IDENTIFICATION BY PROVISION: AN ARGUMENT FOR OR AGAINST "OPEN DOOR" SELECTION OF GIFTED PUPILS

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Short Title

IDENTIFICATION BY PROVISION: "OPEN DOOR" SELECTION

ABSTRACT

Gifted children admitted to a summer program on the basis of "identification by provision" (n =172) were compared with another group admitted after formal identification by the school (n=68). The children were entering grades 4 to 8. Results for children specifically identified by parents, teachers (without formal testing), or other adults, were also compared with those for formally identified children. The groups were compared on IQ, divergent thinking, independence, self-concept, personal characteristics of the children, their academic performance at regular school, and concerns of parents about their role in the educational development of their children. With a few minor exceptions, no significant differences were found. The "adult recommendation" admission criterion led to the identification of a group of children not distinguishable from that produced by formal testina. Identification by provision and substantial reliance on the general recommendations of parents and teachers are strongly endorsed in the recognition and service of gifted children.

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RÉSUMÉ

Nous avons comparé les enfants doués admis à un programme d'été en fonction d'une "identification par prestation" (identification by provision) (n=172) aux enfants d'un autre groupe admis après une identification formelle de l'école (n=68). Les enfants étaient tous sur le point d'entrer en quatrième jusqu'en huitième année. Les résultats des enfants spécifiquement identifiés par les parents, les professeurs (sans tests formels), ou d'autres adultes, ont également été comparés à ceux des enfants formellement identifiés. La comparaison portait sur le QI, la pensée divergente, l'indépendance, le concept de soi, les caractéristiques personnelles des enfants, leurs résultats scolaires dans une école normale et les préoccupations des parents sur leur rôle dans le développement éducatif de leurs enfants. Α quelques exceptions près, aucune différence importante n'a été observée. Le critère d'admission "sur la recommandation des adultes" a permis d'identifier un groupe d'enfants qu'il était impossible de distinguer de celui produit par des tests formels. L'"identification par prestation" et la dépendance importante à l'égard des recommandations générales des parents et des professeurs sont fortement avalisées dans la reconnaissance et les services des enfants doués.

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CHAPTER 1

Review of the Literature

There is no standard identification procedure for gifted children. Research on identification has generally compared one selection criterion with another, the goal being to show that one was better or worse. In the last few years the emphasis has shifted to recognizing the differences revealed by various selection procedures so that a suitable set of instruments could be used under broader definitions of giftedness. Lacking from the literature is any research which explores the effects of having no selection procedure at all, offering a program labeled and designed for the gifted, but through an essentially "open door" (Birch, 1984). This process can be called selection by provision, an expression attributed to H.M.I. Tom Marjoram of London. Do children selected by provision differ on any traditional selection criterion from those admitted to programs in more conventional ways? An answer to this question is important in itself and to understanding comparisons of formal selection criteria. Many criteria exist in the literature, the most common one being the IQ measure. Aside from the IQ, each procedure examines different aspects of the gifted child's personality or way of thinking. Parents' and teachers' nominations are also used as criteria.

Most frequently, a combination of the above criteria is used to identify gifted children. The relative emphasis or weight of individual criteria in the identification process varies, however, there is considerable confidence in the importance and accuracy of IQ measures. From the beginning of formal attention to gifted children, Terman (1926) defined giftedness strictly on IQ test performance. Now, although there are many objections to the use of IQ tests as the main criterion for identification, Nasca (1979) is not alone in claiming that intellectually gifted students should be defined as those individuals who score two or more standard deviations above the mean of an IQ test. Gifted programs in Pennsylvania, Florida and other states base identification on IQ scores. Arguments against the use of IQ scores as the main criterion in the identification process include those which point out the shortcomings of standardized tests (Sternberg, 1982) and which criticize IQ tests as being verbally loaded so they are not appropriate for the identification of nonverbally gifted (Gallagher, 1975) or for minority and low socioeconomic status gifted children (Bernal, 1975; Mercer, 1974).

Over the years the definition of giftedness has been expanded to include other areas than IQ or achievement, such as creativity or leadership, and to pay more attention to the potential of the individual in a wide variaty of domains. This

has been most noticeable during the past ten years, mainly His because of people like Renzulli. Revolving Door Identification Model (1981), with a definition of giftedness as a combination of creativity, task commitment and above average ability, captured the spirit of a movement toward a more liberal, open identification of giftedness. This, in turn, implies a more liberal, open admission procedure to gifted programs. Yarborough and Johnson (1983) state that nowadays only 1% of gifted programs use IQ test performance as the only criterion for selection, however, this does not reassure that is not the primary basis for us IQ identification in other programs since they state that in general there is still a dependence on cognitive abilities measures while considering giftedness. They also point out that 37% of the programs use creativity tests in the identification process, and 17% use culture-fair tests. That implies an expansion of the concept of giftedness, an acceptance of potential rather than performance. The use of culture-fair tests implies possible identification of groups of gifted such as minority-culture and economically disadvantaged which were ignored before and now are more likely to be considered in the identification process.

An argument can be made for the need for a more open and inclusive identification procedure for the gifted. Passow

(1981) points out there are a many things we do not know about gifted children. Some have potential but are not identified. Some are gifted in specific areas while others in all. Some show a high amount of potential at an early age while others are late bloomers. Having overly strict selection procedures may result in programs missing several children well suited for differential education, and the IQ would likely not diminish in importance among the identification criteria.

This study will compare the psychological characteristics of two populations of gifted children, one identified on relatively "open" identification criteria, identification by provision, and one identified on the basis of traditional aptitude and achievement criteria.

Historical Review

Gifted children and their education are a major concern in a growing number of countries around the world. A number of special programs have been developed, special classes have been conducted and teachers have been trained in order to facilitate and accommodate the educational needs of these children.

Superior ability has been valued in most societies since ancient times. By 2200 B.C. the Chinese had devised competitive examinations in order to find out the most able citizens for the government service (DuBois, 1970). The

realization that some individuals possess special gifts was also evident to the ancient Greeks. They believed that a person's genius, special abilities or gifts were the consequence of an inspiration by a god, muse or demon. Albert (1975) adds that genius was sometimes equated with madness. Viewed this way the special ability or gift was given by the gods; the individual had nothing to do with the existence or the nurture of it. Years later Goethe described more or less the same point when he considered great poets as children of God; when he spoke of himself he said he did not make his poems but his poems made him (Albert, 1975). The idea of genius as abnormality was perpetuated throughout the years, having as supporters scientists such as Lomproso and Nisbet in 1891 who argued that genius is a condition resembling many forms of mental disorders, while Jung (1954) also expressed the view that genius and psychological maladjustment go hand in hand. As Getzels (1981) points out, this view has a lot in common with the conception of giftedness as being something one either has or not. He also points out that psychoanalysis has placed the root of superior achievement in the unconscious, not under the control of the individual. Galton in 1869 denied any correlation between genius and mental abnormality with his studies on intellectual precocity. Having being influenced by Charles Darwin he found a replacement for

divine inspiration and considered biological inheritance as the source of giftedness. He formulated the "law of ancestral inheritance" which assumes that a talent has a lot to do with genetic heredity. However, one could note that Galton's point of view has a resemblance with the Greek view of inspiration by the gods in the sense that the individual who is a genius or gifted is one who is made so involuntarily, either in terms of heredity or inspiration by the gods.

Terman Studies

It was Terman and his associates who dismissed the idea that intellectual precocity is pathological, something that could be the conclusion of the historical overview of giftedness presented above. Terman's longitudinal work, starting in 1925, has shown that gifted children were far from having pathological or mental abnormalities; his sample was superior to children of normal mental ability, physically, socially, emotionally and morally. It was from that time on that the notion of giftedness was dominated by the IQ (Getzels 1981; Jenkins-Friedman, 1982; Khatena, 1977). Terman used the IQ metric as the sole criterion and measure of giftedness and he thereby established the notion that giftedness is equal to high intellectual ability (Gallagher, 1975; Getzels, 1981). Jarecky (1959) states that only after 1940 was attention given to other signs of giftedness, while Stanley (1974) points out

that Terman's was the first modern study on gifted children and contributed much to our existing knowledge of the intellectual abilities of these individuals.

Terman's studies had much influence, mainly due to the fact that the Stanford-Binet IQ, which Terman standardized and which became a principal indicator of giftedness, correlates with achievement in school (Edwards & Tyler, 1965; Gallagher, 1975; Khatena, 1976; Wellman, 1957). Terman defines giftedness as "the ability to make a high score on such IQ tests as the National, the Terman Group, and the Stanford-Binet" (Terman, 1926, p.631). He points out that this ability would be found in the top one percent of the school population. This definition has been criticized mainly on two grounds: (a) the use of IQ tests as the only criterion of giftedness and their validity (Gallagher, 1975; Khatena, 1977; Levinson, 1956), and (b) the existence of a cut-off IQ point in any definition of giftedness (Kirschenbaum, 1983; Langenbach & Blitch, 1982; Renzulli, 1978). These two criticisms led to research on the validity of various definitions of giftedness and consequently of the identification procedures for gifted programs. The degree of influence of IQ tests in the identification of gifted children can be seen in a report of a study on screening practices in the U.S.A. up to 1955 (DeHaan & Havinghurst, 1957) (see Table 1). Of course one could argue

Table 1

Summary of screening practices in U.S.A. in 40 school systems

	Number of Schools	Percent of Schools	
Kind of Instrument	Reporting use	Reporting use	
Group IQ test	32	80	
Individual IQ test	12	30	
Special Aptitude			
test	3	7.5	
Achievement test	21	52	
Recomendation by			
teacher, principal			
or councelor	26	65	
Previous school			
record	19	17	
Record of healthy,			
physical condition	3	7.5	

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Note. From DeHaan and Havinghurst (1957).

here that screening procedures are not the actual identification procedures for the gifted. This sounds logical, but one has to have in mind that since the final population from which gifted children will be selected comes from a previously screened one, the screening process actually shapes the final group of children to be identified.

Terman's studies led to the construction and widespread use of the Stanford-Binet (Khatena, 1977) which even recently has been considered by many "the best researchers as identification instrument currently available" (Martinson Khatena (1977) criticised the Stanford-Binet as 1974, p.1). favoring the verbally gifted thus leaving out a lot of potentially nonverbally gifted children. However, Martinson verbal abilities, through their (1966) points out that identification, provide the basis for skills which extend into many academic subjects and areas of human learning.

Criticisms of IQ Tests

<u>Culture-fairness</u>. Other criticisms of IQ tests (group or individual) exist in the literature. IQ tests are not equally appropriate for children from different socioeconomic backgrounds and many of their items have to do with middle class values and way of life (Fox, 1981; Freeman, 1983; Gowan, 1978; Khatena, 1977; Kirschenbaum, 1983; Levinson, 1956; Sexton, 1961). It has been found that cultural influences of

home and neighborhood have a lot to do with the intellectual growth of children (Gilliland, 1951). Research findings show that at the age of six months, where cultural and home influences are at a minimum with respect to the child, children from different social strata have, on the average, the same IQ (Gilliland, 1949). However these results may not be too valid since IQ tests for very young children are unreliable and do not match with IQs for older children mainly because of developmental differences. It should be pointed out that there is strong evidence of a direct relationship between socioeconomic status and test performance (Reese & Lipsitt, 1970). Freeman (1983) claims that gifted children from lower socioeconomic classes are less likely to obtain high IQ scores. Martinson (1966) objects to these criticisms by saying that they apply to group tests and not to individual IQ tests which she considers more appropriate for identification procedures. However, since group IQ tests are used first as screening devices, the culturally disadvantaged are out in the first round. The development of culture-fair IQ tests such as the Raven is considered an improvement on the matter but Martinson (1974) cites studies refuting the notion of these tests being, in fact, culturally fair.

IQ and achievement. Other critics of IQ tests claim that these tests are actually achievement tests (Perrone &

Pulvino, 1977), especially at the higher levels (Freeman, 1983). Gallagher (1975) emphasizes that IQ gives the educators two kinds of vital information: (a) the current mental state of the child compared to his age schoolmates and (b) the rate of the child's mental growth; in other words, what is necessary for academic success in our culture. Sternberg (1982) points out that most IQ tests are heavily loaded with vocabulary and arithmetic word problems which are an indication that what they actually measure is school achievement. He believes that intelligence as it is measured in the identification process through existing IQ tests is last year's achievement. He also points out that an IQ test in children of a specific age could be an achievement test for children a few years younger. This observation, together with concern if the test actually measures what its name implies (Fox, 1976) has raised questions as far as its validity is concerned. The issue of ceiling effects has also been justifiably raised (Fox, 1976; Martinson & Lessinger, 1960; Pegnato & Birch, 1959).

<u>Cut-off point</u>. When, during the identification process, an IQ score of 120 or more is revealed, that information is registered in the educator's mind without resistance and questioning. Furthermore many designers of the identification process believe firmly in that score. However, there is a

point to be questioned here: IQ scores depend on the particular IQ test used. As Gallagher (1975) points out, an individual can obtain a difference of 25-30 points on the IQ scale, depending on the test administered. Kirschenbaum (1983) says that the score of an examinee can reliably be established only within a range of scores and not on a single point, due to error of measurement. He adds that if, in order to overcome this obstacle, an extremely high cut-off point is set, questions concerning the predictive validity arise. Also, Langenbach and Blitch (1982) say that assigning numerical scores to talents, via IQ tests, implies that specific talents and abilities are only present when the results of the test show they are. Nonetheless, Rubenzer (1979) cites studies in which an IQ cut-off point has continued to be used in identification procedures.

Wechsler (1975) comments on the controversy over IQ tests. He says that a large part of the criticism of IQ tests has to do with the confusion caused mainly by the difficulty of differenting between tasks used as measures of ability and tasks used as measures of intelligence. There is a failure to distinguish between content and intent of IQ tests. He goes on by indicating that what we measure with the IQ is not what the test measures, for example, information, spatial perception or reasoning ability; these are only means to an end. What we

really look for is the individual's capacity to understand the world and his potential to cope with this world.

