogh and Smith (1969) used the Bender Gestalt test plus teachers' evaluations in kindergarten and found they proved 90% successful in identifying high potential achievement in children. An inexpensive questionnaire developed by Dr. C. E. Malone in California (1975) is the Behavioural Identification of Giftedness questionnaire (BIG) which distinguishes the behaviour of
gifted elementary school children. Administered as part of Kindergarten registration and used in conjunction with computerized statistical techniques known as CHAROSEL, it has proven beneficial in a San Diego pilot program (Malone, 1974). Gifted students who were identified early were helped to overcome inaccurate self-concepts and behaviour modification toward the lower mean in Kindergarten classrooms. Since the early development of gifted and talented children is an important consideration, parental observation has also been utilized in conjunction with the other identification measures. Teacher Identification

Teacher identification alone has not been found to be a satisfactory method of selection of gifted and talented students. A study by Pegnato and Birch (1959) revealed that Junior High School teachers identified only 45% of gifted and talented students, and nominated 31% who were not gifted at all, but in the average range on the Binet IQ scale. Similarly in England, Young (1966) found that less than 35% of the children nominated by classroom teachers as gifted at age six tested at or above IQ 127. "Two children whose reading age measured by the Schonell Word Recognition Test was six years above chronological age were not nominated by their teachers as gifted," stated the author. Research by Jacobs (1971) found that Kindergarten teachers effectively nominated 9.5% of children rated as gifted, while 96% of the students nom-
inated were of average ability. The effectiveness of nomination by parents was 76%. This was supported by Ciha (1974) who concluded that Kindergarten teachers were only 22% effective in nominating gifted or potentially gifted students, while parents correctly nominated 67% of the gifted youngsters. It appears that any selection process that does not identify a high proportion of the desired candidates should be quite suspect.

Parent Identification

A number of studies have confirmed that parents are a useful source of information in identifying gifted children. Malone (1975), Ciha et al (1974), Hitchfield (1973), and Jacob (1971) each determined that teachers needed information about the child's special abilities and interests as observed by the parents. In primary grades, teacher-parent interviews appear to be useful. In intermediate grades, teacher-pupil interviews could prove effective as an additional source of information. Contrary to expected fears that zealous parents might overestimate a child's abilities or "blow his horn" about his offspring, the research agreed that parents tended to be conservative in identifying their own children as gifted. It must be stressed, however, that appropriate criteria for assessing giftedness among young children at home be given to parents who have little experience at comparing their child in relation to others of his age group. But armed with check-
lists for Parent Observation, parent opinion of a young child's intellectual ability is a potentially useful source of information for our educational systems. (Appendix 4)

Identification Instruments

Identification by individually administered tests such as the Wechsler Intelligence Scale for Children (WISC), Slossen Intelligence Test and Stanford-Binet, along with reading achievement scores have proven useful predictors of cognitive giftedness in Grades one to four (Cornish, 1967). Traditional criticism of IQ testing might be overcome if this test measurement was used in conjunction with other identification measures which differentiate other than cognitive ability. Evidence has shown that Piagetian-based assessment, the Concept Assessment Kit (CAK) combined with Binet IQ scores set at 130+ accurately identified gifted children in the first grade (Hader, 1975). Along with standardized tests, teacher and parental judgments, Connecticut uses peer nomination and self-assessment for identification of gifted and talented students. Self-assessment measurement is rapidly gaining in popularity. Many areas use the Renzulli checklist for teacher observation of superior students. (Appendix 5)

Two personality tests; Junior Eysenck Personality Inventory, and the modified version of Myers-Briggs Type Indicator were used to identify gifted and talented students in England's Brentwood Experiment. New York uses Calvin
Taylor Measures, teacher evaluation and the Baldwin Identification Matrix, which combines Standardized IQ, Achievement Tests, and Renzulli checklist to locate gifted and talented students. Because pupils mature and are motivated at different times, the identification process must really be an ongoing activity.

Recognizing that intelligence tests only measure a small part of intelligence, that creativity posits originality, and that originality implies organization of new experiences, the Torrance Creativity Scale is helpful for measuring creative dimensions in gifted youngsters. Psychological Support Services have been useful in administering individual achievement tests, aptitude test, Personality Profiles and other similar measurement techniques. To minimize the difficulties in selecting gifted and talented children, factors for selection tests must include: a) validity and reliability of the test, b) age and academic level of the child, c) information regarding the socioeconomic status and cultural background of the child, d) the method of giving the test. To maximize identification of bright children, discovery must begin early and continue late into a child's career in the educational system. If giftedness is a product of the interaction of native ability and life experience, we may be led to the conclusion that a variety of identification techniques is essential to locate all the facets of talent inherent in gifted students. Combining intelligence,
aptitude, achievement and creativity test measures with educational-parental assessment, self-assessment, and early screening should result in effective identification techniques.

Recapitulation

Given the results of a series of identification techniques, an educational system may admit superior ability or potential ability in the 93 - 95 percentiles of the school population. Since it appears to be a law of nature that what we don't use we lose, educators have the responsibility of encouraging students to use their talents more fully so that the unique potential of so many gifted and talented young people is not lost. As F. C. Ward said: "The advance of societies and nations will henceforth depend more than ever before on the cultivation of versatile and flexible leadership on the part of their ablest members. Exceptional performance by those capable of it is going to be a necessity for all societies if they and their citizens are going to live with complexity and change in the coming decades."

Gifted children are aware that they are different. Right from Kindergarten they learn to take the necessary measures to resemble others, even if this means minimizing their talents. Social pressures to conform are an extremely great influence on the heightened perceptions of gifted children. As Waller stated: "To play a role is to regulate
one's behaviour by the imagined judgments of others. The action of the individual comes to be oriented with reference to an entire situation of which the supposed attitude of the other is a part. Without a sympathetic environment at home and/or at school, the gifted child modifies his behaviour and becomes an under-achiever. Through boredom, perhaps he becomes a nuisance at school. Studies by Malone (1975) reveal negative growth trends, while Jacobs (1970) identified actual loss of IQ among high-ability students who received no special school programs. The frustration of not fitting into our normal educational system may result in deteriorating mental health. Even a good seed needs fertile ground and cultivation to flourish.

In areas which conduct special programs for gifted and talented, the "fall-out" is tremendous. Acting as an educational catalyst these programs have led to increased confidence, competence, initiative and morale in many students and educators. There is spin-off to application in many other areas, from assessment of current practices to changes in the entire curriculum (Flowman and Rice, 1967).

For example, educators in Erie, New York, BOCES 1, which has had an organized Gifted and Talented Project since 1964, speak of the beneficial aspects of gifted and talented curriculum. "Programs and innovations have a way of filtering along into regular classrooms and Teacher In-Service provides
attractive teaching strategies to many teachers in the system," commented Ray Imam, director of the Rochester Major Achievement Program. When gifted and talented education is considered an integral part of the total curriculum, the total educational milieu can benefit from sharing of ideas.

Gifted students appear to have a higher regard for scholarship plus a greater interest in going on to university when special provisions are made for a challenging program in the schools. Special ability peer groups of gifted students challenge the participants to utilize their superior ability. Such peer groups oblige these students to cooperate in the challenge of working with their peers as well as with adults. Congenial groups bound together by similarity of ability and interest provide greater flexibility and richness of behaviour, more interesting material to observe and to respond to, and more satisfactory reactions to one's own behaviour. O'Shea's summary includes the important aspect of friendship: "It is highly probable that when the gifted child is externally bound to persons of low mental age, who are less flexible, and less rich in personality differentiation of the person, he is then in effect an isolated individual for whom activities tend to drop dead and for whom there is malnutrition in the area of rich, constructive, developing, rewarding experience of close friendship." With appropriate guidance in learning, gifted and talented children can make
fuller use of their individual potential and make outstanding contributions to our society.

Basic Criteria for Gifted and Talented Programs

As a result of the preceding discussion, a series of criteria for gifted and talented programs is presented.

1) A learning environment conducive to exploration and originality is maintained.
2) Provision for individual difference is made.
3) The student is afforded opportunity for reflective thinking, problem solving and critical thinking.
4) The student is afforded opportunity for creative thinking and expression.
5) Depth and scope in planning learning opportunities are furnished.
6) Rich access to books, museums, instruments, ideas, visual arts, etc. is provided.
7) Great flexibility in the organization of work is allowed.
8) The student is afforded flexibility of programs.
9) Higher standards of serious challenge appropriate to his capabilities are promoted.
10) Teaching and resource personnel display sympathetic understanding of children, kindness, patience, organizing ability and "skill at building an effective bridge of understanding between the material to be learned and the children."

(Hitchfield, 1974)
11) Provision for regular evaluation of all aspects of the program is furnished.

12) Systematic research in teacher training, curriculum development, funding assistance, available resources, and new developments in the field of education for the gifted is maintained.

**Program Variations for Gifted and Talented Students**

The basic criteria listed above comprise quality educational opportunities for all students. Program variations could enhance the learning of any child. Assuming that special provision is right and necessary for gifted and talented students, certain specific program variations should be considered. Given careful planning and organization, backed by generous and effective educational resources, the classroom teacher standing before a primary class of up to thirty-five pupils is still hard pressed to provide individualized curriculum for the exceptional children in her charge. One answer is segregation of the students assessed as gifted and talented. Smaller classes, say up to twenty-five pupils, could be grouped according to ability rather than lock-step age or grade grouping. The curriculum is designed to provide:

1) intellectual challenge through quality rather than quantity of the work.

2) development of sequential learning skills from lower order to higher order thought processes. (Bloom's educational objectives)
3) development of self-direction and independence of thought and action.

4) opportunity for originality and improvisation in various resource centres available in the area.

5) interaction with the rest of the school through sharing of communal activities such as sports, orchestra, games and assemblies. This type of segregation might be within a regular school setting, part-time, such as the withdrawal programs in Cleveland's Major Work Plan or Rochester's Major Achievement Program, or full-time in a special honours school for gifted and talented such as Yehudi Menuhin School in London, Russia's state schools for gifted in Moscow and Kiev, Hunter College Elementary School in New York, or on a one-day a week basis in a special resource centre such as Brentwood College of Education, England, where specially selected students have enrichment tutorials and field studies with experts from various disciplines.

Another program variation is smaller class size with a heterogeneous mix of students and greater assistance for the classroom teacher in order to provide for individual differences. A lower teacher/child ratio can allow more one-to-one time for setting of educational goals and/or timelines, exploration and evaluation. Additional resources such as parent-teacher teams, resources from both educational personnel/centres and community personnel/sites, co-ordinated
university-school system consortia could offer a wide variety of curriculum enrichment for the few gifted students in the regular classroom.

Acceleration is another program provision made for gifted children. One form provides the special student the opportunity to complete several years' school curriculum in less time than the regular one year-one grade lock-step system. This is done on an individual basis with resource assistance given to the classroom teachers. Another variation is radical acceleration which allows the gifted and talented student to progress as far and as fast as individual potential allows, and then to enter university at a considerably younger age. Dr. Julian Stanley is an active proponent of this method which is in operation at John Hopkins University. This type of program requires commitment and co-operation from all levels of the educational system. Additional courses per semester and summer school acceleration are also adaptations of gifted and talented programs. It appears that the size of a school district has a bearing on the extent, provision and flexibility of programs suited to individual needs. Local school boards need not be locked into limited program offerings for gifted and talented students when such rich program alternatives are in operation in many North American educational systems. Appropriate programs to meet individual student needs is the goal of
today's effective educational organizations.

Summary

(1) The characteristics of gifted and talented children take as many forms as there are individuals involved. Generally, giftedness can be observed in early precocious achievement, early verbal proficiency, creative ability, leadership or psychomotor ability and/or ability in the visual and performing arts. In the affective domain gifted children are more trustworthy, morally dependable, more reliable, superior in their resistance to temptation and more sensitive to others.

(2) The more traits which a child exhibits, the more superior he/she may prove to be.

(3) Use of intelligence test results is only one measure of giftedness. In many areas in North America, an IQ of 130+ scored on a standardized test such as Weschler or Stanford-Binet is classed as gifted.

(4) A philosophy based on the development of human potential will recognize, motivate, and utilize all forms of giftedness in education.

(5) Screening and identification of gifted and talented students should begin early and continue throughout the child's career at school. Parents, teachers, principals, resource personnel, the child himself and his peers are all potential sources of identification.

(6) Basic criteria for gifted and talented programs provide
a) a nurturing learning environment;
b) allowance for individuality;
c) flexibility;
d) rich opportunity for exploration, creativity and critical thinking.

(7) Program variations currently in operation include complete segregation, partial segregation, acceleration of whole curriculum or specific subjects, enrichment in heterogenous classes.

