

SELF-ESTEEM OF ELEMENTARY STUDENTS: EFFECTS OF
GIFTED PROGRAM NOMINATION AND SELECTION

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DEDICATION

STERLING

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ABSTRACT

This study examined the possible effects on the self-concept of (a) students nominated and accepted into a gifted program, and (b) students nominated and not accepted, as measured by pre- and post-tests on the Piers-Harris Children's Self-Concept Scale. The subjects for this study were the 207 third-, fourth-, fifth-, and sixth-grade students referred for screening for a district's gifted program.

A pre-test using the Piers-Harris Scale was given in conjunction with the district's gifted program screening procedures. After student notification of acceptance or non-acceptance, the post-test was given. It was hypothesized that there would be no significant difference in the post-test mean scores of students accepted into the gifted program (Group I) and students not accepted (Group II). An analysis of covariance was used to test the hypotheses. The hypotheses examined differences by group, gender, grade, and individual sub-tests of the self-concept scale.

Null Hypothesis 1 of no significant difference in the post-test mean scores of the subjects in Group I and Group II using the pre-test as a covariate was rejected at the .02 level. Students not accepted (Group II) had significantly higher self-concept scores than Group I. Null Hypothesis 2 of no significant difference in the post-test mean scores by gender was rejected at the .004 level. Males accepted into the gifted program scored significantly lower than males not accepted. Males accepted scored significantly lower than both females accepted and females not accepted. Null Hypothesis 3 of no significant difference in the scores by group by grade level was accepted. Null Hypothesis 4 of no significant difference in the scores by group by sub-test was accepted on all sub-tests except for "Behavior", which was rejected at the .003 level.

The results of this study indicate that the students' self-concepts were not diminished by non-acceptance into the gifted program. Since the accepted students' lower self-concept scores may be short-lived, giving an additional post-test after approximately a year is recommended.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Historically, giftedness has been associated with superior academic ability or IQ. More recently the concept has included performance in other areas: social leadership, creativity, and psychomotor ability (Nevo, 1994). During the 1980s and 1990s, several new definitions of intelligence received attention. Tannenbaum (1983) suggested five types of gifted factors including general ability, special ability, non-intellectual factors, environmental factors, and chance factors. Gardner (1983) presented his physiologically based theory describing seven kinds of intelligence, including the linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal, and transpersonal. Sternberg (1985, 1991) presented his environmentally based view of intelligence involving analytic, synthetic, and practical elements, suggesting that many more people may now be considered gifted or potentially gifted. Renzulli (1978, 1990) theorized that above-average ability, creativity, and motivation must coexist within an individual in order for giftedness to occur. Even though researchers of the 1990s consistently recommended using multiple measures of assessment to reduce the effects of bias from any one measure, many educational programs have continued to use the IQ score as the main basis for identifying gifted children (Adderholdt-Elliot, Algozzine, Algozzine, & Haney, 1991; Kluever & Green, 1990; Ross, 1993; Tyler-Wood & Carri, 1991). This practice has ignored the

concept that children can be gifted in many different ways: academically or socially gifted; highly gifted or normally gifted; highly creative or highly talented (Schmitz & Galbraith, 1985; Tomlinson-Keasey, 1990).

Some educational programs identify 2 to 5% of the overall population for their gifted programs. Generally students are (a) nominated by educators or parents, (b) tested using formal or informal measures and (c) screened by a committee comprised of educators. An identification assessment may include IQ tests, special ability tests, and parent and teacher ratings (Nevo, 1994).

Not every student who goes through the screening process is accepted into a gifted program. Many of the talented students who are denied admission to gifted programs include ethnically and culturally different children, females, high potential underachievers, and artistically talented students (Feldhusen, 1989; Richert, 1987; Ross, 1993; Woods & Achey, 1990). Even though states and local districts seem to have good intentions, the practices used to identify students are often unsatisfactory and have limited the access to special opportunities for many students who could benefit from them (Richert, 1987). According to Schmitz and Galbraith (1985), all identification procedures have some problems. In programs that identify students annually by achievement tests, a child may be gifted one year, but not the next. A student may be gifted in one state, or district, but not in another where different assessment criteria are stressed.

Since self-concept has been identified as the students' most important possession and an important part of the learning process (Maddux, Scheiber, and Bass, 1982; Yauman 1980), it is important to assess the impact that a screening process can have on the self-concepts of children nominated but not ultimately selected for participation in a gifted program. This study addressed the possible effects on self-concept of this phenomenon.

Purpose

This study examined the effect of a gifted program screening process on the self-concept of 207 third-, fourth-, fifth-, and sixth-grade students who were nominated for possible inclusion in the program. The possible effects on the self-concept of (a) student nomination and acceptance (Group I) and (b) student nomination and rejection (Group II), as measured by pre- and post-tests on the Piers-Harris Children's Self-Concept Scale (Piers, 1984), were investigated. This quasi-experimental study measured the dependent variable of self-concept on the Piers-Harris Children's Self-Concept Scale which was used as a pre- and post-test measure. The independent variable was acceptance or non-acceptance into the district's program for the gifted.

Hypotheses

The following null hypotheses were tested in this study:

Null Hypothesis 1

There is no significant difference in the Piers-Harris Self-Concept post-test mean scores of the subjects in Group I and Group II using the pre-test as a covariate.

Null Hypothesis 2

There is no significant difference in the Piers-Harris Self-Concept post-test mean scores by gender within Group I and Group II using the pre-test as a covariate.

Null Hypothesis 3

There is no significant difference in the Piers-Harris Self-Concept mean scores by group by grade level.

Null Hypothesis 4

There is no significant difference in the Piers-Harris Self-Concept mean scores by group by sub-tests: (a) Behavior, (b) Intellectual and School Status, (c) Physical Appearance and Attributes, (d) Anxiety, (e) Popularity, and (f) Happiness and Satisfaction.

Subjects

The subjects for this study were 207 third-, fourth-, fifth-, and sixth-grade students referred for assessment for the gifted program in one suburban school district during the fall of 1994. The district has an average daily enrollment of approximately 12,000. At the time of the study, 1306 students were enrolled in grades 1 through 12 in the district's program for gifted and talented students.

Methodology

After being referred in September of 1994 for testing for the gifted program 230 students were given a pretest, using the Piers-Harris Children's Self-Concept Scale (PHCSC). The Piers-Harris Scale, subtitled "The Way I Feel About Myself," assesses the self-concept of children 8 to 18 years of age. The measure gives a total self-concept score as well as sub-scores in six areas: behavior, anxiety, popularity, physical appearance and attributes, intellectual and school status, happiness and satisfaction (Piers, 1984).

As soon as the screening process had been completed, the students and their parents were notified as to whether or not the students had been placed in the gifted program. The Piers-Harris post-test was given to: (a) the students who were placed in the gifted program and (b) those who did not qualify for the program. Of the students tested in the fall, 23 had moved from the district and were no longer available for testing in January. The data from

all testing of the remaining 207 students were analyzed and the hypotheses concerning the possible effects of being nominated and later accepted or rejected for a district gifted and talented program were addressed.

Definitions

Gifted and Talented Students

According to the guidelines of the district selected for this study, gifted and talented students are “those who excel consistently or who show the potential to excel in general intellectual ability or specific subject matter aptitude, and creative and productive thinking” (District Gifted Program General Guidelines, Revised January 1995, p. 1). Gifted and talented students are assessed on multiple subjective and objective criteria, including verbal and nonverbal academic achievement, cognitive ability, teacher observation, parent rating, and creative and productive thinking. Students may be nominated for assessment on the basis of teacher observation, parent request and/or by outstanding performance on standardized testing, scoring 128 or above on a district-wide aptitude test and/or 95th percentile or above in total reading and total math on a nationally normed test (District Gifted Program General Guidelines, Revised January 1995).

Self-concept

For this study, self-concept is defined as the way one feels about one’s behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction as measured by the Piers-Harris Self-Concept Scale (Piers, 1984).

Significance

The national and state mandates for schools to identify and serve gifted children results in nominated children who are not placed after the screening. Some of these children

repeatedly are nominated but not accepted in the standard processing. This quasi-experimental study examined the possible effects on self-concept of being nominated and later accepted or rejected for a district program designed for gifted and talented students.

CHAPTER II

REVIEW OF RELATED LITERATURE

This study was designed to evaluate the effect of a gifted program screening process on the self-concept of elementary students who were nominated for possible inclusion in the program. The following review of related research focuses on the following topics: (a) the diverse definitions and characteristics of giftedness, (b) the views and definitions of self-concept, and (c) the research related to the self-concept of the gifted.

Giftedness

Historical Definitions

Many books and articles have been written dealing with various perceptions and definitions of giftedness. Some authors define giftedness as the achievement of something out of the ordinary and essentially external (Gardner, 1983; Tannenbaum, 1983). Some view giftedness as an internal set of exceptional mental processes that may or may not lead to achievement (Shurkin, 1992). Others view giftedness as a creation of both nature and nurture (Renzulli, 1978; Sapon-Shevin, 1987; and Sternberg & Davidson, 1986).

The definitions of giftedness reflect two perspectives: the theoretical and the functional. Theoretical definitions of giftedness describe a particular kind of ability and usually guide research or innovative programming. Functional definitions apply to the practical issues of schooling, including funding and regulating gifted education programs (Pendarvis, Howley & Howley, 1990).

Terman's definition of giftedness has had both theoretical and functional influences on both psychological research and school practice. In his study of highly intelligent school children, Terman (1925) selected only those students who were in the top 1% of the school population as measured by the Stanford Revision and Extension of the Binet-Simon Scales for Measuring Intelligence (Terman, 1917). Terman used the IQ score of 140+ to determine giftedness. Prior to his study of gifted children, giftedness was a poorly defined phenomenon. Terman's testing procedures, though less than perfect, did much to equalize the opportunity for children of various backgrounds to be recognized as gifted.

Not everyone agreed with Terman's research conclusions. One of the earliest, and most extreme, reactions to Terman's use of IQ came from Witty (1940). Witty recommended that the definition of giftedness be expanded to include creative or productive thinking. He defined giftedness as remarkable performance in any potentially valuable human endeavor. To Witty, giftedness was expressed more in a person's deeds than in a person's traits.

A generation later, Renzulli (1978) elaborated on Witty's idea and offered a different approach to identifying the gifted. Renzulli dismissed the idea that IQ alone determines giftedness. Renzulli also was critical of using only testing to identify the gifted. He argued that individuals identified as gifted tend to be those with well-developed test-taking skills (Renzulli, Reis, & Smith, 1981). Renzulli identified two other traits of giftedness as creativity and task commitment. His idea was that giftedness is present whenever these two traits merge with one's intelligence. In a now famous publication, "What Makes Giftedness? Reexamining a Definition," Renzulli (1978) described his three-ring view of giftedness as follows:

Giftedness consists of an interaction among three basic clusters of human traits--these clusters being above-average general abilities,

high levels of task commitment, and high levels of creativity. Gifted and talented children are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Children who manifest or are capable of developing an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs. (p. 261)

In Renzulli's (1978, 1990) model, the three areas: above-average ability, high levels of task commitment, and high levels of creativity, are represented by three interlocking circles. He described giftedness as occurring when the three circles overlap (Figure 1). He explained that above-average general abilities are demonstrated by performance in school and on objective intelligence and achievement tests; high level of task commitment is demonstrated by persistence in accomplishing goals and a drive to achieve; and a high level of creativity is described as originality in solving problems. Renzulli described gifted and talented children as those who demonstrate or have the ability to demonstrate all of these traits. Renzulli emphasized that superior ability alone is not sufficient. There also must be motivation and creative expression. He stressed that it is more productive to focus on gifted behaviors than to attempt to determine whether or not a child is gifted.

Jarrell and Borland (1990) report that Renzulli's "Revolving Door" identification model (Renzulli, 1978) has had a profound impact on educational practice, resulting in the widespread adoption of his identification scheme and instructional model, and prompting much interest and debate. Renzulli's definition has proven workable and applicable for practitioners who are involved in developing and conducting educational programs for gifted students and has been particularly attractive to those who realize that students have times of high task commitment and times of low task commitment.