Creativity is missing from IQ tests. So far, the criticisms of the use of IQ tests as the sole or most important criterion in the identification process have had to do with the actual parts of the test (content), e.g., culture-biased items, or the achievement-orientation of the test. Something that IQ tests do not usually include are items to identify creativity; this is another criticism to support the inadequacy of IQ as the only or the most useful tool in the identification process. As Otey (1978) points out, if one uses only an IQ test, one will overlook 70% of the students who would score on the top 25% on a creative battery, due to the convergent nature of the IQ test. Guilford (1950) was the first to realize that some ways of thinking that take place in problem solving are not measured in typical achievement and aptitude tests. He states that original problem solving requires a minimum of creative thinking. Others (Shertzer, 1960; Witty, 1951) also report the exclusion of items identifying originality or talent in Torrance (1962) argues that conventional IQ tests art. measure only a few of the individual's thinking abilities and largely ignore others, such as creative thinking. Arlin (1975) suggests a fifth Piagetian stage after the formal

operational one; she names that stage the problem-solving stage and states that it is characterized by creative thinking. However, one could point out that this concept is not free of problems as far as its nature is concerned. Is it a specific cognitive ability, or a type of problem-solving strategy that can be learned?

Acceptance of Creativity as Another Identification Tool for Giftedness

When the "structure of intellect" model came onto the scene (Guilford, 1956) the basic definition of giftedness as defined by Terman was expanded. As Gowan and Dodd (1977) state, that was a change from the misleading concept of intelligence as unidimensional to intelligence 28 multidimensional, best expressed in terms of the structure of intellect. Guilford proposed that IQ is composed of many dimensions and that giftedness could include exceptional abilities in a number of these. From then on, divergent thinking, one of the five major thinking operations (the other ones being cognition, memory, convergent thinking and evaluation), began to appear in the minds of educators when giftedness was considered (Perrone & Pulvino, 1977; Taylor, 1968). The fact that creativity should be tested and creative potential should be included in the identification process of gifted children (Clark, 1983; was evident Hoepfner & O'Sullivan, 1968; Gallagher, 1975; Khatena, 1977; Landau, 1981; Passow, 1981; Rekdall, 1977; Torrance, 1968; Treffinger, 1980). Furthermore, Wallach (1976) claims that more emphasis should be given on work samples as evidence of creative productivity in the identification process, however, Treffinger, Renzulli and Feldhusen (1975) point out that Guilford's "structure of intellect" is not referring to a theory of creativity per se, contrary to what most researchers believe; it is a theory of human intelligence which subsumes some important cognitive aspects of creativity.

The Relationship between Creativity and Giftedness

There is no concensus among researchers and theorists in the field on the relationship between creativity and giftedness. Guilford (1950) points out that one must look beyond the boundaries of IQ if one wants to find the domain of creativity. He goes on to say that he believes in a positive correlation between intelligence, as measured by an IQ test, and certain creative talents. However, he does not specify the degree of that correlation since, at that time, his only source was the Terman study which he himself admits is not a decisive one. Dellas and Gaier (1970) point out that above average IQ is frequently associated with creativity. A few years later, Guilford (1973) suggested that IQ tests should be replaced by semantic-divergent production

tests in the selection of gifted children, because of the one-way relationship between the two kinds of measurement; individuals who are high on divergent production tests are almost sure to have a high IQ, but not necessarily the other way around. However, Landau (1981) denies even that one-way relationship.

Gowan (1971b) suggests that, in the future, creativity of the individual will be the main criterion of excellence. Later (1978), he says that creativity and intelligence are parts of a holistic nature; they are not independent nor separate disciplines (Anastasi & Schaefer, 1971; Cropley, 1966; Thorndike, 1966). The other parts of the structure are broad measurement, giftedness, development and humanism. parapsychology. Harvey (1982) found that creativity and intelligence are not totally independent; they are, in fact, used in complex, combined ways by gifted children. In his study, gifted children used both their intelligence and their creative ability to produce divergent responses together in a helpful rather than an antagonistic way. Rekdall (1979) points out that potential genius will very likely to be found among those high in both IQ and creative thinking. The question remains whether creativity is a part of intellectual giftedness or a kind of giftedness in itself (Gowan, 1977; Renzulli, 1978). While Clark (1983) agrees in a global way

with Gowan by saying that creativity is the highest expression of giftedness, she makes clear that she speaks in terms of a biological brain/mind basis. Khatena (1976) argues that both IQ and creativity tests can locate gifted children since they could be defined as two standard deviations above either mean. Others, like Albert (1975) and Smith (1971), add that creativity is an important factor in the function of higher level cognitive abilities and achievement. It should be noted at this point that Meeker (1969) suggests ways of assessing "structure of intellect" abilities from the Stanford-Binet and Wechsler scales. Also, Ward (1963) points to aspects of the definition of intelligence by Binet and Wechsler that are unexpectedtly similar to many contemporary definitions of creativity.

There was, however, confusion among researchers when they tried to figure out the relationship between creativity and IQ, in order to be able to locate gifted individuals superior in the creative domain. Getzels and Jackson (1962), Guilford (1967), and Torrance (1962) maintain that a valid distinction exists between the cognitive function of creativity and the traditional concept of general intelligence. In fact, Getzels and Jackson found a correlation of only $\underline{\mathbf{r}}$ =0.16 between several creativity measures and the Stanford-Binet. Others have noted that high intelligence, while necessary, does not

ensure the presence of creativity (Guilford, 1975; Rossiman & Horn, 1972). One could note here that the "necessary" notion includes, in itself, a kind of relationship. This relationship is probably the one found in the lower range of IQ (Hasan & Butcher, 1966; McNemar, 1964; Schubert, 1973), while in the upper to high IQ range the correlation has been found to be negligible (Barron, 1968; Schubert, 1973).

On the other hand, there are studies that contradict those above and which have found a meaningful relation between IQ and creativity. It was found that IQ could predict creative thinking performance (Ripple & May, 1962). Klausmeier & Wiersma (1965) found that the rank order of mean scores on all tests of divergent thinking was identical to IQ mean for low, average and high IQ students. Also, Bruch (1975) found a positive correlation between creativity and intelligence; the same was true for a group of highly gifted children in grade five (Butler & Lanzer, 1981). Treffinger (1980) notes that there is growing evidence supporting the predictive validity of specific tests of creative thinking, which results in a more positive attitude towards the inclusion of such tests in the identification process for gifted children. As far as the low correlations are concerned, Ripple and May (1962) explain them by saying that the low correlations of measures of IQ and creativity can be due to the restricted IQ ranges in

the sample used, something that is true for the Getzels and Jackson study as well (high cut-off points). Also age, sex, socioeconomic status, test setting (timed or untimed) or past experience are among the most uncontrolable factors in studies measuring the relation between IQ and creativity (Dellas & Gaier, 1970). Khatena (1976) says that the low figures probably depend a lot on the measures used to identify rather than on qualitative differences between creativity and intelligence, something that other researchers like Guilford (1950) and Renzulli (1978) also point out.

Other criticisms exist as far as the creativity tests are concerned. Tests of creativity lack internal consistency and they do not seem to test any common characteristics (Thorndike, 1963; Wallach & Kogan, 1965). Yamamoto (1965) points out that there is no concensus among researchers as to which is the best criterion for assessing creative thinking. The construct validity of tests such as Guilford's is also questioned (Dellas & Gaier, 1970). Furthermore, Treffinger (1980) and Rice (1980) say that there is a need for more complete information about the norms and interpretation of creativity test data.

Other Dimensions of Giftedness (Personality Characteristics)

Since the 1940s and 1950s, many researchers have tried to find a connection between prediction of achievement and

personality variables. The initial attempts were not as good as they were expected to be nor did they have any common results. Middleton and Guthrie (1959), after reviewing several studies, concluded that "the principal difficulty is probably the heterogeneity of the criteria, the antiquity of the personality measures being used and the nonsummative or nonlinear predictions" (p.66).

Guilford expanded the notion of giftedness to include creativity as well, and that was a starting point in the can be consideration that giftedness multidimensional. Researchers point out the necessity to construct measures and to consider talents such as music and art as other sides of giftedness (Freeman, 1979; Male & Perrone, 1979; Payne, Halpin, Ellet & Dale, 1975; Shertzer, 1960; Witty, 1951). Treffinger et al. (1975) credit Guilford with observing that an inclusive theory of creativity would consider the nature and interrelationships of noncognitive components of creative behavior as well as the cognitive ones. Wechsler (1975) points out the existence of noncognitive, nonintellectual components of intelligence. He says that intelligent behavior sometimes deals with the ability to reason or solve problems but other times this kind of behavior demands capabilities more of an affective nature or resembling personality traits. Maloney and Ward (1976) point out that at higher intellectual levels

personality variables often become progressively more influential in terms of performance. Cattell and Bucher (1968) indicated the importance personality factors of to achievement. In their study it was found that the addition of personality factors in the prediction equation yielded significantly greater multiple Rs than when ability measures were used alone. The association of areas such as cognition, motivation, and personality with originality and problem solving is suggested (Gowan, 1971b; Vinacke, 1952). Goodale (1979) state that personality (1970) and Rekdal is a significant factor which contributes to the evaluation of creativity. Dellas and Gaier (1970), although they agree about the contribution of personality factors to creative production and high level achievement, they advise caution regarding the extent of the known relationship.

The study of personality characteristics of gifted children has been widespread. The idea is that if certain personality characteristics are established as dominant, then these characteristics should be used for verification in the identification process or could even be used as identification criteria themselves. Clark (1983) adds that while an individual may not exhibit all of the characteristics reported in the literature, knowledge of them may help educators to optimize learning environments and understand the demands

higher levels of ability make on gifted individuals. Researchers have found that the most apparent characteristics of gifted children are the following. Gifted children as a group are higher in independence and dominance (Davis & Rimm, 1977; Haier & Denham, 1976; Hughes, 1969; Torrance, 1963); goal-directed they present persistant behavior and intellectual persistance (Hagen & Clark, 1977), selfconfidence (Davis & Rimm, 1977), will power (Barton, Dielm & Cattell, 1972) and flexibility of thought (Mason, Adams & Blood, 1966). However it should be stated that there are certain personality factors that follow a developmental sequence and are important depending on the time they emerge. It was found that while warm heartedness is considered an important personality factor at grade six, at grade seven it is not. At the seventh grade, personality factors such as being reflective, apprehensive and able to control oneself were important (Barton, Dielman & Cattell, 1972). In a study conducted by Murphy, Jenkins-Friedman, and Tollefson (1984) it found that both teachers and experts believe that the was ideal gifted child posseses the following characteristics: Independence, courage, sincerity, affection, humor and health (degree of correlation of experts and teachers r =0.95).

Creative individuals have been found to posses the following characteristics: Steadiness of purpose,

independence, positive self-image, and openness to experience (Drevdahl, 1956; Gold, 1965; Holland, 1961; MacKinnon, 1965; Rees & Goldman, 1961; Roe, 1951).

<u>Self concept</u>. Two personality characteristics that have been extensively examined in gifted children are self concept and locus of control. Many theorists consider self concept to be the key point in our understanding of how the individual functions. Bailey (1971) has suggested that self concept affects all areas of personality and either restricts or enhances the person's capacity to fulfill his or her potential. Combs and Snygg (1959) and May (1967) suggest that self perceptions are ultimately a major factor influencing one's behavior while others indicate that the child's academic behavior in particular is influenced by self perception (Rogers, 1961; Wylie, 1961).

Studies of gifted children have been concerned with the extent of differences in self concept between the gifted and nongifted. Differences in favor of the gifted have been found (Milgram & Milgram, 1976; Karnes & Wherry, 1981; Tidwell, 1980b), the opposite has been revealed (Cohen & Cohen, 1983) as well as no differences (Bracken, 1980). Others, as reported in Karamessinis (1980), such as Glenn and Yates, have worked on the relationship between self concept and IQ and self concept and academic achievement. Yates found a positive

relation between self concept and average achievement, while Glenn found no correlation between increased IQ and self concept; Caplin (1969) and Primavera, Simon and Primavera (1974) found a positive relation between high academic achievement and high self concept. Differences among gifted children on self concept have also been examined. Whitmore (1980) states that underachievers have lower self concept than achievers; Ziv, Rivon and Doni (1977) have reported that gifted underachievers have higher self concept than gifted achievers; Kanoy, Johnson, and Kanoy (1980) found no such differences. The role that the self concept plays on a learning task has been studied by comparing gifted students with high and low self concept (Dean, 1977); he found that high self concept boys and girls show better mastery on learning tasks. Interest in the academic and social self concept of the gifted has been revealed in the study by Ross and Parker (1980) in which they found that, in contrast to positive academic self concept, gifted children seem to have relatively poorer social self concept.

Locus of control. Locus of control, external or internal, is another important characteristic examined in gifted children. Rotter (1975) defines external locus of control as a belief that one's actions are a result of luck or chance and under the control of powerful others, or sometimes

because of the complexities of forces not predictable surrounding the individual. On the other hand, internal locus of control exists when the individual believes that events are contingent upon one's own behavior or characteristics. As far as general research is concerned, Seeman (1967) suggests that an external orientation is related to reduced acquisition of information. Ducette and Wolk (1972, 1973) point out that locus of control is an important predictor of behavior in situations different in structure while Pines (1972) found that internals and externals may employ different strategies in problem-solving situations. Studies of gifted children have dealt with the relation of IQ to locus of control, locus of control among gifted achievers and underachievers (Kanoy, Johnson, & Kanoy, 1980; Landau, 1981; Milgram & Milgram, 1976; Nowicki & Roundtree, 1971) and the relation of child rearing practices to locus of control in gifted adolescents (Pal, 1977). Stewart (1981) found that locus of control influences gifted and nongifted students in their preferred instructional technique; gifted students preferred independent study and discussion while nongifted preferred lectures. This implies that locus of control may affect one's perception and consequently capacity for high achievement (in academic or any other area). Penk (1969), for example, found a significant correlation of internal locus of control with verbal fluency.
Sex differences were also examined Sex Differences. especially in the sixties (Whitmore, 1980). Klausmeier and Wiersma (1965) found that girls performed better than boys on divergent creativity measures. Later studies, such as McGinn (1976), found that gifted boys were more introverted, analytical, rational and pragmatically oriented, and girls were more imaginative, intuitive and interpersonally oriented. Furthermore, Halpin, Payne and Ellett (1973) found that creative adolescent females liked school and were daydreamers, while males disliked school and teachers and often wanted to be left alone to pursue their thoughts and interests. Landau (1980) found no sex differences in personality among gifted children except that in grade six, seven and eight boys seemed to be more curious than girls. While these sex differences are minor, they are generally within the age ranges to be examined in the present study and involve variables which might conceivably play a role in the identification of gifted children, either by test scores or the recognition of relevant traits by teachers, parents, or peers. This suggests that a check be made for sex differences in the results, not as a central concern, but merely to reassure ourselves about the generalizability of the conclusions to be drawn.