Given the information outlined in the related research, the following chapter will develop a conceptual model to incorporate administrative provisions for gifted and talented education.
CHAPTER 3
Administration of Gifted and Talented Education

Introduction

Assuming that gifted and talented children have special educational needs which can be met by special programs, this chapter will develop a conceptual model to present an administrative package to meet the intellectual, artistic, physical and/or social needs of gifted and talented children. The reader may assume that the conceptual model is the philosophical foundation on which the subsequent discussion will be based.

Conceptual Model

From the reviewed literature it appears that students assessed as gifted and talented have individual needs which are affected by the types of programs available to them in a school system. As Margaret Mead said: "The task for the school becomes a redesigning of the school situation in such a way as to both protect and foster the gifted child." Before school administrators formulate policies which result in comprehensive programming for these bright children, the public must be concerned with the importance of recognizing and meeting the needs of all children in our school system. Without a community committed to equal educational opportunity for gifted and talented potential as well as for retarded and remedial potential, gifted children will not be protected and
helped to develop the intellectual, physical, social, and emotional self-sufficiency which school and community together owe them. As the literature points out, bright children, who at early ages are nominated by interested parents and/or teachers and then receive special help from other educators, develop precocious excellence through strong success experiences which foster and stimulate their talents at school. The public must be aware of doing something more positive than merely not doing anything for these children in our classrooms. Community, school administration, special resources, and varied programs all interact in the development of gifted and talented students.

Based on a contingency approach, a model is conceptualized which focuses on five levels of interaction. The contingency model starts with (1) the relationship between public awareness and school board administration. These two sectors interface in a two-way exchange of concerns, needs and demands. (2) This exchange influences the degree and direction of administrative policy, the kinds of planning required to facilitate the policy, the amount of funding required to implement in-service and other planning. The dotted-line indicates the osmosis-like fluidity that actually exists between the two sectors, and which is necessary for open exchange.

The direction initiated at the administration level
of the model in turn affects (3) the next level of special resources and the way the various resources listed respond to the problem of educating gifted and talented students. Administrative provisions integrate the services of various agencies and utilize diverse resources in a combined effort to provide rich educational experiences. If, in fact, the relationship between administration and special resources does affect the perceptions of the problem of educating bright children, the resource services will next affect (4) the programs available in the school system. These programs will influence the identification procedures as well as the screening techniques which place gifted children within the various programs. Since each level is contingent on the other levels of this model, the relationships can ultimately affect (5) the perceptions of the characteristics of gifted and talented students and directly affect the gifted student's ability to grow. Thus, the conceptual model is designed to show the relationships incorporated in administrative provisions for gifted and talented students in a school system.

Community Awareness

New proposals for educational change must take into consideration public concerns. Because education of children is the a priori right of the parents, said parents, when delegating that right to educational institutions, should feel confident that the schools are effectively preparing
their children for a place in the adult world. To some degree, schools are highly vulnerable in the community because they operate in and for the community. Since schools provide an active and important service to the community, parents could influence change or could find themselves influenced by changes in a school system. Proposals for new program developments in any area, i.e. gifted and talented education, might be promoted or opposed by a sector of concerned citizens. By the same token, parents who choose to be uninvolved also have the right to be informed about the educational enterprise, to be assured that changes will provide a positive influence on their children. In all quarters, from greater understanding of a new program comes greater acceptance of a new program.

Many school systems do attempt to channel community concerns into educational policy, for example, while others are not as actively involved in interaction with the community. Parental awareness of children's needs, as well as awareness of effective programs already in progress, can be a starting point for the development of a total administrative package for gifted and talented education. Community support can be an important factor in the successful implementation of any administrative process in education.

Administrative Policy

In setting policy for education of gifted and talented
children, several factors will be considered. Research into programs which have effectively met the individual needs of gifted students can be undertaken by boards of education. Often administrators themselves are not sufficiently cognizant of the developments in gifted and talented education. Administrators shoulder the responsibility for identification of the needs of their clients. Then policies may be set which will meet the outlined needs. Through stated school board policies, administrators can indicate commitment to providing for the individual differences inherent in gifted and talented children. (1) Referring to the model with consideration for the practical restraints of time, budget and personnel, educational innovations can plan steps to redesign the school system, basing their program changes on the current curriculum alternatives for gifted children outlined in the research. One sees value in establishing a new title, such as "Individual Placement Program" which could reflect and project the philosophy of the board of education. Once philosophies are accepted with clear and visible priorities set for gifted and talented education, administrators will then have to consider the practical restraints of funding.

(1) The Gifted and Talented Program in Juneau, Alaska, recognizes the importance of developing individual human potential and administrative policies provide for program implementation and evaluation. Parents are also involved in setting policies, goals, programs and evaluations at regular times throughout the year. Juneau School Districts, City and Borough of Juneau, Alaska.
Funding

Local school boards in Ontario are short of spare cash for pilot projects. In order to sustain any long-term development of a program for gifted and talented children, the school boards can review many sources of funding. Allocation of board funds for special education students could be extended across the whole continuum of exceptional students to include the gifted and talented. In Ontario, school boards such as London and Ottawa fund and operate city-wide programs for these high ability students. Program alternatives could be offered in empty classrooms by teacher specialists who have been timetabled to train specially selected gifted students. Provincial grants are available for resource teachers who assist in developing classroom aids for gifted and talented children and boards could take advantage of this grant. For example, one sector of the Niagara South Board of Education, Niagara Falls, employs an enrichment resource teacher and the provincial Ministry of Education provides an additional grant for this position. Either the province, boards or parents could fund transportation costs of students who need to attend a centrally located school where the Individual Placement Program is in operation. Summer school as a type of acceleration of gifted students would be economical and feasible for large unified school regions. To some degree, the semester system and board-
sponsored summer courses currently allow secondary school students to earn additional credits towards earlier completion of their high school diploma. Also the Grade Twelve summer programs at Universities such as Brock and Wilfrid Laurier allow specially-selected bright academic students to accelerate their first year university work with little extra expense to local boards of education. Parent-teacher teams can provide in-school and out-of-school educational activities with little or no increased cost. Likewise, community specialists can become tutors and/or resource people for gifted students both in classrooms and in other centres within the region. It is interesting to note that in Virginia, the NASA Research Center in Hampton has established a Career Exploration Program for academically gifted students who are given opportunities to observe and participate in activities at the research center. (Pinellie, 1973) This type of community "talent bank" could be utilized by boards of education with little financial outlay.

The provincial Ministry of Education funds research projects as well as selected professional development activities throughout the province of Ontario. The cost of research for identification, screening, testing and new program alternatives for gifted and talented students in a regional Board can be defrayed by such research grants. At the school level in-service training for teachers of gifted
children could be subsidized from Regional Offices which have provision for professional development grants. Extended planning and programming for an Individual Placement Program need not be an excessive financial burden to a board of education, and when curriculum innovations stream back into regular classrooms, all aspects of an educational system can benefit.

**Environmental Resources**

In considering the environmental resources available in developing program alternatives for gifted and talented students, many aspects can be incorporated. By examining the model, one assumes that gifted and talented students can be an integral part of a school system's total curriculum, not a fringe concern in the administrative perspective. Schools, Colleges, and Universities can form a valuable consortium to pool resources which would be made available for gifted students. (1) Community agencies, Health and Welfare Services, the visual and performing Arts, government, business and industry can all interface to provide additional expertise without noticeable shrinkage to the educational dollar. The model envisions active policy makers combining with trained educational mentors and committed community sponsors to provide gifted and talented students with an educational exposure which enriches their (students) regular programs.

(1) One current example is in Erie County, New York, where the Board of Co-operative Educational Services administers a Gifted and Talented Program under the guidance of Gene Callelli: BOCES Service Center, 2 Pleasant Avenue West, Lancaster, New York, 14086
Identification Measures

Before actual programs can be implemented, the administration will need to look into identification and screening of students who might be gifted and/or talented. Realizing that identification is a continual process, educators can begin screening for giftedness early and continue late into a child's career in an educational system. Since children mature at different rates and are motivated at different times, the identification process never really ends. Interested parents, teachers, health and welfare services, educational resource personnel and even other students can aid in identifying gifted and talented children. A number of commonly used identification measures are listed in Table I and briefly described. Given an older student, perhaps age ten to twelve and up, a personal inventory could be an additional device to supplement other identification measures. (#10, Table I)

To aid the reader, several types of observation questionnaires are included in the Appendix of this paper. In general, a variety of identification measures allowing a gifted student an open, revolving door, to enter or leave a program at any given time appears to be the most beneficial.
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Area of Measure</th>
<th>By Whom and How</th>
</tr>
</thead>
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<td>Parent Observation Questionnaire, i.e. Brumbaugh and Roshco checklist</td>
<td>Child’s area of giftedness social, psychological observations</td>
<td>Parents observe out of school behaviour and complete checklist</td>
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<td>Bender-Gestalt Test</td>
<td>Achievement of Reading Readiness</td>
<td>Teacher administered: 1 to 1</td>
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<td>Group Intelligence Tests, i.e. Stanford Binet WISC</td>
<td>Intelligence quotient</td>
<td>Teacher administered: group</td>
</tr>
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<td>Group Achievement Tests, i.e. Concept Assessment Kit</td>
<td>Cognitive Development</td>
<td>Teacher administered: group</td>
</tr>
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<td>Renzulli Checklist</td>
<td>Child’s Learning, Motivation, Creativity, Leadership</td>
<td>Teacher observation and completion of checklist</td>
</tr>
<tr>
<td>Baldwin Identification Matrix</td>
<td>Combines Standard Achievement test and Renzulli Checklist</td>
<td>Kindergarten teacher: 1 to 1</td>
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<td>Peer Identification List, i.e. Student’s Classroom Inventory, North Carolina</td>
<td>Talent and Achievement</td>
<td>Fellow classmates complete list</td>
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<td>Torrance Tests of Creative Thinking</td>
<td>Verbal and Figural Achievement</td>
<td>Teacher or Diagnostician: 1 to 1</td>
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<td>California Test of Personality, Character and Personality Tests</td>
<td>Feelings, Personality traits</td>
<td>Teacher: 1 to 1</td>
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<td>Self-Assessment Lists, i.e. Self Concept as a Learner</td>
<td>Personal Self-image</td>
<td>Individual completes checklist</td>
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<td>Divergent Tests, i.e. Barron-Welsh Art Scale</td>
<td>Affective Development</td>
<td>Teacher or Diagnostician: 1 to 1</td>
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<td>Kindergarten teacher observation and completion of checklist</td>
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</tbody>
</table>
Using the results of intelligence tests, a base line of IQ 130 can be established with a view to locating about five per cent of the school population in the area of academic giftedness. Within the five per cent can also be included a possible two per cent of culturally disadvantaged and/or underachieving mentally gifted students. (1) Intelligence tests do not measure all aspects of high ability and giftedness, therefore any identification program undertaken by an educational system ought to incorporate a number of performance judgments to differentiate ability and identify a realistic proportion of a school population as gifted and talented.

Program Alternatives

By examining the model one perceives that program alternatives can be divided into four categories. With the understanding that adaptation and flexibility are inherent within and across each category, the model offers a practical package for educational administrators. Firstly, the gifted child can accelerate the average one year/one grade tradition to incorporate several grades in one year. Given additional course content either during regular classtime, in extra-curricular time (i.e. Saturday mornings) or in year-round semesters, the course material would be satisfied and no "skipping" need occur. This acceleration program can offer (1) The Sunnyvale Elementary School District in California currently operates under such guidelines.
full course content while at the same time allowing the gifted student to progress at a rate proportionate to his/her ability. In Junior schools, individual programs and flexible time-tabling can allow individual acceleration by gifted children. In High School, the gifted student can earn advanced placement credits for University. This form of acceleration is presently offered at Calasanctious School in Buffalo, New York. (1)

Moving around the model, one sees that partial segregation can include part-time acceleration and/or part-time enrichment. The gifted students can accelerate in one or more specific areas within age-mixed but ability-grouped classes for a period of time each day (week). The rest of the curriculum can be completed in a regular classroom suitable to the student's readiness level. Special blocks of time can be scheduled for the Individual Placement student or group of students. Without isolating the gifted children completely, differentiated timetabling can offer suitable challenge in a milieu geared to their needs, while at the same time offer the social and psychological support of school friends their own age. The Cleveland Major Work Plan (2) utilizes half-day blocks of time for cross-age

(1) For information regarding the full-time gifted programs, contact Rev. Bela Krigler, Calasanctious Preparatory School, 167 Windsor Street, Buffalo, New York.