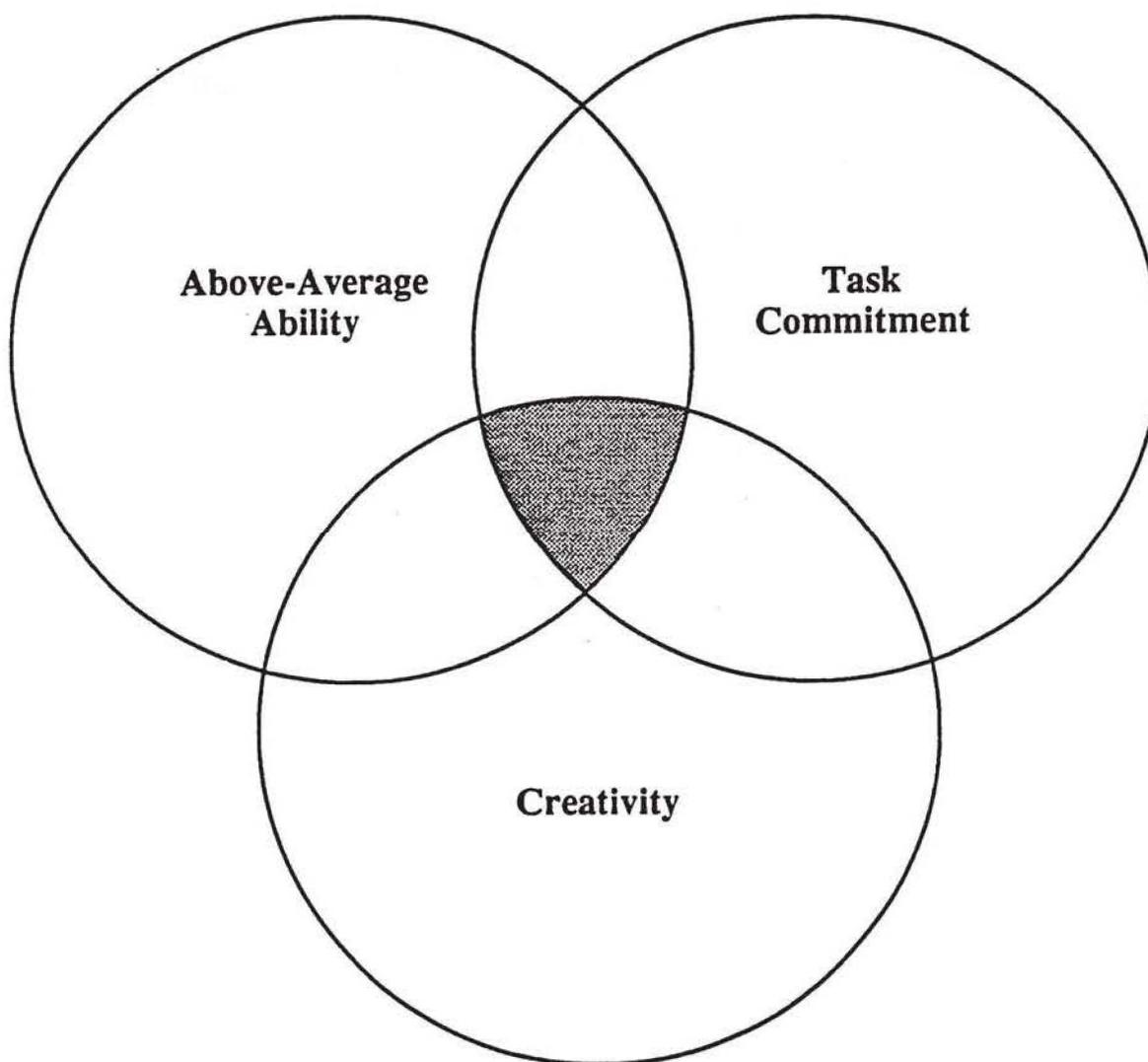


Figure 1. Renzulli's Three-Ring Conception of Giftedness (Renzulli, 1978).

Pendarvis et al. (1990) questioned the applicability of Renzulli's model to school children since the model was based on adult characteristics. Pendarvis et al. agreed that children who show the combined characteristics of high ability, high creativity, and task commitment that Renzulli referred to may be talented, but the definition overlooked many children with uncommon potential for academic achievement. Tolan (1994) emphasized the importance of not overlooking potential giftedness in children, when she stated that some children are unable to fit their mental gifts into the schools' narrow range of achievements and may enter adulthood unaware of their giftedness. She used the examples of Darwin, Edison, and Einstein who, never having been perceived as gifted by society when they were children, were considered so as adults.

Some of the definitions of giftedness have come from cognitive psychology. Sternberg (1981) and Gardner (1983) offered two quite different theories of intelligence. In his componential theory of intelligence and giftedness, Sternberg (1981; 1985) described three types of intelligencies: contextual, experiential, and internal. He defined contextual intelligence as adaptation to the environment. Experiential intelligence was explained as building on past experiences for solving new problems. He interpreted internal intelligence as the ability to approach problems, evaluate feedback, and make decisions about the appropriate approach to a problem. Gardner's (1983) theory of multiple intelligences offered another perspective on the definition of giftedness. He defined intelligence as a set of skills that enable an individual to define and solve problems. He suggested the presence of seven forms of intelligence: linguistic, logical-mathematical, musical, spatial, bodily kinesthetic, interpersonal, and intrapersonal. He described linguistic intelligence as the ability to deal with words as evidenced in oral and written expression. Gardner referred to logical-mathematical intelligence as the ability to handle symbolic reasoning. Musical intelligence was defined as dealing with tone, pitch, rhythm,

and composition. Spatial intelligence implied the ability to deal with visualization and spatial relations. Bodily kinesthetic intelligence was perceived as physical ability resulting in unusual skill in athletics or dance. Interpersonal intelligence referred to qualities reflected in leadership and empathy for others. Intrapersonal intelligence suggested knowledge of oneself. Gardner concluded that individuals may have exceptional abilities in any one or combination of these seven forms of intelligence.

Tannenbaum's (1983) definition of giftedness included (a) general ability, (b) special abilities, (c) nonintellective factors, and (d) environmental factors. Tannenbaum proposed that gifted achievement is potentially influenced by an individual's social, intellectual, and physical environment. Tannenbaum argued that a person with determination is more likely to succeed than one with ability.

According to Piechowski and Miller (1995), gifted students differ in degree, not kind, from others around them. Gifted students do not possess different traits, just an overabundance of traits. Piechowski and Miller described students who are energetic, enthusiastic, intensely absorbed, vividly imaginative, morally sensitive, and emotionally vulnerable as having a condition defined as "overexcitability." Delisle (1992) described Piechowski and Miller as having blended the United States Office of Education's categories of giftedness with the personality traits and behaviors of gifted students and created a conception of giftedness that should satisfy the most fervent critic.

Even though controversies continue to exist with respect to the definition and measurement of giftedness, research during the past 20 years has led educators to regard giftedness as being much more comprehensive than the previous conceptions that focused only on general intelligence. Most researchers agree that there are different ways to be intelligent and different ways that giftedness is demonstrated (Assouline & Colangelo, 1995; Hoge, 1988; Hoge & Cudmore, 1986). Definitions of giftedness can vary from

those with a narrow focus on highly exceptional intellectual capacities to those based on a broad range of intellectual, motivational, and artistic dimensions (Hoge & Renzulli, 1993). Hoge and Renzulli (1991) suggested that the different ways of conceptualizing giftedness vary in (a) breadth of the concept; (b) the content of the definition; (c) the level of exceptionality represented in the definition; (d) whether the definition represents a static, cognitive focus derived from IQ test scores or a dynamic focus on potentialities, and (e) the precision of the definition. Hoge and Renzulli (1991) further suggested that some of the problems relating to the research and measurement of giftedness are due to (a) variability in the type of measures used, (b) discrepancy between official definitions and operational definitions of giftedness, and (c) reliability of some of the measures. Even though research in neuroscience and cognitive psychology has provided new insights into what it means for children to be gifted, Richert (1987) and Ross (1993) reported that the gap between research and practice has hardly diminished since the Marland Report (1972) officially brought the issues of identifying and serving the gifted to the attention of Congress and the general public.

Characteristics of Gifted

Schmitz and Galbraith (1985) proposed that there is no one portrait of a gifted student, but rather, talents and strengths may vary among the gifted. Educators such as Eby (1983) suggested that there are no gifted children, only gifted behaviors. She stressed that gifted behavior is displayed when a child follows through to the completion of a task. After interviewing 5000 gifted children, Landau (1981) reported that the main characteristics of gifted children were “independence, reliability, stubbornness, openness, organized thinking, critical thinking, ambition, curiosity, perseverance, carelessness toward environment, and tough mindedness” (p.22). Griggs (1984) reported the following characteristics from data gathered from research studies of gifted students: independent,

persistent, perceptually strong, self-motivated, highly motivated, internally controlled, self-directed, and task-committed. These are qualities that are present in gifted children but are not exclusive only to the gifted.

Clark (1992) emphasized that all gifted children have their own unique characteristics and that no gifted child exhibits every characteristic in every area. She suggested the use of a checklist of the gifted characteristics which include: extraordinary quantity of information, unusual retentiveness, advanced comprehension, unusual varied interests and curiosity, high level of language development and verbal ability, unusual capacity for processing information, accelerated pace of thought processes, heightened capacity for seeing unusual and diverse relationships, integration of ideas and disciplines, and unusual intensity, persistent, goal-directed behavior. Clark (1992) provided an in depth list of characteristics of gifted learners which she has organized into cognitive, affective, physical, and intuitive behaviors (see Appendix A).

Biehler (1992) added to the Clark's (1992) list characteristics such as an active imagination, interest in a variety of topics, and the ability to concentrate and stay on task, which are qualities not exclusive only to the gifted. Clark reported that many characteristics typical of highly gifted students are also found among moderately gifted, but with a higher degree of intensity in the gifted. Gifted children usually are able to generalize, to work with abstract ideas, and to synthesize diverse relationships to a far higher degree than high achievers.

Although checklists of positive gifted characteristics can be helpful in assessing giftedness, they may not always be reliable (Smutny & Blocksom, 1990). The stereotype of gifted students is that of model students, but they sometimes can exhibit negative characteristics that teachers find quite irritating. They are the students who question everything, work around the system, and may be seen as the troublemakers in the

classroom. They may have characteristics such as excessive restlessness or diagnosed hyperactivity, mischief making, poor achievement, withdrawal, indifference, inattention, and daydreaming in class (Biehler, 1992). According to Smutny and Blocksom (1990), gifted students also may dominate discussions, resist rules and procedures, use humor to manipulate, and lose interest quickly.

High achievers usually function better with knowledge and comprehension level learning. Biehler (1992) suggested that students who have tasks completed on time, are well-organized, complete the assignment the way it was directed, and produce the work the teacher puts on the bulletin board, are probably not the gifted students. Attributing a high achiever with giftedness is a common problem teachers encounter when trying to identify gifted children (Clark, 1992). Not acknowledging that a student with negative characteristics can be gifted is another (Ehrlich, 1989).

Affective characteristics of gifted. Gifted children have been characterized as both intellectually and emotionally superior to nongifted peers; yet, they have been described as possessing unique social and emotional characteristics which bring them into conflict with the environment. Gifted children often have been described as sensitive (Mendaglio, 1993). According to Mendaglio (1995) gifted children are more sensitive because they are more observant than the nongifted. Theorists such as Piechowski (1986) proposed that giftedness can be defined in terms of emotional sensitivity. He concluded that social and emotional sensitivities are an important feature of giftedness but not a by-product of giftedness. Piechowski contended that children who are “overexcitable” in one or more areas, including intellectual, emotional, and creative, are showing signs of giftedness through their personalities.

In addition to sensitivity, gifted children have been described as possessing characteristics that include perfectionism, feelings of being different, nonconformity,

idealism, a sense of justice, emotional intensity, social isolation, sense of humor, acute sense of responsibility, early concern about death, high levels of energy, strong attachments and commitments, excessively high expectations, persistence, independence, and self-concept (Clark, 1992; Kitano, 1990; Roeper, 1988). Many of these characteristics are thought to potentially promote adjustment problems and cause the gifted to have low self-concept (Delisle, 1992; Kitano, 1990).

Measurement of Giftedness

Considerable variability exists in regard to measurement tools used in identifying giftedness. In the past the measurement of giftedness was usually based on IQ performance tests. Today the individual IQ test is still the most used type of measure for identifying giftedness, but is usually used with various combinations of other instruments (Hoge & Renzulli, 1993). Hoge and Renzulli (1991) list the major categories of the measures used as “individual IQ tests, group IQ tests, standardized achievement tests, standardized personality tests or inventories, tests of creativity, teacher rating and nomination procedures, and parent rating procedures” (p. 14). Smutny and Blocksom (1990) list the Revised Stanford-Binet Test of Intelligence (Thorndike, Hagen, & Sattler, 1986), and the Cognitive Abilities Test (Thorndike, Hagen, & Lorge, 1968) as two of the intelligence tests available for assessing cognitive abilities.