Teachers and Parents in the Identification Process

Teachers' opinions have long been considered a useful part of the identification process (Cutts & Moseley, 1957; Gallagher, 1975; Gowan, 1971a; Levinson, 1956; Pegnato & Torrance, 1968). Their inclusion Birch, 1959; in the identification process together with the IQ was an important step toward establishing the multidimensionality of that Parents' the existence process. judgements about of giftedness in their children were also considered and examined as a part of the process (Getzels & Jackson, 1962; Jacobs, 1971; Landau, 1981; Witty, 1951). Nominations by teachers are most widely used for identifying potentially gifted children (Marland, 1972; Martinson, 1974). However, as early as 1925 Terman and others such as Witty (1951) pointed out the low correlations of teacher recommendations with IQ scores. Estimates of concurrence between teacher judgments and IQ range from 4.3% to 50% (Cornish, 1968; Jacobs, 1971; Pegnato & Birch, 1959; Shertzer, 1960; Wilson, 1963). This spread can be explained because the children studied were from kindergarten to junior high school levels, and teachers' "accuracy" was measured against different IQ measures (Clark, 1983; Gear, 1976). Anastaziow (1964) offers another explanation by saying that among the variables that influence a teachers' judgement while selecting gifted children are: (a) the mean IQ of the

particular class and (b) the number of gifted known within the school. Gallagher's (1975) comment about teachers' judgement is the following: Gifted children were considered the ones who are capable of doing well in school, much better than their fellow students; however, this definition excludes children who have higher aptitude for reasoning and conceptualization but do not perform well in school (underachievers). The above mentioned studies suggest that teachers' accuracy in identifying gifted children is relatively poor. What most of these tests of teacher "accuracy" ignore is that IQ or whatever it measures is not the only index of giftedness. Teachers know a lot more about their children than IQ and probably include this additional information in global judgements of giftedness. The agreement range of 4.3% to 50% is perhaps rather high and no more an indication of teacher inaccuracy than IQ insufficiency. Teachers and IQ tests respond to different elements of giftedness, to varying degrees. As Male and Perrone (1979) point out, talents can be observed outside the school or through instances that have nothing to do with academic achievement.

There are conflicting results showing parents to be "better" identifiers than teachers, and others showing the opposite. Jacobs (1971) found that parent identification

overlapped 61% with IQ while only 4.3% teachers' nominations coincided. Cornish (1968), on the other hand, found that teachers identified 31% while parents 12%. Another result of the study was that 59% of those nominated by teachers were, based on IQ, not gifted while the parents' percentage was 50. It should be noted however that Cornish used sixth grade children while Jacobs used kindergarten children.

All the studies mentioned above concerning the role of parents and teachers in the identification process have two common points. One is that all were measured against the IQ, and the other is that judgements were made in a nondirective way. As far as the IQ is concerned, Clark (1983) points out that perhaps children not identified by IQ tests displayed other forms of giftedness. The language of these studies consistently assumes the IQ-based results to be "correct" and that divergence is error. Current thinking on giftedness is increasingly taking on a more neutral position on such judgements. Regarding parents, nondirectiveness implies that the judgements were based on a general notion of giftedness as each teacher or parent understands it. One solution was the development of tools, e.g., checklists, to quide the identification process by individuals. The personality characteristics of the qifted were the bases for questionnaires constructed as supplementary tools in the

identification of the gifted. The need for objective ratings to help teachers in their judgements was evident from the early years of the qifted education movement (Gallagher, 1975). Teachers have to be sensitive to the characteristics of intellectually gifted students and to avoid the repetition of characteristics mostly tapped by group-administrered tests; their primary function is to find children that the tests miss (Anastasiow, 1964; Nasca, 1979; Renzulli, 1975). Several studies support the use of behavior-observable checklists by teachers for more reliable identification (Borland, 1978; Rubenzer, 1979; Scott-Ashman & Vukelish, 1983; Weise, Meyers, & Tuel, 1965). One of the most used behavioral checklists is the Scale for Rating Behavioral Characteristics of Superior Students first developed by Renzulli, Smith, White, Callaghan and Hartman in 1976. Regarding the parents, many studies have shown that the prediction or the identification of giftedness is better when checklists which include personality characteristics are used as well (Clark, 1983; Otey, 1978; Rubenzer, 1979).

Multiple Criteria in the Identification Process

Multiple criteria are now a frequent recommendation for identification of the gifted (Clark, 1983; Gallagher, 1975; George, 1979; Martinson, 1966; Martinson & Lessinger, 1960; Rice, 1980; Yarborough & Johnson, 1983). As a result, the United States Office of Education (1972) proposed the following definition of giftedness:

Gifted and talented children are those who by virtue of outstanding abilities are capable of high performance. These children require differential educational programs and/or services beyond those normally provided by the regular school programs in order to realize their contribution to self and society. Children capable of high performance include those who have demonstrated any of the following abilities or aptitudes singly or in an combination:(i) general intellectual ability, (ii) specific academic aptitude, (iii) creative or productive thinking, (iv) leadership ability, (v) visual and performing arts aptitude, and (vi) psychomotor ability.

In 1980 the American Association for Gifted Children recommended that individuals who are outstanding in art, music, drama, mechanical skills and social skills should also be considered gifted.

Many schools in the United States have since used this definition. Although it is more inclusive compared to earlier definitions, it did not avoid criticism. Renzulli (1978) points out that: (a) the noninclusion of nonintellectual, motivational factors should be considered a major omission since they represent an indication of the underlying energy or

potential of the individual, (b) in the nonparallel nature of the six categories, processes such as creativity and leadership cannot be differentiated from a performance area to which they can be applied and (c) in the use of the definition in the hands of educators and practitioners in general there is a tendency to use the U.S.O.E. definition to "build" their own identification system, but in the process the six categories are being treated as mutually exclusive. Although this would be a misapplication, Renzulli contends that it is the definition which should give proper quidelines to practitioners on how to use it.

Despite the criticisms the U.S.O.E. definition of giftedness, together with the contribution of the American Association for Gifted Children, was considered appropriate for identifying children. This concensus was not reflected in practice, however, as was shown by a national survey of identification practices of gifted and talented by Alvino, McDonnel and Richert (1981): Abuses of standardized testing and other inappropriate practices, apparent confusion over the definition of giftedness and lack of understanding regarding what should and should not be used for identification under each category (see Table 2). Among other findings, most striking ones include the following: (a) Tests like the Checklist of Creative Positives, Scales for Rating the

Table 2

Tests or techniques employed versus the federal definition of giftedness

	Federal Definition				
	General	Specific			Leader-
Test	Intellect	Academic	Creativity	Arts	ship
Biographical Inventory	£	£	£	£	£
Checklist of Creative					
Positives	£	£	£	£	£
Piers-Harris Self Concept			£		
Raven Progr. Matrices	£			£	
SRBCSS (Renzulli-Hartman)	£	£	£	£	£
Scholastic Aptitude Test	£	£			
SOI Screening for Gifted	£	£	£	£	£
Stanford Achievement Test	£	£	£		£
Otis-Lennon IQ Test	£	£	£	£	£
Self-nominations	£	£	£	£	£
WISC-R	£	£	£		
Stanford-Binet	£	£			
Peer Nominations	£		£	£	£
Columbia Mental Maturity	£	£			

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Table 2, continued

£ £ Cummulative Grades £ £ Cognitive Abilities Test £ £ Torrance Test of Creative Thinking £ £ £ California Test of Achievement £ £

Notes. From Alvino, McDonnel and Richert (1981).

£ indicates techniques employed in each category.

Behavioral Characteristics of Superior Students and Structure of Intellect were used to identify giftedness in all the first five categories of the federal definition which, in some cases, does not match with what the tests are supposed to measure. (b) Other tests such as the Otis-Lennon Mental Ability, the Gifted and Talented Screening Form and the Stanford Achievement Test were used for three or four categories creating the same pitfall as the one before. (c) Instruments such as the California Test of Achievement, the Stanford-Binet Intelligence Scale, the Columbia Mental Maturity Scale and Cognitive Abilities Test are used for intellectual and academic identification purposes while in most cases they were or intented to be used either for one or for the other. (d) Tests intended to measure academic ability were used to discover intellectual ability. (e) Various nomination forms were found to be used in all five federal categories of giftedness (the sixth category, psychomotor, having been dropped in the 1978 Gifted Childrens' Education Act).

As far as gifted subpopulation identification is concerned, the findings were not encouraging either. In most cases it was reported that the tests were used with subpopulations whose composition was quite different from the ones on which the tests were normed. The most striking example was the use of Lorge-

Thorndike, Slosson and WISC intelligence tests with limited English-speaking, disadvantaged and ethic minority populations (see Table 3).

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The instruments used to assess the ability or the performance of gifted are questioned as well (Johnson, 1976). This is not, of course, a direct criticism of the definition itself; it has to do with test construction and development, but indirectly poses the question of the validity of the tests and of the U.S.O.E. definition in the field.

There has been a lot of concern, mentioned earlier, regarding the IQ and creativity tests. Aside from the inadequacy of IQ tests to identify the gifted among minorities, economically disadvantaged or some types of underachievers (Bernal, 1975; Chinn, 1979; Guilford, 1975; Holle, 1980; Martinson, 1974; Witty, 1978), IQ tests are also biased in favor of verbally able students (Gallagher, 1975; Fox 1976). As far as the creativity tests are concerned, there is no common objective in such tests because of the lack of a common creativity theory (Treffinger et al., 1975). Other points are of concern as well: Variation in test atmosphere, and directions given by different examiners that would account for the different results in tests (Treffinger et al., 1975). Another important feature that varies among the tests is the time given to the individuals to complete the test; it could be that time limits represent the popular notion that

Table 3

Tests or techniques employed versus special populations of gifted

		Special Population				
			Limited		Excep-	
	Disadvan-	Ethnic	English		tional	
Test	taged.	Minority	Speaking	Rural	Gifted	
Cattell Figural IQ	£					
Checklist of Creative						
Positives	£					
Cognitive Abilities Test	£			£		
Iowa Test of Basic Skills					£	
Lorge-Thorndike IQ test			£			
			c			
Metropolitan Achievement			Ł			
Roven Progra Matricos	£	£	£			
Naven rioyr. Matrices	ط	ق	ىلە			
Slosson IO test	f		£		£	
5100000 IN 10 1001	<u>م</u>		دن ۴		æ	

Table 3, continued					
Stanford Achievement					£
Torrance Test of					
Creative Thinking	£	£	£	£	£
WISC		£	£		£
Peer Nomination	£			£	
Self-nomination	£		£		
WISC-R		£			

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Notes . From Alvino, McDonnel and Richert (1981).

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 ${\tt \pounds}$ indicates techniques employed in each category.

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to be smart is to be fast (Sternberg, 1982). Removal of time limits on figural tasks resulted in higher scores (Treffinger et al., 1975) while it was found that the more intelligent individuals tend to spend relatively more time encoding the terms of a problem (Mulholland, Pellegrino & Glaser, 1980; Sternberg & Rifkin, 1979) and Lajoie and Shore (in press) also found high accuracy in the Matching Familiar Figures test to be related to fast or slow performance elsewere according to the task, with accuracy always dominating over speed.

It is surprising that in spite of the emerging emphasis on multiple criteria in the field, as well as the criticisms of IQ tests, that such tests are still in a large degree the cornerstone of the identification process (Blosser, 1963; Jenkins - Friedman, 1982; Harrington & Harrington, 1982; Kirschenbaum, 1983; Langenbach & Blitch, 1982; Renzulli, 1980). As Nasca (1979) states, intellectually gifted students are defined as individuals who score two or more standard deviations above the mean on an IQ test. It has also been reported that in States like California (Weiler, 1978), Florida, and Pennsylvania (George, 1979), high scores on the dominate the Stanford-Binet and WISC tests legislated identification procedures. It is sad that after all these years of research and development in the area, the notion of IQ as being something that one either has or has not still has

such a strong influence (Langenbach & Blitch, 1982; Renzulli, 1980). Passow (1972) and Sato (1974), among others, point in the direction of limiting the use of IQ or even substituting for it in the identification process. The dependence on the IQ measure, however, is difficult to diminish since, as Renzulli points out, it seems to be an objective measure so all the decisions based on it can be easily defended to parents and others (Rice, 1980).

Confusion and inadequacy in the identification of giftedness is apparent; it has, as a consequence, the risk of identification of wrong or incomplete populations not only in terms of its structure but also in terms of numbers of children served. The survey by Alvino, McDonnel and Richert (1981) reveals such confusion. Of course, one could argue that not all identification procedures utilize instruments in similar ways. Even if they did, and the instruments used were appropriate for the population in question, the criticisms mentioned earlier still apply on a theoretical level: For example, the lack of generally accepted definitions of creativity or intelligence, varying norms, ceiling effects, different conditions of administration, time limits, and anxiety. However, when tests are handled properly, taking into consideration whatever is necessary to minimize the above pitfalls, they can help.

What is then needed in the area of identification of gifted children are new alternatives procedures which will draw in a great number of gifted children now missed so these children will be able to develop their potential through the programs provided for their own benefit and that of society. <u>Approaching an "Open Door" Model</u>

"Open door" is the label used for programs that try to include talented gifted, underachievers, gifted disadvantaged and minority gifted in their population, by emphasizing the provision of suitable curricula at least concurrent with, if not in advance of, formal identification procedures. Of course, through the history of gifted movement one could argue that an effort for "open door" admission policies is "hidden" throughout the evolution of the identification process. Starting from the IQ as the sole criterion of inclusion to a gifted program, to the inclusion of creativity, parents' and teachers' nominations, and the development of culture-fair tests all, these are steps toward more completely serving the of the population of gifted. The need for expansion identification criteria is acknowledged since many of the gifted remain unrecognized (Male & Perrone, 1979). Treffinger (1980) adds that the use of multiple criteria will increase the comprehension and fairness of the identification process. It should be noted, however, that all the expanded procedures

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or criteria were validated against an IQ measure (Clark, 1983; Martinson, 1966; Renzulli & Smith, 1977) so the results of the comparisons are still limited.

Researchers increasingly endorse the approach of more "open door" programs and try to examine the implications for the composition and numbers of children served. Feldman and Bratton (1972) expanded their identification criteria to 18, though each of the 18 different criteria had previously been used for identification purposes in other studies. The study tested how the composition of a hypothetical population of a special program for gifted would be affected if there were an increase in the number of identification criteria. The study showed that, depending on the criteria chosen, all but five of the students that would have been examined on the 18 measures could be selected and included in the special program. Of course the study can be criticized as to which of the criteria best identify giftedness, or which have to be eliminated. However, there is an important general conclusion conveyed by this study: Through a more open identification procedure more gifted children can be found eligible to benefit from opportunities offered to them.