(2) The Cleveland Major Work Program places high ability students into segregated academic groupings for half-day blocks and then returns the students to children their own age level for subjects such as Art, Music and Physical Education. School and community personnel co-operatively form teams for counselling, guidance and home visitations. For more information, see: Hall, Theodore, Gifted Children: The Cleveland Story, World Publishing Co., New York, 1956.
segregated groups of gifted and talented children, while in Providence, R. I., (1) gifted students spend two and a half hours daily in resource groups and are integrated in regular classes the rest of the time.

Given a high level of teacher expertise as well as effective supplementation by support services, the needs of gifted and talented students can be met in a regular classroom. Instructional teams comprised of class teachers, resource personnel, principals, parents, aides and gifted students themselves can prepare and present challenging programs which can enrich a regular curriculum. A resource centre for materials, ideas, in-service training and evaluation techniques can be a great assistance to the classroom teacher who has a gifted child in his/her home room. Enrichment in the classroom can give the gifted learner the opportunity to develop breadth of background in programs while at the same time maintain social and emotional stability with familiar friends. It is currently assumed by some administrators that in the absence of differentiated timetabling, gifted and talented children are receiving enrichment through curriculum flexibility in regular classrooms all over the country.

In the experience of the writer, many teachers and parents perceive that little or no enrichment is offered in regular

(1) For more information contact the School Department of Cranston, Rhode Island, Title III, Office of the Rhode Island State Department of Education.
classrooms in one area of the Niagara South Board of Education. (See Chapter 4)

However, the conceptualization model recognizes the necessity of enrichment in regular classrooms as another program alternative in a complete administrative package for the education of gifted and talented students. Thus, as stated earlier, under optimum conditions of support, the classroom teacher can provide enrichment for gifted children in regular classes.

The fourth program alternative is complete segregation in homogeneous classes. Gifted and talented students can associate with classmates of similar ability, can be exposed to higher standards of excellence and achievement, can be challenged by working with their peers, and can develop positive self-concepts through satisfaction of individual needs in the special segregated Individual Placement Program. Segregation of children who are gifted and talented intellectually, physically and/or artistically is highly developed in Russia's special schools in Moscow and Kiev. Another such school is the Hunter College Elementary School in New York, which has offered segregated classes for gifted students for thirty years. It appears that whatever the program alternatives undertaken by an area, consistency of curriculum development is an important factor in the educational continuum of all students. For gifted
and talented children, programs which consistently meet their needs and expectations are a highly important premium. If consistent program continuity is not in administrative long-range plans, then perhaps no program should be initiated. The future of the program for gifted and talented students is as important as the program itself.

In any discussion of program development, certain aspects can be considered:
1) Student needs should be identified.
2) From the perception of needs, program alternatives are outlined.
3) From the list of alternatives certain specific programs are selected.
4) Curriculum is developed which will achieve program objectives as selected.
5) Staff members are selected to carry out program objectives.
6) Program is implemented.
7) Summative evaluation is administered to determine results of the new program and/or recommend changes which could improve the program.

This format provides one model for gifted and talented education. Administrators concerned with staffing can hire personnel who themselves have a high degree of self-confidence, flexibility and tolerance for experimentation. Using the expertise of personnel, once located, administrators can plan
special In-Service programs to supplement and enrich the qualifications of the teachers who will work with gifted and talented students. On the other hand, as teacher training institutions offer more training programs in gifted and talented education (1) teachers will be more specialized as they enter our classrooms. The administration of In-Service activities can then look to future in-depth program alternatives rather than supplemental teacher development. Both approaches recognize the importance of special teachers to work with special gifted and talented students.

Evaluation

Evaluation is a key element in program development. It can be involved in two ways. One, as a summative evaluation it can occur at the end of any new program implementation. The assessment will then determine changes, if any, and make recommendations as to the future continuance of the program. Two, as a progress evaluation, the assessment can be incorporated as an on-going factor within the process. Evaluation can occur at given stages in the program development and changes are built into the new program as it progresses.

When administrators, principals, teachers, and all those involved in the process have completed the new program, a final evaluation is conducted. Even after all our process evaluation inputs and interventions, the final question is

(1) York University EDEX Program has a number of electives for student teachers in Gifted and Talented Education. Toronto, Ontario.
asked: Did the program do what it purported to do? Regardless of the model chosen, evaluation will be an important component in the administration of programs such as those planned for gifted and talented students.

The contingency model utilizes evaluation to rate program performance. It can determine the congruence between gifted children's needs and the program alternatives designed to satisfy those needs. Integrated right into the program from the outset, evaluation can be shared by administrators, principals, teachers, parents, and the student-clients themselves. Feedback can be a useful component in recommending improvements and facilitating change. To avoid the pitfalls such as ineffective evaluation instruments, based on average population scores; or research designed tests which fail to account for extraordinary ability or teacher skills, evaluation of gifted and talented curriculum can utilize a wide variety of evaluation instruments. (1) A flexible framework for evaluation can become a useful device in the development of an administrative package for the education of gifted and talented students.

Summary

(1) A conceptual model was designed which presented an administrative strategy to meet the needs of gifted and talented children in an educational system.
(2) The model based its existence on the philosophy of individual human potential. From this foundation the separate components of the model were outlined.
(3) Community awareness depended on parental understanding and knowledge of the educational enterprise. Parental and community support was considered an asset in the successful implementation of any new administrative process.
(4) Policy makers need to set clear and visible priorities (based on a stated philosophy) for gifted and talented education.
(5) Research can provide fresh insights as well as continuous updating for educational policy makers.
(6) Redesigning a school system to incorporate program alternatives for gifted and talented children requires a new look at sources of funding. Greater use of cost-sharing, school-community teams and research grants were several suggestions outlined. The Individual Placement Program was proposed as a new title.
(7) Identification of gifted and talented students should include intelligence, aptitude, behaviour, psychomotor and creativity measuring strategies.
Four program alternatives as incorporated into the conceptualized model were summarized. Acceleration, partial segregation, enrichment in regular classrooms, and complete segregation were to be available with provisions for adaption and flexibility within the educational organization.

Evaluation, utilizing a wide variety of models, was seen as a useful component in the administration of programs for gifted and talented students.

Are the needs of gifted and talented students being met by varied and flexible program opportunities? By looking at several elementary schools in Welland, Ontario, the writer sampled a cross-section of opinions. Given the implications of the preceding literature, the perceptions of existing program alternatives in Welland can provide implications for the recommendations which will follow.
CHAPTER 4

Analysis of Results: Surveys and Interviews

Introduction

Any research involving school systems is often better able to focus on a general concern by studying the perceptions of people in a specific school area. The topic of administrative provisions for gifted and talented students is no exception. It can be brought more clearly into focus through the eyes of people involved in and/or affected by the school system. This chapter examines two surveys and four interviews which dealt with the topic of gifted and talented students in the Niagara South Board of Education, with particular emphasis on the Welland area.

In an attempt to identify the needs of special education students in Niagara South, Special Services conducted a survey across the region in 1975/76. The Special Education Services of the Niagara South Board of Education collected data from every elementary school. Information ranged from numbers of students requiring remedial training from Kindergarten to Grade Eight across to numbers of students identified as above average and superior. Both formal identification test measures, i.e. Renzulli, Torrance Creativity, and teacher observation and recommendation were used as bases for answering the survey.

Data was tallied by school, by family of schools, by areas, by overall Board totals. The elementary schools in the Welland area, Family 1 and 2 which reported incidence of above
average and superior students became the focus of a more specific survey questionnaire for the purpose of this paper. This chapter will examine the results of the questionnaire and summarize responses made by teachers, principals, parents and a remedial counsellor.

In addition to the questionnaire, personal interviews were conducted with four administrators in the Niagara South Board in order to determine their perceptions of the needs and characteristics of gifted and talented students and their views on program alternatives. A summary comparing the perceptions and concerns among teachers, principals, parents and administrators involved in the survey will then be examined. Implications of the brief survey will provide additional impetus for recommendations made in the final chapter for administrative provisions in educating gifted and talented students.

Results of Surveys

The Special Education Services survey which went out to every elementary school in 1975/76 indicated there were thirty-seven children diagnosed as above average and superior in the twenty-two K-8 schools of the Welland Families 1 and 2. (Appendix 6)

The children had been identified by the testing teams under the Special Services department of Niagara South by means of group and individual measurement devices. Further-
more, in the opinion of teachers and principals, (Appendix 7) two hundred and forty-five students were perceived to be above-average and superior in the same Welland Family 1 and 2, K-8 schools. The Special Education Services survey determined that the number of bright children ranged from .4 in Kindergarten to a high of 5.0 in the Junior grades as perceived by the teachers and principals. For the purpose of this paper, the combined total of children tested and children nominated by teachers in the 1976 survey will be considered the incidence of gifted and talented students in Welland schools.

In the Niagara Falls and Fort Erie areas of the Niagara South Board of Education where enrichment programs and segregated classes are currently in operation, the Special Education department uses the following measures to identify and rank students for admission to one of these programs:

1) the most recent Group and Individual IQ scores;
2) anecdotal reports by the present teacher, principal, and a previous teacher;
3) Renzulli Identification of Superior Students completed by teacher; (See Appendix 5)
4) a battery of tests administered to the group of candidates. This battery could include such tests as:
   a) an achievement test (the candidate must score two or more years above average),
b) Torrance Creativity Tests, (Appendix 8)
c) Sentence Completion Tests, (Appendix 9, 10)
d) Draw a Person Test. (1)

Consultation between Special Services staff and parents is also required for identification and ranking of the bright students.

Seventy questionnaires (Appendix 11), were distributed by the author in Welland to approximately 20 teachers, 13 principals, 4 counsellors, 2 superintendents and 35 parents of children perceived as bright by teachers and principals. Both French language and English language schools were involved in the Welland city area. The author's survey was to determine their perceptions of the needs of gifted and talented children, and the perceptions of the programs available for these children in Welland schools, K to 8. Fifty questionnaires were completed; thirty-three came from parents, ten came from teachers, six came from principals and one came from a remedial counsellor. It should be noted that thirteen principals were sent the questionnaires, but it is not known how many questionnaires were actually given to teachers or actually distributed to parents. From an approximate total of questionnaires known to be sent to parents, parental response was gratifyingly high. Conversely, returns from educators were somewhat low.

**Summary of Responses**

All responses are summarized in Tables 2 and 3, pages 71 and 72.

Data from Welland Survey Conducted by the Author on Perceptions of Gifted and Talented Students and Programming

Percentage of Responses

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<th>Question Number</th>
<th>Parents %</th>
<th>Teachers %</th>
<th>Principals %</th>
<th>Counselor %</th>
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<td>80*</td>
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<td>10</td>
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<td>15 30 36 12 6</td>
<td>20 20 40 10 10</td>
<td>33 17 50</td>
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</tr>
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</table>

Code: Column 1: Very Often
Column 2: Usually
Column 3: Sometimes
Column 4: Not very Often
Column 5: Don't Know

* Several responses of "No".
Data from Welland Survey Conducted by the Author on Perceptions of Gifted and Talented Students and Programming

### Actual Responses

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<th>Question Number</th>
<th>Parents</th>
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<th>Principals</th>
<th>Counsellor</th>
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<td>4</td>
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</table>

n = 33  
n = 10  
n = 6  
n = 1

**Code:**  
Column 1: Very Often  
Column 2: Usually  
Column 3: Sometimes  
Column 4: Not very Often  
Column 5: Don't Know
Question 1. "Do you perceive gifted and talented children display special characteristics?"

In question 1 on special characteristics of gifted and talented children, somewhat more parents (79%) and principals (83%) than classroom teachers (60%) observed that gifted and talented children very often or usually displayed special characteristics. All groups were generally in agreement in their perceptions of the special needs of gifted and talented children.

Question 2. "Do gifted and talented children display special needs?"

Somewhat more than half of the respondents felt that gifted children displayed special needs. Tables on page 74 graph the actual frequency of several responses.

Question 3. "Do gifted and talented children need special programs in regular classrooms?"

More parents (85%) than teachers (60%) felt that gifted children needed special programs very often or usually in the regular classroom. 33% of the principals felt that special programs were needed very often by gifted children, while 66% of the responding principals felt that sometimes special programs were needed.

Question 4. "Do gifted and talented children receive special enrichment in regular classrooms?"

The majority of parents (82%) and teachers (80%)
Question 2. Do gifted and talented children display special needs? (Numbers graphed correspond to absolute frequencies.)

![Graph showing frequency of responses to the question about special needs.]

Question 4. Do gifted and talented children receive special enrichment in regular classrooms?

![Graph showing frequency of responses to the question about enrichment in regular classrooms.]

Question 9. Are the segregated programs which are available, effective for supplying the educational needs of gifted and talented students?