Some of the problems associated with measures used to identify giftedness are the variability in the way giftedness is defined and measured, as well as the validity of the measures (Hoge, 1988; 1989). Tyler-Wood and Carri (1991) compared studies concerned with the effectiveness of various measures of cognitive ability, such as the Stanford-Binet (Thorndike et al., 1986), Otis-Lennon School Abilities Test (Otis & Lennon, 1984), and the Cognitive Abilities Test (Thorndike et al., 1968), and found that scores on a number of the measures were significantly different. The scores on the Cognitive Abilities Test

(Verbal) were significantly lower than scores on the Cognitive Abilities Test (Non-verbal), the Stanford-Binet (LM) and the Stanford-Binet (Fourth Edition). They also found that student's scores were significantly higher on the Stanford-Binet (LM) than the scores on the Stanford-Binet (Fourth Edition). The scores on the Otis-Lennon did not differ significantly from scores on the various sub-tests of the Cognitive Abilities Test. The analyses of these data revealed that more gifted students may be identified using the Stanford-Binet (LM) as opposed to the Otis-Lennon School Abilities Test (Tyler-Wood & Carri, 1991).

Legal Definitions

Federal definition of giftedness. In 1972 Marland, then Commissioner of Education, submitted to Congress a definition of giftedness to serve as a guideline for the federal programs for the gifted that were being initiated at that time. The definition has been widely quoted:

Gifted and talented children are those, identified by professional and qualified persons, who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contributions to self and society.

Children capable of high performance include those with demonstrated achievement or potential in the following categories, singly or in combination:

- general intellectual ability
- specific academic ability
- creative and productive thinking
- leadership ability
- ability in the visual or performing arts, and/or
- psychomotor ability. (p. 806)

Marland's report estimated that gifted students made up 3 to 5% of the student population and encouraged schools to provide programs to students who were outstanding in specific areas.

The federal definition was modified in 1978 to (a) eliminate the psychomotor area as a category of giftedness, (b) add the term “youth,” and (c) preface the introduction of the various categories of giftedness with the term “such as.” In 1988, the Jacob K. Javits Gifted and Talented Students Education Act (U.S. Congress, 1988) was passed which once again modified the federal definition. The 1988 definition deleted any reference to the level of schooling and to the performing arts. The Javits Act provided funds for the support of demonstration grants, a national research center, and national leadership activities designed to focus attention on the needs of students with demonstrated or potential talent. Priority funding was to be given to projects which included minority, disabled, and disadvantaged children (Cassidy & Hossler, 1992; Harrington, Harrington, & Karns, 1991; Ross, 1993).

After conducting a nationwide survey of state’s definitions of giftedness, Cassidy and Hossler (1992) reported that most states continued to use some modification of the federal definition for identifying gifted students. Even though the definition suggested that school districts consider a broad range of talents when identifying gifted students, most continued to restrict participation in programs to those with high general intelligence and good school reports. This was in spite of the fact that Ross (1993), as project director of the U.S. Department of Education’s report on reforming America’s schools, recommended that schools develop a system of identifying gifted and talented students that used a variety of assessment measures.

State definition of giftedness. In their 1990 survey of state and federal definitions, Cassidy and Hossler (1992) reported that most states and local school districts have developed definitions for their gifted and talented programs based on the 1972 Marland Report to Congress which identified gifted children as students having outstanding talent and capable of exceptional achievements in one or more areas. Cassidy and Hossler’s

survey determined that most states use some modification of the federal definition even though states are under no mandate to accept the federal definition of giftedness. The survey results disclosed that 30 states had not revised their definitions in over a decade. Despite the popularity of new theories in the field, such as Renzulli's (1978) three ringed definition of giftedness, Sternberg's (1985) environmentally based view of intelligence, and Gardner's (1983) physiologically-based theory describing seven known kinds of intelligence, most states continue to use the federal government's definition (Cassidy & Hossler, 1992; Ross, 1993).

Texas did not mandate programs for gifted and talented until 1987. Prior to this time, some districts developed programs through federal or local funding. The statutes passed by the Texas Legislature in 1987 mandated that beginning in 1990-91 each Texas school district would identify and establish programs for gifted and talented students in each grade level. In 1990 The Texas State Plan and Guidelines for the Education of Gifted and Talented Students (Texas Education Agency, 1990) was approved. During the 74th Session of the Texas Legislature the Texas Education Code was revised. This was the state's first major attempt to rewrite the laws for Texas public schools since 1949 (Texas Association for the Gifted and Talented, TAGT Capital Newsletter, 1995). According to the mandate, schools are required to identify and provide services for gifted students in grades K-12. Texas Senate Bill 1, Subchapter D. Section 29.121 provided the following definition of gifted and talented students:

Gifted and talented student means a child or youth who performs at or shows the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment and who: (1) exhibits high performance capability in an intellectual, creative, or artistic area; (2) possesses an unusual capacity for leadership; or (3) excels in a specific academic field. (p. 103)

The bill further stated that school districts in Texas are to develop educational programs that meet the needs, interests, and abilities of all students, including the gifted. The quality of such programs is determined by the local district. Funding to assist districts with their gifted programs is available for up to 5% of the district's average daily attendance.

Identification Process

Identifying the gifted is difficult to do. Biehler (1992) suggested that new forms of testing for identification of the gifted must be considered. Hard working, high achieving students often show up as gifted using the measurement instruments available today. Biehler reported that the work habits of the high achieving students help them perform well on tests, but that it is the gifted, creative, divergent student with above-average abilities that needs to be identified.

A large gap exists between the Marland Report definition of giftedness and the methods used by many districts to identify gifted students. Even though a district may consider a broad range of talents, it may continue to restrict participation in its gifted program largely to those with exceptional intellectual ability as measured by IQ and achievement tests. Districts often choose to use student's test scores because they are easier to obtain than more subjective data (Kluever & Green, 1990; Ross, 1993). When intelligence or achievement tests are used to identify gifted students, their scores usually fall in the top 3 to 5% of the population with IQ cut-off scores ranging from 120 and up. Highly gifted students have IQs of 160 and up (Smutny & Blocksom, 1993). Research literature on the identification of gifted children consistently recommends using multiple measures of assessment. Identification procedures other than the use of intelligence tests may include both formal and informal instruments (Kitano & DeLeon, 1988; Renzulli, 1984; Tyler-Wood & Carri, 1991).

In identifying gifted students, schools generally have followed a four-step process: (a) nomination by educators, parents, and/or peers into a talent pool; (b) assessment and recommendation as a candidate for a specific program; (c) review by a committee that selects those meeting the program criteria; and (d) evaluation within the gifted program to determine whether or not the student should continue in the program (Johnsen & Corn, 1987). Clark (1992) recommended a multi-dimensional approach which can be used for identifying all areas of ability:

1. Nomination forms--from teachers, principal, counselor, psychologist, and others
2. Teacher reports of student functioning--including intellectual, physical, social, and emotional functioning; learning style and motivation
3. Family history and student background--provided by parents, this will include historical and developmental data on the student; health and medical records of student and family; educational and occupational background of parents; description of family unit; anecdotes of the student in the home that indicate unusual capacity and early development; family activities and interests; and the child's out-of-school activities and interests
4. Peer identification
5. Student inventory--of self, values, interests, and attitudes toward school and out-of-school activities
6. Student work or achievements
7. Multidimensional Screen Tests. (p. 211)

Use of tests. Traditionally, the measure of giftedness, for both psychological and educational purposes, has been based on a student's performance on IQ tests such as the WISC-R or Stanford-Binet. These tests are used in spite of the fact that formal definitions of giftedness often include the need for looking at academic motivation, creativity levels or leadership qualities (Hoge, 1988). Realizing that identifying the gifted is difficult to do, researchers and educators have requested new forms of testing (Biehler, 1992).

Local School District

Gifted and talented students in this school district are defined as those who "consistently excel or show the potential to excel in general intellectual ability, specific

subject matter aptitude and/or creative and productive thinking” (District Gifted Program General Guidelines, Revised January 1995, p.1). The program makes provisions for those students who require educational experiences beyond those normally provided in the regular school program.

The district’s program for gifted and talented students is a pull-out program for gifted students in grades K through 12. The students in grades K through 6 attend classes with their gifted peers for a period of 75 minutes twice a week. Students are served on their home campuses by specialists specifically trained and certified in gifted education. The gifted specialists are required to receive a minimum of 30 hours of training in teaching gifted students, and are encouraged to acquire 12 hours of college credit and state certification in gifted education (District Gifted Program General Guidelines, Revised January 1995).

Hansen and Feldhusen (1994) reported that there is a significant difference between teachers with specialized training in gifted education and those without. Yet, only 21 of the 50 states require teachers of gifted students in public school to meet minimum certification requirements. The study also reported that the most important characteristics of effective teachers of gifted students are flexibility, enthusiasm, self-confidence, high intelligence, appreciation of giftedness, broadly cultured background, ability to foster higher level thinking and problem solving, and the capacity to meet the personal and social needs of gifted children.

Evaluation process. The district’s assessment of students for the gifted program is an ongoing process with the major screening being conducted in the fall and spring. The assessment is based on the information gathered from a variety of sources, including standardized test scores, and parent and teacher surveys. There is a three-step process for identifying and assessing students for participation in the district program: (a) nomination

and pre-assessment, (b) assessment, and (c) selection. Students may be nominated for the gifted program by teachers, parents, counselors, administrators, or other interested persons. The person nominating a student must complete a referral form and submit it to the school office. Data regarding the student's ability and potential are collected from a variety of sources. During the assessment process, both subjective and objective information are collected: verbal and nonverbal academic achievement scores, cognitive ability scores, teacher observation data, parent rating, and creative and productive thinking scores. The collected data are plotted on a student profile and presented to a professional selection committee composed of at least three educators. Each student's identity remains anonymous throughout the assessment process. The committee evaluates each nominated student according to the district's established criteria and recommends placement of students whose assessment data implies that the gifted program is the most appropriate educational setting for them (District Gifted Program General Guidelines, Revised January 1995).

Self-concept

Self-concept has been identified as a person's most important possession (Combs, 1978), affecting all areas of the personality; restricting or enhancing the capacity to fulfill his or her potential (Baily, 1971; Maddux et al., 1982; Yauman, 1980). Even though researchers and educators acknowledge the importance of the self-concept, there has been considerable disagreement over the precise way in which self-concept should be defined and measured (Harter, 1982; Hoge & Renzulli, 1991; Mendaglio, 1995). According to Feldhusen and Kolloff (1981): "self-concept is a personality characteristic which describes how one feels about oneself in terms of abilities, strengths, and weaknesses" (p. 319). Byrne (1984) stated: "the perceptions that we hold about ourselves are derived from our

social environment and are believed to provide the culminating force in directing our behavior; this behavior in turn, influences the ways we perceive ourselves” (p. 429). Self-concept has been described by others as arising from a complex interaction between one’s own perceptions regarding one’s strengths and weaknesses and the influence of the perceptions of others (Assouline & Colangelo, 1995; Coleman & Fults, 1985; Hoge & Renzulli, 1991, 1993).

Self-concept is composed of several facets: cognitive, perceptual, affective, and evaluative. The evaluative component, sometimes referred to as self-esteem, concerns the ways in which children evaluate the various aspects of their personality, achievement and social status. Self-concept answers who one is, and self-esteem answers how one matches up or compares to others (Beane & Lipka, 1980; Calhoun & Morse, 1977; Coopersmith, 1967; Dickstein, 1977; Rosenberg, 1979).

Shavelson, Hubner, and Stanton (1976) argued that the descriptive and evaluative dimensions are not separable, and that the terms self-concept and self-esteem have been used interchangeably in the literature. Shavelson et al. suggested that by integrating various features that are common to the many definitions of self-concept, it would be possible to construct a working definition of self-concept that would be consistent with some current research and could be used to begin to integrate empirical evidence on the validity of self-concept interpretations. Shavelson et al. described self-concept as a person’s perception of himself or herself. This perception was formed through one’s experiences with one’s environment. Self-concept can further be described as organized or structured, multifaceted, hierarchical, stable, developmental, evaluative, and differentiable.

Self-Concept Constructs

The self can be defined as a complex system of beliefs which an individual holds to be true about himself. According to Purkey (1970), the self is constructed, in part, as a

result of the interactions one has with others. The beliefs one has about himself determines his actions and perceptions of the world. A person's reality is constructed from these beliefs (Clark, 1992). There have been three approaches to explaining the self-concept construct: (a) unidimensional, (b) multidimensional and (c) hierarchical models.