The characteristics of the children in a gifted program were the target of a study done by Dirks and Quarfoth (1981). They compared and contrasted two types of multiple criteria

models for identification, breadth and depth models, and an intelligence-test model. In the breadth model, children were selected if they scored above average in several assessment areas at the same time, while in a depth model a student was selected who scored high in just one of the tested areas without regard to scores in the other tests. It was found that a depth model is better than a breadth model since it includes in its population number а greater of promising underachievers. Partial underachievers should be included in gifted programs in order to develop their potential more evenly since they have already shown they can do very well in at least one area. The issue of totally underachieving gifted children was not addressed. The depth model included in its population children with unusually high IQ (Table 4 summarizes the results). Half of the children who were selected by depth models met the criteria of the breadth model. The depth model approximates an "open door" in that the child has to score high on just one of several assessment areas to show that indeed a source of potential or achievement exists. In the breadth model the children have to be above average in just some of the assessment identification criteria; in this study it was three out of five.

Renzulli's Revolving Door Identification Model (Renzulli, Reis & Smith, 1981) is considered to be one of the most

successful "open door" approaches to identification of the gifted. The fundamental idea is that the main element of giftedness is the potential of each individual which, in turn, will be expressed through creativity and guided by task commitment. These two clusters, as as Renzulli named them, creativity and task commitment, together with above average ability, constitute his definition of giftedness and consequently underlie the Revolving Door Identification model. As it is pointed out:

It is an approach designed to increase substantially the number of students involved in special services, minimize concern about elitism by doing away with the you have it or you don't have it concept, and most importantly provide supplementary services at the time and in the performance area where such services have the highest potential for doing the most good for a particular youngster. (Renzulli et al., 1981, p. 5)

The model accepts alternatives to the IQ as an indication of ability or potential ability: Parent, peer and self nominations, for example, are considered as evidence and can help the child gain a position in the "talent pool." Teacher nomination through the use of behavioral checklists is also a criterion for acceptance, together with ability tests. The openness of the program is obvious; the importance given to

Table 4

Description of children selected by breath, depth, and IQ models

	Number of	% in Grades	Number of	Mean
	Ss Selected	in Top Decile	Extreme	Total
Model	by Model	of Class	Underachievers	WISC-R
Breadth Model	52	91%	0	129
Depth Model	44	69%	6	132
IQ Model	24	46%	3	135

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Note. From Dirks and Quarfoth (1981).

the potential even if underdeveloped or understimulated, together with these kinds of admission criteria, surely changes the composition of the population served. It is worth mentioning that other researchers such as Kirschenbaum (1983), Rubenzer (1979) and Langenbach and Blitch (1982) believe that task commitment is a part of the definition of giftedness.

The notion of "open door" programs, either restricted (Dirks & Quarfoth, 1982; Vermilyea 1981) or more liberal (Feldman & Bratton, 1972; Renzulli, 1981; Reis & Renzulli, 1982), is characterized by serving a more inclusive population compared to earlier more restricted ones. More gifted students then will have the opportunity to utilize and develop their potential. These are the two ideas that are hidden behind each "open door" program. It is interesting to note that potential ability has been discussed a lot among writers in terms of (a) what amount is required to be considered as gifted (Fox, 1981), (b) its development (Martinson, 1966; Parnes & Noller, 1972; Taylor, 1975; Torrance, 1972), and (c) its assessment during the identification process (Parke, 1981; Passow, 1981; Rubenzer, 1979; Vermilyea, 1981). However, in actual practice potential does not seem to be given much importance, compared to actual achievement.

The Present Study

There remains an important gap in our knowledge about the

identification of gifted children. While evidence has accumulated that more criteria, variously applied, have advantages over fewer, certainly over IQ alone, it has not been clearly established what benefit comes from having any specific criteria at all. An absolutely "open door" program probably does not exist, but there are examples where the program is labeled as suitable for gifted children and very few other constraints are placed on the selection process. Anomalous as it might seem, multiple criteria extended sufficiently may lead to a situation where no criteria of a traditional nature may provide a closely parallel situation. The discussion of the merits of multiple criteria over single requires knowledge of the traditional ones such as IQ population sampled when no precise selection criteria are imposed and self selection and other processes operate on their own. Such a situation is closely approximated in the McGill-PSPGM Gifted Summer School, permitting this question to be addressed.

This study will examine an open-door identification program for gifted children, which might also be called "Identification by provision," in contrast with a more "traditional" identification procedure based on IQ and achievement test scores. It is hypothesized that the identification-by-provision program, having no formal

identification criteria, will yield a group of students at least comparable to one selected by means of traditional criteria. It is believed that the majority of both groups will be similar on certain psychological characteristics, but the "open door" program would include more low achievers, compared to children found in the program functioning with traditional identification criteria.

CHAPTER 2

Method

Subjects

Subjects were 172 children in grades 4 to 8 attending the McGill-PSBGM Gifted Summer School and 68 children attending the Laurenval Gifted Summer School which covered the same grades. The students who attended the McGill summer school were selected by their fitting any one of the following criteria:

(i) Being presently in a gifted program, (ii) being identified as gifted but not being in a gifted program and, (iii) being recommended by a parent, teacher or any other adult.

The students who attended Laurenval were selected by a more traditionally based procedure. There were two routes to acceptance:

(i) Children were first selected based on the Renzulli-Hartman Scale by their teachers. Then they had to be at the 90% ile or above in the Canadian Test of Basic Skills, or (ii) children who were nominated by their parents had to achieve a high score on WISC-R; then a committee of teachers and psychologists decided which children were accepted to the program.

Since the aim of this study is to compare the populations

of the two schools which use different admission criteria, one in a traditional way and another in a less structured manner (identification by provision), the students were divided first into two groups. One consisted of the McGill-PSBGM Gifted Summer School (Westmount Park) students, and the other the Laurenval Gifted Summer School students. Furthermore, in order for the effects of the "open" criterion (adult recommendation) of the McGill Gifted School to be examined each group was considered in two further subgroups. The two subgroups at Westmount Park consisted of one group of children who were previously identified as gifted by their schools, and the other group consisted of children that were admitted to the program based on an adult recommendation (the open criterion). It was possible to identify the adult-recommended children from the registration form on which the admission criterion for each child registered was checked. Some children (14) in the latter group were admitted to the program via school identification but had been first identified as gifted by parents or other adults, as revealed by a parent questionnaire. The two subgroups at Laurenval were as follows. One group consisted of students who were first identified by parents or other adults as gifted. The same parent questionnaire as at the McGill-PSBGM Gifted Summer School was used. This group was an artificial one, that is,

the children belonging to this group could have gone to the Westmount Park school, fitting in the identification-by-adult admission criterion had they not been identified as gifted in the traditional way through their school. The other Laurenval group consisted of the remaining students, that is the ones that were identified based on school recommendations and had not previously been identified by parents or other adults. Since some sex differences, varying with age, were reported in the literature (Whitmore, 1980), and since it is also usually methodologically advisable to check for sex differences, this variable was examined as well. Its results should be regarded as general remarks as far as this study is concerned. Table 5 shows the distribution of children by school, group and sex.

The division into subgroups was made since about 45% of the students attending Westmount Park and 21% of those attending Laurenval were reported as having been first recognized as gifted by the parents or other adults prior to any formal testing. At Westmount Park, the proportions of students whose giftedness was first recognized by the school versus parents or other adults were 55% and 45%, and 79% and 21% at Laurenval. Whatever the result of the overall comparison between the two schools and identification models, the two specific groups at each school should also be examined since the number of the children admitted through school

Table 5

Distribution of children by school sex and group

	School Identified		Adult Id	entified
	В	G	В	G
Westmount Park				
(Id. by Provision)	33	61	33	45
Laurenval				
(Id. by Tests)	18	36	6	8

recommendation may overshadow any effect of the children admitted via the adult recommendation.

Instruments

Two groups of instruments were used to collect the data for the present study. The first group of tests dealt with the intellectual characteristics of the aifted: Otis-Lennon (verbal IQ), Raven's Standard Progressive Matrices (nonverbal IQ), a selection of Torrance creativity tests (unusual uses, consequences, and drawings), and also parents' reports of children's performance in terms of grades at regular school. The second group had to do with measures on the personality characteristics intellectual of gifted children, responsibility (IAR), self concept (Piers-Harris), personal independence (Dependence-Proneness Scale). Α parent questionnaire was also used.

The Otis-Lennon was used because of its heavy weight on academic-educational and verbal requirements (Otis-Lennon, 1969). Through the use of this test, potentially gifted students, from the point of view of a traditional approach, could be revealed as such based on a high IQ score (for example, 120 or above). On the other hand, the Raven was used in order to pinpoint students who have the potential but due to certain limitations (economic, culturaly disadvantaged) cannot reveal that potential in tests such as Otis-Lennon.

The Raven has been used as an adequate nonverbal and culture-fair IQ test (Freeman, 1979, 1983; Holle, 1980; Pearce, 1983). The two divergent thinking tests were chosen in parallel. One was the Divergent Figural test complementing the Raven and the other the Divergent Verbal analogical to the Otis-Lennon; a total score on divergent thinking was also considered.

<u>Raven's Standard Progressive Matrices</u>. This group IQ test is based on intellectual functioning within the context of Spearman's "g"; it gives a measure of "g" via perceptual reasoning (Raven, Court, & Raven, 1977).

The Standard Progressive Matrices is a test of a person's capacity, at the time of testing, to understand figures having no meaning, see relations among them, find out the nature of the figure completing the overall pattern of relations presented, and, as a result, to develop a systematic method of reasoning. The scale consists of 60 problems divided into five sets of twelve. In each item there is a matrix or design in black and white with one part missing. The examinee must select from a group of six to eight choices the one piece that best completes the matrix. The first problem in each set is self-evident and the problems become increasingly difficult. To ensure interest, figures in each problem are boldly presented, accurately drawn and as far as possible

pleasant to look at.

Reliability studies indicate internal consistency ranges from 0.83 to 0.97 depending on the age, ethnic background and on the statistical technique used, be it split-half, Kuder-Richardson or Spearman-Brown. Test-retest reliability studies also give coefficients ranging from 0.55 to 0.90 depending on their sample size, age of subjects and time intervals. The time intervals range from one week to three years, but the best indications take place within a one year period.

As far as validity is concerned, for English-speaking children the correlation of Standard Progressive Matrices with Binet and Wechsler scales ranges from 0.30 to 0.86 depending on the age of the children. The correlation with concurrent achievement tests ranges from negligible to very high.

<u>Otis-Lennon</u>. This group IQ test by Otis and Lennon (1969), consists of six levels which measure verbal, numerical and abstract reasoning. It is usually oriented toward verbal-educational mental abilities. Emphasis is placed on measuring the student's facility in reasoning and in dealing abstractly with verbal, symbolic and figural test content, including a broad range of cognitive abilities. These cognitive abilities are important for success in academic and

vocational areas.

Form J (Elementary II and Intermediate) levels were used. These levels consist of 80 items arranged in order of increasing difficulty. A single total score indicates the performance of the individual.

Twelve thousand pupils were tested in each grade making a total of approximately two hundred thousand for the standardization sample. The sample covered public, church-related, and private schools and all socioeconomic categories. A total of 117 school systems participated in the standardization. Raw scores at each level are transformed into standard scores with comparability across levels.

Reliability ranges from 0.88 to 0.96 depending on the approach used, split-half or Kuder-Richardson. Also, the median split-half reliability coefficient for age and grade groups was 0.95, while the median alternate forms coefficient was 0.92.

For validity, correlation of Otis-Lennon with Stanford-Binet at the Elementary I level, is 0.60 at the end of grade 2 but the Stanford-Binet was given almost two years later. The correlation, since the interval was two years, indicates that similar attributes are being measured by both tests. Also correlations of 0.60 were obtained with Raven's Standard Progressive Matrices in grades 5, 7, and 11.

<u>Divergent thinking (creativity)</u>. The Unusual Uses, Consequences, and Drawings tests were selected from Torrance Tests for Creative Thinking. These tests were selected because they loaded highly on their creativity factor (Hargreaves & Bolton, 1972). Items were examined in terms of verbal or figural (nonverbal) responses.

In the Unusual Uses test subjects are asked to provide as many uses as they could think of for a common object. Torrance (1974) reports test-retest reliabilities ranging from 0.61 to 0.75. The Consequences test asks subjects to list possible consequences that could arise if an improbable situation comes about. Wodtke (1964) reports test-retest reliabilities over a two month period of 0.42 in grade four and 0.68 in grade five. In the Drawing test, subjects are presented with multiple copies of a stimulus, such as circle or square, and asked to make as many pictures as they can, using for every picture one or more than one of the stimuli as the central part of the drawing. Torrance (1974) reports test-retest reliabilities ranging from 0.47 to 0.76 on the circles and square test.

All the tests were scored for fluency, following the recommendation of Hargreaves and Bolton (1972). Fluency is defined by Torrance and Ball (1984) as the number of interpretable relevant responses.

Validity estimates are not generally available for the

individual tests, since validity studies always examine batteries rather than individual tests, however, there are a number of studies that taken collectively deal generally with the validity of divergent thinking tests. Several factor-analytic studies have shown creativity tests to be factorially distinct from IQ (Hargreaves & Bolton, 1972; Harvey, 1982; Horn, 1976; Meeker, 1969).

There are studies of concurrent and predictive validity of divergent thinking tests as predictors of creative achievement and behavior, each with its own combination of tests. Yamamoto (1963) For concurrent validity found correlations of 0.26 berween a composite score on selected TTCT tests and originality in creative writing. Vernon (1972) found the following validity coefficients when verbal ability was held constant (on 187 grade eight students): .06, 0.20, 0.25 and 0.29 for boys on Drawings, Uses, Consequences and Total Divergent Thinking respectively, and 0.16, 0.28, 0.28, and 0.42 for girls on the same tests.

There are several studies of the predictive validity of divergent thinking tests. Rieger (1983) found correlations of 0.33 and 0.39 between composite TTCT scores in grades three to five and two measures of quantity of post-high-school creative achievement, and a correlation of 0.64 between TTCT composite scores and quality of creative achievement. Also, Cropley

(1972) found a 0.51 canonical correlation between TTCT scores and a composite creative achievement score.

of Intellectual Achievement Responsibility (locus This questionnaire was developed by Crandall, control). Katkovsky and Crandall (1965) to examine children's beliefs in their responsability in intellectual or academic achievement situations. More specifically the questionnaire examines to what extent the students feel responsible for their intellectual accomplishments or whether external factors beyond their control affect their progress.