![Graph showing frequency of responses to the question about the effectiveness of segregated programs.]
perceived only some or little special enrichment for gifted and talented children in regular classrooms. Principals' responses were divided: 50% felt that gifted children very often or usually did receive special enrichment in regular classrooms. It should be noted here that the special education counsellor's responses matched the teacher responses in all but one instance. (See Question 9)

Question 5. "Do gifted and talented children work well in regular unstreamed classes?"

In question 5, teachers (70%) and principals (66%) noted that gifted and talented children very often or usually worked well in unstreamed classes. Only 39% of the parents perceived that the bright children very often or usually worked well in unstreamed classes.

Question 5. "Do gifted and talented children work well in groups streamed for students with similar talents and abilities?"

9% of the parents did not know whether gifted children worked well in either unstreamed or special ability streamed classes. However, the majority of parents (73%) and teachers (80%) perceived that gifted and talented students very often or usually worked well in special ability streamed groups, while only 50% of the principals' responses agreed on this point. 17% of the principals did not know if gifted children worked well in special ability streamed groups.
Question 7. "In your school (area) is part-time segregation provided for gifted and talented students?"

At the time of the survey the majority of the respondents discerned little or no part-time segregation for gifted and talented students in Welland, either in the French or English K to 8 schools. 12% of the parents did not know if part-time segregation was provided or not. Similarly, 9% of the parents did not know whether full-time, streamed classes were available for gifted and talented students.

Question 8. "In your school (area) are full-time streamed classes available for gifted and talented students?"

The majority of parents (88%), teachers (80%), and principals (100%) perceived little or no full-time streamed classes for bright children in Welland at the time of the survey.

Question 9. "Are the segregated programs which are available effective for supplying the educational needs of gifted and talented students?"

The responses to question 9 indicated that a majority of parents (73%), teachers (80%), and principals (66%) felt that present segregated programs for gifted and talented students were sometimes or not often effective for supplying the educational needs of these students. 18% of the parents indicated they didn't know and the special education counsellor felt that available segregated programs were usually
effective for supplying the educational needs of bright students.

**Question 10.** "Is acceleration available?"

Regarding the availability of acceleration, the majority of respondents perceived little or no acceleration in Welland family schools at the present time.

**Question 11.** "Is acceleration effective for supplying the educational needs of gifted and talented students?"

Parents and teachers were fairly well-divided in ranking the effectiveness of acceleration in supplying the educational needs of gifted and talented students. 66% of the principals felt that acceleration was sometimes or not often effective in supplying the educational needs.

Questions 12 to 15 were open-ended and responses appeared to fall into common areas such as reading, math, and independent study programs. Tables 5 and 6 summarize the responses.

**Question 12.** "What enrichment is provided in the school programs?"  
(See Histogram, Page 79)

Regarding what enrichment is presently provided, the majority of parents responding felt that some, little, or no enrichment was available for gifted students. A graph of actual frequency of responses is found on page 79. Teachers tended to agree with the parents except in the areas of special program content such as reading or math enrichment.
Table 5  
Data from Open-Ended Questions in the Author's Survey  
Question 12. What Enrichment is provided in the school program?

<table>
<thead>
<tr>
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<tr>
<td>Some</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Reading, Math</td>
<td>4 12</td>
<td>5 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Projects (electives)</td>
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<td>4 66</td>
<td>1 100</td>
<td></td>
</tr>
<tr>
<td>Access to Library</td>
<td></td>
<td>1 17</td>
<td></td>
<td></td>
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<tr>
<td>Opportunities dependent on teacher</td>
<td>5* 15</td>
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<tr>
<td>Don't know</td>
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Table 6

Question 13. What Segregation is provided for gifted and talented students?

<table>
<thead>
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<th>Parents</th>
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<th>Principals</th>
<th>Counsellor</th>
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<td>Depends on teacher</td>
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<tr>
<td>Don't know</td>
<td>7 21</td>
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</table>

n = 35 n = 10 n = 6 n = 1

* Some respondents gave more than one answer.
Question 12. What Enrichment is provided in the school program? (Numbers according to absolute frequency of comments of similar nature.)

Table 7

<table>
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<th>Actual Responses</th>
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Table 8

Question 13. What Segregation is provided for gifted and talented students?

Table 8

<table>
<thead>
<tr>
<th>Actual Responses</th>
<th>None</th>
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<th>Special Math, Reading</th>
<th>Special Interest</th>
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</tbody>
</table>
Principals indicated that there was presently provision for independent research, electives, access to library resources and teacher judgment in planning opportunities for enrichment. Question 13. "What segregation is provided for gifted and talented students?" (See Histogram, Page 79)

Question 13 dealt with what segregation is presently provided in Welland, K to 8, and again general categories appeared. (Table 3) A large number of parents (48%) and teachers (60%) commented that no segregated activities were available for gifted and talented students at the time of the survey. One principal stated that there were no segregated programs for bright students in his school because he "didn't believe in them". Other principals listed segregation in such programs as a weekly Science group, field studies of community resources, helping Primary students, projects co-ordinated by the principal, and special segregated grouping in Grade 1.

Question 14. "What acceleration is available for gifted and talented students?" (Table 7)

Regarding acceleration presently provided in Welland schools, K to 8, (Table 7) more parents and teachers perceived little or no acceleration for gifted and talented students than principals, who commented that some acceleration was occurring from Grades 2 to 4, or Grades 3 to 5 when the need was indicated. One principal stated that "acceleration should be available for those who can hack it", and another commented
Data from Open-Ended Question in the Author's Survey

Question 14. What Acceleration is available for gifted and talented students?

<table>
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<tr>
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<th>Teachers</th>
<th>Principals</th>
<th>Counsellor</th>
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<tr>
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<tr>
<td>None</td>
<td>11</td>
<td>2</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Little</td>
<td>6 18</td>
<td></td>
<td>2 33</td>
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<tr>
<td>Subject Acceleration</td>
<td>5 15</td>
<td></td>
<td>1 17</td>
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<tr>
<td>(e.g. Reading, Math)</td>
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<tr>
<td>One level to another</td>
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<td>1</td>
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<td>One Grade to another</td>
<td>4 12</td>
<td>3</td>
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<td>(e.g. 3 to 5)</td>
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<td>Split Grade</td>
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<td>1 17</td>
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<td>Don't Know</td>
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Not all respondents chose to answer
that he recommended acceleration at the Grade 9 level. Likewise, several parents stated that the semester system available in a local high school (Confederation S. S.) offered greater acceleration opportunities for their bright children. In both questions 13 and 14, 21% of the parents surveyed did not know what segregation or acceleration is currently available in the Welland school program.

Question 15. "Other comments!"

Many respondents took the time to comment on their attitudes regarding the present situation in the education of gifted and talented students in Welland. Over 75% of the parents who responded on question 15 were in favour of some form of enrichment, segregation, and/or acceleration programs for bright students. Several parents stated that they felt gifted students were being "short-changed", particularly in the Primary grades. Six parents voiced concern about bright children "being bored" in school, and two parents felt this could lead to dropping out in higher grades. Five parents were not in favour of acceleration for gifted and talented students if it meant the "socially immature" would be placed in classes with more mature students. Several parents reflected that "wise acceleration" should include the social and physical needs of the gifted child.

Neglect, feeling the teacher doesn't like them, bad behaviour, were all concerns that parents perceived were
affecting the education of their bright children. One parent stated that her children felt "unsatisfied at school, .... the thirst for knowledge was choked", and the children were "losing their immense potential for knowing more". "These children are more neglected than children with learning disabilities", was a statement expressed by several other parents. They are "our hope for the future" summarized another mother in her support of special programming for gifted children.

Teachers commented on the real need for special programs for gifted and talented students. Careful screening procedures for superior students were recommended by several teachers as well as special training for teachers of gifted and talented students. One teacher felt that provision for bright children should be made in Grade 1, and a few teachers, as well as parents, commented that class size was a factor inhibiting regular classroom teachers from providing special individualized programs for bright students.

One principal questioned, "Whose needs are we satisfying: pupils? parents? teachers?" There was also a concern that segregated classes "uproot the child from his neighbourhood school, tell him he is extra-special, and transport him to a foreign setting in an abnormal mini-culture". Several other principals voiced concerns that a survey such as the author has just made would alert parents to the knowledge that their child was gifted and this could prove disturbing. Several principals
commented that they perceived all children to have special needs.

Analysis of Survey

From the data collected, several implications seem to arise. All groups perceive that gifted and talented children display special characteristics and special needs, but more parents perceive the need for special programs for these children than do teachers or principals. It appears that there is a lack of awareness of parental concerns on the part of some educators and more sharing of perceptions, needs/expectations seem indicated. Regarding various programs presently available, there seems to be a lack of communication between parents and educators. Perhaps there are more school enrichment programs than parents are aware of. In any case, greater awareness of mutual concerns and then communication by educators of actual services and programs based on these concerns seem necessary according to the differing responses of parents and educators.

Another implication drawn from parental responses which stated "I don't know", is that many parents lack comparative bases for valid conclusions. It is difficult for a parent to judge an effective school program when he/she is generally ill-equipped to compare his/her child's standing in relation to the child's peers. Perhaps this also points to the need for greater exchange of information between home and school.
It is interesting to note the difference in principals' perceptions of how well gifted and talented students work in streamed ability groups. (Question 6) Though the majority of parents and teachers perceived positive results in this area, only 50% of the principals responded on the positive side. Perhaps principals, who have a better overview of a school's organization, have more realistic perceptions of the total effectiveness of bright children in streamed ability groups. Another implication might be that there are fixed attitudes on the part of some principals and these attitudes tend to colour their perceptions of the effectiveness of streamed ability groups. Another implication might be that a principal has had little opportunity to see streamed groups (classes) in operation. What if an educator doesn't know how well a bright child can work, or doesn't know what works well for a bright child? Among principals surveyed, there seems to be a trend toward recognizing the different characteristics and needs of gifted and talented students, while minimizing the need for different, flexible programming to meet these characteristics and needs.

Another implication might be that all groups are not really cognizant of the rich variety of programs, part-time, full-time, enrichment and extra-curricular, which could be provided for gifted and talented students. All groups basically agreed that very little in the way of consistent pro-
programming was presently available to gifted and talented students in Welland schools.

It appears that parents perceive that "the slowest child determines the pace of the group" in a regular classroom. If this is the case, can education, challenging at a bright child's level, occur? Are classroom teachers unaware, unconcerned, untrained, or too overworked to offer individual programs to suit the superior abilities of their bright students? Both teachers and parents indicated that special provision for gifted students was "long overdue" in Welland schools. The analysis of this brief survey indicates that there are gifted and talented children in a number of Welland Family 1 and 2 schools; they display special characteristics and have different educational needs and that, at present, there are no consistent developmental programs which meet the intellectual, artistic, physical and/or social needs of these students.

Summary of Interviews

Personal interviews were held with four administrators in the Niagara South Board of Education: Christine McMillan, the former Chairman of the Board who authorized the Special Services survey, Marvin Townsend, Director of Education, Don Reilly, Superintendent of Special Services, and Rod Jones, Administrative Assistant to the Superintendent of Program. Interview questions (Appendix 12) were similar to those on the general questionnaire in order to compare per-
ceptions at the various levels. In addition, however, questions were included which relate to administrative concerns regarding the education of gifted and talented children. Questions about teacher training, in-service training, research and community awareness of the topic were additional concepts to which the administrators responded.

**Question 1.** "What do you perceive are special characteristics displayed by gifted and talented children?"

All the respondents expressed the observable characteristics of gifted and talented children to be superior ability in diverse behaviours. e.g. Ability to learn at a faster rate, an intense drive, curiosity to know, greater powers of analysis, greater reading ability, more involvement in reading and a need for challenge. Several respondents moved from special intellectual ability to include wider levels of talent such as superior leadership, creative thinking, special talents in the Arts and talent in athletics ("gymnastics, skating").

**Question 2.** "What do you perceive are the special needs of gifted and talented children?"

All four respondents agreed that academic, social, and physical needs of gifted and talented children were unique, and should be considered in the special light of the individual student. There was unanimity in the belief that these children need to be, and must be challenged at their own level of ability. "Higher thinking skills, not just more work, are
needed," stated the Superintendent of Special Services. They also agreed that both academic and social factors must be given equal weight in the educational development of gifted and talented students.

**Question 3.** "What types of programs do you perceive to be effective in providing for the needs of gifted and talented children?"

Regarding the question of programming for gifted and talented children, the four administrators concurred with the parents' perceptions that there was a need for special programs for these children. Various types of programs were perceived to be effective and they fell into four general categories:

1) enrichment within regular classroom setting,
2) part-time withdrawal programs, with the remainder of the schedule spent in regular classroom setting,
3) full-time segregation in special enrichment classes,
4) acceleration of either individual subject programs or full timetable program. e.g. three years' curriculum completed in two years.