Single score model. The unidimensional or single score model suggested by Coopersmith (1967), among others, claimed that the only meaningful way to explain the self-concept construct is in terms of a global or general self-concept which can explain behavior in a variety of situations. Psychologists referred to this global self-concept as how positively one feels about oneself in general (Harter, 1986). Much of the research indicating that gifted students score high on self-concept has been a global, single-score approach to self-concept measurement (Coleman & Fults, 1982; Janos, Fung, & Robinson, 1985; Karnes & Wherry, 1981; O'Such, Havertape, & Pierce, 1979). Many researchers have challenged the idea of a single global self-concept (Mintz & Muller, 1977; Shavelson & Bolus, 1982; Song & Hattie, 1984). Schneider (1987) reported that the major problem with the research has been the focus on global self-concept. According to Hoge and Renzulli (1991) and Schneider (1987), emphasis on a single score approach has not adequately reflected the complexity of self-concept, and has produced inconsistent results. In fact, the unidimensional model has relatively little appeal today (Hoge & Renzulli, 1991; Mboya, 1989; Pyryt & Mendaglio, 1994). Most researchers seem to have agreed that in order to find any meaningful relationship with how well students perform, it is necessary to not only look at a global measure of self-esteem but also at something more specific such as academic self-esteem (Hansford & Hattie, 1982; Kohn, 1994; Mboya, 1989).

Multidimensional model. A second means of conceptualizing self-concept has been the multidimensional model. Many definitions of self-concept have included a multifaceted feature (Chapman, 1988; Piers & Harris, 1964; Purkey, 1970; Shavelson et al., 1976).

This model emphasized the separateness of the various facets of self-concept, such as academic, social, physical, and emotional (Harter, 1982, 1983). Research based on better theoretical models and measurement instruments has supported the multidimensionality of self-concept (Byrne, 1984; Fleming & Courtney, 1984; Harter, 1982; Lea-Wood & Clunies-Ross, 1995; Marsh, 1988, 1990; Marsh, Byrne, & Shavelson, 1988).

Hierarchical model. The hierarchical models have provided another way of conceiving self-concept. Most of the hierarchical models proposed a general self-concept factor at the top of the hierarchy with multiple separate facets of self-concept that can be ranked in a hierarchical order (Shavelson & Bolus, 1982). Harter (1986) has pointed out that there are some conceptual problems with the hierarchical models. Hoge and Renzulli (1991) concluded that while the hierarchical models are promising, more research is needed.

Development of Self-Concept

The perception of self begins in infancy. Young children begin to develop an idea of who they are through social interaction and play. As they practice in play activities what they have observed, they discover from the reactions and feedback of others in their environment whether or not they are considered acceptable members of their culture. They decide that they are smart or not very smart, strong or weak, likable or disliked, or somewhere in between (Charlesworth, 1967). Coleman and Fults (1983) suggested that a child's self-concept is highly sensitive to social comparisons. According to Coopersmith (1967) self-concept is greatly influenced by the amount of respectful treatment a person receives from those within his or her environment and by the person's history of success. If children have received praise and approval from the members of their culture, they develop positive feelings about themselves.

When children enter school their self-concept is already formed, mainly through the influence of the family (Purkey, 1970). The self-concepts of young children are global and situation-specific; they have feelings about themselves in specific areas. Research has indicated that children in preschool and early elementary school seem to have an especially positive global self-concept. They think they can do anything. With increasing age and experience, they become more cognitively mature, and begin to develop a more reality-based appraisal of their abilities and achievements (Moeller, 1994). Although the family is very important to the development of a child's self-esteem, it is a combination of school, family, and innate intelligence that appears to be important in increasing a student's self-concept during his school years (Coopersmith, 1967). A child's self-concept is affected daily by evaluations from school personnel, peers and family (Scott & Murry, 1996).

Stability of self-concept. Self-concept is relatively stable (Piers, 1984). It is not something which changes easily or rapidly. However, young children do not have a stable self-concept and cannot be measured in any consistent fashion. Piers (1984) reported that research supports the suggestion that self-attitudes are reasonably stable by age 7 or 8 years and recommends the use of Piers-Harris Self-Concept Scale for children eight and above. A child's self-concept is initially more situationally dependent and becomes increasingly stable over time. The self-concept may be enhanced through a series of positive experiences, but changes are not likely to occur as the result of a single positive incident. Amundson (1991) reported that self-concept diminishes as a person ages. He found that eighty-nine percent of kindergarten students have high self-concept, but 20% of fifth graders, 5% of high school graduates, and 2% of college graduates reported high self-concept.

Measuring Self-Concept

Since self-concept has been considered a critical variable in education and educational research, as shown by the number of studies concerned with aspects of the self-concept of primary, intermediate, high school, and college students, as well as learning disabled, disadvantaged and gifted students, many instruments for the measurement of self-concept have been developed and evaluated. Kohn (1994) estimated the number of instruments measuring self-esteem in use as of 1988 to be approximately 200. Hoge and Renzulli (1991) listed the most commonly used self-concept measures as:

How I See Myself Scale (Gordon, 1969)
 ME Scale (Feldhusen & Kolloff, 1981)
 Piers-Harris Children's Self-Concept Scale (Piers, 1984)
 Rosenberg Self-Esteem Scale (Rosenberg, 1965)
 Sears Self-Concept Inventory (Sears, 1966)
 Self-Concept of Ability Scale (Bilby, Brookover, & Erickson (1972)
 Self-Description Questionnaire (Marsh, 1988; Marsh & O'Neill, 1984)
 Self-Esteem Inventory (Coopersmith, 1967)
 Self-Perception Inventory (Soares & Soares, 1969)
 Self-Perception Profile for Children (Harter, 1982, 1985)
 Tennessee Self-Concept Scale (Fitts, 1964)
 (p. 8)

Shavelson et al. (1976) selected the following five major self-concept instruments to review in regard to definition, instrumentation, and empirical data: (a) How I See Myself Scale, (b) Piers-Harris Children's Self-Concept Scale, (c) Self-Concept of Ability Scale, (d) Self-Concept Inventory, and (e) Self-Esteem Inventory. They reported selecting these instruments because all are representative of self-report measures of self-concept and all the instruments are being used in educational research, evaluation, or both.

Piers-Harris Children's Self-Concept Scale. The most popular instrument for assessing bright students' self-concept (Hoge & Renzulli, 1991), and the one currently being used at the Connie Belin and Jacqueline N. Blank International Center for Gifted Education and Talent Development, (Assouline & Colangelo, 1995) is the Piers-Harris Children's Self Concept Scale . The scale was developed as a measure of general

self-concept. The Piers-Harris Children's Self-Concept Scale (PHCSC), subtitled "The Way I Feel About Myself," is a brief, 80-item, self-report questionnaire used in the assessment of self-concept of students in grades 3 through 12. Self-concept, as assessed by this instrument (Piers, 1984) is defined as one's conscious self-perception, and is used interchangeably with the terms self-esteem and self-regard. The scale stresses children's conscious self-perceptions rather than trying to infer how they feel about themselves from observing their behaviors.

The Piers-Harris Children's Self-Concept Scale (Piers, 1984) may be administered individually or in groups. Children answer either "yes" or "no" to simple descriptive statements which are designed to measure how the children feel about themselves. Approximately half the statements are worded positively and half negatively. Shavelson et al. (1976) reported that the various statements were selected to discriminate between students with extremely low and high total scores.

The scale gives a total self-concept score as well as sub-scores in six areas: behavior, intellectual and school status, physical appearance, anxiety, popularity, and happiness and satisfaction. Usually, only the total score from the scale is used. High scores on the scale suggest a positive self-evaluation, and low scores suggest a negative self-evaluation (Piers, 1984). The authors of this multifaceted self-concept instrument claim that it can be used diagnostically in clinical and counseling settings as well as in the classroom for psychological referrals. Its primary use, however, has been in research of the development of self-concept. Research studies such as Karnes and Wherry (1981), Ketcham and Snyder (1977), Klein and Cantor (1976), O'Such et al. (1979), and Stopper (1978) have generally provided support for the use of the instrument as a research tool (Schneider, 1987).

The major limitation of the Piers-Harris Scale is that most users of the scale ignore the component factors and limit their analyses to the total self-concept score. By doing this, inferences can be made only about global self-concept, despite the fact that more meaningful data relating to the various facets of self-concept would be readily available from the same measure (Schneider, 1987). Even though there is substantial evidence for the validity and reliability of the Piers-Harris Children's Self-Concept Scale, Jenkins-Friedman and Murphy (1988) suggested it is of limited validity for gifted students. They found that gifted students seemed to second guess correct responses. Other researchers, including Schneider (1987) are convinced that the Piers-Harris Scale is a useful instrument.

Reliability of self-concept measurements. Self-concept instruments may vary in the specific areas of the competence assessed, but most provide both a general self-concept score and domain specific scores. In general, the reliability of self-concept instruments tends to be satisfactory. The test-retest reliability of general self-concept tends to be more stable than that of specific areas or domains. There is a question as to the extent to which these measures actually measure self-concept. This issue revolves around the unresolved question of whether or not there exists a general self-concept (Byrne, 1984; Shavelson et al., 1976; Hoge & Renzulli, 1991). Shavelson et al. (1976) suggested that some degree of standardization of definition, instrumentation, and interpretation needs to be achieved. Once that is done, self-concept can be investigated systematically.

Research has not indicated that self-concept instruments should not be used, but rather that they should be interpreted with some caution. According to Hoge and Renzulli (1991), considerable progress has been made in the development of some of the measures. They have suggested that future researchers use either the Perceived Competence Scale for Children (Harter, 1982), the Piers-Harris Children's Self-Concept Scale (Piers, 1984) or

the Self-Description Questionnaire (Marsh, 1988; Marsh & O'Neill, 1984), and to score the instruments for specific domain scores, as well as general self-concept.

Giftedness and Self-Concept

The investigation and analysis of the relationship between self-concept and giftedness has been complicated by the complex concepts of giftedness and self-concept. Most researchers have agreed that intelligence takes many forms; that there are different ways to be intelligent and different ways that giftedness is demonstrated (Assouline & Colangelo, 1995; Hoge, 1988; Hoge & Cudmore, 1986; Renzulli, 1978). Researchers of self-concept have concluded that self-concept includes specific domains such as emotional, social and physical, as well as a general self-evaluation (Lea-Wood & Clunies-Ross, 1995).

Both theoretical and empirical literature in the field of gifted education have attempted to compare the social and emotional adjustment of gifted students to the general population. The theoretical literature has proposed that "giftedness interferes with children's social and emotional development, that gifted children are more prone to specific adjustment difficulties, or that individuals need to be taught how to survive a child's giftedness" (Bland, Sowa, & Callahan, 1994, p. 79). The empirical literature has compared the adjustment of gifted students' with that of students in regular classes (Bland et al. 1994).

In a review of the literature on social-emotional development of the gifted, Janos, and Robinson (1985) reported that the studies demonstrated three aspects of self-concept development in the gifted: (a) greater psychosocial maturity, (b) average or superior psychosocial adjustment, (c) and higher self-esteem than nongifted students. The literature suggested that gifted students have strong self-concepts in both academic and social areas.

Recent studies indicated gifted students have higher general self-concept than their nongifted peers (Assouline & Colangelo, 1995). Van Tassel-Baska, Olszewski-Kulieke and Kulieke (1994) reported that there seems to be “some temporary reduction in self-esteem for students who relate most often with peers of equal or superior ability in special programs” (p. 187). There also was some evidence that highly gifted students and gifted girls may have less positive self-concepts than other gifted students (Van Tassel-Baska et al. (1994).

Self-Concept, Achievement, and Group Identities

Self-concept has been widely regarded as an important factor in academic achievement, particularly among gifted students (Cornell, Delcourt, Goldberg, & Bland, 1995; Hoge, Smit, Hanson, 1990; Marsh et al., 1988; Schneider, Clegg, Byrne, Ledingham, & Crombie, 1989). Research has consistently indicated that a student’s academic self-concept seems to be determined by his or her academic performance, especially in the early elementary school years (Moeller, 1994). Moeller also reported that children with more stable self-concepts have a more accurate concept of their academic ability and perform better academically than those with unstable self-concepts. Ketcham and Snyder (1977) studied gifted students in grades 2, 4, and 6, and found that the patterns of self-concept and achievement in the gifted were almost one standard deviation above those of the norm group for the Piers-Harris Self-Concept Scale. Brophy (1983) suggested that a possible factor complicating the connection between achievement and self-concept is the impact of the environment. He noted that teachers communicating higher expectations can favorably affect the academic self-concept of gifted students.