The questionnaire is composed of thirty-four forced-choice items and was standardized on 923 children from grades three to twelve. Each item describes a negative or a positive experience that occurs often in children's daily lives. The item is followed by one alternative which makes the child responsible for the event (I+), or one that states that whatever happened is not the child's responsibility but within the child's immediate environment (I-). The subjects have to pick the answer that best describes the situation for them or how they feel. The total score is the sum of the child's I+ and I- scores.

Test-retest correlations over two months gave a 0.69 coefficient in grades three, four and five. Older children produce a similar correlation of 0.65. For further details see Appendix II.

Dependence Proneness Scale (personal independence). This scale was designed by Flanders, Anderson and Amidon (1961) to assess student personal independence in contrast to intellectual independence. It measures the extent to which students make decisions on their own, stand up for their rights and act independently of others.

The scale is composed of forty-five items with which subjects are asked to indicate if they agree or disagree. The items describe social situations in which peers, students, parents and teachers are involved. The themes of the items have to do with seeking help, affection or affiliation, conformity, compliance or seeking approval. High scores reveal dependent individuals while low scores reveal independent individuals.

The final forty-five items were arrived at through four separate item analyses of 150 items based on the responses of 1243 grade-eight students. A reliability coefficient of 0.68 was found by using an ANOVA technique.

It should be noted that the designers indicate that the scale should be used with caution or at other age levels than the eighth, however, since not giving in to group pressures, leadership and personal independence are characteristics often cited for gifted children, the scale can be used. The scale was sucessfully used in a study on open education in elementary schools not concerned with gifted children (Shore & Tali, 1978). For further details see Appendix III.

<u>Parent's questionnaire</u>. This questionnaire consists of three sections. The first two are related to giftedness while the last has to do mainly with demographic data. The first part, titled "Concerns of parents of gifted children," deals with how parents feel about the educational opportunities that exist for their children, what it means to have a gifted child in the family, and the gifted child's relationship with the other members of the family. There are twenty-two questions in this section, of which twenty are forced choice items (strongly agree, agree, disagree, strongly disagree), while the other two are open-ended. When no answer seems suitable a nonapplicable (N/A) reply was available.

The second part, titled "Child information," deals with characteristics of the child that parents may observe. Five questions with forced choices, from "lacks the trait" to "has the trait to a high degree," were provided and constituted the first section. The questions described characteristics commonly ascribed to gifted children such as leadership, intellectual and personal independence, and creativity. The second section has one open-ended question concerning the child's special talents or skills.
The third part concerns mostly demographic information about the child. Two questions are of major importance in this part. First, who first identified the child as gifted, and second, information on how well the child does (academic achievement) in regular school. In the first of these questions, the parent has to choose between father, mother, school, psychologist and other; in the academic achievement one a scaled response ranging from "outstanding" to "not generally very good" was provided.

The first and the third parts of the questionaire were developed by L. Ross (1985). Certain questions were reworded. Both sections of the second part were selected from parent questionaires presented in the <u>Revolving Door Identification</u> <u>Model</u> book by Renzulli, Reis and Smith (1981). For further details see Appendix I.

<u>Piers-Harris (self concept)</u>. The questionaire was developed by Piers and Harris (1969) and consists of eighty items in which the testee has to answer either yes or no. It considers the students' opinions of themselves and is entitled "The way I feel about myself." More specifically, it deals with how students feel they are liked by others, how much self-confidence they have, whether they feel inadequate in various situations and whether students think they are doing well on the tasks they attempt to do at school or elsewere.

The questionaire gives a total score and provides scores on subscales as well: Behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, happiness and satisfaction. A key is provided for scoring.

The items are written as simple declarative statements, e.g., "I am a happy person." Approximately half of the items are worded positively and half negatively to reduce the possibility of influence of social desirability and acquiescence. Scores range from 0 to 80 with higher scores reflecting more positive self concept.

Reliability ranges from 0.71 to 0.90 depending on sex, grade (3. 5, 10) statistical technique 6, and (Kuder-Richardson, Spearman-Brown test-retest. with or different time intervals). The Pearson r of the total Piers-Harris score with other self concept scales and ratings from teachers ranges from -0.65 to 0.85 depending on the particular scale or questionnaire, the level of rejection and grade, and sex. The mean of the normative sample is 51.84, the standard deviation is 13.87 and the median is 53.43 in 1138 students for grades four through twelve. For further details see Appendix IV.

Procedure

The questionnaires and the tests were administered in

grades 4 to 8 at both schools over a three week period. Each was completed by a class in one sitting with the tester present. All the directions were read by the tester while the students were reading the same instructions on the test or questionnaire. Also, a sample question was presented in the case of a personality test and a practice session of two examples in the case of IQ tests. If no question was asked the students began to respond. In the case of the creativity tests, two examiners of opposite sex administered the test, with the directions read alternately by each tester for each subtest. This was done because a concurrent study using the same data required controls on examiner's sex for creativity tests. This arrangement did not interfere with the present study. In each questionnaire it was emphasized that no marks would be assigned and that there were no right or wrong answers. Also, each child was encouraged to answer as individually and truthfully as possible. Students were assured that the tester could be consulted for further clarification on any item. Every effort was made to ensure that testing procedures and conditions were standardized for all classes in both schools.

Statistical Design

To analyze the results, multiple analysis of variance, chi-squares, and cross-tabulations were used. Multiple

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analysis of variance was conducted for the identification procedure and who first identified the giftedness. The chi-squares and cross-tabulations were used to compare the frequencies of occurence of traits, and the similarity of the distribution of grades at the regular school for children at both schools. The same statistical methods were used in order to find out whether or not parents from both schools are familiar with the characteristics of gifted children. Correlation matrices for all tests and questionnaires used were employed in order to verify their distinctiveness. Finally, frequency-distribution tables were constructed in order to find out the distribution of special abilities or skills of the children, as reported by parents, and how about the educational opportunities their parents feel children have.

CHAPTER 3

Results and Discussion

This psychological social study examined and characteristics of two samples of gifted students selected in different ways for participation in a program. One group was identified by school performance and aptitude and consequently admitted to the program and the other via identification by provision, a more open method of identification. The results, as described below, support the hypothesis that no differences exist between the two groups in terms of personality, intellectual characteristics and school grades. Furthermore, the identification of gifted by adult recommendation other than people actually involved in formal identification process, even without the use of a checklist, seems to provide a group of students not readily distinguishable on multiple criteria from those identified by more formal tests. These findings indicate that traditional methods of identification (a small number of formal tests, in most cases) may be a needlessly costly means of selecting a substantial number of The findings also indicate gifted children. that adult recommendation, primarily by parents or teachers in that study not involved in the actual/formal identification process, can succesfully identify substantial numbers of gifted pupils. The findings offer an indication of inclusion of possible

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underachievers with the identification-by-provision procedure.

In order to examine the hypothesis that the two not differ populations do on selected psychological characteristics and the identification-by-provision program includes more underachievers, two steps were taken: (a) Comparison of the two shool samples with respect to the measured characteristics and school grades and (b) comparison on the same characteristics and school grades within each school, of students whose giftedness was first recognized by the school versus students whose giftedness was first recognized parents or other adults.

Comparison of the Populations Between Schools

One multivariate analysis of variance (MANOVA) procedure conducted. Dependent variables were the tests and was questionnaires that measured the intellectual and personality characteristics of the children, namely tests for IQ and creativity (verbal and nonverbal), questionnaires for personal and intellectual independence as well as for self concept. For details on the questionnaires and scales see the Appendices. The independent variables were the admission procedure of each school, the first identifier of giftedness in the child (adult or school), and the sex of the child. Table (6) presents the means and standard deviations of each

Means and standard deviations of dependent variables in the comparison of identification procedures

(i) Means

	Diverg.	Diverg.	Diverg	•	Depend.		Otis-	Self
	Figural	Verbal	Total	IAR	Proneness	Raven	Lennon	Con.
Id. by								
Provision								
(Westmount						~		
Park)	28.06	25.53	53.02	24.66	5 27.10	45.84	124.61	61.34
Id. by Tests								
(Laurenval)	23.63	27.26	50.21	24.34	26.78	46.99	122.59	61.80
(ii) Standard	i							
Deviatio	ons							
	Diverg.	Diverg.	Diverg	•	Depend.		Otis-	Self
Id. by	Figural	Verbal	Total	ĨAR	Proneness	Raven	Lennon	Con.

Provision

(Westmount

Park) 11.02 10.79 17.75 4.34 4.96 8.13 13.05 10.68 Id. by Tests

(Laurenval) 8.43 10.48 14.19 4.09 4.96 6.38 10.12 9.72

Correlations of dependent variables

0.L. Self-con. Div.Fi. Div.Ver. Div.Tot. IAR Dep.Pron. Raven Div.Fi. 1.00 Div.Ver. 0.45* 1.00 Div.Tot. 0.86* 0.71* IAR -0.02 -0.18 -0.40* 1.00 -0.16 Dep.Pron.-0.14 -0.12 0.17 1.00 Raven 0.07 0.16 0.11 -0.29* -0.07 1.00 0.L. 0.36* 1.00 0.04 0.16 0.12 0.00 -0.02 -0.10 -0.13 1.00 0.30* Self-Con. 0.09 0.05 0.08 0.18

(alpha 0.05, critical value=0.195)

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Where : Div.Fig. = Divergent Figural

Div.Ver. = Divergent Verbal Div.Tot. = Divergent Total IAR = Intellectual Independence Dep.Pron. = Personal Independence Raven = Nonverbal IQ O.L.= Verbal IQ (Otis-Lennon IQ) Self-Con. = Self-Concept

* indicates significant correlation

of the dependent variables. Table (7) provides the correlations among the dependent variables, intended to determine whether Or not the study measures distinct characteristics in the personality and intellectual domains respectively. It was found that the questionnaires or tests used in this examined distinctly different study characteristics of gifted children, since the correlations among them were low.

It is worth mentioning that the correlation of the divergent total score and Raven's with the IAR were very low. Personality characteristics might indeed help identify giftedness independently of measures of creativity and IQ, and their inclusion in this study is thereby supported.

A significant main effect, with type of admission as the independent variable, was found for the Divergent Figural test (see Table 8) with students from Westmount Park (mean = 28.06) having better scores than Laurenval students (mean = 23.63). Three significant main effects, for Divergent Figural, Divergent Verbal and Divergent Total, were found when sex was the independent variable (see Table 9). In all three cases boys performed better than girls; mean scores are shown in Table 10. No other significant main effect was found. These similarities are examined further.

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Type of admission main effect, (Comparison of identification procedures)

Variable	Hyp. Mean Squ.	Univariate F	p Less Than
Div.Fi.	702.92	6.40	0.0121*
Div.Ver.	292.94	2.15	0.1423
Div.Tot.	235.29	0.79	0.3725
IAR	8.16	0.44	0.5047
Dep.Pron.	0.78	0.03	0.8622
Raven	1.91	0.03	0.8616
0.L.	451.08	2.90	0.0899
Self-Con.	2.71	0.02	0.1433

(alpha=0.05)

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Sex main effects (Comparison of identification procedures)

Variable	Hyp. Mean Squ.	Univariate F	p Less Than
Div.Fi.	616.71	5.61	0.0187*
Div.Ver.	652.42	4.80	0.0294*
Div.Tot.	2386.83	9.45	0.0024*
IAR	7.62	0.41	0.5191
Dep.Pron.	12.86	0.49	0.4821
Raven	28.76	0.45	0.4997
0.L.	2.92	0.01	0.8911
Self-Con.	7.38	0.06	0.7927

(alpha=0.05)

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Mean scores for boys and girls, at both schols, for divergent figural, divergent verbal, and divergent total

	Div.Figural		Div.Verbal		Div.Total	
	Boys	29.80	Boys	27.37	Boys	56.40
Id. By Provision						
(Westmount Park)	Girls	26.32	Girls	23.69	Girls	49.63
	Boys	24.83	Boys	29.91	Boys	54.77
Id. By Tests						
(Laurenval)	Girls	22.43	Girls	24.61	Girls	45.65

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Intelligence and creativity. Students from both schools performed similarly on tests which measure verbal (Otis-Lennon) and nonverbal (Raven) IQ. For Westmount Park verbal and nonverbal means 124.61 and 45.84 respectively while for Laurenval 122.59 and 46.99 respectively (see Table 6). A difference was revealed in favor of the Westmount Park group on the Divergent Figural test, Westmount Park mean=28.06, Laurenval mean=23.63 (see Table 6), however, this difference is not evident in the divergent total performance between the two school groups. The above findings reveal that the two school groups are similar in IQ and creativity performance, but there was no support for the hypothesis that the Westmount Park population, through its identification-by-provision quality, would serve more underachievers. The difference on the Divergent Figural test between the two schools, however, may be an indication that underachievers are more readily included in the identification-by-provision program. That is due to the fact that the Divergent Figural test was supposed to be constructed of elements not usually taught in schools, and consequently a measure of nonacademic, nonverbal ability or potential of the child.

<u>Self concept.</u> Both populations revealed a positive self concept (Westmount Park mean=61.34, Laurenval mean=61.80) (see Table 6). The students in the sample received better scores

than the group on which the test was standardized; (mean=51.84) this result confirms observations by Ketcham and Snyder (1977) and Karnes and Wherry (1981), who found that gifted children do have higher self concept than the Piers-Harris normative group. No differences with regard to sex were found, contrary to findings by Rodenstein and Glickauf-Hudges (1979) and Stopper (1978).

Independence. A three-way interaction, type of admission by first identifier by sex, was found on the personal independence scale. For further details see Appendix III. Students admitted via school selection were found to be more personally independent than the ones identified by provision (Laurenval mean = 26.70, Westmount Park mean = 27.10; lower scores show more independence). At Laurenval the boys seemed to account for this difference. Specifically, at the Laurenval site there were a lot of Greek and Jewish boys whose personal independence may be nurtured and reinforced by their cultures, so the difference may have little to do with the different selection procedures. It has to be noted that males were found to be less dependent in the standardization sample (Flanders, Anderson & Amidon, 1961). Also, both groups were actually found to be more independent than the normative group, that is more independent than nongifted children (mean=28.99). That result coincides with other studies as well (Landau, 1981;

Lucito, 1964).

Another measure of independence was used, for the child's intellectual independence (locus of control). For further details see Appendix II. Students from both schools did not differ significantly (Westmount Park mean=24,66, Laurenval mean=24.34; see Table 6). so one can speculate that intellectual independence is common to the two populations in question. However, both populations did perform about the same level as the standardization group (mean =25.11), which consisted of unselected children. This was unexpected and in contrast with studies showing that gifted children have a high level of internal locus of control (Davis & Rimm, 1985), higher than nongifted (Milgram & Milgram, 1976), but the high performance of the standardization group may be explained by the fact that the wording of the test items may suggest internal responses (Crandall, Katvosky & Crandall, 1965). Girls performed slightly better than boys, which coincides with the norm of the standardized group, for Westmount Park (boy's mean=24.52, girl's mean=24.83) and for Laurenval (boy's mean=23.94, girls's mean=24.74).