All four administrators voiced reservations about the effectiveness of acceleration as an alternative program for gifted and talented children. The concerns seemed to focus on the social and physical readiness of certain children. Acceleration was to be based on meeting these needs as well
as the intellectual and psychological needs of individual students. Also, the total educational package should not allow "gaps to occur" in the sequential development of curriculum for a gifted child stated the former Chairman of the Board. When asked about the dilemma of choosing various programs for gifted and talented children, the Director of Education stated: "It shouldn't be an either/or situation; it (programs) should be both." It seems clear that, at the Elementary school level, flexible programming is perceived to be an effective provision for meeting the needs of gifted and talented students, though in current practice this may not be the situation in Niagara South.

Question 4. "Do you perceive special teacher talents and training necessary for the teachers of gifted and talented students?"

Question 5. "What responsibility do you perceive that the Board of Education has for In-Service for teachers of the gifted?"

Regarding In-Service and training for teachers of gifted children, the respondents generally agreed that teachers must be carefully selected, be flexible and creative enough to challenge gifted and talented students, be well-versed in teaching strategies and programs, and be empathetic to the needs of the individuals in his/her charge. The Superintendent of Special Services also recommended that the teacher be "a specialist in some area" so that his/her personal
discipline developed through scholarship might be a model for
gifted and talented children. Several administrators suggested
that In-Service training and teacher assistance should be forth­
coming from principals whose expertise would be readily avail­
able to teachers of high ability children. In addition, they
suggested that further training should be provided by the
Faculties of Education, with the Board of Education taking
responsibility in such areas as development of programs to
meet special needs, special resource personnel to assist tea­
chers, and co-ordination of teaching strategies effective in
teaching gifted children. The administrators generally agreed
that In-Service training should be an ongoing responsibility
of the Niagara South Board of Education. One administrator,
however, added that any interested classroom teacher could
"learn on her own time" how to teach gifted students and since
he felt that the Board of Education didn't really benefit,
therefore the Board didn't have a responsibility for In-Service
training in the area of gifted and talented education.

Question 6. "What are your perceptions regarding community
attitudes and awareness of the education of gifted and talented
children?"

Regarding community attitudes in the Welland area, the
respondents considered several aspects of the question. One
view was the need to dissolve the old myth that gifted and
talented children have the ability to get along well by them-
selves. Several respondents felt that teachers and principals needed to be convinced that superior children really do have special needs and that implementation of new programs would more effectively meet those needs. Another respondent added that Superintendents needed a push to prioritize gifted and talented education and from that initiative, community awareness would develop. The idea was advanced that experimental programs should be undertaken in Welland to show what can be done, at reasonable cost, to meet the educational needs of gifted and talented students. Communications to parents and the business community as a whole would outline the variety of flexible, enrichment programs that benefit the gifted and talented child. From this first stage, a large scale approach involving the support of business and community organizations, local agencies, educational institutions, etc. would develop to include a full range of educational opportunities for gifted and talented students throughout the city. This approach assumes that educators will be the initial leaders in arousing public awareness and instigating commitment to effective programming for gifted and talented children.

The other aspect was the perception that if the taxpayers in the Welland area felt a need for programs for gifted and talented students, then the Board of Education would go along and implement new programs. Several administrators agreed that the public appeared generally interested
in this area of education, but few individuals were knowledgeable enough or committed enough "to being a hero" about seeking change in educational programs, to make representation to the Board. This view assumes community interest is turning to education to meet the needs of high ability children, and public leadership is not immediately forthcoming.

**Question 7.** "What responsibility do you perceive that the Board of Education has for research in the field of gifted and talented education?"

The question of the Board's responsibility towards research in the field of gifted and talented education was viewed from both the theoretical and practical position. From a theoretical perspective, one administrator felt that the School Board, as an "educator of children", should keep up to date with research in other locations, monitoring the academic and social benefits of new programs. Several respondents mentioned the facilities at the Ontario Institute for Studies in Education as a research resource for the province. In practice, the financial resources of the Niagara South Board of Education in 1977 did not allow for research in the field of gifted and talented children, and one respondent perceived that at the present time, "the Board is not convinced that financial commitment is necessary for gifted and talented children". The question was advanced: "Is the problem a concern about social snobbishness and
elitism in our schools?"

**Question 8.** "What other administrative concerns do you perceive in the education of gifted and talented children?"

Other administrative concerns dealt with the cost of community field experiences for gifted students, the possibility of organizing volunteers for Saturday morning enrichment classes, the need for centrally located enrichment classes to minimize busing costs, Ministry of Education cuts to Special Education budgets, (e.g. Lincoln County Special Education services cut in 1976/77), evaluation to determine what program is the most effective for a gifted child, compulsory courses and reducing enrollment in High School leading to loss of aesthetic options (e.g. Art, Music). The Director of Education summarized his views by stating, "Educational administrators have a role to play in leading School Board trustees" towards new attitudes in the education of all children. The Superintendent of Special Services predicted that a position paper jointly prepared by the Special Services and Program departments would go to the Board in the fall of 1977 outlining a three-fold program for gifted and talented students in Niagara South. It appeared that though all respondents were in agreement with the philosophy of education to meet the needs of all children, the administrators had different notions about why the needs of gifted and talented children weren't yet being met in Welland, and
how these needs might practically be met in the future. Generally, their comments appear to indicate 1) education for gifted and talented children is a low priority for Board trustees, principals, superintendents and/or taxpayers in Welland; 2) the philosophy of education in Niagara South is left to superintendents and principals to implement as they see fit; 3) knowledge of various effective program alternatives for gifted and talented children does not directly result in implementation of same; 4) financial consideration is an important, but not the principal obstacle to programming for gifted children; 5) school administrators and the community at large have achieved little effective exchange of concerns regarding the education of gifted and talented students.

The survey points to the need for greater awareness and communication at all levels in the Welland area among parents, teachers, principals, and all other administrators. In a comparison of these levels there is a discrepancy between parents' and teachers' perceptions of the need for various program opportunities for high ability children, and the perceptions of principals and other administrators. If this small survey of parents in Welland is an indicator, increased attention to the educational needs of these children is for them an important concern. It is clear that this issue is not an important priority to the Board of Education,
some administrators, and some principals. A dilemma seems to arise—the School Board will only act on the instigation of articulate parents, but the parents, not prepared to come forth in any outspoken manner, expect the Board to provide for their children's educational needs which they perceived as the responsibility of the Board. While both sides seem to be claiming that the responsibility belongs to the other, no one acts in the name of the gifted children. Though all levels (parents, teachers, principals, and other administrators) have similar perceptions of the special characteristics and different learning needs of gifted and talented children, there is no real consensus as to programs, resources needed, or educational responsibilities. Perhaps school trustees and other administrators need more training in the practices, organization, and administration of Special Education as it affects gifted and talented children. In 1975/76 the local Special Education survey indicated up to 5% incidence of high ability children in Welland schools. Given the findings of both surveys, it appears that policy, planning, and consistent developmental programming which nurtures gifted and talented potential is a concomitant responsibility of educators at all levels.

Summary

1) From the Special Services Survey conducted in Niagara
South in 1975/76, the incidence of gifted and talented students in elementary schools ranged from .4% of the kindergarten enrollment to 5% of the Junior grade enrollment as observed by teachers and principals.

2) An analysis of the survey conducted in Welland indicated that gifted and talented students displayed special characteristics and special educational needs.

3) The respondents perceived there were no consistent developmental programs which met the intellectual, creative, psycho-motor and/or leadership needs of gifted and talented students.

4) Personal interviews with four administrators determined that gifted and talented students needed to be challenged. Four types of program alternatives were suggested to meet this need.

5) Administrators perceived that teachers of gifted and talented students needed to be skilful, flexible, creative and empathetic.

6) The respondents saw the Board of Education as responsible in the areas 1) of development of programs to meet the special needs, 2) of hiring special resource personnel to assist teachers, 3) of co-ordination of teaching strategies effective in teaching gifted children. Furthermore, several administrators felt it was the responsibility of educators to arouse community awareness and instigate commitment to improved programming for gifted and talented students.
One respondent stated that at the present time the local school board was not convinced that financial commitment was necessary for gifted and talented students. No change in the status quo was anticipated.

Given the normative developments outlined in the research literature and the analysis of the surveys, what conclusions, implications and recommendations can be formulated?
CHAPTER 5

Conclusions, Implications and Recommendations

Introduction

The preceding chapters have linked the definitions of "gifted" to an analysis of related literature and a conceptual model for the administration of a package of programs for gifted and talented education. In order to test out the conceptual model and consequences thereof, two surveys from the Niagara South Board of Education were discussed. The data from the surveys provided bases for comparison of the congruence between perceived needs and actual program alternatives available in one family or area. Given the conclusions from the preceding chapters, certain implications and recommendations will be formed. The writer anticipates that the recommendations will facilitate actions which may be generalizable and could provide for maximizing the potential of gifted and talented students in a school district.

Conclusions

A working definition of "gifted" is officially employed by the Council for Exceptional Children in the United States and Canada: "Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities are capable of high performance." (United States Office of Education, August 1971 Report)

Various other definitions are well established in the United States and educators accept that there are gifted and talented children in every educational system.
At the lowest estimate, the incidence of gifted students could be two per cent of the student population: the highest estimate running up to fifteen per cent, depending on the range and reliability of the identification measures used. Identification was achieved more effectively when a variety of intelligence, achievement, and observation devices was used by a variety of concerned individuals.

Research in Great Britain, paralleling that of the United States, outlined the special characteristics and special needs of gifted and talented children in school and in society. Program alternatives in all countries surveyed included acceleration, enrichment in regular classroom, part-time withdrawal programs, and complete segregation. In Canada isolated school districts funded withdrawal and/or enrichment programs for small groups of gifted children, but few provinces had legislative provision for these students. Given the incidence of gifted and talented programs found in the literature, it appears that no consistent federal or wide-spread provincial funds were available in Canada. Furthermore, school boards generally do not provide recognition and long-range educational commitment to the needs of their gifted and talented clients.

From the literature, it was seen that a philosophy based on the recognition and development of individual human potential is the essence of an effective organization, either
in industry or education. Any administrative process devised for educating gifted and talented children can be supported by the philosophy which recognizes individual differences and at the same time seeks to ensure equal educational opportunities to develop the special potential within those differences. It is clear from the literature that an educational system that neglects the gifted student and his/her needs is then faced with the resulting responsibility of negative growth trends and loss of potential in two to eight per cent of the client population. If this is allowed to occur, can it be said that the philosophy of the educational system is truly child-centered?

Many varied and comprehensive identification measures have been outlined in the literature. It was observed that because children mature and are motivated at different times, the identification of gifted and talented students should begin early and continue throughout the educational career.

Once identified, the gifted and talented students can then be placed in learning situations which meet their special needs. Basic criteria for program variations for these students can include:

a) a nurturing learning environment,

b) flexibility of experience,

c) allowance for individuality,
d) rich opportunity for exploration, analysis, synthesis and evaluation,
e) daily opportunity for convergent/divergent thinking skills and creativity.

Given the findings in the literature, it is concluded that gifted and talented students have a unique potential that can be developed through concerned, consistent support of an educational system prepared to implement the required program variations.

Based on the literature, Chapter 3 developed a conceptual model for the administration of programs suited for gifted and talented students. Using a contingency approach, the model linked five levels of interaction between community, school administrators, environmental resources, program variations and the gifted student. Since every level of the model is contingent on the other levels, the interaction can ultimately influence organizational perceptions of gifted students' needs, and then directly affect these students' potential achievement. In summary, the impact of the literature appears to indicate that an administrative package for the education of gifted and talented students can be developed and become operational. The model which an administration chooses needs to integrate the factors which comprise the educational enterprise surrounding the gifted student.

In order to test out the writer's conceptual model
and the logical consequences thereof, Chapter 4 examined one school area's perceptions of gifted students and their needs. An analysis of the surveys concluded that:

a) there were gifted and talented children in the elementary schools surveyed,

b) the gifted and talented students had special needs that were not being consistently met,

c) program variations were sporadic attempts at academic enrichment with limited administrative support,

d) administrators perceived themselves as initiators in the development and implementation of programs for gifted and talented students, but were not convinced that educational priorities allowed financial commitment to gifted students at the present time.

From the responses to the writer's survey, it can also be concluded that there is a need for greater two-way communication between the Welland community and educators in the Niagara South Board of Education. There are divergent perceptions of the role that each sector is expected to play in education. Thus, if parents expect administrators to affect educational change, and administrators expect parents to articulate demands for change, an impasse situation occurs. It appears that given the conceptual model and the interaction contingent in the model, an administrative process for the development of programs for gifted and talented students
could be effectively developed to fill an educational void. Based on the impact of all these conclusions, what are the implications?