The limited data on gender differences in the self-concepts of gifted children are somewhat contradictory and inconclusive (Schneider, 1987). Much of the available research on the social status of gifted students compared to nongifted students treat gifted

children as a homogeneous group rather than by gender (Benbow & Stanley, 1983; Davis & Rimm, 1985). Most of the studies that examined self-concept differences by gender reported no significant differences (Piers & Harris, 1964; Coleman & Fults, 1982, 1983; Karnes & Wherry, 1981; Ketcham & Snyder, 1977; Kolloff & Feldhusen, 1984; Tidwell, 1980; Stopper, 1978).

Schneider (1987) reported that both gifted boys and girls displayed significantly higher academic than social self-concepts. Kline and Short (1991) indicated that there was a significant decrease in self-concept of gifted girls throughout their school development. Even though primary-grade females have been reported to have good self perception (Kline & Short, 1991), the females positive self-concept appears to undergo a radical shift during adolescence (Whitmore, 1980; Kanoy, Johnson, & Kanoy, 1980). Research on males reported that gifted boys, ages 9 to 12 described themselves as less satisfied with themselves in some areas than nongifted boys (Loeb & Jay, 1987).

Researchers have suggested that gifted children, as a group, have positive self-concepts. However, high expectations of self, a tendency to be self-critical, and a tendency toward perfectionism are characteristics of gifted children which may predispose some of them to have low self-concepts (Delisle, 1992; Mendaglio & Pyryt, 1995). Betts (1986) and Blackburn and Erickson (1986) indicated that gifted students have greater emotional, social, and cognitive adjustment issues than their peers and are tremendously affected by personal stress and social problems.

Research Emphases

Much of the research on giftedness and self-concept has been a result of the use of a single-score approach to the measurement of self-concept (Coleman & Fults, 1982; Janos et al., 1985; Karnes & Wherry, 1981; O'Such et al., 1979). Also, research indicating that the gifted students score higher on self-concept has been a global,

single-score approach to self-concept measurement (Hoge & Renzulli, 1991; Schneider, 1987). Hoge and Renzulli and Schneider have suggested that the use of a single-score instrument cannot adequately measure the self-concept.

In a review of four types of published studies, Hoge and Renzulli (1991) presented the following issues regarding the link between giftedness and self-concept: (a) gifted and nongifted students; (b) variables such as gender, level of exceptionality, and level of achievement; (c) labeling; and (d) and gifted programs.

Gifted and nongifted students. Hoge and Renzulli (1991) reviewed several studies comparing gifted and nongifted students in terms of self-concept (see Appendixes B and C). The studies included three different designs:

Self-concept of children identified as gifted and placed in special classes were compared with more average students in regular classes.

Self-concept of children identified as gifted on the basis of standardized test scores were compared with students not meeting not meeting the criteria of giftedness.

Self-concept scores of students identified as gifted and in special programs were compared with normative scores reported in connection with the self-concept measure employed in the study. (pp. 20-21)

The results of these studies indicated higher general self-concept scores for the gifted children compared with the nongifted. Of the studies that focused on academic self-concept, the results showed higher levels of self-concept in that area. No evidence was found that social self-concept is lower in gifted children than average children.

In a similar report, Schneider (1987) reviewed 16 studies in which the general self-concept of gifted children was compared with controls (see Appendix D). Over half of the studies reported that the general self-concepts of gifted children were higher than that of the controls. In all of the others, no significant difference was found between gifted and the controls. Schneider's conclusion was that researchers have not consistently demonstrated that gifted children have higher self-concepts than nongifted children. Schneider

emphasized that there were methodological weaknesses in many of the studies. Several of the studies compared self-concept scores of the gifted with the norms stated in the manuals for the standardization samples. The major shortcoming of the studies was their failure to analyze self-concept by specific domain, which according to Schneider (1987), provides questionable value to the studies (see Appendix E).

Related variables. Hoge and Renzulli's (1991) review contained a second set of studies which focused on research using variables such as gender, level of exceptionality, and level of achievement, which might help in connecting a link in the relationship between giftedness and self-concept. Even though the relationship between giftedness and self-concept depends on a number of factors, most of these studies simply contrasted gifted with nongifted or average students. Kelly and Colangelo (1984) reported some evidence to support the hypothesis that the relation between giftedness and self-concept might vary between girls and boys. They observed that gifted boys had significantly higher general self-concepts and academic self-concept scores than nongifted boys. However, there was no significant difference found when comparing gifted and nongifted girls. A second variable having to do with the level of exceptionality of the gifted, was investigated by Brody and Benbow (1986) and Ketcham and Snyder (1977). They reported no differences in global self-esteem between very highly gifted children and moderately gifted children. A third variable had to do with the level of achievement exhibited by a student. Ziv, Rimon, and Doni (1977) reported that their study demonstrated that achievement level had more of an impact on self-concept of average students than of gifted students.

The labeling process. In a third group of studies concerned with the effects of the labeling process on self-concept, Hoge and Renzulli (1991) reported no studies dealing directly with the effects of the gifted label on the child. However, Cornell (1983) and

Sapon-Shevin (1989) have studied the impact of labeling a child as gifted on the expectations and attitudes of parents and teachers.

Program effects. Hoge and Renzulli (1991) reported two types of studies on the effects of programming on the self-concept of gifted children: (a) the comparison of gifted children in enrichment programs with gifted children not in special programs or in different types of programs, and (b) the comparison of the changes in self-concepts of students before and after entrance to a gifted program. Karnes and Wherry (1981) and Kolloff and Feldhusen's (1984) compared gifted children in special programs with gifted children remaining in regular classrooms and reported no differences in total self-concept scores among any of the groups. Coleman and Fultz (1982) contrasted two groups of identified gifted students: (a) gifted students assigned to a one-day-per-week separate enrichment program and (b) gifted students who received no special programming. They determined that both groups of students had higher general self-concept scores than students of average ability, but the gifted students who remained in regular classes had higher general self-concept scores than the gifted students in the enrichment program. In a similar study, Schneider et al. (1989) reported that gifted children in regular classrooms had significantly higher academic self-concept scores than gifted students in self-contained enrichment classes. Feldhusen, Sayler, Nielsen, & Kolloff (1990) compared the changes in self-concept scores of two groups of gifted students, and reported that students in an enrichment program showed greater increases in global self-concept scores than the students not in the special program.

According to Hoge and Renzulli (1991), attempting to interpret studies with such highly variable results can be rather frustrating. In some cases exposing gifted students to special programming had no effect on self-esteem. In other cases it led to enhanced self-esteem, and in others, it had a negative effect. Hoge and Renzulli (1991) have

interpreted this variability in the findings of studies on self-concept as a result of the inconsistency of definitions of giftedness, the type of program the student is exposed to, the measure used, or the length of time over which the assessment is made. Hoge and Renzulli further stated that the lack of a systematic treatment of these variables would suggest that the studies should not be used for assessing hypotheses.

Giftedness Relationship to Positive Self-Concept

There is considerable research substantiating that, in general, gifted students have better self-concepts and are better adjusted than average students (Chiu, 1990; Colangelo, Kelly, & Schrepfer, 1987; Coleman & Fults, 1982, 1983; Hoge & McSheffrey, 1991; Hoge & Renzulli, 1991, 1993; Karnes & Wherry, 1981; Kelly & Colangelo, 1984; Kitano, 1990; Schneider et al., 1989). Cornell (1983) reported the reasons for gifted students having more positive self-concepts than average ability students was because (a) the students usually were achieving at a high level and (b) the labeling of a child as gifted usually communicates a positive image. In studies comparing gifted and average children, Kelly and Colangelo (1984) and Lehman and Erdwins (1981) reported that gifted children had higher scores on various measures of self-concept and adjustment. Other studies such as Coleman and Fults, (1982, 1985); Karnes and Wherry (1981); Kolloff and Feldhusen (1984); and Maddux et al., (1982) suggested that placement in special programs reduced gifted students' self-concepts. Even though the scores were reduced, they remained higher than those of average students. Chan (1988), Ross and Parker (1980), and Hoge and McSheffrey (1991) reported gifted students rated themselves higher on academic than social self-concept. In a more recent study, Van Tassel-Baska et al. (1994) reported that the self-concept of gifted students was high, regardless of ethnicity, gender, or class.

Relationship to Self-Concept

Research on the self-concept of children has not always been consistent. High ability children sometimes compared unfavorably with average children (Bracken, 1980; Klein & Cantor, 1976; Milgram & Milgram, 1976; Trotter, 1971). Coleman and Fulst (1982, 1985) suggested placement in a special program may cause a drop of self-concept for some gifted children, but that their scores are higher than those of average children. Other studies have reported no significant difference between the self-concept of gifted students and their average peers (Bartell & Reynolds, 1986; Bracken, 1980; Ketcham & Snyder, 1977; Winne, Woodlands, & Wong, 1982).

Research Critique

The main reason for these seemingly conflicting results is that researchers have used a variety of criteria to identify gifted children. A second reason is that most investigators have not considered the multidimensionality of self-concept, even though research has shown that comparisons of mean differences in scores is meaningful only in regard to a specific facet of self-concept (Marsh & Shavelson, 1985). Mendaglio and Pyryt (1995) emphasized that measurement of self-concept should be based on several aspects of self-concept and not on a single score. Third, researchers have not always investigated variables such as grade, gender, classroom setting, and achievement. Fourth, there has been difficulty in interpreting measures of self-concept because of the variability in self-concept instruments (Schneider, 1987). Fifth, many studies have not compared gifted children with adequate local nongifted groups, but rather with data reported in test manuals (Janos et al., 1985; Maddux et al., 1982; Tidwell, 1980). Sixth, researchers have not used appropriate assessment instruments for measuring the self-concept of gifted children. (Loeb & Jay, 1987). Finally, students may have selected responses they know to be socially desirable rather than responses that are self-descriptive (Shavelson et al., 1976).

Research Recommendations

Schneider (1987) suggested that until the problems of definition, measurement and interpretation have been resolved, the generalizability of self-concept results will be severely limited and data on students' self-concepts will continue to be ambiguous. Davis and Connell (1985) emphasized that what previous studies lacked both individually and as a group, are domain specific and focused assessments of individual components of self-concept. Hoge and Renzulli (1991) have offered several guidelines for improving research methodology in the areas of self-concept and giftedness. They have encouraged future researchers to pay careful attention to their treatment of self-concept and giftedness variables. Researchers are advised to use one of the following standardized instruments and to score them for specific domains as well as general self-esteem: (a) the Perceived Competence Scale for Children (Harter, 1982), or (b) the Piers-Harris Children's Self-Concept Scale (Piers, 1984). Hoge and Renzulli expressed the need for researchers to be explicit about the definition of giftedness they are employing. They encouraged future researchers to pay close attention to their experimental design and to use more qualitative research methodologies. Hoge and Renzulli also suggested that there is a need for longitudinal studies in which changes in the relation between giftedness and self-concept can be explored at different age levels.

Summary

Research has indicated that there is an absence of an agreement on the way that self-concept and giftedness should be defined and measured. This absence of agreement of definitions has complicated analyses of the relation between giftedness and self-concept.

Studies of the self-concept and giftedness fall into four categories: (a) comparisons of the self-concepts of gifted and nongifted students, (b) variables, such as gender or

achievement, (c) effects of the labeling process on self-concept of gifted students, and (d) effects of programming on the self-concept of gifted students.

Research has indicated that overall, gifted students as a group showed somewhat higher levels of general and academic self-esteem when compared with non-gifted students. Research on program effect which compared (a) the self-concept of gifted children in enrichment programs with gifted children in regular classrooms, and (b) changes in self-concepts of students before and after entrance to gifted programs, had highly variable results: positive, negative, and no effects.

No studies were found which dealt directly with the acceptance or rejection of nominated students. This study addresses this issue with 207 children in one suburban school district.

CHAPTER III

METHODOLOGY

This quasi-experimental study examined the effects that a screening process can have on the self-concept of a child who is nominated but ultimately not selected for participation in a gifted program. The possible effects on the self-concept of (a) student nomination and acceptance (Group I, $n=68$) and (b) student nomination and rejection (Group II, $n=139$), as measured by pre- and post-tests on the Piers-Harris Children's Self-Concept Scale, were investigated. The independent variable was acceptance or non-acceptance into the district's program for the gifted. The relationship of self-concept to gender and grade level also was explored as well as the relationship of those variables to specific sub-tests. An alpha level of .05 was established.

Hypotheses

Null Hypothesis 1

There is no significant difference in the Piers-Harris Self-Concept post-test mean scores of the subjects in Group I and Group II using the pretest as a covariate.

Null Hypothesis 2

There is no significant difference in the Piers-Harris Self-Concept post-test mean scores by gender within Group I and Group II using the pretest as a covariate.

Null Hypothesis 3

There is no significant difference in the Piers-Harris Self-Concept mean scores by group by grade level.

Null Hypothesis 4

There is no significant difference in the Piers-Harris Self-Concept mean scores by group by sub-tests: (a) Behavior, (b) Intellectual and School Status, (c) Physical Appearance and Attributes, (d) Anxiety, (e) Popularity, and (f) Happiness and Satisfaction.

The Population

District Profile

The independent school district chosen for this study was in a suburban community near a major metropolitan area of the Southwest. The community has become known for its neighborhoods and schools. The district's 10 elementary schools (K-6), two middle schools (7-8), and two high schools (9-12) have been accredited by the Texas Education Agency and the Southern Association of Colleges and Schools. At the time of the study the district enrollment was 11,995 students. Of this total enrollment, the ethnic distribution was: (a) White 71.5%, (b) Black 11.7%, (c) Hispanic 14.7%, (d) Asian 1.5%, and (e) American Indian .5%.

The Gifted Program

The District's program for gifted and talented students has provided for those who excel or show potential to excel in general intellectual ability. Students were nominated for the program by teachers, counselors, administrators, parents, or other interested persons. Student information was collected through both objective and subjective assessments. The assessment tools included achievement tests, creativity tests, and behavioral checklists completed by teachers and parents. A selection committee composed of at least three professional educators knowledgeable of the needs of gifted students, evaluated each nominated student according to the district's established criteria. Students selected were those for whom the gifted program placement was the most appropriate educational setting.

Each of the 10 elementary campuses was served by a teacher trained in gifted education. The teachers were required to receive a minimum of 30 hours of training in teaching gifted students, and were encouraged to acquire 12 hours of college credit and state certification in gifted education.

There were 1,306 students in grades 1 through 12 who were enrolled in the district's pull-out program for gifted and talented students. More than 200 students in grades 3 through 6 were referred for assessment during the fall of 1994. This population became the census sample for this study.

Description of the Subjects

The population ($n=230$) for this study was all third-, fourth-, fifth-, and sixth- grade students referred for screening for the district's pull-out program for gifted and talented students. All children were enrolled in one of ten elementary schools in a school district of approximately 12,000 students. A total of 230 students met one or more of the district's nomination criteria and formed a talent pool from which 68 students (34 males and 34 females) were assessed as qualified for placement in the district's gifted program. Group I for this study was the 68 students who were accepted into the gifted program. Group II consisted of the 139 students who did not qualify for acceptance. After taking the pre-test and before taking the post-test, 23 students moved from the district and were eliminated from the study. The 207 students remaining in the study at the end of the second assessment included 97 boys and 110 girls.

Description of the Instrument

In order to find out how the third-, fourth-, fifth-, and sixth-grade students nominated for the gifted program felt about themselves, the Piers-Harris Children's

Self-Concept (PHCSC), a measure of self-concept, was selected. The PHCSC, subtitled "The Way I Feel About Myself," a norm-referenced, self-report inventory for children 8 to 18 years of age has been used to assess the self-concept of both gifted and average ability children. It was intended to be administered either individually or in a group setting. Students were to respond to the 80-item test with "yes" or "no" according to how they feel about themselves. Approximately half the items have been worded positively and half negatively to reduce the possibility of social desirability and response bias. The test can be completed in approximately 20 to 25 minutes and may be scored by teachers. Scores can range from 0 (based on all "no" responses) to 80 (based on all "yes" responses), with higher scores reflecting more positive self-concept. Raw scores can be converted to percentiles, stanines, and T-scores. Scores can be recorded in the form of an overall self-concept score or as a profile of six cluster scores: (a) Behavior, (b) Intellectual and School Status, (c) Physical Appearance and Attributes, (d) Anxiety, (e) Popularity, and (f) Happiness and Satisfaction.

The Piers-Harris scale total score was standardized in the early 1960s on a sample of 1,183 public school children in grades 4 through 12 from a small town in Pennsylvania. The sample had a mean score of 51.84, a standard deviation of 13.87, and a median of 53.43. Norms for the six cluster scales were based on a sample of 485 public school students, including elementary, junior high, and senior high school students. The mean score for this sample (56.04) was higher than the mean score for the original normative sample (51.84). Since the two samples were not exactly comparable, researchers are reminded to interpret the scores with caution. In order to enable users of the Piers-Harris scale to directly compare a single child's scores in all six clusters scores and the total score, raw scores were converted to stanines, percentiles, and normalized T-scores. This

conversion corrected for any irregularities in the distributions of the seven scales (Piers, 1984).

Studies investigating internal consistency yielded coefficients ranging from .88 to .93 on the total scale, with cluster scales ranging from .73 to .81. The instrument appeared to be highly reliable in terms of temporal stability and internal consistency (Mitchell, 1985; Piers, 1984). Shavelson et al. (1976) reported the reliability of the Piers-Harris scale to be satisfactory. According to The Ninth Mental Measurements Yearbook (Mitchell, 1985) the Piers-Harris has been reported to be a psychometrically adequate instrument whose usefulness in research has been documented, and appeared to be the best children's self-concept measure currently available.

The instrument has been one of the most widely used self-concept scales (Assouline & Colangelo, 1995; Mitchell, 1985). Hoge and Renzulli (1991) has advised future researchers to use either (a) the Perceived Competence Scale for Children (Harter, 1982), (b) the Self-Description Questionnaire (Marsh, 1988; Marsh & O'Neill, 1984), or (c) the Piers-Harris Children's Self-Concept Scale (Piers, 1984). Assouline & Colangelo (1995), at the Connie Belin and Jacqueline N. Blank International Center for Gifted Education and Talent Development, preferred using the Pier-Harris scale because it is easily administered to groups of students, and is useful in individual counseling settings.

Data Collection

After discussing this research proposal with school authorities, permission was obtained to conduct the study. All students in grades 3 through 6 who had been nominated for screening for the district's gifted program were included in the study. The investigator met with each elementary school principal to discuss the research study. During the first 2 weeks of December of 1994, prior to selection or rejection for the gifted program, the

census sample of 230 students was given a pre-test using the Piers-Harris Self-Concept Scale. The investigator, with the help of the gifted specialists, administered the Piers-Harris scale to students in small groups at their home school. Administration required approximately 20 minutes. All of the gifted specialists who helped with the testing had been trained to follow a common set of rules provided by the Piers-Harris Children's Self-Concept Scale Revised Manual (Piers, 1984). The students were instructed to circle "Yes" or "No" according to how they generally felt about themselves.

During the last 2 weeks of January 1995, after the district's assessment process had been completed and the students who were placed in the gifted program were notified, the Piers-Harris scale was given again to the 207 participants who remained in the district. This post-test was given to both the students who were placed in the gifted program and to those who were not accepted. Those accepted were Group I and those rejected were Group II in this study. The data from all testing were analyzed and the hypotheses addressed. Every effort was made to afford anonymity to the students and the school district throughout the study. Data collection was completed during the 1994-1995 school year.

Data Analysis

The data were coded and entered into the BMPD program to provide descriptive and inferential statistical analyses. Means, standard deviations, percentages and frequency distributions were computed for all variables: group, grade, gender and sub-tests of the Piers-Harris Self-Concept Scale. An analysis of covariance (ANCOVA) was used to test the hypotheses in the study. An alpha level of .05 was established. The ANCOVA determined the possible effects on the self-concept of (a) student nomination and acceptance (Group I) and (b) student nomination and rejection (Group II), as measured by pre- and post-tests on the Piers-Harris Children's Self-Concept Scale.

Summary

This quasi-experimental study included 207 elementary students in grades 3 through 6 who were nominated for screening for a district's gifted program. The study examined the effects of acceptance and non-acceptance on the students' self-concept before and after placement in the program, as measured by the Piers-Harris Children's Self-Concept Scale. An analysis of covariance was used to test the hypotheses in the study. The hypotheses examined differences by group, gender, grade, and by individual sub-tests of the self-concept scale.

CHAPTER IV

DATA ANALYSIS

This quasi-experimental study examined the possible effects of a district's screening process on the self-concept of third-, fourth-, fifth-, and sixth-grade students who were either accepted or rejected after being nominated for screening for a gifted program. The sample ($n=207$) consisted of 97 males and 110 females from the district's 10 elementary schools. The students ranged in age from 8 to 12 years, with a mean age of 9.87 plus or minus 1.17 years. Of the total number in the study, 61 were third graders (29.5%), 72 were fourth graders (34.8%), 42 were fifth graders (20.3%), and 32 were sixth graders (15.5%).

At the same time the students were being screened and assessed by the district for possible placement, they were given a pre-test using the Piers-Harris Children's Self-Concept Scale (PHCSC). After the district's screening process was completed, 34 males and 34 females were accepted into the gifted program. Of those not accepted, 63 were males and 76 were females. Table 1 contains the basic descriptive data for the self-concept measure for the two groups: those who were accepted into the program and those who were not.

Approximately one month after receiving notice of acceptance or rejection, all students in the study were given a post-test using the PHCSCS. Analyses of covariance using the pre-test as covariate were used to examine the four hypotheses. An alpha level of .05 was established.

Table 1

Comparison of Number of Males and Females Accepted and Not Accepted by Group

	Group I (Accepted)	Group II (Not Accepted)
Males	34	63
Females	34	76
Total	68	139
%	32.9	67.1

Hypotheses

Null Hypothesis 1

There is no significant difference in the Piers-Harris Self-Concept post-test mean scores of the subjects in Group I and Group II using the pretest as a covariate.

The scores from both the pre-test and the post-test on all 207 students were analyzed using an analysis of covariance (ANCOVA). The assumptions for ANCOVA were tested and met. The ANCOVA yielded the results $F(1,203)=5.53$, and the probability level ($p=0.02$) which resulted in the rejection of Hypothesis 1. The adjusted means of Group I (accepted) was 65.30 and Group II (not accepted) was 67.60 as noted in Table 2. The analysis of covariance is reported in Table 3.

Table 2

Comparison of Adjusted Mean of Students' Self-Concepts by Group (Accepted and Not Accepted)

	Group I (Accepted)	Group II (Not Accepted)
Adjusted Group Mean	65.30	67.60

There was a significant difference between the scores of the students who were accepted into the program (Group I) and the scores of the students who were not accepted (Group II). Those who were not accepted had the higher self-concepts.

Table 3

Summary Table for Analysis of Variance (ANCOVA)

Source of Variance	Sum of Squares	D.F.	Mean Square	F	Tail Prob.
Between groups	240.94	1	240.94	5.53	<.02
Error	8888.54	204	43.57		
Total	9129.48	205			

$p < .05$

Results. The analysis indicated that Group II had significantly higher scores than Group I on the self-concept scale. Students who were not accepted into the district's gifted and talented program scored higher on the Piers-Harris Children's Self-Concept Scale than those who were accepted into the program. The hypothesis was not confirmed by the

findings. The resulting self-concept scores suggested further questions. The results might be attributed to the increased pressures that students experience when accepted into a class for gifted students. The students may appear self-confident as long as they are in the regular classroom competing with average students, but when placed in a class where all of the students are gifted, they may not seem as confident about their abilities. Clark (1992) offered one possible reason for this as the unusually high expectations the gifted have for themselves. Van Tassel-Baska et al. (1994) suggested that there seemed to be some temporary negative impact on the self-esteem of students when first assigned to special programs with peers of equal or superior ability.

No research studies directly parallel to this one were found in the literature, but results from studies on the self-concept of gifted students can be applied. Schneider et al. (1989) reported that gifted students who remained in regular classes had significantly higher general self-concepts than gifted students placed in an enrichment program. Other studies (Coleman & Fults, 1982, 1985; Karnes & Wherry, 1981; Kolloff & Feldhusen, 1984; Maddux et al., 1982) reported that placement in special programs reduced gifted students' self-concepts, but that their self-concepts were higher than the average students'. There was considerable research supporting that, in general, gifted students have better self-concepts than average students (Chiu, 1990; Colangelo et al., 1987; Coleman & Fults, 1982; Hoge & McSheffrey, 1991; Hoge & Renzulli, 1991, 1993; Karnes & Wherry, 1981; Kelly & Colangelo, 1984; Kitano, 1990; Schneider et al., 1989). However, Trotter (1971) stated that gifted students often have lower self-concepts than their more average peers. According to Hoge and Renzulli (1991), interpreting the highly variable results of studies of the self-concept of the gifted can be rather frustrating. They reported that in some cases exposing gifted students to special programming seemed to have no effect on self-concept; in other cases, it led to enhanced self-concept; and in others, it had a negative effect. Hoge

and Renzulli (1991) suggested that this variability was due to the inconsistency among the studies with respect to definitions of giftedness, the type of program the student was exposed to, the measure used, or the length of time over which the assessment was made.

Null Hypothesis 2

There is no significant difference in the Piers-Harris Self-Concept post-test mean scores by gender within Group I (accepted) and Group II (not accepted) using the pretest as a covariate.

A 2-way analysis of variance revealed that there was a significant interaction between gender and acceptance into the gifted program ($F = 8.14, p = .004$). In order to determine where the difference between the four means was located, a post hoc Tukey for gender by group was used. The absolute differences were computed for each pairwise comparison. Table 4 shows the difference between the four means as determined by the post hoc Tukey for gender by group.

Table 4

Pairwise Comparison Between Group Means (Post hoc Tukey)

	Group 1 (Males Accepted)	Group 2 (Males Not Accepted)	Group 3 (Females Accepted)	Group 4 (Females Not Accepted)
Group 1 (Males Accepted)	-	5.04*	5.41*	4.99*
Group 2 (Males Not Accepted)		-	.37 NS	5.05 NS
Group 3 (Females Accepted)			-	4.21 NS

*Significant

The hypothesis was rejected. There was a significant difference in the mean scores. Males who were accepted into the gifted program (62.60) scored significantly lower than males not accepted (67.63). Males accepted (62.60) scored significantly lower than females accepted (68.00). Males accepted (62.60) scored significantly lower than females not accepted (67.58). Females accepted (68.00) did not score significantly different from females not accepted (67.58). Males not accepted (67.63) were not significantly different from either females accepted (68.00) or not accepted (68.58). Table 5 indicates that there was a difference at the .05 level of significance in self-concept by gender as measured by the Piers-Harris Self-Concept Scale.

Table 5

Comparison of Self-Concept Group Means by Gender

Group	Gender	Count	Adjusted Mean	SD
Group I (Accepted)	M	34	62.60	12.75
Group II (Not Accepted)	M	63	67.63	7.94
Group I (Accepted)	F	34	68.00	8.86
Group II (Not Accepted)	F	76	67.58	9.40

$p < .05$

Results. The analysis suggested that males who were not accepted into the gifted program have higher self-concepts than males who were accepted. Females who were accepted into the gifted program have better self-concepts than females who were not accepted. The analysis also disclosed that females who were accepted scored higher than males who were accepted (see Table 6).

Hoge and Renzulli (1991) reviewed 18 studies comparing the self-concept of gifted and nongifted students. No evidence was found that social self-concept was lower in gifted students than average students. Schneider (1987) reviewed 16 studies in which the general self-concept of gifted children was compared the self-concept of average peers. Over half of the studies reported that the general self-concepts of gifted children were higher than those of average children, and in the other studies, no significant difference was reported.

Table 6

Detail of Differences in Self-Concept by Gender and Group

Groups Compared	Self-Concept Results
Males I vs. Males II	Significant difference (Males not accepted scored higher)
Males I vs. Females I	Significant difference (Females accepted-scored higher)
Males I vs. Females II	Significant difference (Females not accepted scored higher)
Males II vs. Females I	No significant difference
Males II vs. Females II	No significant difference
Females I vs. Females II	No significant difference

Note: I = Accepted into gifted program
II = Not accepted into gifted program

Kelly and Colangelo (1984) reported some evidence to support the hypothesis that the relationship between giftedness and self-concept might vary between girls and boys. However, unlike the findings in the researcher's study, Kelly and Colangelo reported that gifted boys had significantly higher general and academic self-concept scores than nongifted boys. Van Tassel-Baska et al. (1994) suggested that there seemed to be some temporary negative impact on the self-esteem of students when first associated with peers

of equal or superior ability in special programs. This may explain this researcher's study results of males accepted into a gifted program having lower self-concept scores than males not accepted. The low self-concept scores of males accepted into the gifted program may prove to be short lived and change with time.

Any future researchers of a similar study might be interested in giving a second post-test using the Piers-Harris scale after an extended period of time, to discover whether or not there would be any changes in the self-concept scores. According to Piers (1984), the self-concept may be enhanced through a series of positive experiences. Therefore, the self-concept scores of the gifted students might improve in the future as they experience the positive aspects of being in a gifted program.

Null Hypothesis 3

There is no significant difference in the Piers-Harris Self-Concept mean scores by group by grade level.

The hypothesis was accepted. There was no significant difference between grade and acceptance into the gifted program ($F=.58$, $p=0.63$).

A comparison of the self-concept adjusted means for students referred for the gifted program by group and by grade can be found in Table 7.

Null Hypothesis 4

There is no significant difference in the Piers-Harris Self-Concept mean scores by group by sub-tests: (a) Behavior, (b) Intellectual and School Status, (c) Physical Appearance and Attributes, (d) Anxiety, (e) Popularity, and (f) Happiness and Satisfaction.

There was no significant difference in the Piers-Harris Self-Concept mean scores by group by sub-tests in five of the six sub-tests. There was a significant difference in the scores of the sub-test "Behavior" ($F=9.15$, $p=.003$).

Table 7

Comparison of Self-Concept Adjusted Means for Students Referred for Gifted Program by Group and by Grade

Grade	Count ($n = 207$)	Group I Mean	SD	Group II Mean	SD
3	61	66.54	10.34	68.36	8.47
4	72	64.91	9.46	67.66	9.00
5	42	67.71	7.94	67.38	9.96
6	32	63.02	15.52	66.61	8.05

$p < .05$

The Piers-Harris Scale was scored for the six cluster or sub-tests. The scores were analyzed with the same ANCOVA design used for the total scale scores. All assumptions of ANCOVA were tested and met.

Results. Of all of the six sub-tests, "Behavior" was the only one where there was a significant difference between groups. In all of the other five sub-tests there was no difference. Since most researchers using the Piers-Harris Children's Self-Concept Scale have ignored the sub-tests and limited their analyses to the total self-concept score (Schneider, 1987), comparison of this result to the literature is limited. The profile for the mean for each sub-test or domain of the Piers-Harris Children's Self-Concept Scale can be located in Table 8.

Table 8

Piers-Harris Children's Self-Concept Scale (PHCSC) Sub-test Means by Group

	Group I (Accepted)	Group II (Not accepted)	p	Significance
Sub-tests:				
(1) Behavior	13.90	14.68	0.003	*S
(2) Intellectual & School Status	14.96	15.26	0.234	NS
(3) Physical Appearance & Attributes	9.73	10.13	0.202	NS
(4) Anxiety	11.87	11.87	0.988	NS
(5) Popularity	9.01	9.04	0.897	NS
(6) Happiness & Satisfaction	9.12	9.15	0.877	NS

* p <.05

Limitations

This study was based on the examination of self-concept as measured by one self-report instrument, the Piers-Harris Children's Self-Concept Scale. This was only one of several instruments identified as being designed for and used effectively in evaluating self-concept, but one that was highly endorsed for use (Hoge & Renzulli, 1991; Shavelson et al., 1976). One criticism of the test was that gifted children may be able to identify the desired response (Jenkins-Friedman & Murphy, 1988). The sample was not randomized. However, it was a census population encompassing all students nominated from 10 elementary schools.

Summary

The major research question asked in this study was whether or not the acceptance or non-acceptance into a gifted program had an effect on students' self-concept. Of secondary concern was the effect, if any, that gender or grade level had on students' self-concept. Significant differences were found between the self-concepts of those who were accepted and those who were not accepted. The self-concepts of students who were not accepted into the gifted program were significantly higher than those who were accepted (Hypothesis 1). There also were significant differences between the self-concepts of those accepted and those not accepted by gender (Hypothesis 2). Males who were accepted into the gifted program scored significantly lower than males not accepted. Males accepted into the program scored significantly lower than both females accepted and not accepted. Females accepted did not score significantly different from females not accepted. Males not accepted were not significantly different from either females accepted or not accepted. Males accepted into the gifted program scored lower in self-concept than any other group. There were no significant differences in self-concept scores by grade (Hypothesis 3). Analyses also were conducted for the six sub-scales of the Piers-Harris: Behavior; Intellectual and School Status; Physical Appearance; Anxiety; Popularity; and Happiness and Satisfaction (Hypothesis 4). Only the sub-test Behavior showed a significant difference. A summary of the hypothesis testing can be found in Table 9.

No studies were reported in the literature that compared the self-concepts of students who were accepted and not accepted into a gifted program. However, researchers have compared the self-concepts of students participating in gifted programs to students in regular classrooms (see Appendix D). Hoge and Renzulli (1991) have reviewed some of these studies and reported that attempting to interpret the results may be frustrating since the results are so highly variable. In some cases, exposing gifted children to special

Table 9

Summary of Hypotheses Testing

Hypothesis	Variables	Statistical Analysis	Results
1	Group	1-way ANCOVA	Rejected ($p < .02$)
2	Gender	2-way ANCOVA Tukey Post Hoc	Rejected ($p < .004$)
3	Grade	2-way ANCOVA	Accepted ($p < .625$)
4	Sub tests:		
	Behavior	1-way ANCOVA	Rejected ($p < .003$)
	Intelligence & School Status	1-way ANCOVA	Accepted ($p < .234$)
	Physical Appearance & Attributes	1-way ANCOVA	Accepted ($p < .202$)
	Anxiety	1-way ANCOVA	Accepted ($p < .988$)
	Popularity	1-way ANCOVA	Accepted ($p < .897$)
	Happiness & Satisfaction	1-way ANCOVA	Accepted ($p < .877$)

$p < .05$

programming seemed to have no effect on self-concept. In others, it led to enhanced self-concept, and in still others it had a negative impact. Hoge and Renzulli reported that the varying results were due to the inconsistencies in methodologies, definitions of giftedness, measure used, programs the children were exposed to, and the length of time over which the assessment was made.

Educators and parents of the students in this study who are concerned about the possibility of students having lower self-concept due to not being accepted into the gifted program should not be concerned. This results of this study seem to indicate that the students' self-concepts were not diminished by not being accepted. However, the self-concepts of the students who were accepted into the program may be lower, at least for a short period of time. According to Assouline and Colangelo (1995), "Self-concept appears to be a powerful construct that is sensitive to time, experience, and other variables. Continued study will inform us on its role in the educational and personal lives of gifted students" (p. 8).

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

This quasi-experimental study evaluated the effect of a gifted program screening process on the self-concept of 207 third-, fourth-, fifth-, and sixth-grade students who were nominated for possible inclusion in the program. The possible effects on the self-concept of (a) student nomination and acceptance (Group I) and (b) student nomination and rejection (Group II), as measured by pre- and post-test on the Piers-Harris Children's Self-Concept Scale, were investigated. The relationship of self-concept to gender and grade level also was explored as well as the relationship of those variables to specific sub-tests. Analyses of covariance using the pretest as covariate were used to examine the four hypotheses in the study.

Null Hypothesis 1 of no significant difference in the Piers-Harris Self-Concept post-test performance scores of the subjects in Group I and Group II using the pre-test as a covariate was rejected at the .02 level. The self-concepts of students who were not accepted into the program were significantly higher than those who were accepted. Null Hypothesis 2 of no significant difference in the Piers-Harris Self-Concept post-test scores by gender within Group I and Group II using the pre-test as a covariate was rejected at the .004 level. Males accepted into the gifted program scored significantly lower than males not accepted, females accepted and females not accepted. Males not accepted were not significantly different from either females accepted or not accepted. Null Hypothesis 3 which stated that there would be no significant difference in the Piers-Harris Self-Concept scores by group

by grade level was accepted. Null Hypothesis 4 of no significant difference in the Piers-Harris Self-Concept scores by group by sub-tests: (a) Behavior, (b) Intellectual and School Status, (c) Physical Appearance and Attributes, (d) Anxiety, (e) Popularity, and (f) Happiness and Satisfaction was accepted on all sub-tests except for "Behavior" which was rejected at the .003 level.

Conclusions

This study examined the effect of a gifted program screening process on the self-concept of elementary students nominated but ultimately not selected for participation in the program. No research studies directly parallel to this one were found in the literature. The results of the study indicated that students who were not accepted into the gifted program scored significantly higher on the Piers-Harris Children's Self-Concept Scale than those who were accepted into the program. The relationship of self-concept to gender and grade level was also explored, as well as the relationship of those variables to specific sub-tests of the Piers-Harris Scale.

Results of the study revealed that both females accepted and not accepted to a gifted program, scored significantly higher on the Piers-Harris Children's Self-Concept Scale than did the males who were accepted into the gifted program. The literature on the physical, social and emotional development of girls and boys has indicated that girls will be more successful in accelerated programs than boys on the elementary level (Mirman, 1962). Loeb and Jay (1987) reported that, in general, females' success in schoolwork and high self-concept may have resulted from them following the traditional female roles of obedience and doing what is expected.

Males accepted into the gifted program scored significantly lower than (a) males not accepted, (b) females accepted, and (c) females not accepted. According to a study by Loeb and Jay (1987), gifted males, ages 9 to 12 described themselves as less satisfied with

themselves than nongifted males. This attitude may result in lower self-concepts. Barnette (1989), Betts (1986), Blackburn and Erickson (1986), and Silverman (1992) indicated that gifted students have greater emotional, social, and cognitive adjustment issues than their peers and are tremendously affected by personal stress and social problems, which could also account for lower self-concept scores.

The null hypothesis of no significant difference in the Piers-Harris Self-Concept scores by group by sub-tests: (a) Behavior, (b) Intellectual and School Status, (c) Physical Appearance and Attributes, (d) Anxiety, (e) Popularity, and (f) Happiness and Satisfaction was accepted on all sub-tests except for "Behavior." Students who were accepted into the gifted program did not feel as satisfied about their behavior as did students who were not accepted to the program. Possible explanations for the students accepted into the gifted program having lower self-concept in the domain of behavior could be (a) the high expectations of self, (b) the tendency to be self-critical, and (c) the tendency toward perfectionism which may predispose some gifted children to have low self-concepts (Delisle, 1992; Mendaglio & Pyryt, 1995).

There is definitely a need for an increased sensitivity to the effects of the gifted label and gifted programming on the self-concept of children. However, the results of this study should dispel concerns parents and teachers may have about possible negative effects of a district's screening process on the self-concepts of children nominated but ultimately not selected for participation in a gifted program.

Recommendations

This study suggests both future research studies and possible practioners' use.

Research possibilities include:

1. A comparable study in an urban district with different demographics

2. Utilization of an alternative self-concept measure
3. Examining differential effects by ethnic group or handicaps
4. Measuring family variables in relationship to self-concept
5. Surveying parents' attitude toward student acceptance or nonacceptance into a gifted program

Educators may wish to consider other implications from this study. The significant difference in the self-concepts scores of the students in this study should inspire educators to provide an environment that encourages the realization of intellectual and social potential for both males and females in gifted programs as well as regular classrooms.

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APPENDICES

Appendix A
Characteristics of Gifted Learners

Characteristics of Gifted Learners

Giftedness Expressed by Cognitive Function

- Extraordinary quantity of information, unusual retentiveness
- Advanced comprehension
- Unusually varied interests and curiosity
- High level of language development
- High level of verbal ability
- Unusual capacity for processing information
- Accelerated pace of thought processes
- Flexible thought processes
- Comprehensive synthesis
- Early ability to delay closure
- Heightened capacity for seeing unusual and diverse relationships, integration of ideas and disciplines
- Ability to generate original ideas and solutions
- Early differential patterns for thought processing (e.g., thinking in alternatives, abstract terms, sensing consequences, making generalizations, visual thinking; use of metaphors and analogies)
- Early ability to use and form conceptual frameworks
- An evaluative approach toward self and others
- Unusual intensity; persistent, goal-directed behavior

Giftedness Expressed by Affective Function

- Large accumulation of information about emotions that has not been brought to awareness
- Unusual sensitivity to the expectations and feelings of others
- Keen sense of humor--may be gentle or hostile
- Heightened self-awareness, accompanied by feelings of being different
- Idealism and sense of justice, which appear at an early age
- Earlier development of an inner locus of control and satisfaction
- Unusual emotional depth and intensity
- High expectations of self and others, often leading to high levels of frustration with self, others, and situations; perfectionism
- Strong need for consistency between abstract values and personal actions
- Advanced levels of moral judgment
- Strongly motivated by self-actualization needs
- Advanced cognitive and affective capacity for conceptualizing and solving societal problems
- Leadership
- Solutions to social and environmental problems
- Involvement with the metaneeds of society (e.g., justice, beauty, truth)

Characteristics of Gifted Learners (continued)

Giftedness Expressed by Physical/Sensing Function

Unusual quantity of input from the environment through a heightened sensory awareness

Unusual discrepancy between physical and intellectual development

Low tolerance for the lag between their standards and their athletic skills

“Cartesian split”--can include neglect of physical well-being and avoidance of physical activity

Giftedness Expressed by Intuitive Function

Early involvement and concern for intuitive knowing and metaphysical ideas and phenomena

Open to experiences in this area; will experiment with psychi and metaphysical phenomena

Creativity apparent in all areas of endeavor

Ability to predict; interest in future

(Source: Clark, 1992, pp. 38-44)

Appendix B

Summary of Studies Comparing Gifted and Nongifted
Children in Terms of Self-Concept Measures

Summary of Studies Comparing Gifted and Nongifted Children in Terms of Self-Concept Measures

Study	Age/Grade Level	Self-Concept Areas	Comparison
Bracken (1980)	M = 9.8 yrs	GSC	Gifted in program with norms
Brody & Benbow (1986)	M = 13.7	GSC	Gifted in program with regular students
Colangelo, Kelly, & Schrepfer (1987)	grades 7-9	GSC, ASC, BSC, SSC	Gifted in program with regular & LD students
Coleman & Fults (1982)	grades 4-6	GSC	Gifted in program with norms
Davis & Connell (1985)	grades 4-6	GSC	Gifted as per tests with nongifted
Hoge & McSheffrey (1991)	grades 5-8	GSC, ASC, BSC, PSC, SSC	Gifted in program with norms
Janos, Fung & Robinson (1985)	5-10 yrs	GSC	Gifted in program with norms
Karnes & Wherry (1981)	grades 4-7	GSC	Gifted in program with norms
Kelly & Colangelo (1984)	grades 7-9	GSC, ASC, PSC, SSC	Gifted in program with regular students
Ketcham & Snyder (1977)	grades 2-4	GSC	Gifted as per tests with nongifted
Lehman & Erdwins (1981)	grade 3	GSC	Gifted in program with regular students
Maddux, Scheiber, & Bass (1982)	grades 5-6	GSC	Gifted in program with norms

Summary of Studies Comparing Gifted and Nongifted Children in Terms of Self-Concept Measures (continued)

Study	Age/Grade Level	Self-Concept Areas	Comparison
Milgram & Milgram (1976)	grades 4-8	GSC, PSC SSC	Gifted in program with regular students
O'Such, Havertape, & Pierce (1979)	8-12 yrs	GSC	Gifted in program with regular students
Robinson-Awana, Kehle, & Jenson (1986)	grade 7	GSC	Gifted in program with regular students
Schneider, Clegg, Byrne, Ledingham,	grades 5, 8 & 10	GSC, ASC PSC, SSC	Gifted in program with regular students
Tidwell (1980)	grade 10	GSC	Gifted in program with norms
Winne, Woodlands, & Wong (1982)	grades 4-7	GSC, ASC, PSC, SSC	Gifted as per tests with nongifted

Note. GSC = general self-concept, ASC = academic self-concept, BSC = behavioral self-concept, PSC = physical self-concept, and SSC = social self-concept.

(Source: Hoge & Renzulli, 1991, pp. 18-19)

Appendix C

Summary of Studies Comparing Gifted Children in Enrichment Programs with Gifted Children Not in Special Programs, or Gifted Children in Different Types of Programs and Examinations of Changes in Self-Concept of Students Before and After Entrance to the Programs

Summary of Studies Comparing Gifted Children in Enrichment Programs with Gifted Children Not in Special Programs, or Gifted Children in Different Types of Programs, and Examination of Changes in Self-Concepts of Students Before and After Entrance to the Programs

Study	Age/Grade Level	Comparison
Brody & Benbow (1987)	grades 9-12	Gifted students exposed to various types of enrichment experiences
Coleman & Fults (1982)	grades 4-6	Gifted students in one-day-per-week enrichment vs. gifted with no special programming
Coleman & Fults (1985)	grade 4	Groups of gifted students assessed before and after exposure to one-day-per-week enrichment
Feldhusen, Sayler, Nielsen & Kolloff (1990)	grades 3-8	Gifted students in pull-out program vs. gifted with no special programming
Karnes & Wherry (1981)	grades 4-7	Gifted students in enrichment program vs. gifted with no special programming
Kolloff & Feldhusen (1984)	grades 3-6	Gifted students in pull-out program vs. gifted with no special programming
Kolloff & Moore (1989)	grades 5-10	Gifted students assessed before and after exposure to a summer enrichment program
Maddux, Scheiber, &	grades 5 & 6	Gifted students in various types of programs as well as no special program
Olszewski, Kulieke, & Willis (1987)	M = 13.5 yrs	Gifted students assess before and after exposure to two summer enrichment programs
Schneider, Clegg, Byrne, Ledingham, & Crombie (1989)	grades 5, 8, & 10	Gifted students in enrichment program vs. gifted with no special programming

(Source: Hoge & Renzulli, 1991, pp. 23-24)

Appendix D

Summary of Studies Comparing Gifted and Nongifted Children on
General Self-Concept

Summary of Studies Comparing Gifted and Nongifted Children on General Self-Concept.

Author (date)	Age range	Results
Klein & Cantor (1976)	K to grade 4	Probably NSa
Milgram & Milgram (1976)	Grades 4-8	+
Ketcham & Snyder (1977)	Grades 2-4	NS
O'Such, Havertape & Pierce (1979)	Ages 8-12	+
Stopper (1978/1979)	Grades 2,4, and 6	NS
McQuilkin (1980/1981)	Grades 4-5	+
Tidwell (1980)	Grade 10	NS and + b, c
Bracken (1980)	Mean 9.8 years	NSb
Karnes & Wherry (1981)	Grades 4-7	+
Lehman & Erdwins (1981)	Grade 3	+
Coleman & Fults (1982)	Grades 4-6	Probably + a,b
Maddux, Scheiber, Bass (1982)	Grades 5-6	Probably + a,b
Winne, Woodlands, & Wong (1982)	Grades 4-7	NS
Janos, Fung, & Robinson (1985)	Ages 5-10	+ b
Kelly & Colangelo (1985)	Grades 7-9	+
Holahan & Brownstone (1986)	Grade 7	NS

Note. + = gifted scored higher than controls; NS = no significant differences.

a No significant level reported.

b Comparison with standardization norms.

c Different results on two self-concept measures.

(Source: Schneider, 1987, p. 74)

Appendix E

Studies Comparing Self-Concepts of Gifted and Nongifted Children,
Differentiated by Self-Concept Domain

Studies Comparing Self-Concepts of Gifted and Nongifted Children, Differentiated by Self-Concept Domain

Author (date)	Age range	Results
Academic self-concept		
Colangelo & Pflieger (1978)	Grades 9-12	Probably + a
Winne et al. (1982)	Grades 4-7	Probably NS b, c
Kelly & Colangelo (1985)	Grades 7-9	+
Holohan & Brounstein (1986)	Grade 7	+
Schneider et al. (1986)	Grades 5, 8, and 10	+
Physical self-concept		
Milgram & Milgram (1976)	Grades 4-8	-
Winne et al. (1982)	Grades 4-7	Probably NS b, c
Kelly & Colangelo (1985)	Grades 7-9	Probably NS c
Helen & Brownstone (1986)	Grade 7	-
Schneider et al (1986)	Grades 5, 8, and 10	NS
Social self-concept		
Milgram & Milgram (1976)	Grades 4-8	NS
Winne et al. (1982)	Grades 4-7	Probably NS b, c
Kelly & Colangelo (1985)	Grades 7-9	+
Helen & Brownstone (1986)	Grade 7	-
Schneider et al. (1986)	Grades 5, 8, and 10	NS

Note. + = gifted scored higher than controls; - = gifted scored lower than controls;

NS = no significant differences.

a In comparison with standardization norms.

b Comparison of gifted and "normal" groups (gifted vs. learning disabled comparisons also reported).

c No significance level reported.

(Source: Schneider, 1987, p. 76)