Comparison of Children First Identified by Adults with Those Identified by Formal Testing

Two multivariate analyses of variance (MANOVA) procedures were conducted, one for the identification-by-provision group

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(Westmount Park) and another for the school-identified children (Laurenval). Independent variables were the first identifier of the child as gifted and sex.

The results support the hypothesis that students attending on the recommendation of adults have the same psychological test results those admitted following as testing. differences However, in in terms of no underachievers were found. Table 11 shows the means and standard deviations of the two groups in both schools on each dependent variable.

<u>Intelligence and creativity</u>. Two main effects were found for the Westmount Park sample when sex was the independent variable related to Divergent Verbal and Divergent Total measures (see Table 12). Boys obtained higher verbal scores (mean score for boys = 27.37, for girls = 23.69) and Total Divergent scores (boy's mean = 56.44, girl's = 49.60),

Means and standard deviations on the comparison of formal testing and adults' recommendation, at each school

(i) Westmount Park

Means

Div.Fig. Div.Ver. Div.Tot. IAR Dep.Pron. Raven O.L. Self-Con. Formal

Testing 27.97 25.80 52.38 24.72 26.73 46.30 123.35 61.76

Adult

Recom. 28.15 25.26 53.65 24.63 27.47 45.37 125.87 60.93

Standard Deviations

Div.Fig. Div.Ver. Div.Tot. IAR Dep.Pron. Raven O.L. Self-Con. Formal Testing 11.65 11.17 18.59 4.24 5.07 8.03 12.95 10.13

Adult

Recom. 10.39 8.78 16.90 4.34 4.86 8.24 13.17 11.23

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(ii) Laurenval

Means

Div.Fig. Div.Ver. Div.Tot. IAR Dep.Pron. Ravens O.L. Self-Con. Formal Testing 24.88 28.26 51.78 24.12 27.64 46.12 122.05 62.76

Adult

Recom. 22.37 26.26 48.64 24.56 25.91 47.87 123.06 60.85

Standard Deviations

Div.Fig. Div.Ver. Div.Tot. IAR Dep.Pron. Ravens O.L. Self-Con. Formal Testing 8.97 14.39 16.46 4.05 5.33 7.2 10.82 9.85

Adult

Recom. 7.88 6.52 11.94 4.13 4.6 5.53 9.38 9.56

Sex main effects on the comparison of formal testing and

adults' recommendation at the identification-by-provision program

Variable	Hyp. Mean Squ.	Univariate F	p Less Than
Div.Fi.	478.79	3.88	0.0505
Div.Ver.	542.63	5.11	0.0250*
Div.Tot.	1819.89	5.71	0.0180*
IAR	3.51	0.19	0.6631
Dep.Pron.	14.00	0.59	0.4425
Raven	120.15	1.81	0.1800
0.L.	113.17	0.66	0.4178
Self-Con.	88.96	0.82	0.3662
		(alpha=0.05)	

respectively. No other main effect or statistically significant interaction was found. This result indicates that the "open door" is as effective as traditional identification with respect to the measures stated above. No difference was found with respect to the verbal and nonverbal IQ measures for formally mean=123.35, nonverbal identified students (verbal IQ 10 mean=46.30), while differences appear among students identified by adult recommendation (verbal IQ mean=125.87, nonverbal IQ mean=45.37) (see Table 11). However, the differences with respect to the Verbal and Total Divergent thinking scores, with girls obtaining lower scores when sex was the independent variable, do not contradict the hypothesis since it was found with respect to sex and not with respect to the different admission criteria. It should be noted, though, that this kind of difference, whether significant or not, was part of a pattern observed for most creativity measures in the study.

One main effect was found for the Laurenval group when sex was the independent variable for the Divergent Total measure (see Table 13). Boys performed better than girls with respective mean scores of 54.8 and 45.6. No significant interactive effect was found.

In neither case was there a significant difference related to who first identified giftedness, however, the following points are worthy of note.

Sex main effect, on the comparison of formal testing and adults' recommendation at the identification by tests program

Variable	Hyp. Mean Squ.	Univariate F	p Less Than
Div.Fig.	142.88	1.92	0.1698
Div.Ver.	121.17	0.56	0.4545
Div.Tot.	999.65	4.31	0.0418*
IAR	5.8	0.32	0.5702
Dep.Pron.	0.74	0.02	0.8796
Raven	54.86	1.01	0.3181
0.L.	402.56	3.57	0.0634
Self-Con.	101.73	0.99	0.3216
		(alpha=0.05)	

Self-concept. Students admitted under different criteria performed at the same level in both schools. For Westmount Park means of 61.76 and 60.93 for children who were identified by formal testing and those identified as gifted by adult recommendation respectively, while at Laurenval means of 62.76 and 60.85 were obtained from children under the same admission criteria (see Table 11). Their performance can be considered high with respect to the normative sample composed of unselected children (mean=51.84). It supports studies that report higher positive self concept for the gifted compared to nongifted (Lehman & Erdwins, 1981), and contradicts others that report negative self concept for the gifted (Cohen & Cohen, 1983; Rogers, 1980). The results indicate that the open-criterion population admitted by recommendation of adults may indeed be considered a gifted one with respect to that particular characteristic, a result which almost duplicates a finding in Tidwell's (1980a) study. The results are directly comparable since Tidwell also had two groups admitted via different criteria in a gifted program, the criteria being (a) high performance on the Stanford-Binet and (b) teacher or administrator recommendation and academic record. She found no difference with respect to identification procedure and sex but significant differences in terms of racial affiliation, not a concern in the present study except to the extent it

might also reflect socioeconomic differences.

Slight differences, not statistically significant, were found in favor of the initially school-identified students for both schools. For Westmount Park the difference was 1.39 while for Laurenval it was 1.91. This is in contrast to the finding of Coleman and Fults (1982) who report a relatively negative self concept of gifted when placed in a gifted program compared to when they were in regular classes. This contrast may be due to the fact that the Piers-Harris scale see (Appendix IV) was administered on the first day of the special program for the gifted so a suitable climate in the class had not yet been established. The differences may also be a result of the fact that some children were in programs for the gifted prior to the summer school, and many such programs place a special emphasis on improving self concept (Perrone & Male, 1981; Webb, Meckstroth, & Tolan, 1982) or because the children were aware of their potentialities and abilities (Colangelo & Pfleger, 1978).

<u>Independence</u>. The children whose giftedness was first recognized by the school and those whose giftedness was first recognized by adults did not differ on either personal or intellectual independence (mean for all groups 26.94 and norm mean=28.99). In both summer schools, all groups scored better than the normative group (mean=25.11). for personal

independence. On intellectual independence all groups at both schools performed about the same as the normative group. Boys at Laurenval did score higher than girls on personal independence, reflecting the norms on that measure. This difference and the one on intellectual independence might be explained in terms of cultural differences and the wording of the IAR items, as suggested earlier.

In summary, the results of the study support the hypothesis that the measured psychological characteristics would be shared by the Westmount Park and Laurenval student samples. It was found that both the identified-by-provision students and the traditionally identified group shared the following characteristics: creativity, intelligence, and positive self concept at high levels, as well as intellectual independence at an average level. Personal independence was higher in the traditionally identified group, although for both groups it was higher than the norm. A slight indication of inclusion of aifted underachievers was found in identification-by-provision program. Boys scored better than girls in the creativity measures.

It was also found that creativity, positive self concept, intelligence, personal and intellectual independence are characteristics shared by the two differently admitted kinds of students in both schools. Students admitted differently at

both schools score about the same as the normative group of nonselected children on the intellectual independence questionnaire. Boys were found to score better than girls on the creativity measures within the two groups at the Westmount Park and Laurenval Schools. The findings reveal that adult recommendation is as effective and efficient in identifiying gifted students as a traditional method, and consequently support the research hypothesis.

Parents' Questionnaire

The study also provided information on how parents see their role in the educational processes affecting their child, their need for knowledge about giftedness and their awareness of the existence of programs for the gifted. Also, parents provided information on characteristics of the children and about their academic achievement at regular school. (See Appendix I for further details.)

Concerns of Parents of Gifted Children

Chi-squares and cross-tabulations were applied to four items in Part A of the Parent Questionnaire:

- Ql : Parents' opinions should be given high priority in the identification of gifted children.
- Q2 : I am familiar with the characteristics of gifted children.
- Q3 : Schools should be the major source in the identification of gifted children.

Q4 : Even if the school would not have supported the child's enrolment in the summer school, would you have enrolled the child?

Parents had to choose one of the following: strongly agree, agree, disagree and strongly disagree. A comment was requested for Q4.

For Ql, replies of the parents of Westmount Park students were compared to those of Laurenval. There was no significant difference. Table 14 shows the actual distribution of the frequencies for each answer. Positive feelings about their inclusion as a major component in the identification process were expressed by most parents from both schools.

Parents feel that they can be useful in the identification process. Previous studies (Nathan, 1979; O'Neil, 1978) have revealed that parents, although included in lobbying, organizing and planning homework activities, are omitted from the actual identification process. Others (e.g., Otey, 1978) suggest the inclusion of parents in the identification process and Jacobs (1971) among others has found that parents are indeed able to identify gifted children, especially at early ages.

In Q2 the validity of the parent identification was examined in a sense since the parents reported on their familiarity with characteristics of gifted children. The two

groups consisted of students that had been identified by parents or teachers at both schools. The chi-squared test was not significant. Table 15 shows the distribution of the frequencies for each answer. About eighty-two percent from each school answered positively. That result permits one to consider that parent recommendation was indeed a useful tool in the identification process.

Q3 was examined in three ways. We first compared results for the identification-by-provision population (Westmount Park) versus the traditionally identified population (Laurenval). The chi-square test was not significant. Table 16 shows the distribution of the frequencies for each answer. Most parents (70% at Westmount Park and 90% at Laurenval) felt that the school should be a major source in the identification of gifted. The difference was expected since students at Laurenval were admitted on the basis of school recommendation.

The other two pairs were created to examined the significance of the "open" criterion (adult recommedation). Each pair consisted of one group of children identified by school recommendation or testing and another one identified by

Cross-tabulations and Chi-Square for Ql (Importance of parents' opinion in the identification)

Count				
Row Pct	Strongly			Strongly
Col. Pct	Agree	Agree	Disagree	Disagree
	20	85	25	0
Id. By Provision	15.4	65.4	19.2	0
(Westmount Park)	83.3	72.6	62.5	0
	4	32	15	1
Id. By Tests	7.7	61.5	28.8	1.9
(Laurenval)	16.7	27.4	37.5	100.00

4

 χ^2 = 5.8, with critical value = 7.82

<u>Cross-tabulations and Chi-Square for Q2 (Familiarity with</u> <u>characteristics of giftedness)</u>

Count				
Row Pct	Strongly			Strongly
Col. Pct	Agree	Agree	Disagree	Disagree
	10	43	8	0
Id. By Provision	16.4	70.5	13.1	0
(Westmount Park)	71.4	84.3	80	0
	4	8	20	0
Id. By Tests	28,6	57.1	14.3	0
(Laurenval)	28.6	15.7	20	0

 χ^{2} = 1.21, with critical value = 5.99

the recommendation of adults. One pair was from Westmount Park and the other from Laurenval. The chi-square test was significant for the Westmount Park pair, while not significant for the Laurenval pair. Tables 17 and 18 show the distributions of the frequencies of the answers for both pairs. The results show that more parent nominators at Westmount Park than at Laurenval disagreed that schools should be the major factor in the identification process. This finding was expected since it may well be an artifact of the design of the study.

Cross-tabulations and Chi-square for Q3 (Importance of school identification, similarity of the two samples)

Count				
Row Pct	Strongly			Strongly
Col. Pct	Agree	Agree	Disagree	Disagree
	20	70	35	1
Id. By Provision	15.9	55.6	27.8	0.8
(Westmount Park)	69	66	87.5	100
	9	36	5	0
Id. By Tests	18	72	10	0
(Laurenval)	31	34	12.5	0

 χ^{i} = 7.08, with critical value = 7.82

Cross-tabulations and Chi-square for Q3 (Comparison of formal testing and identification by adults' recommendation in identification by provision program)

Count

Row Pct	Strongly	/		Strongly
Col. Pct	Agree	Agree	Disagree	Disagree
	16	41	14	0
Formal	22.5	57.7	19.7	0
Testing	72.7	56.2	36.8	0
	6	32	24	1
Adult	9.5	50.8	38.1	1.6
Recommendation	27.3	43.8	63.2	100

 χ^2 = 8.84, with critical value = 7.82

Count

Cross-tabulations and Chi-square for Q3 (Comparison of formal testing and identification by adults'

recommendation in the identification by tests program)

Row Pct Strongly Strongly Col. Pct Disagree Agree Agree Disagree 8 25 30 0 Formal 22.2 69.4 8.30 0 0 Testing 100 69.4 50.0 0 11 30 0 Adult 0 78.6 21.40 0 Recommendation 50.00 0 ٥ 30.6

 χ^2 = 4.66, with critical value = 5.99

For Q4 a frequency distribution table was constructed (see Table 19) based on the responses to whether or not parents from both schools would enrol their children in the summer school even if the regular school would not support the enrolment. Most parents report that they would enrol their children in the gifted summer school even if they were not recommended by the school, their most common reason being the enriched educational stimulation of the program.

In summary, parents feel positively about their inclusion in the identification process, and confident that they are familiar with the characteristics of gifted children. Also, depending on the admission policy of the school, by provision or testing, parents feel differently about the role of school in the identification process. Parents in the identificationby-provision setting feel that school is less important. All expressed the need for more gifted programs.

Characteristics of gifted children

<u>Personality traits</u>. Four questions from Part B, Section 1, of the parent questionnaire were examined using chi-square tests.

Q1 : The child tends to direct the activities of playmates his/her own age.

Q2 : The child shows great curiosity about his/her

surroundings.

Responses if the parents would enrol the child in the gifted program even if the school did not suport the enrolment

	Yes	No	Yes(%)	No(%)
Id. By Provision	76	27	73.7	26.3
(Westmount Park)				
Id. By Tests				
(Laurenval)	21	17	55.2	44.8

Q3 : The child puts unrelated ideas together in new and different ways.