Implications

General recommendations based on the needs shown in the conclusions will be listed in this section.

1) Federal impetus in the form of policy statements and funding for gifted students can hasten the implementation of policy, planning, and programming by providing direction and support dollars at the local school level.

2) Intensified research in the area of gifted and talented students highlights the individual and societal advantages of utilizing the potential of these children.

3) Though there are no absolute definitions, uniform Federal and/or provincial bases for identification of various aspects of exceptionality can provide a foundation for the endeavours of local school administrations.

4) A commitment to a consistent standard of educational opportunities within a province can facilitate programs for gifted and talented students in a more uniform way throughout school districts.

5) Inter-provincial acceptance and exchange of curriculum can facilitate widespread programming for gifted and talented children across Canada.

6) Gifted and talented students who have special educational
needs can lose their potential, become bored under-achievers, discipline cases or less committed participants in a community.

7) A philosophy of equal education based on the development of human potential which does not translate into action which utilizes all individual human potential, is not equal education.

8) School boards may have to reassess their philosophy of education and then determine whether there is congruence between the philosophy and the actual policies, programs, staffing and in-service which is carried on in the organization.

9) Parents may lobby for or against a new policy, given the amount of communication and degree of understanding which exists between a school board and its community.

10) The school administrators need to take the initiating steps in leading the community and school board trustees toward acceptance of an administrative package for gifted and talented children.

In terms of educational decision-making and planning, the implications are clear. From the conclusions and implications outlined, certain specific recommendations in the education of gifted and talented children can be made. It is the position of this writer that implementation of the following recommendations has long been overdue in a number of educational systems.

Specific Recommendations

Out of an analysis of the literature and related
research, a number of recommendations will be developed to meet the needs of gifted and talented children in an educational system. Some basic assumptions derived from the literature will be re-examined and will provide foundation for the recommendations to follow. An examination of the conceptual model will provide a format for the recommendations and will include:

1) Identification and Screening. (eight recommendations)
2) Program Alternatives. (seven recommendations)
3) Environmental Resource Strategies. (six recommendations)
4) Administrative Strategies. (thirteen recommendations)

In presenting these recommendations, the writer anticipates that an administrative package will facilitate action which may provide for maximizing the potential of gifted and talented children in a school district.

Basic Assumptions

Through a study of the literature, certain normative assumptions have been developed. Research by Gold (1965), Martinson (1968), and Gowan and Torrance (1971) identified two to fifteen per cent of the achievers in a school population to be gifted and talented students.

1) Using a moderate range, it can be assumed that approximately two to seven per cent of a school population are gifted and talented students.

Studies by Barbe (1963), Guilford (1963), Torrance
(1965), Gallagher (1967), Keogh (1970), Jacobs (1971), Malone (1974), and Hitchfield (1974) all concluded that gifted and talented children displayed special characteristics in both the cognitive and affective domain, which could be identified.

2) It can be assumed that gifted children can be identified.

A good deal of research has been posited on the assumption that gifted and talented students require special program alternatives to satisfy their special educational needs. Mead (1965), Torrance (1965), Gallagher (1966), Plowman (1967), Jacobs (1970), Tempest (1974), and Malone (1975) have provided evidence of the gifted child's need for special provision in the educational system.

3) It can be assumed that gifted and talented children need some special educational experiences appropriate for them.

Given the three basic assumptions developed from the literature, recommendations will be outlined for administration of provisions for gifted and talented students.

Recommendations for the Identification and Screening of Gifted and Talented Students

Before any program designed can be developed and implemented, a school district must declare a written philosophy and rationale which will articulate the policy, long-term goals, and objectives of the organization. Without a common philosophy and rationale acceptable to all levels of the educational organization, the new administrative process
cannot become a reality. It is not sufficient to state a philosophy which aims to encourage and challenge students at a rate best suited to their personal abilities and interests, without providing adequate identification, program implementation, and support services to accomplish this aim. Therefore, it is recommended:

1) that a school district establish a philosophy based on the development of individual personal potential, the protection and motivation of each child's unique talents. Furthermore, the philosophy will be articulated to all sectors of the school system.  

2) that the school district publicly state a rationale explaining the need for a gifted program in the area, establish long-range goals delineating the program alternatives and administrative provisions, and state in writing the methods and time-line for evaluation of the program once implemented.

Once a school district has committed itself to providing for individual differences, and communicated this responsibility to all, levels of the educational enterprise, decisive identification and screening must be carried out. In its aim to identify all gifted and talented children, a comprehensive definition and basic criteria need to be established. Therefore, it is further recommended:

3) that the school district develop a definition of gifted
and talented which includes four general areas of ability—
intrinsic, creativity, psychomotor and leadership. Furthermore, at least five separate criteria be used in identifying students for a program—
a) a standard intelligence test, e.g. WISC,
b) an achievement test,
c) a self-evaluation assessment,
d) a parent observation inventory, and
e) a teacher behavioural checklist.
4) that identification measures be used at Kindergarten Registration, with close supervision and re-testing each two years of the child's school career.
5) that the minimum intellectual base be the 85th percentile, with two standard deviation points on either side.
6) that performance levels, whether intellectual, leadership, the arts and/or psychomotor skills, be approximately two years beyond the gifted child's contemporaries in ability.
7) that a file on the gifted child be readily available for parents, educators and all support personnel who have a responsibility for developing the potential of the individual child.
8) that the names of students who tested slightly below the cut-off point be kept on a waiting list to replace students who drop out of a gifted program.

Recommendations for Program Alternatives

The literature has established that inaccurate
assessment of a child's ability can result in a poor match of program to child and the gifted child's potential may be impaired. Likewise, it is not enough to identify gifted children without providing program alternatives which will stimulate, motivate, and cultivate the student's unique potential. Therefore, it is recommended:

1) that a school district provide classroom space for half-day withdrawal programs for cross-age groups of up to 25 selected gifted and talented children. This will allow for stimulating challenge from their high-ability peer group, while scheduling half-day time for activities which co-operate with their social peers.

2) that a school district provide classroom space for full-day segregated classes of up to 25 gifted and talented students who choose, with the agreement of their parents, challenging learning experiences in a relatively homogeneous group.

3) that each school provide advancement programs in subject areas to allow gifted students to accelerate in their area of giftedness and graduate with advanced standings in those areas.

4) that each family of schools in a district have a full-time specialist consultant for Gifted and Talented Programs, who will plan methods and materials for enrichment programs throughout the schools.

5) that independent study options be developed and selected gifted and talented students be allowed credit for completion
of the options. Competent guidance through the educational experiences will be provided by a resource teacher hired or released for the independent study program.

6) that a school district establish entry criteria which will make possible early entry to Kindergarten for children assessed as gifted and talented.

7) that integrated learning experiences be provided for gifted and talented students one day a week at a centre possessing specialists and facilities not available at school. (e.g. College of Education)

It is the opinion of this writer that more research needs to be done on the advantages for a community/school population of an independent, segregated school for gifted and talented students. Without more data regarding present community needs/expectations, available resources and gifted children's interests/expectations, it is not feasible to make recommendation for a special segregated school at this time. Suffice it to say, given the opportunities of the flexible program alternatives recommended in this paper, along with the security of a consistent, developmental curriculum, gifted and talented students can experience differentiated learning that enriches their potential.

Recommendations for Environmental Resource Strategies

In an effort to help gifted and talented students broaden their scope of learning, appropriate educational
opportunities must be provided. Programs need to be re-conceptualized and local or regional resources incorporated into the enlarged curriculae. Changes in the programs for gifted and talented students as conceived by the writer's conceptual model can be more financially feasible if school administrators utilize environmental resources as a method of providing gifted students with opportunities to use their unique abilities. Therefore, it is recommended:

1) that school administrators implement policy to operate one day a week programs for gifted and talented students in a community learning centre with specialized facilities and personnel. (A community college, university, or local high school, in the case of exceptional elementary school students.)

2) that a consortia of educators at all levels initiate developmental program strategies through sharing of facilities and personnel which can be integrated in the gifted and talented curriculum.

3) that a school district implement the use of business, industry and government resource people and to act as sponsors and tutors for gifted and talented students.

4) that school administrators invite resource people from the visual and performing arts to provide training opportunities for gifted and talented students to exercise their exceptional abilities.

5) that a school district approach the health and welfare
services to provide integration with the school's Special Services in guidance counselling, specialized teaching and support teams for gifted and talented students, their parents and families.

6) that a school district exchange educational resource personnel with other areas and educational institutions for a prescribed period of time and utilize the expertise in programs for gifted and talented students.

Only through policy-making and direct action by a school board will the necessary liaison with environmental resources occur. If gifted and talented education is to occur in and about the school community, it will occur through the active initiation and facilitation of school administrators. Based on this reality, what are the responsibilities of educational administrators as perceived by the writer in providing for their gifted and talented clients?

Recommendations for Administrative Strategies

In an attempt to meet the needs of gifted and talented students in a broad and dynamic approach, school administrators face a comprehensive challenge. Perhaps administrators need to be gifted themselves in order to redesign and expand a school system's educational provisions for gifted children. Given the implications of the literature and related research, school districts don't offer consistent, developmental learning opportunities for gifted students and administrators need to address themselves to this neglected responsibility. In re-
sponse to this need, therefore, it is recommended:

1) that the school board affirm a policy based on a declared philosophy for special provisions for gifted and talented students in its jurisdiction.

2) that active implementation of that policy include long-range program alternatives for gifted and talented students.

3) that school administrators plan staffing procedures and hiring practices which will facilitate the proposed program changes for gifted and talented students.

4) that the school system provide a program of in-service for all its professional staff to aid in understanding and guiding the needs of gifted and talented students.

5) that school administrators agree on up-to-date methods of identification and then implement the use of at least five different measures in locating gifted and talented students.

6) that the school district involve parents of gifted and talented children in areas of identification, decision-making and program evaluation.

7) that the school board provide teachers, space, resource personnel, consultants, and necessary community liaison to implement the program alternatives for gifted and talented students as recommended earlier.

8) that school administrators facilitate use of additional environmental agencies and sites as learning centres for gifted and talented children.
9) that the school administrators initiate discussion with Community College and University faculty for the purpose of organizing a consortium which will pool resources and offer additional expertise to programming for gifted and talented students.

10) that the school administrators evaluate the total program package for gifted and talented students every two years, or oftener as circumstances indicate.

11) that the school board establish a fund for professional development for teachers of gifted and talented children.

12) that the school board allocate specific funds for the purpose of continued research in the area of gifted and talented education.

13) that the school administrators maintain regular communication with the community to exchange information, assess needs/expectations, survey current interests and promote acceptance of educational change.

Much research has been done on the exceptional child. Today, more than ever, our educational resources are serving the needs of exceptional children at the lower end of the continuum. In our democratic ideology, we loudly proclaim equal education, equality for all. Yet one group of students in our school systems remains disadvantaged.

Classical scholars promoted the myth that genius was akin to madness, the inspiration of the Muses. Freud and Jung clothed the belief in respectability by offering "scientific"
support that genius was a pathological condition itself, or
caused by a pathological variant akin to neurosis. With this
scientific background and resultant cultural conditioning
of the mad scientist or the sickly egghead, it is not sur-
prising that many of us fear the image of a gifted and talented
person.

As educators, we must deal honestly and realistically
with these fears. As long as children are different, there
will be some individuals or groups who refuse to accept those
differences. For exceptional children who happen to be gifted
and talented, we educators must take an honest look at the
results of our conditioned attitudes and take responsibility
for the disadvantaged students which our neglect has produced.
Consciousness-raising can dispel fears. Understanding the
differences in others can lead to redressing the educational
imbalance and providing truly equal provisions which meet
the needs and potential of gifted and talented children in
our school systems. This writer recognizes the importance of
discovering a problem: in this case, the problem of developing
the full potential of gifted and talented children. By pro-
viding a vehicle to express the problem, the writer anticipates
that administrators will find solutions either in the concepts
presented here, or in the broad experiences from their own
frame of reference. Given the weighty slant towards cognitive
ability presented in the review of literature, perhaps school
boards may choose to concentrate further study on the broader aspects of potential or demonstrated giftedness—leadership, the visual and/or performing arts, and psychomotor achievement. Whatever the outcome, it is the optimistic view of this writer that educational provisions aimed at enriching the unique potential of gifted and talented children, will return in abundance to enrich society through the future achievement of these children.
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APPENDICES
APPENDIX I

BLOOM'S TAXONOMY (reproportioned for Gifted & Talented)

Cognitive & Affective Domains

Affective

Characterization

Organization

Valuing

Responding

Receiving

Cognitive

Evaluation

Synthesis

Analysis

Application

Comprehension

Knowledge

Evaluation & Affective Domains

BLOOM'S TAXONOMY (usual sequence)
APPENDIX 2

TOTAL SCORE:

TIP* SCALE

(*Teacher Indicator of Potential)

Student Name __________________________ Date________________

Grade ___ School _______________________ Teacher __________________

Please indicate how extensively the above student exhibits each of the characteristics on these pages. Indicate to what extent you have noticed the characteristics by circling the corresponding number as follows:

5 Consistently
4 Frequently
3 Occasionally
2 Seldom
1 Never

Circle only the one number which most closely corresponds with your observations.

5 4 3 2 1 1) Relishes situations which require complex problem solving.

5 4 3 2 1 2) Uses flexible approach to solution of problems.

5 4 3 2 1 3) Understands complicated concepts and relationships.

5 4 3 2 1 4) Possesses an unusual amount of general information for his age.

5 4 3 2 1 5) Uses unusual words for his age in appropriate ways.

5 4 3 2 1 6) Is looked to by others for decisions.

5 4 3 2 1 7) Is able to realistically portray varied roles in story-telling or dramatic acting.

5 4 3 2 1 8) Exhibits seemingly new or original ideas.

5 4 3 2 1 9) Influences the activities of others.

5 4 3 2 1 10) Is able to laugh at himself.

5 4 3 2 1 11) Demonstrates understanding of concepts beyond his age level.
12) Responds quickly when asked questions.
13) Free of nervous tensions.
14) Is able to articulate ideas fluently.
15) Maintains many hobbies/interests/activities.
16) Creates imaginative stories.
17) Possesses high degree of common sense.
18) Shows strong sense of right and wrong.
19) Works on projects, problems, without adult supervision.
20) Remembers facts accurately without special effort.
21) Achieves good grades consistently.
22) Excellent and avid reader.
23) Combines ideas/materials in unique ways.
24) Does things his own way.
25) Organizes/coordinates the activities of peers.
26) Eager to try new activities.
27) Appears cheerful and happy.
28) Approaches all tasks in logical manner.
29) Probes beyond "how" and "what" to the "why" in his questioning.
30) Self-confident.
31) Creates products of unusual character or quality.

Indicate any significant characteristics (i.e., particular strengths, weaknesses, and interests) that would be helpful
in determining program focus for this student.

Developed by John Piper, Ph.D.
GIFTED RESOURCE CENTER,
San Mateo County Schools
A Title III ESEA Project
4/15/74

USED WITH PERMISSION OF SAN MATEO COUNTY SCHOOLS
APPENDIX 3

SOME CHARACTERISTICS OF THE MENTALLY GIFTED MINOR *

All gifted pupils may not possess all of these characteristics.

1. Unusual alertness and awareness of environment.
2. Unusual curiosity.
3. Concern with a philosophy for living.
4. Flashes of brilliant insight.
5. Creative thinking ability.
6. Knowledge about many things of which other children are unaware.
7. Originality in solving problems.
10. Logical reasoning in abstract areas.
11. Initiative to work and seek answers independently.
13. Good powers of concentration over a long period of time.
14. Ability to organize and work independently.
15. Ability to find and correct errors.
16. Fulfillment of responsibilities.

Some gifted pupils may exhibit only one or a few of the preceding positive characteristics, but negative types of behavior such as the following often may be observed:

1. Lack of self-confidence and feelings of insecurity.
2. Little interest in academic subjects.

* Adapted from May Seagoe materials. Sunnyvale Elementary School District.
3. Careless work habits.
4. Striking unevenness in day-to-day performance.
5. Non-conformity in social relations.
6. Rebellious attitude.
7. Resistance to school rules and regulations.
8. Resistance to routine and drill.
9. Lack of tolerance for opinions and rights of others.
10. Poor self-control.
11. Withdrawn.
Characteristics of Creative Individuals

Some studies list as many as eighty-four characteristics which may be attributed to creative individuals. Those which occur most frequently in studies are:

<table>
<thead>
<tr>
<th>Curious</th>
<th>Flexible</th>
<th>Persistent</th>
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<tbody>
<tr>
<td>Original</td>
<td>Open</td>
<td>Fluent</td>
</tr>
<tr>
<td>Independent</td>
<td>Sensitive</td>
<td>Elaborative</td>
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<tr>
<td>Imaginative</td>
<td>Intuitive</td>
<td>Sense of humor</td>
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<tr>
<td>Non-conforming</td>
<td>Energetic</td>
<td>Complex</td>
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<tr>
<td>Perceptive</td>
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</table>

The study of creative adults has indicated undesirable personality factors which have probably grown out of the life-long struggle to voice their creative efforts and seek acceptance for them. It is felt that creative children, if identified, nurtured, and valued, can be helped to adapt those aspects of their personalities which would clash with others.

Identification of Creativity

At this time it is not clearly understood whether creativity is a unitary process or made up of a composite of many processes. Objective measures for assessing some of the components of creativity are in the developmental stage—some are being validated at the present time. Generally, these measures explore the individual's ability to think of:

a. regular or alternate uses for objects.
b. consequences in connection with a new or unusual situation.
c. things that belong in certain classes.
d. sentences when given the beginning letters of words.
e. words of similar meaning to the given word.
f. figures or pictures which may be developed from a mark or line.
g. ways of elaborating upon details or pictures.
h. new patterns by removing parts of a given pattern.

Implications for the School

It is thought that creativity cannot be developed in individuals unless they already possess those traits which constitute creativity. It is felt that the attitudes should be more one of "making it possible for creativity to emerge". Many researchers feel the environment should be "responsive" rather than just "permissive". E. Paul Torrance and others who have succeeded in helping children to be more creative in their thinking and writing have suggested the following
as factors in a responsive environment:

a. Include a variety of learning tasks in the day's activities as some children prefer to learn by discovery rather than by authority.
b. Bring more stimuli into the learning experiences.
c. Ask questions which elicit unique or original responses.
d. Accept and value unique responses when initiated by children.
e. Develop a progressive warm-up for creative activities from the simple to the complex.
In planning a program which is best suited for your child, it is important that we know as much as possible about him both in school and out of school. Kindly complete the following checklist and make any comments you wish following each of the items. It is understood that this information will be held in confidence.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>1. Did your child walk and talk earlier than most other children of his age or sex?</td>
<td>1.</td>
<td></td>
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<tr>
<td>2. Did he show a comparatively early interest in words?</td>
<td>2.</td>
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<tr>
<td>3. Does he converse with his parents at a level generally above that for his age and on a variety of topics?</td>
<td>3.</td>
<td></td>
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<tr>
<td>4. Is he at ease conversing with adults other than his parents?</td>
<td>4.</td>
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<tr>
<td>5. Does he have an exceptionally large vocabulary for his age?</td>
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<td>8. Did he show an early interest in clocks, calendars, jigsaw puzzles?</td>
<td>8.</td>
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<tr>
<td>11. Does he have more stamina and strength than other children of his age and sex?</td>
<td>11.</td>
<td></td>
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<tr>
<td>12. Does he tend to associate with children other than himself?</td>
<td>12.</td>
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<td></td>
<td>Question</td>
<td>YES</td>
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<tr>
<td>15.</td>
<td>Does he get along well with his friends?</td>
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<td>17.</td>
<td>Does he have a good memory?</td>
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<td>19.</td>
<td>Does he have an unusual capacity for planning and organization?</td>
<td>19.</td>
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<tr>
<td>20.</td>
<td>Does he relate information gained in the past to new knowledge that he acquires?</td>
<td>20.</td>
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<tr>
<td>22.</td>
<td>Does he try to excel in almost everything he does?</td>
<td>22.</td>
</tr>
<tr>
<td>24.</td>
<td>Does he usually have a number of interests that keep him busy?</td>
<td>24.</td>
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<tr>
<td>26.</td>
<td>Does he figure out his own solutions to problems and show uncommon &quot;common sense&quot;?</td>
<td>26.</td>
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<tr>
<td>27.</td>
<td>Does he have a sense of humour that is advanced for his age?</td>
<td>27.</td>
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<td>29.</td>
<td>Does he make collections that are more advanced or unusual than those of others in his age group?</td>
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<tr>
<td>30. Does he show a comparatively early interest in God, religion, and questions of right and wrong?</td>
<td>30.YES NO</td>
<td></td>
</tr>
<tr>
<td>31. Does he show an intense interest in some artistic activity, such as drawing, singing, dancing, writing, playing a musical instrument?</td>
<td>31.YES NO</td>
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<tr>
<td>32. Does he make up stories that are vivid and dramatic or relate his experiences with a great deal of exact detail?</td>
<td>32.YES NO</td>
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<tr>
<td>33. Does he like puzzles and various kinds of &quot;problem&quot; games?</td>
<td>33.YES NO</td>
<td></td>
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<tr>
<td>34. Does he have an exceptional ability in mathematics?</td>
<td>34.YES NO</td>
<td></td>
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<tr>
<td>35. Does he show an unusual interest in science or mechanics?</td>
<td>35.YES NO</td>
<td></td>
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<tr>
<td>36. Does he show awareness of things that are new and novel?</td>
<td>36.YES NO</td>
<td></td>
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**Parental Approval**

As parents or guardians, we have been informed about the Program for Individual Instruction and agree to placement of ____________________________ in it.

Date ____________________________ Signature ____________________________
APPENDIX 5

Out of the Classroom

Scale for Rating Behavioral Characteristics of Superior Students

Joseph S. Renzulli/Robert K. Hartman

Name ______________________________________ Date ____________________

School ____________________________ Grade ______ Age ______

Teacher or person completing this form ____________________________

How long have you known this child? ______________________ Months.

**Directions.** These scales are designed to obtain teacher estimates of a student’s characteristics in the areas of learning, motivation, creativity, and leadership. The items are derived from the research literature dealing with characteristics of gifted and creative persons. It should be pointed out that a considerable amount of individual differences can be found within this population; and therefore, the profiles are likely to vary a great deal. Each item in the scales should be considered separately and should reflect the degree to which you have observed the presence or absence of each characteristic. Since the four dimensions of the instrument represent relatively different sets of behaviors, the scores obtained from the separate scales should not be summed to yield a total score. Please read the statements carefully and place an X in the appropriate place according to the following scale of values:

1. If you have seldom or never observed this characteristic.
2. If you have observed this characteristic occasionally.
3. If you have observed this characteristic to a considerable degree.
4. If you have observed this characteristic almost all of the time.

Space has been provided following each item for your comments.

**Scoring.** Separate scores for each of the three dimensions may be obtained as follows:

- Add the total number of X’s in each column to obtain the “Column Total.”
- **Multiply** the Column Total by the “Weight” for each column to obtain the “Weighted Column Total.”
- Sum the Weighted Column Totals across to obtain the “Score” for each dimension of the scale.
- Enter the Scores below.

<table>
<thead>
<tr>
<th>Learning Characteristics</th>
<th>____________________________</th>
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<tbody>
<tr>
<td>Motivational Characteristics</td>
<td>____________________________</td>
</tr>
<tr>
<td>Creativity Characteristics</td>
<td>____________________________</td>
</tr>
<tr>
<td>Leadership Characteristics</td>
<td>____________________________</td>
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**Editor’s Note:** The procedures used in constructing and validating this instrument are discussed in an article which appears on page 211 of this issue of *Exceptional Children*. Readers who are interested in using this rating scale are hereby given permission to reproduce pages 245 to 248 in a limited number (100 or less) if the reprints are not to be sold for profit.
Part II: Motivational Characteristics

1. Becomes absorbed and truly involved in certain topics or problems; is persistent in seeking task completion. (It is sometimes difficult to get him to move on to another topic.) (Freehill, 1961; Brandwein, 1955; Strang, 1958)

2. Is easily bored with routine tasks. (Ward, 1962; Terman & Oden, 1947; Ward, 1961)

3. Needs little external motivation to follow through in work that initially excites him. (Carroll, 1940; Ward, 1961; Villars, 1957)

4. Strives toward perfection; is self critical; is not easily satisfied with his own speed or products. (Strang, 1958; Freehill, 1961; Carroll, 1940)

5. Prefers to work independently; requires little direction from teachers. (Torrance, 1965; Gowan & Demos, 1964; Mokovic, 1953)

6. Is interested in many “adult” problems such as religion, politics, sex, race—more than usual for age level. (Witty, 1955; Ward, 1961; Chaffee, 1963)

7. Often is self assertive (sometimes even aggressive); stubborn in his beliefs. (Buhler & Guirl, 1963; Gowan & Demos, 1964; Ward, 1961)

8. Likes to organize and bring structure to things, people, and situations. (Ward, 1961; Gowan & Demos, 1964; Buhler & Guirl, 1963)

9. Is quite concerned with right and wrong, good and bad; often evaluates and passes judgment on events, people, and things. (Getzels & Jackson, 1962; Buhler & Guirl, 1963; Carroll, 1940)

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<th>2</th>
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<td>Weight</td>
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Part III: Creativity Characteristics

1. Displays a great deal of curiosity about many things; is constantly asking questions about anything and everything. (National Education Association, 1960; Goodhart & Schmidt, 1940; Torrance, 1962)

2. Generates a large number of ideas or solutions to problems and questions; often offers unusual (“way out”), unique, clever responses. (Carroll, 1940; Hollingworth, 1942; National Education Association, 1960)
5. Can express himself well; has good verbal facility and is usually well understood. (Simpson, 1938; Terman, 1904; Burks, 1938)

6. Adapts readily to new situations; is flexible in thought and action and does not seem disturbed when the normal routine is changed. (Eichler, 1934; Flemming, 1935; Caldwell, 1926)

7. Seems to enjoy being around other people; is sociable and prefers not to be alone. (Drake, 1944; Goodenough, 1930; Bonney, 1943)

8. Tends to dominate others when they are around; generally directs the activity in which he is involved. (Richardson & Hanawalt, 1943; Hunter & Jordan, 1939; Bowden, 1926)

9. Participates in most social activities connected with the school; can be counted on to be there if anyone is. (Zeleny, 1939; Link, 1944; Courtenay, 1938)

10. Excels in athletic activities; is well coordinated and enjoys all sorts of athletic games. (Flemming, 1935; Partridge, 1934; Spaulding, 1934)

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<td>3</td>
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Drake, R. M. A study of leadership. Character and Personality, 1944, 12, 285-289.