Q4 : The child seeks his/her own answers and solutions to problems.

These four questions describe characteristics commonly found among gifted children, that is, leadership, curiosity, creativity, and intellectual independence. Parents responded to an answer scale starting from "child lacks the trait" and ending "child has this trait to a high degree."

Three chi-squared tests were conducted for each of the four characteristics. The first test was done to examine the similarity of responses from parents of two summer schools on In all four questions, the chi-square each characteristic. was found to be not significant. Most of the parents (75%) picked the two highest points of the scale. Parents seem to rate their children similarly (high) in terms of leadership, curiosity, creativity, and intellectual independence. Again the results indicate that the two groups come from the same original population, i.e., that of gifted children. This indication is supported by previous research that has found the above characteristics to a high degree in gifted children, for example, creativity (Hagen & Clark, 1977), leadership (Martinson, 1961; Sanborn, 1979), curiosity (Davis & Rimm, 1985; Torrance, 1981), and intellectual independence (Milgram
& Milgram, 1976).

The other two chi-squared tests, one at each school, compared responses by parents who claimed to have first identified giftedness in their child to those of parents crediting the school with first identification. At Westmount Park, chi-square tests were not significant for leadership and curiosity, but they were significant for the creativity and intellectual independence characteristics. Children admitted on the recommendation of parents or other adults were found to be higher in creativity and in intellectual independence than those admitted on the basis of formal school recommendation. That is also an indication of potential acceptance of underachievers in an identification-by-provision program. All four chi-squares for Laurenval were not significant. Table 20 shows the chi-square of each group on each question.

Students in all groups at both schools seem to share, at a high level, characteristics such as leadership and an investigative mind. At Laurenval, although both groups seemed to share creativity and intellectual independence, at Westmount Park that was not the case, i.e., in both characteristics children identified as gifted first by their parents or other adults were rated higher. That was unexpected, especially having in mind the results of the overall comparison presented before in which no differences

<u>Chi-squares for the questions of part B, section one</u> (Personality characteristics of gifted)

1

	Id. By Provision	Formal Testing	Formal Testing
	VS	VS	VS
Q	Id. By Tests	Adult Identified	Adult Identified
		(Westmount Park)	(Laurenval)
1	3.06	0.89	7.4
2	2.0	2.31	4.93
3	5.17	10.33*	1.14
4	1.46	12.06*	0.99

(critical value = 9.49)

•

were found on the same characteristics. These results call for more investigation on these two characteristics, but they also indicate that children with high potential in creativity and intellectual independence would less likely be in the special program for the gifted were the open admission criterion not in operation. They also indicate possible underachievers at Westmount Park solely due to the existence of the open criterion. However, the differences may exist only in the parents' judgements, since they provided the information.

Skills and talents of the gifted. In order to compare the two differently admitted summer-school groups, a frequency table was constructed for the question having to do with the child's special skills or talents (Part B, Section 2 of the Parent Questionnaire). No differences were found, i.e., both samples were found to share the same kinds of abilities and music. drawing, acting, creativity, skills such as mathematical ability, and high verbal expression. This finding supports the notion that gifted children are not only the intellectually gifted but also these that are exceptional in other areas beside the academic (Freeman, 1979; Gowan, 1978). It shows that gifted children do not have a common expression for their potential and that the domain of their activities and contributions in society is multidimensional.

However, since many of the children came from the same geographical and similar social backgrounds, most of them will be engaged in activities that the society offers. In some, such as sports or acting, differences were found in the number of children engaged. Table 21 shows the distribution. Academic Achievement of Children at Regular School

Chi-squares and cross-tabulations were used to examine the reported overall academic performance of all the children in their regular schools (Part C of the Parent Questionnaire). Parents were asked to pick one out of five possible descriptions of the child's school performance. The descriptions were:

Outstanding, superior, clearly at the top of the class Very good, no problems, but not the very top of the class Very good at some things, not as good at others Average, and sometimes even less than average

Generally not very good, this has been a problem Comparison groups were constructed in the same way as in the examination of leadership, creativity, curiosity and intellectual independence. Chi-square tests were not significant. Tables 22, 23 and 24 show the actual frequency distributions of each pair examined. Students from both schools seemed to perform similarly (as reported by the

Talents and skills of students at both schools, frequencies and percentages

Id. By Provision	Id. By Test	Id. By Provision	Ib. By Test
(Westmount Park)	(Laurenval)	(Westmount Park)	(Laurenval)

Music	28	7	21%	11.2%
Creativity	22	7	16.5%	11.2%
Math	15	6	11.2%	9.6%
Drawing	14	6	10.5%	9.6%
Acting	6	6	4.5%	9.6%
Sports	8	8	6%	12.9%
Ver. Expresion	11	4	8.2%	6.4%
Sch. Subjects	11	. 9	8.2%	14.5%
Artistic	15	7	11.2%	11.2%
Leadership	3	2	2.3%	3.2%

Cross-tabulations and Chi-square for academic performance at regular school: Comparison of the two different admission programs

Count		Very Good	Very Good		
Row Pct		But Not	At Some		
Col. Pct	Outstanding	Outstanding	Subjects	Average	Not.Good
					_
	70	32	25	2	0
Id. By Provision	54.3	24.8	19.4	1.6	0
(Westmount Park)	73.7	61.5	83.3	66.7	0
	25	20	5	1	1
Id. By Tests	48.1	38.5	9.6	1.9	1.9
(Laurenval)	26.3	38.5	16.7	33.3	100 .

 χ^2 = 7.31, with critical value = 9.49

Cross-tabulations and Chi-square for academic performance at regular school: Comparison of formal testing and identification by adults' recommendation in the identification by provision program



Row Pct

Col. Pct		Very Good	Very Good		
		But Not	At Some		
0	lutstanding	Outstanding	Subjects	Average	Not Good
	38	18	13	2	0
Formal	53.5	25.4	18.3	2.8	0
Testing	53.5	56.3	48.1	100	0
	33	14	14	0	0
Adult	54.1	23	23	0	0
Recommendatio	n 46.5	43.8	51.9	0	0

 χ^{*} = 2.14, with critical value = 7.82

<u>Cross-tabulations and Chi-square for academic performance at regular</u> <u>school: Comparison of formal testing and identification by adults'</u> <u>recommendation in the identification-by-tests program</u>

Count		Very Good	Very Good		
Row Pct		But Not	At Some		
Col. Pct	Outstanding	Outstanding	Subjects	Average	Not Good
	16	18	2	1	1
Formal	42.1	47.4	5.3	2.6	2.6
Testing	64	90	33.3	100	100
	9	2	4	0	0
Adult	60	13.3	26.7	0	0
Recommendati	on 36	10	66.7	0	0

 χ^2 = 9.17, with critical value = 9.49

parents) in terms of academic performance at the regular school. The result supports the research hypothesis on the similarities between the two populations. For both schools almost half of the students were reported to stand clearly at the top of their class, while most of the rest were reported in the next two categories. A nonsignificant but noticeable difference, perhaps worthy of a further look, was the following. More parents at Laurenval chose "very good, no problems but not the very top of the class," while more at Westmount Park chose "very good at some things, not as good at others." These differences may account for the different perceptions about the value of grades by parents. It could also be that it was difficult to differentiate between the two scales or that they were not worded properly since for some parents "very good at some things but not good at others" , could describe the reason why their child was not at the very top of the class.

The first three scales, outstanding, very good, and very good at some things, not as good at others suggest the performance that one would expect from gifted and talented students. In both schools most of the replies (more than 9/10) were from those three. At Laurenval, which used more traditional ways of identification, this was something that would be expected since high academic achievement has often

been found to be associated with traditionally identified gifted. However, at Westmount Park. used which identification-by-provision, the result indicates more variable performance across subjects, hence possibly greater A word of caution is inclusiveness of the selection process. needed: The results came from the parents, not from actual report cards. A replication or follow-up should attempt to obtain school or standardized measures of performance.

All groups in both schools were reported by their parents to have performed well at regular school. Most of the students seem to do a lot better than the average child, in fact half of them were reported as outstanding at school, while the rest were reported as being very good in all or some subjects at school. These findings challenge the expectation that underachievers would be included, especially at the Westmount Park school, due to the acceptance of recommendations by parents or other adults, but a more refined examination of the question is needed.

Finally, we are further reassured, though indirectly, of the appropriateness of identification by provision. The children so identified in this report do not appear to differ in any notable way from gifted children in studies referred to in the review of the literature, and which dealt with less formal identification of giftedness in other contexts. While

108 partially filling a gap in our knowledge about the identification of gifted children, the results of this study are consistent with what has been reported previously. Concerning the analysis, two remarks have to be made. An inconsistency exists in the presentation of raw data and statistical analyses. This difference is due to the fact that the Parents' Questionnaire was locally constructed and not widely used. On the contrary, the rest of the tests and questionnaires, that is the Raven, Otis-Lennon, IAR. Dependence Proneness and Piers-Harris Self Concept Scale are well known. Furthermore, the Parents' Questionnaire was used in a more descriptive way as far as statistical analysis is concerned (cross-tabulations, frequency distributions, chi-squares), so it was considered necessary to introduce it in detail. Also the three sections of the Parents' Questionnaire were not examined with regard to the same subgroups or by the same statistical analysis, since each one

had different purpose.

CHAPTER 4

Conclusions

Identification by provision was found to provide a gifted summer-school population essentially undistinguishable from identification based on high scores on achievement or IQ tests. Parents and teachers can be accurate and effective identifiers of gifted students compared to such measures; this result supports the findings of studies done by Jacobs (1971) of parents as good identifiers, while it contradicts others (e.g., Cornish, 1968). The accuracy and effectiveness of parents and teachers is also supported by the fact that no difference was found in the performance on all measures by the populations of both schools when the independent variable was taken to be who first identified giftedness in the child, the parents or school. Parents and teachers having identified the giftedness without the use of a checklist makes the success of the identification process even more valuable. There were indications of inclusion of possible gifted underachievers with identification by provision to a greater extent than following identification with tests.

This study does not contend that testing is invalid and fails to identify gifted children. However, identification by provision appears to bring a comparable group together, a group that might be described as "garden variety gifted" who

do well in school and score well on tests. Identification by provision and substantial reliance the on general recommendations of parents and teachers are strongly endorsed in the recognition and service of such gifted children. It remains to be discovered precisely what information is used by teachers. and especially by parents, in judging the suitability of particular children for programs designed or designated for the gifted.

Educational Implications

Identification by provision is in accord with a view of gifted education which calls for a more "open door" policy in the identification process. It is presumed that the ultimate goal of education is to help students develop their potential to the highest degree.

Because of certain circumstances that exist in the "world of testing," particular types of children who have potential are not identified as gifted. The best known groups of these Children are minority, culturally economically or disadvantaged gifted as well as underachievers. In this study such children were not notably found, except possibly underachievers in subjects, some under the identification-by-provision model. Nevertheless, identification by provision is philosophically more open to serving children which would be excluded by other selection procedures and the onus is on educators to use the potential savings from the apparently unnecessary mass testing to concentrate on selective searches for hard-to-find gifted and potentially gifted children, for scholarships for the economically disadvantaged, research and program development.

A general educational implication then is that the educational system will serve its general and gifted population better by using identification by provision. Parents and teachers are indeed the least expensive tool of identification and it is to the advantage of gifted education if they would be well used. Administrators also have to bring schools into contact with parents since parents feel excluded from the identification procedure.

Limitations of the Study

Although the results support identification by provision they should be accepted with caution. The study was a descriptive one, both schools operated strictly on a voluntary and fee-paying basis, and the tests and questionnaires used, although they seemed to be the best for the study, may not enjoy universal acceptance. However, the fact that so few differences were found between the two programs is an indication at least that approaches such as identification by provision have some merit. Some school boards in the U.S.A. have been forced into such policies as a result of, or to

avoid, litigation regarding testing procedures; their experience appears positive and the present data should enhance their position (personal communication from Patricia Bruce Mitchell of the National Association of State Boards of Education to Bruce M. Shore, April, 1985).

Further research should be conducted with special populations of gifted under the identification-by-provision model and to find out how well they are served. Studies should also be extended to regular public schools in a variety of settings.

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APPENDICES

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Parents' Questionnaire

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McGill Summer School for Gifted Children 1984

This survey is to be completed by parents. Each parent should complete, independently, a form for each child in the McGill Summer School.

Return this survey to your child's teacher by July 12, 1984. All information will be held in strictest confidence.

PART A CONCERNS OF PARENTS OF GIFTED CHILDREN

In the following section statements are made. Please indicate your opinion by circling the appropriate response:

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

Please answer each question or answer N/A-not applicable

1. Parents' opinion should be given high priority in the identification of gifted children.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

2. I am familiar with the characteristics of gifted children.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

3. Schools should be the major source in the identification process of gifted children.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

4. Gifted children do not need special help because they can make it on their own.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

5. Gifted children are not aware of being different.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

6. Gifted children need more parental attention than other children.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

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Competition is evident in our family.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 8. Gifted children are more difficult to discipline than most children. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 9. My gifted child gets along well with the other children in the family. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE Gifted children are different from other children. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 11. I need more information on the characteristics of gifted children. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 12. I am concerned that I do not provide my child with enough intellectual stimulation. STRONGLY AGREE AGREE STRONGLY DISAGREE DISAGREE 13. I provide my child with the appropriate educational opportunities. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE I am satisfied with my child's social development. STRONGLY AGREE AGREE STRONGLY DISAGREE DISAGREE 15. I would like to see my child participate more in athletics. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 16. I am unsure what my role is in my child's education. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 17. The school is responsible for my child's education. AGREE STRONGLY AGREE DISAGREE STRONGLY DISAGREE

Please go on to page 3

18. It is my responsibility to fill in the gaps that the school misses.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE 19. I find it easy to approach my child's school. STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

20. I am always looking for the right school for my child.

STRONGLY AGREE AGREE DISAGREE STRONGLY DISAGREE

21. What is your main concern about your child? Please use the space provided.

22. Even if the school would not have supported the child's enrollment in the summer school, would you have enrolled the child? Please comment.

Please continue ov
CHILD INFORMATION

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PART B Section 1

In relationship to the typical child in your neighborhood, please circle a number for each item which best describes your child: 5 - has this trait to a high degree 4 - has this trait more than the typical child 3 - compares with the typical child 2 - has this trait less than the typical child 1 - lacks this trait 1. The child tends to direct the activities 2. The child shows great curiosity about 3. The child puts unrelated ideas together in new 1 4. The child seeks his/her own answers and 5. The child likes "grown-up" things and to be Section 2 Please comment on the following: 1. Child's special talent or skills

2. Child's attitude towards school

Elease go on to page 5

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PART C FAMILY INFORMATION

PLEASE PRINT. Please answer all question or answer N/A-not applicable.