Fauquier, W., & Gilchrist, T. Some aspects of leadership in an institution. Child Development, 1942, 13, 55-64.
SURVEY QUESTIONNAIRE FORM A

Name of School ___________________________ Teacher ___________ Grade ___________

How many pupils do you have in your classroom who:

Number of

BOYS GIRLS

1. are known to have a physical disability (actually assessed by an outside agency) which is interfering with school progress?
   a) vision disability which has been diagnosed by medical services. □ □
   b) hearing disability which has been diagnosed by medical services. □ □
   c) speech problem which has been diagnosed by a Speech Pathologist or Speech Correctionist. □ □
   d) other condition diagnosed by medical services. Include disabilities such as cerebral palsy, congenital anomalies - abnormal functions of bones, joints or muscles, club feet, traumatic or other crippling conditions such as burns, amputations, limp, defective posture, muscular dystrophy, etc. □ □

2. are known to have below average intelligence (approximately below I.Q. 90) and as a result are not progressing satisfactorily? You must have either group or individual intelligence test results on which to base your opinion. □ □

3. are known to have average intelligence (approximately between I.Q. 90 and 110) yet for reasons unknown and not identified are not progressing satisfactorily? You must have either group or individual intelligence test results on which to base your opinion. □ □

4. are known to have above average intelligence (approximately above I.Q. 110) yet are not progressing satisfactorily? Base your opinion on test results as in 2 and 3 above. □ □

5. are known to have superior intelligence (above an I.Q. of 120) and whose progress is no better than average and whose needs could be better served by an altered curriculum? Base your opinion on test results as in 2, 3 and 4 above. □ □

6. have been identified in a psychological and/or medical report as having a behavioural problem that is interfering with satisfactory school progress? □ □

7. have been identified in a psychological and/or medical report as having a specific learning disability (e.g., visual or auditory perceptual handicap, aphasia, dyslexia, etc.)? □ □

TOTAL of boys in class with problems. □ □

TOTAL of girls in class with problems. □ □

COMMENTS:
APPENDIX 7

Niagara South Board of Education
Special Services Branch

SURVEY QUESTIONNAIRE FORM B
Confidential

Name of School __________________________ Teacher ________________ Grade __________

How many pupils do you have in your class who:

1. in your opinion, have a physical handicap that is interfering with school progress?

   a) Visual Handicaps.

   Some indicators are: strabismus (crossed eyes); quick, jerky eye movements; tilting of the head, holding objects close to the eyes, rubbing the eyes, squinting, unusual sensitivity to bright lights, rolling of the eyes; inattention to visual objects or visual tasks such as looking at pictures or reading; awkwardness in games requiring hand-eye co-ordination; avoiding tasks that require close eye work; any complaints of inability to see.

   b) Auditory Handicaps.

   Some indicators are: mild or moderate hearing loss; monotonal or indistinct speech; yelling or screeching to express pleasure, annoyance or need; unusual visual attention, vehemence of gesture, marked inattentiveness in play; intensified preoccupation with things rather than persons; irritability at not making self understood.

   c) Speech Handicaps.

   Some indicators are: articulation problems, delayed speech, stuttering, unnatural or unpleasant voice quality, cleft-palate speech.

   d) Other Handicaps.

   Some indicators are: dental deviations, unusual facial characteristics, abnormal body movements; unacceptable toilet habits, listless, lowered vitality, undernourished, allergies, poor hand skills, poor hand-eye co-ordination, clumsy with feet.

2. are below average intelligence and as a result are not progressing satisfactorily? (in your opinion)

3. are of average intelligence yet for reasons unknown and unidentified are not progressing satisfactorily? (in your opinion)

4. are above average in intelligence and yet are not progressing satisfactorily? (in your opinion)

5. are exceptionally bright or creative, and/or demonstrate consistently superior performance in any socially useful endeavour? (in your opinion)

6. you consider have a psychological or social problem which is affecting satisfactory school progress?

   Some indicators are:

   a) an inability to learn that cannot be explained by intellectual, sensory, or health factors;

   (OVER)
NAME: 

1. If I could change things, my three wishes would be 

2. When things go wrong, mother 

3. I am most scared of 

4. When I do something wrong, father 

5. When the kids don't play with me 

6. People think I am 

7. My father likes to 

8. My father doesn't like it when 

9. My mother likes to 

10. My mother doesn't like to 

11. I am sorry when 

12. What gets me into trouble is 

13. I wish my father would (wouldn't) 

14. Mothers sometimes 

15. My best friend is 

16. My feelings are hurt when 

17. Fathers sometimes
18. I wish my mother would (wouldn't)

19. I wish I hadn't

20. I hate

21. I don't like the sort of kids who

22. If I had my way I would

23. The thing that really makes me mad is

24. What people like most about me is

25. What I most enjoy doing is

26. When I grow up I want to be

27. Brothers and sisters - Names Ages

Which one do you like best?
Who gives you the most trouble?

28. One thing I can't stand is

29. Other kids

30. My teachers are

31. At recess I usually

32. My favourite subjects are
Appendix 10 (Adolescent)

Name _______________ M F Age ____ School ________ Gr ____ Date _____

Complete these sentences to express your real feelings. Try to do every one. Be sure to make a complete sentence.

1. I like _____________________________________________

2. The happiest time _____________________________________________

3. I want to know _____________________________________________

4. At home _____________________________________________

5. I wish I hadn't _____________________________________________

6. At bedtime _____________________________________________

7. Boys _____________________________________________

8. The best _____________________________________________

9. What annoys me _____________________________________________

10. People _____________________________________________

11. A mother _____________________________________________

12. I feel _____________________________________________

13. My greatest fear _____________________________________________

14. In the lower grades _____________________________________________

15. I can't _____________________________________________

16. Sports _____________________________________________

17. When I was younger _____________________________________________

18. My nerves _____________________________________________

19. Other kids _____________________________________________

20. I suffer _____________________________________________

21. I failed _____________________________________________

22. Reading _____________________________________________

23. My mind _____________________________________________

24. The future _____________________________________________

25. I need _____________________________________________
26. Going out with girls

27. I am best when

28. Sometimes

29. What pains me

30. I hate

31. I am very

32. The only trouble

33. I wish

34. My father

35. I secretly

36. I

37. Dancing

38. My greatest worry is

39. Most girls

40. My real parents

41. Friends

42. Why can't I

43. What makes me
33. I am best at

34. Most girls

35. Being sick

36. Why can't I

37. My father and I

38. When somebody makes fun of me

39. Sometimes I feel like

40. Most boys

41. It's fun to daydream about

42. I am very

43. I feel sad when

44. Children would be better off if their parents

45. I need help with

46. I wish my brother would (wouldn't)

47. I wish my sister would (wouldn't)

48. The most important thing in my life is

49. I am most interested in

50. It makes me really happy when
Dear Parents and Fellow Educators:

For a long time I have been interested in special educational opportunities for our students who show outstanding talents and abilities. Perhaps many of you have had concerns about your children or children of your acquaintance who fit into this minority group. By allowing bright children to "get along well by themselves", I wonder if we really offer them a chance at the educational success and satisfaction that is the right of all our students in Niagara South?

In the interests of improving our educational system, I respectfully invite you to complete the enclosed form. Through our joint efforts, the partnership of parents and teachers, we might influence additional opportunities for gifted and talented children in our classrooms.

Yours sincerely,

Janice A. Leroux,
Fitch St. Senior School.

P.S. Please mail completed forms by Feb. 26, 1977 to:

(Mrs.) J. A. Leroux,
24 Walnut St.,
Welland, Ont.
L3C 1E9
Survey: Gifted and Talented Children

We have moved far in providing access to education for all, but we are less effective in meeting the differing needs and abilities of individual children."

James I. Gallagher

It is well recognized that the identification and training of above average and superior children leads to distinguished, satisfying performance which has lasting benefits for all aspects of our society. In our constant search for better education which will meet the differing needs of gifted and talented children, parents and other educators perceive that special attention must be given to this five per cent minority which exists within all economic, social and cultural segments of our community.

In order to determine your perceptions of the needs of gifted and talented children and your perceptions of the programs presently offered to them in Welland, this survey is being conducted. The responses will help formulate conclusions for a Master's Thesis on education for gifted and talented children. Results will be available to the public.

Thank you for your time and interest.

"Janice A. Leroux"

All questions below apply to your school(s). Please return by courier or mail by Feb. 26, 1977 to Fitch St. Senior School.

For purposes of clarity, the following definitions are included:
Gifted and Talented Children: Those who, by virtue of outstanding abilities, are capable of high performance; those who show consistent excellence in any field of human endeavour.

Acceleration: A program which allows a gifted child to move at a pace appropriate to ability and maturity, thus completing a program in less than the ordinary amount of time.

Enrichment: Opportunity to go deeper or to range more widely than the average child in a school program.

Segregation: Streamed groups or classes of similar ability children placed together for full-time or part-time special programs.

Streamed Groups: Groups of children of similar abilities and/or talents.

Unstreamed Classes: Age-grouped classes with children of various levels of ability.

Scale:

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<th>Very often</th>
<th>Usually</th>
<th>Somewhat</th>
<th>Not very often</th>
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1. Do you perceive gifted and talented children display special characteristics?

2. Do gifted and talented children display special needs?

3. Do gifted and talented children need special programs in regular classrooms?

4. Do gifted and talented children receive special enrichment in regular classrooms?

5. Do gifted and talented children work well in regular unstreamed classes?

6. Do gifted and talented children work well in groups streamed for students with similar talents and abilities?

7. In your school (area) is part-time segregation provided for gifted and talented students?

8. In your school (area) are full-time streamed classes available for gifted and talented students?

9. Are the segregated programs which are available, effective for supplying the educational needs of gifted and talented students?

10. Is acceleration available?

11. Is acceleration effective for supplying the educational needs of gifted and talented students?
12. What enrichment is provided in the school programs?

_____________________________________________________________________

13. What segregation is provided for gifted and talented students?

_____________________________________________________________________

14. What acceleration is available for gifted and talented students?

_____________________________________________________________________

15. Other comments:

_____________________________________________________________________

Position:  father ___                principal ___
           mother ___                guidance counsellor ___
           teacher - Primary ___     consultant ___
             Junior ___                administrator ___
            Intermediate ___     (Please indicate title.)

Age:       18-25 ___                Sex:     Male ___
           26-35 ___                    Female ___
           36-45 ___
           46-65 ___
APPENDIX 12

INTERVIEW WITH ADMINISTRATORS

1. What do you perceive are special characteristics displayed by gifted and talented children?

2. What do you perceive are the special needs of gifted and talented children?

3. What types of programs do you perceive to be effective in providing for the needs of gifted and talented children?

4. Do you perceive special teacher talents and training necessary for the teachers of gifted and talented students?

5. What responsibility do you perceive that the Board of Education has for In-Service for teachers of the gifted?

6. What are your perceptions regarding community attitudes and awareness of the education of gifted and talented children?

7. What responsibility do you perceive that the Board of Education has for research in the field of gifted and talented education?

8. What other administrative concerns do you perceive in the education of gifted and talented children?