Mother:

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Surname		First	Name	Occupation	
Father:					
Surname	<u> </u>	First	Name	Occupation	
Child lives wi	th:				
Both parents:_		Father	-:	Mother:	
Other: (please	specify):	<u> </u>	,		
Circle Highest	Level:				
Mother's Educa	tion:				
Elementary Sch	ool High	School	Bachelors	Graduate	Degree
Father's Educa	tion:				
Elementary Sch	ool High	School	Bachelors	Graduate	Degree
Name of person	who complet	ed this	s form:		
Address:					
			post	tal code	•.
Telephone: Hom	e:		Work:		
Name of child :	in Summer Sc	:hool:		Sex	<:
Date of Birth:					
	day/month/y	ear	last q	grade complete	≘d
School:					
School Board:	•			_	

Please continue over

Who first identified this child as gifted? (check one): Mother_____ Father____ Teacher____ Psychologist____ Other (specify)_____ Other children in the family: NAME BIRTHDATE day/mo/yr SEX 1._____ 2.____ 3. 4. Have you ever participated in a program on parenting gifted children? Yes _____ No ____ Do you feel that you were a gifted child? Yes ____ No ____ Does your child's other parent feel that he/she was a gifted child? Yes _____ No ____ Don't Know _____

Please return this survey to your child's McGill Summer School Teacher by July 12, 1984.

Thank you for your cooperation.



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Faculty of Education Gifted Summer School

1984 12 20

To parents of children in grades 4 to 8 inclusive in the 1984 Gifted Summer School

Dear Parents,

One of the research studies conducted in 1984 addressed the question of the effects of offering a type of "open-door" admissions such as we had at Westmount Park versus the more usual kinds of selection criteria such as employed at Irving Bregman. We are now analyzing the data (it took a long time to code) and we have found that we are missing a very important piece of information. It would be very useful to be able to compare the groups (not individual children) on their school performance. We do not require their actual school grades, but we would be very grateful if you would answer the questions below and return this form to us as soon as possible, certainly before the end of January. A stamped, self-addressed envelope is enclosed.

Child's First Name:_____ Family Name:_____

Grade in the 1984 Gifted Summer School:

Your child's academic work in regular school is (choose one):

- ____ Outstanding, superior, clearly at the top of the class
- ____ Very good, no problems, but not the very top of the class
- ____ Very good at some things, not as good at others
- ____ Average, and sometimes even less than average
- ____ Generally not very good, this has been a problem

Thank you very much for your help. A report on the project will be available by spring. Application forms for the 1985 McGill School will be mailed in a few weeks to those who attended in the past. Others may write for them at the address below.

Sincerely yours,

Bruce M. Shore, Program Director

Postal address: 3700 McTavish Street, Montreal, PQ, Canada H3A 1Y2

Appendix II

The IAR Questionnaire

Name:	Grade:Grade:
Birthdat	e: Sex (Male or Female)
exp pre Rea ans Put to	GENERAL INSTRUCTIONS: This questionnaire describes a number of common eriences most of you have in your daily lives. These statements are sented one at a time, and following each are two possible answers. d the description of the experience carefully, and then look at the two wers. Choose the <u>one</u> that most often describes what happens to you. a circle around the "A" or the "B" in front of that answer. Be sure answer each question according to how <u>you really fee</u> 1.
rai	If, at any time, you are uncertain about the meaning of a question, se your hand one of the persons who passed out the questionnaires will be and explain it to you.
1.	If a teacher passes you to the next grade, would it probably be
	A. because she liked you, orB. because of the work you did?
2.	When you do well on a test at school, is it more likely to be
· .	Λ. because you studied for it, orB. because the test was especially easy?
3.	When you have trouble understanding something in school, is it usually
	A. because the teacher didn't explain it clearly, or B. because you didn't listen carefully?
4.	When you read a story and can't remember much of it, is it usually
	A. because the story wasn't well written, or B. because you weren't interested in the story?
5.	Suppose your parents say you are doing well in school. Is this likely to happen
	A. because your school work is good, orB. because they are in a good mood?
6.	Suppose you did better than usual in a subject at school. Would it probably happen
	A. because you tried harder, or B. because someone helped you?
7.	When you lose at a game of cards or checkers, does it usually happen
	A. because the other player is good at the game, or B. because you don't play well?
8.	Suppose a person doesn't think you are very bright or clever.

A. can you make him change his mind if you try to, or

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B. are there some people who will think you're not very bright no matter what you do?

9. If you solve a puzzle quickly, is it

A. because it wasn't a very hard puzzle, or

B. because you worked on it carefully?

10. If a boy or girl tells you that you are dumb, is it more likely that they say that

A. because they are mad at you, orB. because what you did really wasn't very bright?

11. Suppose you study to become a teacher, scientist, or doctor and you fail. Do you think this would happen

A. because you didn't work hard enough, or

- B. because you needed some help, and other people didn't give it to you?
- 12. When you learn something wuickly in school, is it usually

A. because you paid close attention, or

B. because the teacher explained it clearly?

13. If a teacher says to you, "Your work is fine," is it

A. something teachers usually say to encourage pupils, orB. because you did a good job?

14. When you find it hard to work arithmetic or math problems at school, is it

Λ. because you didn't study well enough before you tried them, orB. because the teacher gave problems that were too hard?

15. When you forget something you heard in class, is it

A. because the teacher didn't explain it very well, or

B. because you didn't try very hard to remember?

16. Suppose you weren't sure about the answer to a question your teacher asked you, but your answer turned out to be right. Is it likely to happen

A. because she wasn't as particular as usual, or

B. because you gave the best answer you could think of?

17. When you read a story and remember most of it, is it usually

A. because you were interested in the story, or

B. because the story was well written?

 If your parents tell you you're acting silly and not thinking clearly, is it more likely to be

A. because of something you did, orB. because they happen to feel cranky?

19. When you don't do well on a test at school, is it

A. because the test was especially hard, orB. because you didn't study for it?

20. When you win at a game of cards or checkers, does it happen

A. because you play real well, or

B. because the other person doesn't play well?

If people think you're bright or clever, is it
 A. ^because they happen to like you, or

- 22. If a teacher didn't pass you to the next grade, would it probably be
 - A. because she "had it in for you," or
 - B. because your school work wasn't good enough?
- 23. Suppose you don't do as well as usual in a subject at school. Would this probably happen
 - A. because you weren't as careful as usual, or
 - B. because somebody bothered you and kept you from working?
- 24. If a boy or girl tells you that you are bright, is it usually

A. because you thought up a good idea, orB. because they like you?

25. Suppose you became a famous teacher, scientist, or doctor. Do you think this would ahppen

A. because other people helped you when you needed it, orB. because you worked very hard?

26. Suppose your parents say you aren't doing well in your school work. Is this likely to happen more

A. because your work isn't very good, or

- B. because they are feeling cranky?
- 27. Suppose you are showing a friend how to play a game and he has trouble with it. Would that happen

A. because he wasn't able to understand how to play, orB. because you couldn't explain it well?

28. When you find it easy to work arithmetic or math problems at school, is it usually

A. because the teacher gave you especially easy problems, or B. because you studied your book well before you tried them?

29. When you remember something you heard in class, is it usually

A. because you tried hard to remember, orB. because the teacher explained it well?

30. If you can't work a puzzle, is it more likely to happen

A. because you are not especially good at working puzzles, orB. because the instructions weren't written clearly enough?

31. If your parents tell you that you are bright or clever, is it more likely

A. because they are feeling good, or

B. because of something you did?

32. Suppose you are explaining how to play a game to a friend and he learns quickly. Would that happen more often

A. because you explained it well, or

B. because he was able to understand it?

- 33. Suppose you're not sure about the answer to a question your teacher asks you and the answer you give turns out to be wrong. Is it likely to happen
 - A. because she was more particular than usual, orB. because you answered too quickly?
- 34. If a teacher says to you, "Try to do better," would it be
 - Λ . because this is something she might say to get pupils to try harder, or
 - B. because your work wasn't as good as usual?

Appendix III

Dependence Proneness Scale

School:		
Name :		
•		•
	Boy	Girl

DIRECTIONS:

On the following pages are a series of statements people often use to describe themselves. Please read each statement carefully and decide whether or not it is true for you.

Il you think a statement is true for you or describes how you feel most of the time check the true square.

Il you think a statement is <u>not true</u> for you or does not describe how you feel most of the time check the <u>not true</u> square.

This is <u>not a test</u> and so everyone should express his own opinion for each statement. Therefore, since everyone is expected to think differently, <u>there are not right or wrong answers</u>. So respond to each statement as honestly as you can.

KEY		ITEM	TRUE	UNTRUE
D	1.	I hesitate to ask for help from others.		
A	2.	I like to do things with my family.		
D	3.	It's fun to try out ideas that others think are crazy.		
A	4.	I enjoy working with students who get good marks.		
A	5.	Students ought to be allowed to help one another with their school work.		
D	6.	I don t need my friends' encouragement when I meet with failure.		
A	7.	I never argue with my parents.		
D	8.	My folks usually have to ask me twice to do something.		
D	9.	I don't like my friends to make a fuss over me when I'm sick.		
D	10.	I seldom do "little extra things" at home just to please my parents.		
D	11.	I want my friends to leave me alone when I am sad.		
D	12.	I often disagree with my parents.		
A	13.	I never do anything at home until I find out if it's okay.		
D	14.	What others think of me does not bother me.		
D	15.	Committee work is a waste of time.		
D	16.	I often disagree with what the class decides to do.		

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	KEY	ITEM	TRUE	UNTRUE
	A	17. You should always check to see if your parents approve of your friends.		
	۸	18. A good friend will never disagree with you.		
	D	19. I enjoy studying about things that my parents don't like.		
	Α	20. I am apt to pass up something I want to do when others think that it isn't worth doing.		
	D	21. I owe my greatest obligation to my family.		
	D	22. I don't like to show my friends how much I like them.		
	D	23. I like to make my own decisions.		
	D	24. My parents make unreasonable rules.		
-	D	25. Rules are made to be broken.		
	D	26. I would rather be left alone when I am in trouble.		
	D	27. I would never tell on a student who has done something wrong.		
	D	28. It annoys me when my friends tell me their troubles.		
	D	29. I dislike lending things to my friends.		
	D	30. I like people who ignore the feelings of others.		
	D	31. I don't care whether or not I take home a good report card.		
	D	32. I often seem to do things my parents don't like.		
	D	33. My parents treat me more like a child than a teen-ager.		

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KEY	ITEM	TRUE	UNTRUE
D	34. I don't care if other students say nice things about me.		
D	35. I sometimes break rules if it makes my friends like me.		
D	36. I like to criticize people who are in charge.		•
A	37. I try never to disobey my parents.		
A	38. I feel better avoiding a fight than trying to have my own way.		
A	39. I like to follow instructions and to do what is expected of me.		
D	40. My family does not like what I intend to choose for my life work.		
D	41. I often disagree with what the teacher says.		
A	42. In class it is best to go along with the majority even when you disagree.		
D	43. I don't care if others are interested in the same things I am.		
D	44. It is not always best to have the majority make the decision.		
D	45. The playground is a poor place to really get to know your friends.		

Appendix IV

Piers-Harris Children's Self-Concept Scale Here are a set of statements. Some of them are true of you and so you will circle the yes. Some are not true of you and so you will circle the <u>no</u>. Answer <u>every</u> question even if some are hard to decide, but do <u>not</u> circle both <u>yes</u> and <u>no</u>. Remember, circle the <u>yes</u> if the statement is generally like you, or circle the <u>no</u> if the statement is generally not like you. There are no right or wrong answers. Only you can tell us how you feel about yourself, so we hope you will mark the way you really feel inside.

1	. My classmates make fun of me	yes	no
2	. I am a happy person	yes	no
3.	. It is hard for me to make friends	yes	no
-4.	. I am often sad	yes	nõ
5.	. am smart	yes <u>.</u>	no
6.	1 am shy	yes	no
7.	I get nervous when the teacher calls on me	yes	no
8.	My looks bother me	yes	no
9.	When I grow up, I will be an important person	yes	no
10.	I get worried when we have tests in school	yes	no
11.	lam unpopular	yes	no
12.	I am well behaved in school	yes	no
13.	It is usually my fault when something goes wrong	yes	nO
14.	I cause trouble to my family	yes	no
15.	I am strong	yes	no
16.	I have good ideas	yes ·	no
17.	I am an important member of my family	yes	nO
18.	I usually want my own way	yes	no
19.	I am good at making things with my hands	yes	пØ
20.	I give up easily	yes	no

[;] 21.	l am good in my school work
2 2.	I do many bad things
23.	I can draw well
24.	l am good in music
[.] 25.	I behave badly at home
26.	I am slow in finishing my school work
27:	I am an important member of my class
28.	l am nervous
29.	I have pretty eyes
30.	I can give a good report in front of the class
31.	In school I am a dreamer
32.	I pick on my brother(s) and sister(s)
33.	My friends like my ideas
34.	I often get into trouble
35.	I am obedient at home
36.	1 am lucky
37.	I worry a lot
38.	My parents expect too much of me
39.	I like being the way I am
40.	I feel left out of things

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lam sick a lot..... yes no 47. 49. My classmates in school think I have good ideas yes no 53. lam good looking yes no 54. 55. 56. 57. I am popular with boys..... yes no 58. 59.

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61.	When I try to make something, everything seems to go wrong	• . (••	••	yes	no
62.	I am picked on at home	• •	• •	••	yes	no
63.	I am a leader in games and sports	••	• •	•	yes	no
64.	1 am clumsy	••	• •	•	yes	no
65.	In games and sports, I watch instead of play	• •	•	•	yes	no
66.	forget what learn	••		•	yes	no
67.	I am easy to get along with	• •		•	ves	no
68.	I lose my temper easily			•	yes	no
69.	I am popular with girls			•	yes	np
70.	l am a good reader			•	yes	no
71.	I would rather work alone than with a group	••	••	•	yes	no
72.	I like my brother (sister)			. •	yes	nO
73.	I have a good figure	• •	••	•	yes	no
74.	l am often afraid	••	• •	•	yes	no
75.	I am always dropping or breaking things	••		•	yes	no
76.	I can be trusted		••	•	yes	no
77.	I am different from other people	••	••	•	yes	no
78.	I think bad thoughts	••	••	•	yes	no
79.	I cry easily	•••		•	yes	no
80.	I am a good person		••	•	yes	no

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Score: