NOTE TO USERS

This reproduction is the best copy available.

UMI®

SOCIAL AND ACADEMIC PREDICTORS OF SUCCESS FOR GIFTED CHILDREN

A dissertation submitted in partial
fulfillment of the requirements
for the degree of

DOCTOR OF PSYCHOLOGY

to the faculty of the department of

SCHOOL PSYCHOLOGY

at

St. John's University
New York

by

David P. Doring

Date Submitted: 11/11/05

Date Approved: 11/11/05

(Student's Signature)

(Mentor's Signature)

UMI Number: 3202750

Copyright 2006 by
Doring, David P.

All rights reserved.

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI Microform 3202750
Copyright 2006 by ProQuest Information and Learning Company.
All rights reserved. This microform edition is protected against unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

© Copyright by David Doring 2006

All Rights Reserved

ABSTRACT

SOCIAL AND ACADEMIC PREDICTORS OF SUCCESS FOR GIFTED CHILDREN

David P. Doring

Given recent changes in the conceptualization of intelligence and giftedness, this researcher examined the role of aspects of emotional intelligence (EI), intelligence (IQ), and teacher rating scales to clarify their ability to actually predict the academic success of gifted children. In relatively few empirical studies have researchers focused on EI as a predictor of academic success or explored EI in the gifted and talented population. This lack of research is surprising given the claims about social and emotional concerns within the gifted and talented population (i.e., Davis & Rimm, 1985; Osborn, 1996; Reis & Renzulli, 2004; Rimm, 1996). As such, the current investigator added to the body of research in this fledgling domain by providing empirical data on the predictive power of various criteria commonly used in the identification of gifted students, as well as explored the relatively new domain of EI and its impact on the academic success of gifted students. Specifically, this researcher examined the effect of two aspects of emotional intelligence on gifted students' academic success: emotion receiving ability and emotion regulation.

Using a sample of gifted and talented (G&T) students, results were that, of the variables measured (i.e., gender, IQ, teacher rating scales, and aspects of EI), the gender of the student is the best predictor of success in a G&T program as females performed significantly better than males within the G&T program. In addition, a

gender effect of emotion receiving ability on math achievement was demonstrated. Specifically, a significant negative correlation between females' emotion receiving ability and math achievement was indicated. Traditional measures of giftedness such as IQ and teacher rating scales did not significantly predict G&T student academic success in the mainstream setting or within the G&T program. It is quite possible that these variables (IQ and teacher rating scales) were not good predictors due to the lack of variability of these measures within the G&T student sample. Implications of the current research, including assessment, intervention, and time management issues for school personnel, especially the school psychologist, will be discussed.

Table of Contents

Chapter 1 1

Introduction 1

Goal and Relevance of the Current Study 1

Giftedness and Emotional Intelligence 2

Identification of Giftedness 2

Emotional Intelligence 6

Chapter 2 12

Overview of Methodology and Specific Hypotheses 12

Chapter 3 15

Methods and Procedures 15

Participants 15

Criterion Measures 16

Mainstream GPA 16

G&T Program Grade 16

Terra Nova Achievement Test Scores 17

Predictor Measures 17

Wechsler Abbreviated Scale of Intelligence (WASI) 17

Teacher Rating Scale 18

Diagnostic Analysis of Nonverbal Accuracy, 2nd Ed. (DANVA2) 18

Difficulties in Emotion Regulation Scale (DERS) 19

Procedure 20

Chapter 4 22

Results 22

Screening of Data 23

Initial Analyses 23

Correlations of Criterion and Predictor Variables 24

Final Model Multiple Regression Analyses 26

Chapter 5 32

Discussion 32

Analysis and Interpretation of Results 32

Summary and Conclusions 40

Limitations of the Study 42

Directions for Future Research 43

Chapter 6 47

Implications for Practice 47

References 49

Appendix A: Consent to Participate in Research Project (Parent) 54

Appendix B: Participant Verbal Assent Script 56

Appendix C: Gifted & Talented Program Progress Report 57

Appendix D: Teacher Rating Scale 58

Appendix E: Difficulties in Emotion Regulation Scale (DERS) 60

List of Tables

1. Means, Standard Deviations, and Correlations for Student's Gifted Program Grade, Reading Achievement, Math Achievement, and Student Predictor Variable 25

2. Sequential Regression Analysis for Student Variables Predicting Student's Gifted Program Grade 27

3. Sequential Regression Analysis for Student Variables Predicting Student's Math Achievement 29

4. Gender Differences in Correlations Among Student Variables 30

5. Sequential Regression Analysis for Student Variables Predicting Student's Reading Achievement 31

Chapter 1

Introduction

Goal and Relevance of the Current Study

Given the changing definition of the term "gifted and talented" (Borland, 2003), the lack of standard criteria for the identification of gifted students, and the changing conceptualization of intelligence in general, there is a need to reassess the criteria commonly used to identify "gifted and talented" (G&T) students. The primary goal of this researcher was to examine some of the criteria that may be used to predict the academic success (measured by standardized reading and math achievement test scores, mainstream GPA, and Gifted & Talented Program student evaluation) of these gifted students. Of particular interest was finding out if emotional intelligence (EI) predicts academic success above and beyond that which other commonly used criteria to identify gifted and talented students predicts, such as IQ scores and teacher ratings.

Information gained from this research is particularly relevant since the use of measures that accurately predict the success of these G&T students leads to cost-effective practices which benefit the service providers and related staff such as school psychologists and administrators (Chan, 2000). Furthermore, knowledge of the emotional intelligence of the gifted student can aid mental health providers, such as school psychologists, in the design of therapeutic interventions for those gifted students who present with deficits in their social-emotional or interpersonal behavior (Pfeiffer, 2001).

Giftedness and Emotional Intelligence

Educators are charged with the task of guiding children in the transition from passive participants to active and successful contributors to the well-being of society. Developing students' intellect or knowledge of the world around them, often equated with the students' academic success, is a primary goal of educators, and students who succeed academically are often believed to have the ability to become successful contributors in society (Pendarvis & Howley, 1996). Those individuals who are high academic achievers (commonly displayed by high GPA and high standardized achievement test scores) are often earmarked for life success early in their educational process and are identified as "gifted and talented" (G&T). Given the fact that researchers have reported that many successful adult professionals and businesspersons had been identified as gifted when they were children (Terman, 1925; Terman & Oden, 1959 as cited in Pendarvis & Howley, 1996), there are high expectations from parents and teachers placed upon children who are categorized as gifted. However, whether gifted students automatically become successful in later life is hotly debated, as many factors influence both the academic and life achievements of all individuals (Pendarvis & Howley, 1996).

Identification of Giftedness

Prior to examining the factors that predict the academic success of gifted students, it is important to examine how giftedness is defined and how these students are identified, as this process is a matter of some debate. A commonly accepted definition of giftedness states that, "Technically, a 'gifted' child is one who scores high on an intelligence test or an academic achievement test and who has partially or totally

inherited his or her ability" (Feldhusen & Jarwan, 2000, p. 273). True to this standard, throughout the majority of the past century, an intelligence quotient (IQ, the total score on a standardized test of cognitive abilities) of two standard deviations above the population mean (score of approximately 130) has been the most commonly used identifier of gifted intelligence. Although this definition has been subject to criticism, it has endured and become deeply engrained in scholarship and research as well as policy and practice (Feldman, 2003).

IQ scores are most commonly used, although not exclusively, in the identification of gifted students because IQ has been shown to predict later academic success, as reported in the research literature (Feldman, 2003). Traditional tests of intelligence (IQ) account for 20-25% of the variance in academic performance in the general population, according to Goleman (1995) and Neisser et al. (1996). Additional researchers indicate that increases in IQ are often associated with increases in scholastic competitiveness, self-initiation, and academic success (Sattler, 1992; Neisser et al., 1996). This relationship is true even within the gifted population where a significant positive correlation between IQ and academic achievement is indicated (Woitaszewski, 2000).

While moderate correlations between traditional intelligence test scores and academic achievement have been reported (Goleman, 1995; Kaufman & Harrison, 1986; Neisser et al., 1996), the validity of IQ scores as an adequate predictor of a child's future achievement continues to be questioned because traditional IQ scores are not in line with more current theories of intelligence (see Gardner, 1983; Sternberg, 1997). Differences of opinion also exist about the benefits of using IQ as a measure of giftedness. Assouline (1997) and Satttler (1992) claim that a standardized, individually administered

intelligence test is the best instrument for identifying gifted students on the criteria of general ability. According to Sattler (1992), information gained from such tests can be one of the best predictors of a person's range of knowledge and cognitive skills at a particular point in time. However, although intelligence tests measure attributes of intelligent behavior, no test is capable of measuring all attributes of intelligent behavior (Assouline, 1997). Furthermore, within the gifted and talented population, students with high intellectual potential (IQ) do not always excel academically (Hallahan & Kaufman, 1994; Rimm, 1996).

In an effort to broaden the gifted student identification procedures, most schools follow some form of the guidelines for identifying gifted and talented students as proposed in the U.S. Office of Education 1972 Marland Report (Assouline, 1997; Pfeiffer, 2001). In this report, it was proposed that children who display high performance in any of the following domains may be identified as gifted and talented: general intellectual ability, specific academic aptitude, leadership ability, creative or productive thinking, visual and performing arts, and psychomotor ability (Assouline, 1997; Johnsen, 1997). Researchers have stressed the use of multiple measures of abilities in order to account for these domains as well as the concept of multiple factors of intelligence (Gardner, 1983; Fedhusen, Jarwan, & Holt, 1993). Theorists propose that the use of multiple measures is helpful in providing predictive validity that the students who are selected for a gifted program will meet the goals of the program (Feldhusen & Baska, 1989; Hoge, 1988). Unfortunately, much of the gifted and talented research literature is only theoretical and fails to offer any practical guidelines about how to actually make

such judgments about the identification of giftedness (Sattler, 1992; Feldhusen & Jarwan, 2000).

In response to the call for the use of multiple measures in the identification of gifted students, achievement test scores and teacher recommendations have been promoted to supplement IQ scores (Davis & Rimm, 1985; Richert, Alvino, & McDonnel, 1982; Sattler, 1992). However, the use of test scores has been criticized, claiming that the tests are often given too much weight, which may lead to exclusion of some students who should be considered gifted (Richert, 1997). Once again, while stating these criticisms, the authors of these articles have not offered empirical evidence for a better practice of identification. Although the aforementioned measures (IQ, achievement test scores, and teacher recommendations) are commonly used in the identification process, many theorists posit that an ideal identification system has not yet been developed (Feldhusen, Hoover, & Sayler, 1997; Sattler, 1992). Thus, although IQ has been shown to be a moderate predictor of academic success for the general population and gifted children, there is much room to explore the impact of other variables, such as teacher ratings and emotional intelligence (EI), which may also predict students' academic success.

Many gifted programs use some form of teacher recommendation or teacher rating scale as part of the identification process of gifted students as checklists from teachers provide good sources of information about intrinsic motivation and creativity (Alvidrez & Weinstein, 1999; Richert, 1997; Sattler, 1992). Teacher input can be valuable because the teacher can directly observe his or her students' abilities as they are displayed on a daily basis over the course of several months. Teachers can observe and

report on students' work habits, insightfulness, curiosity, and motivation, which impact academic performance. Teachers also have considerable power to either promote or veto the inclusion of various students. Subsequently, the use of teacher ratings has been questioned due to their susceptibility to subjective bias, self-fulfilling prophecy, and stereotypes (Alvidrez & Weinstein, 1999; Shack & Starko, 1990; Siegle, 2001).

The accuracy of teacher ratings has also been questioned, in part, due to Pegnato and Birch's (1959) research in which they indicated that teachers were poor at identifying gifted students (as cited in Gagne, 1994). However, subsequent researchers have refuted this claim and suggest that teachers are able to successfully identify student talents and can be valuable contributors to predicting academic success of students (Gagne, 1994; Hunsaker, Finley, & Frank, 1997). The accuracy of teacher ratings is most commonly measured against a criterion such as IQ, and moderate correlations with IQ have been reported. Recently, investigators reported that, after controlling for IQ and SES, teacher ratings were significant predictors of GPA in a mainstream sample, accounting for an additional 14% of the variance (Alvidrez & Weinstein, 1999). Further support for the accuracy of teacher ratings in predicting later student academic performance was evidenced by the finding that teachers' "nominations for gifted programs based on thinking abilities, general gifted behaviors, and special learning skills were related to later performance on creativity, group skills, and language abilities" (Hunsaker, Finley, & Frank, 1997, p. 19).

Emotional Intelligence

While support in the research literature has been provided for the predictive power of IQ and teacher ratings to explain a portion of the variance of students' academic

success, there is still much variance that remains unexplained. Researchers suggest that emotional intelligence (EI) is an important factor in predicting individuals' academic success (Bar-On, 1997; Goleman, 1995; Mayer & Salovey, 1997; Parker, Summerfeldt, Hogan, & Majeski, 2004). However, given the fact that EI is a relatively new construct, there is a lack of agreement among researchers as to what constitutes EI and how it should be measured (Newsome, Day, & Catano, 2000; Pfeiffer, 2001). Among the studies that exist in the EI literature, mostly dealing with older participants (adolescents and adults), varying results have been reported, depending upon the instrument used to measure the EI construct (Parker et al., 2004). As a result, it is difficult to generalize the results to the general population. Subsequently, an examination of some of the proposed elements of EI as well as the tools used to measure this construct with respect to academic success is required.

Daniel Goleman (1995) sparked the attention of the research world as well as the mainstream culture with his book *Emotional Intelligence* in which he urges one to recognize that emotional intelligence is powerful, often more powerful than IQ, in leading to positive outcomes such as learning. His concept of emotional intelligence involved "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize, and to hope" (p. 34). Goleman highlighted that a balance between emotion and rational thinking is required for efficient problem solving, particularly for youths. He theorized that, within the gifted population, as in any population, traditional psychometric intelligence cannot fully predict academic or life success (Goleman, 1995).

Although Goleman, in his 1995 book, launched much of the mainstream popularity of the emotional intelligence concept, Salovey and Mayer actually introduced the concept in 1990. Mayer and Salovey (1997) claimed that Golemans's conception of EI was too broad and they sought to clarify various qualities of EI in their research, using empirical data to support their claims, something that Goleman had not done. Mayer and Salovey's (1997) definition of EI proposes that it is made up of a group of abilities that are distinct from the traditional verbal, visual-spatial, and mathematical/quantitative dimensions of intelligence (IQ). This model is supported by Ciarrochi, Chan, and Caputi (2000), who reported that EI was unrelated to IQ.

Mayer and Salovey's (1997) measurement of EI consists of four subscales. The most basic level is the ability to perceive, appraise, and express emotion, including the ability to recognize emotion in others as well as within oneself. The second level is the ability to use emotions to facilitate cognition. Mayer and Salovey urged that emotions direct one's attention to information that is meaningful and important and thus serve an important adaptive function in a learning environment. The third level deals with the ability to understand and analyze emotions. The fourth level is the ability to regulate emotions to facilitate emotional and cognitive growth, thus being able to moderate negative emotions and enhance positive ones.

EI is proposed to impact the academic success of students through a variety of mechanisms. Part of emotional intelligence is the ability to motivate oneself, which is viewed as an important characteristic of gifted and talented students. Gifted youths often possess increased sensitivity, empathy, and unselfishness (Davis & Rimm, 1985; Piechowski, 1997), qualities that are similar to characteristics of emotional intelligence as

defined by Mayer and Salovey (1997). Behaviors such as being self-motivated to attend school, complete assignments/task persistence, and actively participate in discussions are examples of how EI is demonstrated in the school setting and how it likely contributes to academic success (Richburg & Fletcher, 2002). In addition, students who display strong coping strategies for managing various negative emotions and social situations are proposed to be better able to succeed academically because these feelings and events will not impede their learning.

An assortment of instruments has been used to measure the EI construct. Various self-report measures have been developed (Bar-On, 1997 as cited in Bar-On 2000; Goleman, 1995; Salovey & Mayer, 1990); however, the reliability of self-report measures has been questioned (Davies, Stankov, & Roberts, 1998; Pfeiffer, 2001). Thus, while self-report measures are useful in measuring EI, it is helpful to complement them with performance-based, objective measures as well. An established "objective" test that is effective in the measurement of emotion receiving/perception ability (an aspect of EI) is the Diagnostic Analysis of Nonverbal Accuracy 2 (revised edition of the DANVA), a standardized test which assesses one's ability to identify nonverbal communication of emotion (Nowicki & Duke, 1994). Ciarrochi, Chan, and Caputi (2000) highlighted the benefit of an objective measure such as the DANVA2 is that the results are less likely to be influenced by self-presentation bias, and it does not require the participant to have insight into his or her own EI.

Specific empirical proof of the effect of EI on academic achievement has been noted by Nowicki and Duke (1994). Nowicki and Duke assumed that difficulty processing nonverbal information would interfere with the processing of material

necessary for academic achievement. They believed that "because teaching, especially in the elementary grades is assumed to take place through the teacher-student relationship, it was assumed that participants with a greater number of errors on the DANVA2 (suggesting more difficulty with perceiving emotion in others) should also achieve less" in academic domains, an assumption that is supported by the researchers (Nowicki & Duke, in press, p. 6). Furthermore, students with high emotional intelligence reportedly organize emotional material about peer relationships better and more accurately than those with lower EI, and it is suggested that EI assists youth in making better social and life choices. It is believed that these elements of EI, in turn, lead to more interest in school and more positive social interactions in school with teachers and peers, which likely lead to increased academic performance (Mayer, Perkins, Caruso, & Salovey, 2001). Ultimately, these students with strong EI abilities may likely be better able to participate in group activities, interact more effectively with their teachers, and thus achieve greater academic success.

Further support for the relationship between EI and academic achievement has been demonstrated with middle school students (Gumora & Arsenio, 2002) and university students (Wong, Day, Maxwell, & Meara, 1995; Lam & Kirby, 2002). Gumora and Arsenio (2002) reported that emotion regulation, one aspect of EI, as measured using the Revised Dimensions of Temperament Scale (DOTS-R; Windle & Lerner, 1986) was a significant predictor of GPA. In addition, Lam and Kirby (2002) reported that, in an undergraduate sample, overall emotional intelligence, emotional perception, and emotional regulation, as measured using the Multifactor Emotional Intelligence Scale (MEIS; Mayer, Caruso, & Salovey, 1999), accounted for increased

cognitive-based performance (as measured by the Shipley Institute of Living IQ Scale, a measure of general intellectual ability; Western Psychological Services, 1967) over and above that which is accounted for by general intelligence (IQ).

In contrast to these reports of a significant relationship between academic achievement and emotional intelligence, Newsome, Day, and Catano (2000) reported that EI, as measured by the Emotional Quotient Inventory (Bar-On, 1997, as cited in Bar-On, 2000), was not related with academic achievement. In addition, when exploring the impact of emotional intelligence in the gifted population, Woitaszewski (2000) reported that EI, as measured by the AMEIS (Adolescent Multifactor Emotional Intelligence Scale; Mayer, Salovey, & Caruso, 1996), a reliable measure of emotional intelligence with tasks similar to the adult version (MEIS), was not found to be an important predictor of academic success for adolescent gifted students. However, null findings are difficult to interpret, especially when dealing with the limitations of small sample sizes, such as Woitaszewski's (N=39).

In summary, as demonstrated by the present body of literature on gifted and talented identification criteria and EI's ability to predict academic success, there is a lack of agreement in the research. As such, the current researcher will lend to this body of research with the goal of providing clarity about this issue.

Chapter 2

Overview of Methodology and Specific Hypotheses

The focus of this researcher was restricted to a sample of gifted students, given the fact that there is a paucity of research addressing the emotional intelligence of gifted youth. In addition, the use of a restricted sample allowed for examination of the impact of EI on academic success of students whose IQ is less variable than the average student population. Essentially, this sample helped control for the effects of IQ to some degree and maximizes the predicted effect of EI. However, this sample also limited the generalizability of the findings to gifted students. While it is clear that traditional intelligence (IQ) is not alone in predicting academic outcomes for gifted students, it is unclear exactly what role emotional intelligence plays in their success. Realistically, no one has ever suggested the removal of traditional IQ measures from the gifted and talented student selection criteria, as IQ continues to be a helpful measure. However, it is quite possible that emotional intelligence may also be helpful in predicting the success of gifted and talented youth above and beyond the impact of traditional IQ measures.

In order to measure IQ, teacher ratings, and EI and their ability to predict the academic success of gifted students, the following data were collected: a full scale IQ score from the Wechsler Abbreviated Scale of Intelligence (WASI), a student performance rating in the mainstream setting from a locally developed teacher rating scale (TRS), and elements of EI (emotion receiving/perception and emotion regulation) were be measured using the Diagnostic Analysis of Nonverbal Accuracy (DANVA2), and the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The ability to perceive/decode emotions and the ability to regulate one's emotions have been

deemed the main components of the emotional intelligence construct (Mayer & Salovey, 1997; Salovey, Mayer, Goldman, Turvey & Palfia, 1995). As such, this researcher explored these main aspects of emotional intelligence and measurement tools were selected accordingly. Furthermore, the use of these measures of EI is in line with Woitaszewski's (2000) recommendation to measure specific aspects of EI and their impact on academic achievement. Finally, the students' mainstream GPA, G&T Program grade, and Terra Nova Achievement Test scores were obtained to measure their academic achievement. These measures were used to test the following hypotheses:

1. A G&T student's full scale IQ (as measured by the WASI) is a significant predictor of academic success in a G&T program, as measured by the G&T Program student evaluation score. Specifically, IQ will be positively correlated with G&T Program student evaluation score.
2. The initial regular education classroom teacher rating of the G&T student (used in the identification of the G&T student) is a significant predictor of student academic success in a regular education program, as measured by GPA and standardized achievement test scores. Specifically, the classroom teacher rating scale score will be positively correlated with the gifted student's mainstream GPA and Terra Nova Achievement Test scores.
3. The initial regular education classroom teacher rating of the G&T student is a significant predictor of student academic success in a G&T program, as measured by the G&T Program student evaluation. Specifically, the classroom teacher rating scale score will be positively correlated with the gifted student's G&T Program student evaluation score.

4. Emotion receiving ability, as measured by the DANVA2, is a significant predictor of the G&T student's academic success in a regular education program, as measured by GPA, over and above that predicted by full scale IQ and teacher rating scales.
5. Emotion receiving ability, as measured by the DANVA2, is a significant predictor of the G&T student's academic success in a regular education program, as measured by the Terra Nova Achievement Test scores, over and above that predicted by full scale IQ and teacher rating scales.
6. Emotion receiving ability, as measured by the DANVA2, is a significant predictor of the G&T student's academic success in a G&T program as measured by the G&T Program student evaluation score over and above that predicted by full scale IQ and teacher rating scales.
7. Emotion regulation ability, as measured by the DERS, is a significant predictor of the G&T student's academic success in a regular education program, as measured by GPA, over and above that predicted by full scale IQ and teacher rating scales.
8. Emotion regulation ability, as measured by the DERS, is a significant predictor of the G&T student's academic success in a regular education program, as measured by the Terra Nova Achievement Test scores, over and above that predicted by full scale IQ and teacher rating scales.
9. Emotion regulation ability, as measured by the DERS, is a significant predictor of the G&T student's academic success in a G&T program as measured by the G&T Program student evaluation score over and above that predicted by full scale IQ and teacher rating scales.

Chapter 3

Methods and Procedures

Participants

Participants were 72 fifth and sixth grade students from six elementary schools in a large, middle-class, suburban school district outside a major northeastern city. Each participant was enrolled in the school district's gifted and talented (G&T) program, with a total enrollment of 142 fifth and sixth grade students at the time of data collection. Participants were 58% (N=40) male and 42% (N=32) female, ranging in age from 9 to 12 years old (M_{age}= 11.2), and had previously been assessed by the school district's personnel to determine appropriate placement within the G&T program. This program, combining students from each of the six elementary schools, is a "pull-out" program in which participating students attend a day of special classes outside their regular education classroom once each week. In order to be considered for the G&T program, students must achieve scores above the 90th percentile in reading and math on the standardized achievement test (Terra Nova Test). The gifted sample in the current study was identified by school district personnel through a variety of measures incorporating traditional psychometric measures such as IQ, achievement tests, and teacher ratings that identify characteristics such as creativity, task persistence, and motivation. Each of these measures was considered in the classification of the gifted student, with no other specific cut-offs for any individual measure. However, IQ was most strongly considered in the classification of the gifted students.

Participants and their parents were fully informed, in writing, about the researcher's purpose in the study prior to participation, and signed consent from the

children's parents or guardians was obtained. The consent letter (Appendix A) described the purpose of the researcher, the confidential nature of the data, and stated that the children's standing in the program would in no way be affected by their decision to participate or not participate in the study. Additionally, the results of any of the measures obtained would remain confidential and would not affect students standing in the program. These guarantees were supported by an attached letter from the Assistant Superintendent of Schools. In addition, verbal assent (Appendix B) was granted by each of the student participants prior to completion of the DANVA2 and the DERS.

Criterion Measures

The criterion measures for this study were the student's GPA on his/her mainstream academic coursework report card, the student's grade for the gifted and talented program (G&T Program grade), and the student's Terra Nova Achievement Test percentile rank scores (Reading and Math).

Mainstream GPA. Mainstream GPA was calculated on a 4.0 scale. Each academic subject was rated as follows: A = 4.0, B+ = 3.5, B = 3.0, C+ = 2.5, C = 2.0, D+= 1.5,and a D = 1.0. The grades were totaled and the mean was derived to represent the student's GPA.

G&T Program Grade. Current grades in the gifted and talented program, at the time of data collection, were derived from the teacher's evaluation of the student in which the student was rated on a scale of 1 to 4 (1 = needs improvement, 2 = satisfactory, 3 = above average, 4 = outstanding) across eight measures of academic performance (i.e., motivation, creativity, critical thinking) as displayed in Appendix C. An overall score

was calculated (sum of all scores) to represent the student's success in the gifted program classes.

Terra Nova Achievement Test Scores. The Terra Nova Achievement Test *(Terra Nova Technical Report, 2001)* was also used as a measure of the student's academic achievement. Student test scores were available through the school district's archives. The Terra Nova, a nationally standardized test of academic achievement, was group administered in the 3rd grade regular education classroom prior to the start of the study. The test scores were based on national norms for grades K through 12, providing representation of all minority and socioeconomic groups. Composite score national percentile ranks for reading and math achievement were entered into statistical analyses.

Predictor Measures

Wechsler Abbreviated Scale of Intelligence (WASI). The WASI, an individually administered test of cognitive abilities, was used as a measure of the student's general intelligence. The WASI was administered to all participants when they were in 3rd grade by certified school psychologists and used as criterion for the students' entrance into the gifted and talented program. WASI Full Scale IQ scores were available through the school district's archives. Given the previous use of the WASI as criterion for gifted and talented classification, the WASI was used in this study and IQ was defined in terms of the WASI. This test was deemed appropriate for the purpose of this researcher as the "main purpose of the WASI is to provide a good estimate of an individual's general intellectual ability" (Overstreet & Woerner, 1999, p. 132.) and the Wechsler Scales have been cited as effective measures of giftedness (Overstreet & Woerner, 1999; Sattler, 1992). The WASI is a standardized battery based on a nationally representative sample,

thus lending to the validity of its use in the assessment of gifted students. Subtest intercorrelations reveal most correlations ranging from the .50s to the .70s, moderately high correlations, which supports the idea of a general intellectual ability factor (g). Intercorrelations between subtests and the Full Scale IQ ranged from .77 to .83. This data shows evidence of validity of the scales. Reliability coefficients of the children's sample range from .92 to .95 for both the Verbal IQ and Performance IQ, and from .95 to .97 for the Full Scale IQ score, based on four subtests. These coefficients suggest that the WASI subtest and IQ scores have very little measurement error and are stable (Overstreet & Woerner, 1999).

Teacher Rating Scale. A locally developed teacher rating scale of student performance and qualities was used as a predictor of academic success and these ratings were available through the school district's archives. The 3rd grade mainstream classroom teacher completed the teacher rating scale for each student screened for the G&T program. This 24 item evaluation used a 4-point Likert scale in which the student was rated on various qualities often observed in highly capable children (i.e., motivation, creativity, task persistence, leadership). The sum of the ratings for all items was calculated and the total score was entered into analyses. Given the nature of the development of this scale, validity and reliability information was not available. However, the measure, shown in Appendix D, clearly has face validity.

Diagnostic Analysis of Nonverbal Accuracy, 2nd Ed. (DANVA2). The DANVA2 (Nowicki & Duke, in press) was used to measure one aspect of emotional intelligence, the ability to receive/decode emotion (emotion receiving ability). The DANVA2 is an instrument that measures the participants' ability to identify the nonverbal

communication of emotion in children and adults ranging from ages 3 to 100 (Nowicki & Duke, in press). Nowicki and Duke (in press) highlight the impact of emotion receiving ability on academic achievement, and they have demonstrated the validity of the DANVA2 as a good measure of emotion receiving ability. Subtests of the DANVA2 are administered via computer to each participant (Child Facial Expressions and Child Paralanguage). Each subtest contains stimuli representing the basic emotions of happiness, sadness, anger, and fear at two levels of intensity. In the first subtest, Facial Expressions, participants are presented with 24 photographs of child facial expressions of varying intensities and the child is required to identify the emotion being portrayed. In the second subtest, Child Paralanguage, participants listened to 24 voice trials of the same sentence repeated over and over containing emotions at two levels of intensity. Each subtest has an equal number of male and female presenters. A score is calculated for the participant according to the number of incorrect identifications of the emotions presented. Nowicki and Duke (in press) reported the following means and standard deviations of errors for 11-12 year olds on the DANVA2: Child Facial Expressions (M=3.4, SD=2.3) and Child Paralanguage (M=5.1, SD=3.4). Test-Retest reliability coefficients of .74 and .88 were reported for elementary children completing the Child Facial Expressions and Child Paralanguage subtests, respectively. Internal consistency validity coefficients ranged from .69 to .81 for the Child Facial Expressions and .74 to .76 for the Child Paralanguage subtests.

Difficulties in Emotion Regulation Scale (DERS). Emotional regulation, viewed as the most complex ability within the emotional intelligence construct (Mayer & Salovey, 1997), was measured using the DERS (Gratz & Roemer, 2004). Although there

has been research on emotional intelligence, fairly few tools have been developed, as of yet, to measure the discrete aspects of emotional intelligence. Among the few measures of emotion regulation, one of the promising new tools is the DERS (Appendix E). This 36-item self-report measure of the student's ability to regulate his or her emotions was individually administered by the principal investigator of this study. The language of the items was modified to make it developmentally appropriate for the elementary sample, with a grade level of 5.9 indicated by the Flesch-Kincaid Readability Test. The DERS reflects the following aspects of emotional regulation: the awareness and understanding of emotions; acceptance of emotions; ability to engage in goal-directed behavior, and refrain from impulsive behavior, when experiencing negative emotions; and access to emotion regulation strategies perceived as effective (Gratz & Roemer, 2004). Participants were asked to indicate on a scale of 1 to 5 (1 = almost never, 2 = sometimes, 3 = about half the time, 4 = most of the time, 5 = almost always) how often the particular items apply to themselves.

Reliability data indicate that the DERS has high internal consistency (Cronbach's $\alpha = .93$). Each of the DERS subscales demonstrate adequate internal consistency as well, with Cronbach's $\alpha > .80$ for each subscale. Good test-retest reliability (.88) was reported for overall DERS score over a period ranging from 4 to 8 weeks (Gratz & Roemer, 2004).

Procedure

Permission was obtained from the Superintendent of Schools and the gifted and talented program teachers to have the participating student complete the DANVA2 and DERS during the school day, but not during formal instruction time. In order to maintain confidentiality of data, all student records, including the teacher rating scale score,

standardized test scores, IQ score, as well as student performance on the DANVA2 and DERS, were coded with a number. The DANVA2 and DERS were administered and monitored by the principal investigator of this study. The time of completion for each participant was less than 30 minutes.

Chapter 4

Results

Multiple regression analyses were used to test the stated hypotheses dealing with the ability of emotional intelligence, IQ, and teacher rating scales of student success (TRS) to predict the academic success of gifted students, and ultimately be used as assessment tools for G&T student identification process. The dependent/outcome variables for the regression analyses were the student's Gifted Program grade (obtained from the G&T Program progress report of student performance within the program), and the student's Terra Nova Achievement Test reading and math scores. The following independent/ "predictor" variables were entered into three separate multiple regression analyses in the following order: gender, WASI Full Scale IQ score, mainstream classroom teacher rating scale score (TRS), DANVA2 overall score, and the DERS overall score. These analyses enabled us to examine the unique contribution of IQ, teacher rating scales, and emotional intelligence in the prediction of G&T student academic success.

Prior to performing multiple regression analyses, composite scores were calculated for the DERS and the DANVA2, as well as the G&T Program grade. The DERS composite score was calculated based upon criteria set forth by Gratz & Roemer (2004). A higher score on the DERS suggests increased difficulty in emotion regulation. The DANVA2 tallies error responses on each of the subscales (Facial Expressions and Paralanguage) and a total score was computed. Higher scores on the DANVA2 represent a greater number of errors in emotion identification and increased difficulty in emotion receiving ability. About the G&T Program grade, a total score was generated by tallying

points from the eight item teacher rating of the student's performance in the program, which used a four point Likert Scale (1-4 points per item). Total scores for the G&T Program grade ranged from 8 to 32.

Screening of Data

Initial screening of the data revealed some concerns about the psychometric properties of some of the variables. Little variability was displayed in the distribution of the G&T students' mainstream grade point averages (GPA) (M = 3.97, SD = .12, Skew = -3.83, and Kurtosis = 13.09) and the teacher rating scale (TRS) scores (M = 90.14, SD = 6.34, Skew = -1.49, and Kurtosis = 2.15). In fact, 94% of the students maintained a 4.0 GPA, and 26% of the students received a perfect score on the teacher rating scale (out of a possible 96 points), which led to the decision to drop the mainstream GPA and TRS from further analyses as the lack of variability precluded any empirical analyses. As such, hypotheses 4 and 7 about the power of emotion receiving ability and emotion regulation ability in predicting student success in the mainstream setting, as measured by GPA were untestable. The fact that the distribution of GPA's showed little to no variability is not surprising given that these students had already been identified as "gifted and talented," partially based upon their academic performance in the mainstream setting.

Initial Analyses

The DERS was entered as a predictor variable into the initial regression analysis after gender and full scale IQ (Wechsler Abbreviated Scale of Intelligence results from G&T Program initial screening process) in order determine the effect of emotion regulation over and above that contributed by gender and IQ. However, the DERS

offered no explained variance (F Change values reported) for any of the outcome variables: G&T Program Grade ($p > .48$), Math Achievement ($p > .74$), and Reading Achievement ($p > .16$). Similarly, full scale IQ did not offer any additionally explained variance for any of the outcome variables: Gifted Program Grade ($p > .19$), Math Achievement ($p > .38$) and Reading Achievement ($p > .53$). This non-significant finding about the full scale IQ is likely due to the restricted range of IQ scores in the current sample ($M = 130.14$, $SD = 7.96$). The DERS and full scale IQ showed no predictive power throughout the analyses conducted and were subsequently dropped from the regression model to allow for more power for other predictor variables.

The current study was initiated to test nine hypotheses on factors that impact the academic success of G&T students. Academic success was measured in three different ways for this study: one measure represented the student's G&T Program performance (G&T Program grade), and two measured the student's mainstream academic performance (math achievement test percentile rank, and reading achievement percentile rank). Given the minimal correlations among these measures (r values ranging from .05 to .09), three separate sequential regression analyses were conducted in order to determine the influence of student variables such as gender and emotion receiving ability, as measured by the DANVA2, on student academic success.

Correlations of Criterion and Predictor Variables

Table 1 depicts the means, standard deviations, and correlations for the criterion and predictor variables. Results reveal that there are some significant relationships among them. A significant gender difference on both the G&T Program grade and the DANVA2 was indicated, with females performing better in the G&T program and on the

Table 1

Means, Standard Deviations, and Correlations for Student's Gifted Program Grade, Reading Achievement, Math Achievement, and Student Predictor Variables (N = 56)

Variable	*M*	*SD*	1	2	3	4	5
G&T Program Grade [a]	26.54	3.67	.38**	-.10	.17	-.16	-.30*
Reading Achievement [b]	94.18	5.70	.09	-.13	.03	-.19	-.02
Math Achievement [c]	94.05	5.38	-.16	-.06	-.04	.08	.22
Predictor variable							
1. Gender			--	.01	-.03	-.13	-.44**
2. Full Scale IQ [d]	130.14	7.96		--	-.08	-.10	-.02
3. Teacher Rating [e]	90.14	6.34			--	-.19	-.23*
4. DERS Total [f]	79.78	20.34				--	.21
5. DANVA Total [g]	7.41	3.59					--

Note. [a] G&T Program Grade was obtained from the Teacher Rating Scale (Appendix D). Range=14 (Minimum=18, Maximum=32 of a possible 36 points). [b] Reading Achievement was obtained from participant's Terra Nova Achievement Test percentile rank scores. Range=24 (Minimum=75, Maximum=99). [c] Math Achievement was obtained from participant's Terra Nova Achievement Test percentile rank scores. Range=18 (Minimum=81, Maximum=99). [d] Full Scale IQ was obtained from the student's performance on the Wechsler Abbreviated Scale of Intelligence (WASI). [e] Teacher Rating was obtained from the Teacher Rating Scale. [f] DERS Total is the total score obtained from the Difficulties in Emotion Regulation Scale. Range=104 (Minimum=46, Maximum=150). [g] DANVA Total is the total number of errors on the Child Facial Expressions and Child Paralanguage subtests of the DANVA2. Range=17 (Minimum=1, Maximum=18). Means and standard deviations for errors on the DANVA2 for 11-12 year olds: Child Facial Expressions (M=3.4, SD=2.3) and Child Paralanguage (M=5.1, SD=3.4).

*$p < .05$. **$p < .01$.

DANVA2. In addition, the DANVA2 total score was highly correlated with both the G&T Program grade and the teacher rating scale ($p < .05$). Given reports of gender effects in previous research of nonverbal decoding abilities (Hall, Carter, & Horgan, 2000), it is reasonable to expect an interaction between the gender of the participant and the DANVA2 total score. As such, a gender x DANVA2 interaction variable was created and entered into regression analyses. In addition, on the DANVA2 Paralanguage subtest, the students in the current sample (M=4.4, SD=2.36) made significantly fewer errors in emotion decoding ability, $t(355)=2.26$, $p<.05$ than students displayed in the standardization sample (M=5.1, SD=3.4). On the Facial Expressions subtest, the students in the current sample (M=2.8, SD=1.99) did not significantly differ in emotion decoding ability, $t(355)=1.87$, $p>.05$, than students displayed in the standardization sample (M=3.4, SD=2.3).

Final Model Multiple Regression Analyses

The final regression model that was used for subsequent regression analyses included the following predictor variables: gender, DANVA2 total score, and the interaction between gender and performance on the DANVA2. Each regression procedure used one of the three criterion variables of interest: G&T Program grade, math achievement, or reading achievement. Using a $p < .05$ criterion for the Mahalanobis distance and review of skewness and kurtosis values, the frequency distributions of the variables revealed no significant outliers and results of evaluations of assumptions of normality, linearity, and homogeneity of variance were judged to be reliable for multiple regression analyses. An alpha level of .05 was used for all statistical tests.

Using the aforementioned final regression model, a sequential regression analysis was performed in order to assess which are the best predictors of student performance in the G&T program. The gifted program grade (G&T Program grade) was the criterion and the following were entered as predictor variables in the following order: gender, DANVA2 total score, and gender x DANVA2 interaction. This order of entry facilitated the examination of how the DANVA2 (measuring emotion receiving/perception ability) impacts student performance within the G&T program, as proposed in this study's hypotheses. Table 2 depicts the results of the regression analysis.

Table 2

Sequential Regression Analysis for Student Variables Predicting Student's Gifted Program Grade (N = 71)

Variable	*B*	*SE B*	*β*	R^2	ΔR^2
Step 1				.10**	
Gender	2.32	.84	.32**		
Step 2				.11	.01
DANVA	-.12	.13	-.11		
Step 3				.14	.03
Gender x DANVA	.44	.29	.39		

*$p < .05$. **$p < .01$.

The overall model with the student's gender was significant, $R^2 = .10$, $F(1, 69) = 7.69$, $p = .007$. However, the regression step with the DANVA2 total score was not significant, R^2 change = .01, F change (1, 68) = .74, $p = .392$. In addition, the regression step with the gender x DANVA2 interaction was not significant, R^2 change = .03, F change

(1, 67) = 2.32, p = .132. These results reveal that the DANVA score and the gender x DANVA2 interaction did not contribute any additionally explained variance above that explained by gender. Based on these results, the gender of the student is the only significant predictor of a student's gifted program grade. Using the current model, gender remained a significant predictor of the student's gifted program grade even when the effects of the DANVA2 score had been partialled out, t (68) = 2.10, p = .039. In the current sample, females (M = 28.10, SD = 2.78) in the G&T program performed significantly better than males (M = 25.78, SD = 3.91).

Next, two separate sequential multiple regression analyses were performed in order to assess which are the best predictors of student academic success in the regular education setting as measured by Terra Nova Math and Reading Achievement Test scores. In the first analysis, math achievement performance was the criterion and the following three predictor variables were entered into the regression analysis in the following order: gender, DANVA2 total score, and the gender x DANVA2 interaction variable. Table 3 depicts the results of the regression analysis. The first step with the gender of the student was not significant, F Change = 1.48, p = .23. The second step with the DANVA2 was also not significant F Change = .95, p = .33. However, the interaction between gender and DANVA2 emerged as a significant predictor in the final regression step F Change = 7.54, p = .01. A significant gender difference was displayed in the relationship between the DANVA2 performance and math achievement, as measured by the Terra Nova Achievement Test. There is a positive correlation between nonverbal decoding and math performance for males and a negative correlation between nonverbal decoding and math performance for females. For example, decreases in females'

Table 3

Sequential Regression Analysis for Student Variables Predicting Student's Math Achievement (N = 67)

Variable	*B*	*SE B*	*β*	R^2	ΔR^2
Step 1				.02	
Gender	-1.50	1.26	-.15		
Step 2				.04	.01
DANVA Total	.91	.20	.13		
Step 3				.14**	.10**
Gender x DANVA	1.14	.42	.73**		

*$p < .05$. **$p < .01$.

nonverbal decoding abilities were related with increases in their math achievement. Table 4, which displays the intercorrelations among the variables, reveals that there are some differences between the genders. Gender moderates a number of relationships among the variables, but neither gender actually has a significant zero order correlation with any of the measured variables.

In the second analysis about student academic success in the regular education setting, reading achievement was the criterion and the following predictor variables were entered into the regression analysis: gender, DANVA2 total score, and the gender x DANVA2 interaction. Table 5 depicts the results of the regression analysis. The overall model with the student's gender was not significant, $R^2 = .02$, $F(1, 65) = .96$, $p = .331$, which reveals that none of the predictor variables significantly predicted reading achievement as measured by the students' Terra Nova Test reading percentile ranks.

Table 4

Gender Differences in Correlations Among Student Variables

	Females					
Variable	1	2	3	4	5	6
1. Full Scale IQ	--	-.30(28)	.09(28)	**.13(28)[a]**	.02(28)	-.24(28)
2. DERS Total	.07(36)	--	-.02(30)	.02(30)	-.37(28)	-.02(28)
3. DANVA Total	.02(36)	.22(41)	--	**.19(30)[b]**	.15(28)	.47(28)*
4. Gifted Program Grade	**-.29(36)[a]**	-.14(41)	**-.22(41)[b]**	--	.17(28)	.28(28)
5. Reading Achievement	-.15(37)	-.15(39)	-.07(39)	.01(39)	--	**.30(28)[c]**
6. Math Achievement	-.01(37)	.09(39)	-.10(39)	-.01(39)	**-.16(40)[c]**	--
	Males					

* Significantly different from zero at .05 level

Note. *N* in parentheses. Correlation pairs in **bold** print represent correlations significantly different from each other but not from zero.

Table 5

Sequential Regression Analysis for Student Variables Predicting Student's Reading Achievement (N = 67)

Variable	*B*	*SE B*	*β*	R^2	ΔR^2
Step 1				.02	
Gender	1.42	1.45	.12		
Step 2				.02	.00
DANVA	2.23	.23	.01		
Step 3				.03	.01
Gender x DANVA	.47	.51	.26		

*$p < .05$. **$p < .01$.

Chapter 5

Discussion

Analysis and Interpretation of Results

This researcher attempted to empirically assess what criteria are the best predictors of a G&T student's academic success in the regular education setting, and more importantly, in a G&T program. More specifically, this investigator examined the impact of aspects of emotional intelligence as well as the more traditional criteria used in the identification of G&T students, such as IQ scores and teacher rating scales, on G&T students' academic success. The present results reveal that the gender of the student is a significant predictor of student success in a G&T program. In addition, gender moderated the effect of emotion receiving ability on student math achievement. In the current sample of G&T students, neither IQ nor teacher rating scales accounted for a significant portion of the variance of gifted and talented program grades or regular education achievement, as measured by the Terra Nova reading and math achievement tests. Interestingly, reading achievement was not significantly predicted by any of the predictor variables, including gender, IQ, emotion receiving ability, or a linear combination of these. These null findings related to reading achievement may be attributed to the lack of variability of reading scores in this specific sample, as this limits the empirical validity of this measure.

Hypothesis 1 predicted that the student's full scale IQ score is a significant predictor of his/her academic success in the G&T program, as measured by the G&T Program student evaluation score. Results of the multiple regression analysis with the G&T program grade as the criterion do not support this hypothesis. Current results in the

G&T sample differ from previous researchers (see Goleman, 1995; Neisser et al., 1996), who suggested that IQ accounts for as much as 20-25% of the variance in academic performance in the general population, and research by Woitaszewski (2000) that reported a significant positive correlation between IQ and academic achievement within a gifted population. One likely explanation for the findings in the current study is the fact that there was a restricted range of IQ scores in the sample, as the sample contained students with significantly higher IQ scores than the general population. In part, this null finding is due to the fact that these students had been previously identified as "gifted and talented" partially based on their IQ scores which were expectedly higher and less variable than the average population. Indeed, the variability in our sample (M =130.14, SD =7.96) supports this interpretation.

Another possible explanation for the non-significant IQ finding in the current study is that the measure used to assess success in the G&T program focused on qualities commonly observed in gifted students (i.e., creativity, task persistence) rather than academic achievement alone. It is proposed that there are many students who demonstrate high academic achievement in the mainstream setting, but they do not demonstrate the creativity, task persistence, and leadership qualities as proposed by researchers of giftedness (i.e., Reis & Renzulli, 2004; Renzulli, 1978). Traditional IQ has been reported to be an adequate predictor academic performance (Goleman, 1995; Kaufman & Harrison, 1986; Neisser et al., 1996) and thus may be used as an assessment tool for admission into a G&T program. However, traditional IQ may not be sensitive enough to actually predict success within a G&T program, as was found in the current study, because success in a G&T program requires non-academic qualities such as those

presented by Reis and Renzulli (2004). The non-significant IQ finding is more in line with claims of researchers such as Assouline (1997), who noted that intelligence tests measure attributes of intelligent behavior but that no test is capable of measuring all attributes of intelligent behavior. Thus, findings from the current study support the use of multiple assessment strategies in the G&T identification process which may capture the students' non-academic qualities that may, in fact, lead to student success in a G&T program.

Although a significant effect of IQ was not supported by the current data, as originally predicted, the gender of the student accounted for 11% of the variance in G&T program performance. Although this result was not initially hypothesized, the significant gender finding is interesting as it indicates that, in the current sample, females performed superior to males within the G&T program. Females also performed better on the DANVA2, demonstrating better emotion receiving ability than males. It is proposed that the females' non-academic qualities, such as the ability to recognize emotion in others, actually enhance their success in the G&T program.

Hypotheses 2 and 3 predicted that the initial regular education classroom teacher rating (TRS) of the G&T student is a significant predictor of student academic success in a regular education program, as measured by GPA and standardized achievement test scores (hypothesis 2) and in the G&T Program, as measured by the G&T Program student evaluation (hypothesis 3). These predictions are in line with researchers who claimed that teachers are able to successfully identify student talents and can be valuable contributors to predicting academic success (Alvidrez & Weinstein, 1999; Gagne, 1994; Hunsaker, Finley, & Frank, 1997). However, results of the current study failed to

provide significant support for these hypotheses. In fact, although the TRS was initially entered into the initial empirical analyses, it was dropped from subsequent analyses as it did not support any of the proposed hypotheses.

These non-significant findings contrast the claims of previous researchers that promoted the use of teacher ratings in the identification of gifted students (Davis & Rimm, 1985; Richert, Alvino, & McDonnel, 1982; Sattler, 1992). One possible explanation for these non-significant findings is that there may not have been enough variability in the teachers' ratings of their students. Teachers may have rated their students excessively high, without truly understanding or considering the characteristics of gifted students. In addition, the teachers may have rated their students excessively high because they were comparing them to other students in their class, rather than on the merits of the individual student. This finding supports the claims of previous researchers who questioned the use of teacher ratings due to their susceptibility to subjective bias, self-fulfilling prophecy, and stereotypes (Schack & Starko, 1990; Siegle, 2001). Many students are high achievers in the regular education program, but they do not possess other qualities of giftedness, proposed by Renzulli (1978) and other researchers, that are required for success in a G&T program. Consequently, these teachers may subjectively rate their students more on the student's academic merits than on the various aspects of giftedness, which is what is measured in the G&T program. With increased education about characteristics of giftedness and the identification and evaluation of such characteristics, the teacher rating scale may be a more reliable predictor of student success in the G&T program. Additionally, incorporating a wider range of ratings on the Likert scale, possibly including more quantitatively defined categories (i.e., number of

times a particular student quality characteristic is displayed in a week), scores on the teacher ratings may be more variable and thus be more beneficial. Finally, it may be beneficial for teachers to rank order their students based on given guidelines on giftedness.

Interestingly, a significant negative correlation ($p < .05$) between the TRS and the DANVA2 was displayed (refer to Table 1). This finding supports the view that higher scores on the TRS were related with fewer errors in emotion decoding, as measured by the DANVA2. In other words, students who had better emotion decoding abilities were rated by their teachers as possessing more "gifted" qualities, as measured by the TRS. This finding supports the notion that teachers may, in fact, be good at assessing the non-academic student qualities of giftedness and provides support for the use of teacher ratings in the G&T identification process.

Hypothesis 4 predicted that emotion receiving ability, as measured by the DANVA2, is a significant predictor of the G&T student's academic success in a regular education program, as measured by GPA, over and above that predicted by IQ and teacher rating scales. This hypothesis is in line with previous research by Nowicki and Duke (1994), as they demonstrated a significant relationship between the DANVA scores and academic achievement. However, this hypothesis was not tested due to the aforementioned decision to drop GPA as a criterion for measuring academic success in the regular education setting, given the lack of variability among participant GPA scores in the current sample. As noted earlier, the fact that the overwhelming majority of the student GPA's were a perfect 4.0 is not surprising given the fact that these students were originally referred and considered for admission to the G&T Program based on their

GPA. One would expect the students in such a program to have demonstrated high academic achievement in the regular classroom setting.

Hypothesis 5 predicted that emotion receiving ability, as measured by the DANVA2, is a significant predictor of the G&T student's academic success in a regular education program, as measured by the Terra Nova Achievement Test Scores, over and above that predicted by IQ and teacher rating scales. Previous researchers have suggested that emotional intelligence contributes to academic success (Richburg & Fletcher, 2002). Given that emotion receiving ability (the ability to recognize emotion in others) is one aspect of emotional intelligence, one would expect to find a significant effect on academic success, compatible with findings of Nowicki and Duke (1994). In fact, partial support for this hypothesis was provided by the current researcher. The interaction between gender and the DANVA2 scores significantly predicted math achievement. Results from the current study reveal that the DANVA2 score is more predictive of math achievement for females than it is for males. G&T females who made more emotion receiving errors on the DANVA2 test (which represents lower emotion receiving ability), displayed higher math achievement. However, this gender and DANVA2 combination did not significantly predict reading achievement.

One possible interpretation of this gendered finding pertaining to math achievement is that females who perform more stereotypically like boys in their ability to perceive emotion in others (displaying more difficulty in emotion receiving ability as measured by the DANVA2) also perform more stereotypically like boys in their math abilities (performing better in their math achievement). This interpretation is in line with the findings of Halpern (1992), who highlighted that precocious strengths in

mathematical abilities are more likely found in males than females. In an effort to give a rationale for these gendered effects, Halpern reported gender differences in brain lateralization, with females displaying more bilateral organization of cognitive abilities than males. Males have been reported to display more lateral brain organization which is good for math tasks but not for nonverbal tasks. In other words, females' brain "hemispheres are more equal in the degree to which they underlie a specific type of cognitive task" (p. 146), whereas males' brains are more lateralized. However, bilateral organization is not optimal for all tasks (especially spatial tasks), which impairs their performance on such tasks, thus providing a possible explanation for the gender differences in abilities such as math achievement. Furthermore, early physical maturation (usually displayed in girls) is related with better verbal abilities and weaker brain lateralization (Halpern, 1992).

Hypothesis 6 predicted that emotion receiving ability, as measured by the DANVA2, is a significant predictor of the G&T student's academic success in a G&T program, as measured by the G&T Program student evaluation score, over and above that predicted by IQ and teacher rating scales. This hypothesis was not supported by the current data. This finding is in opposition to previous research with the DANVA by Nowicki and Duke (1994) as they reported a significant relationship between DANVA scores and academic achievement. Although it was not significant, it is important to note that a gendered relationship was displayed between students' emotion receiving abilities and performance within the G&T program. Quite possibly, with a larger sample size, a significant effect of emotion receiving abilities on student performance in a G&T program might be realized.

Hypotheses 7, 8, and 9 predicted that emotion regulation ability, as measured by the DERS, is a significant predictor of the G&T student's success in a regular education program (hypotheses 7 & 8) and within a G&T program (hypothesis 9), over and above that predicted by full scale IQ and teacher rating scales. Unfortunately, hypothesis 7 was not tested due to the aforementioned decision to drop GPA as a criterion for measuring academic success in the regular education setting given the lack of variability among participant GPA scores in the current sample. Thus, the present researcher was not able to provide further support for the link between emotion regulation and GPA as previously reported by Gumora and Arsenio (2002). In addition, results of the current study do not provide significant support for hypotheses 8 and 9. In other words, there was no significant evidence to support the notion that the ability to regulate one's emotions (i.e., awareness and understanding of emotions; acceptance of emotions; ability to engage in goal-directed behavior and refrain from impulsive behavior when experiencing negative emotions; and access to emotion regulation strategies perceived as effective; Gratz & Roemer, 2004) significantly predicts one's ability to achieve academically.

Although these aspects of emotion regulation logically seem to impact one's ability to perform academically, the present researcher did not support this notion. This finding contrasts earlier findings by Gumora and Arsenio (2002), and is more in line with the findings of Woitaszewski (2000), who reported that EI, as measured by the Adolescent Multifactor Emotional Intelligence Scale (AMEIS), was not found to be a significant predictor of academic success for adolescent gifted students. The lack of a significant finding in the current study may be attributed to the fact that the DERS is a self-report measure and, subsequently, is prone to subjective bias. Additionally, students

may not have understood the statements or may have had difficulty responding because they may not have had a baseline of behavior by which they can assess their response to various situations. Furthermore, completion of emotion regulation measures such as the DERS requires the student to have some insight into his or her own emotional functioning, which may be difficult for some children, especially at a young age.

Summary and Conclusions

Although there has been a shift in the conceptualization of intelligence (Gardner, 1983) and giftedness (Borland, 2003; Renzulli, 1978), the method for identifying gifted students has remained rather static and there continues to be debate about the appropriate criteria used to identify gifted students. Many of the researchers simply stress the use of multiple measures of abilities to ensure accurate and valid identification of gifted students without offering any insight on what some of the appropriate measures might be (Sattler, 1992; Feldhusen & Jarwan, 2000). Recent researchers have suggested that emotional intelligence can predict academic success of students (Goleman, 1995, Nowicki & Duke, 1994; Richburg & Fletcher, 2002); however contrary results have been reported in the relatively little research that does exist, and even less research exists about the impact of EI on the academic success of G&T students (i.e., Newsome, Day, & Catano, 2000; Woitaszewski, 2000).

One of the challenges in the EI research has been the evolving definition of EI, from Salovey and Mayer's (1990) original conceptualization to Goleman's (1995) conceptualization. Furthermore, the development of valid EI measurement tools has been the topic of considerable discussion and research (i.e., Bar-On, 1997; Mayer, Salovey, & Caruso, 1996; Nowicki & Duke, 1994). Many of the EI measurement tools to this date

have been self-report measures such as the DERS (Gratz & Roemer, 2004). However, researchers are moving toward more objective measures as displayed by the MEIS (Mayer, Caruso, & Salovey, 1999), and the AMEIS (Mayer et al., 1996). The DANVA2 (Nowicki & Duke, in press) provides an objective measure of emotion perception/receiving ability which may prove to be especially useful in the EI research as it is not subject to the pitfalls of self-report measures such as bias, and does not require the subject to have insight into his or her own EI (Ciarrochi, Chan, & Caputi, 2000). Clearly, the use of multiple instruments in the assessment of EI will prove most effective to ensure valid measurement of this important, evolving construct.

Given the continued debate over the criteria commonly used in the identification of G&T students, as well as recent research in the domains of giftedness and EI, this study was initiated in order to reassess the usefulness of criteria commonly used to identify gifted and talented students. In addition, aspects of EI were explored in order to clarify the impact of EI on the academic success within a sample of gifted and talented students, as EI may provide additional valuable information about the vast abilities of these students. Ultimately, this information may help increase the accuracy of the identification criteria for gifted and talented students. The current findings refute the use of EI as an additional criterion for identifying G&T students. However, results of the current study reveal that the gender of the G&T student is a significant predictor of success in a G&T program and reveal that consideration should be given to the G&T curriculum to ensure that it is appropriate for strengths and weaknesses of both males and females. In addition, females' emotion receiving ability was a better predictor of their math performance than it was for males. Interestingly, although IQ and teacher rating

scales of student performance are commonly used in the identification of G&T students, the findings of the current study refuted both of these measures as significant predictors of student success in a G&T program (as measured by the G&T Program progress report) or in a regular education program (as measured by Terra Nova Achievement Test scores).

Limitations of the Study

Certain conditions may have limited the application of the findings from the current study. First, two of the measures used in the current study, the initial teacher rating scale (TRS) score and the students' G&T Program grade, were generated from locally developed rating scales. As such, there is no reliability or validity standardization information for these measures, which may limit the ability to generalize the current findings to other gifted students and other general populations.

Second, although the DERS has shown promising validity in the measurement of emotion regulation ability (Gratz & Roemer, 2004), it has been primarily used with an adolescent and adult population. Thus, its use in the current study was exploratory and there may be the need for additional research with additional child samples to ensure its validity and reliability with this age group. Unfortunately, at this point in time in the emotional intelligence research, there are limited measures of emotion regulation, and no other child measures of emotion regulation were available for the current study. Although the language of the DERS items was modified to make the items understandable for the sample group, it is possible that some participants did not understand some items. In addition, given their young age, the participants may not have an adequate baseline of their behavior by which to measure their behavioral responses in various situations.

National percentile ranks of the Terra Nova Achievement Test scores (Terra Nova Technical Report, 2001) were used in statistical analyses rather than standard scores because neither standard scores nor raw scores were available to the principal investigator of the current study. A limitation of the use of percentile ranks is that they are not as well suited for parametric data analysis as standard scores or raw data. As such, the reliability of results may be bolstered in future research by using standard scores or raw scores of achievement. In addition, although there was limited variability in the range of student reading and math scores in this specialized sample, it was deemed adequate for analyses, and it was decided that the reading and math achievement variables not be dropped from analyses given the fact that the mainstream GPA had already been dropped due to extremely little variability among scores.

Finally, a randomized selection process for participants was not used. Rather, selection of participants was based on return of consent forms signed by parents of the students in the G&T program (50% return rate). Although there are no known differences between those students that participated and those who did not, it is possible that motivational differences exist, potentially skewing the results of the study.

Directions for Future Research

One of the goals for future researchers in this domain should be to continue to evaluate how EI is measured. Although there are several measurement tools used in the EI literature, contradictory findings are reported on the effectiveness of measuring the EI construct. While the current researcher followed the recommendation of Woitaszewski (2000) to measure specific aspects of EI, only two of the four aspects of EI (as proposed by Mayer & Salovey, 1997) were actually measured. Quite possibly, the measurement of

other aspects of EI, such as the ability to use emotions to facilitate cognition and direct one's attention to meaningful information, may prove to be more relevant to the prediction of academic success.

The use of additional measures of EI for a youth population, such as the newly developed Mayer Salovey Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV; Mayer, Salovey, & Caruso, in press), may prove beneficial to assess multiple aspects of emotional intelligence in the child population. Unfortunately, at the time of this study, the MSCEIT:YV was unavailable as it had not yet been released with standardization data. Measures such as MSCEIT:YV are more objective, much like the MEIS (Meyer, Caruso, & Salovey, 1999) and the DANVA2 (Nowicki & Duke, in press), which will prove beneficial as they do not have the same inherent weaknesses as self-report measures. The use of video or virtual reality computerization incorporated into EI tests enable the participant to demonstrate his/her EI in response to real emotional stimuli rather than simply reporting how he/she thinks or may behave on a self-report inventory. Furthermore, it will be important that new tests have large, national norm groups, including a variety of children and adolescents, including those from various subgroups such as gifted, learning disabled, and/or ADHD.

The present sample size was deemed adequate to empirically test the proposed hypotheses. Given the small effect sizes displayed in the current results, future research would benefit from an increased sample size, which may increase the possibility of more statistically significant results. However, given the small effect sizes (see Tables, 2, 3, and 5), it would likely require a very large sample to yield additional significant findings. It may be most important to obtain better measures of academic achievement or qualities

that contribute to student success, as well as better measures of EI in order to effectively test the stated hypotheses. For example, given that EI is a non-academic construct, it may be helpful to have different outcome measures, ones that focus on the less academic indices of success, such as leadership, likeability, and motivation. Qualities such as these contribute to success, but they are more difficult to measure. Thus, the training of teachers about giftedness and providing them with effective tools to rate students may be most important, as these teachers have the most direct experience and opportunities for observation of such gifted qualities. Finally, it may be interesting to obtain a comparison group of regular education students in order to examine the effects of EI in a general education sample as compared to the effects in the G&T sample.

On the use of archival data and different assessment times of the data entered into analyses, future researchers should also strive to obtain current measures of mainstream academic achievement that coincide with the measurement of EI. If it is truly possible to foster increases in EI through instruction, as Goleman (1995) proposed, then having current academic performance scores collected at the same time of EI assessment will eliminate any possible confounded results.

In summary, researchers must continue to further validate the instrumentation used to measure EI, as well as to create new measures of EI (preferably more objective) that may better account for the complexity of the EI construct and measure it accurately. In addition, better measures of both academic achievement and the non-academic qualities that lead to student success should be obtained. Additionally, ensuring a larger sample of students may lead to more statistically significant results. Clearly, further research is necessary on the identification of gifted students in order to ensure that the

measurement tools used in the process actually capture the vast array of student abilities and are more in line with modern theories of intelligence.

Chapter 6

Implications for Practice

There is an applied value of the current research for school staff, especially school psychologists, as they are an integral part of the gifted student identification process. School psychologists are called upon to assess the social and intellectual strengths and weaknesses of "gifted" students. Information gained from this study has economic and time management implications for the identification and counseling of G&T students.

Results of the current research are directly applicable to school districts' policies on G&T students. Females in the current study performed better within the G&T program. As such, school districts may wish to evaluate the G&T program curriculum to ensure that it both challenges and meets the needs of males and females, taking into consideration the students' social and academic strengths and weaknesses.

In addition, as stated earlier, further teacher training may be helpful to provide current information about giftedness and theories of intelligence to ensure that the teacher rating scales (TRS) provide accurate and helpful information about potentially gifted students. As such, it is important for researchers and educators to coordinate efforts to establish an agreed upon definition and features of giftedness. It is important that teachers are given this proper information to enable them to rate their students within the context of the various characteristics of giftedness, rather than just on high achievement. In fact, without such training, the use of the TRS may be viewed as an ineffective use of staff time and money as it may not reliably predict student success in a G&T program.

School psychologists are integral members of the educational support team striving to ensure the healthy development of all students. Although students within the

G&T population may demonstrate high achievement and minimal academic difficulties, they may evidence social and emotional difficulties much like any other student population (Davis & Rimm, 1985; Osborn, 1996). Although results of the current study do not reveal that emotion receiving ability predicts G&T student success within a G&T program, it may still be efficacious to consider the use of a measure of emotion receiving ability, such as the DANVA2. Information gained from the measurement of gifted students' EI can assist school psychologists in developing intervention strategies such as the development of lessons within the G&T program and/or mainstream setting to address displayed weaknesses. These lessons could address student weaknesses in emotion receiving ability, in order to enrich non-academic aspects of students' development, as well as their academic abilities. Quite possibly, school personnel, under the direction of school psychologists, may develop programs to improve student EI abilities, much like that which was proposed by Goleman (1995). Another possible scenario could be that the student who displays deficits in his or her emotion receiving or emotion regulation abilities may be "flagged" as a student who may benefit from social/emotional support from school staff, including the school psychologist. At minimum, the additional information gained from such measures will likely provide valuable insight into the functioning of these students that may ultimately improve the student-teacher relationship and increase academic performance, as Nowicki and Duke (1994) and Mayer, Perkins, Caruso, and Salovey (2001) posited.

References

Alvidrez, J., & Weinstein, R.S. (1999). Teacher perceptions and later student academic achievement. *Journal of Educational Psychology, 91*, 731-746.

Assouline, S.G. (1997). Assessment of gifted children. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (2nd ed.) (pp. 89-108). Boston: Allyn & Bacon.

Bar-On, R. (1997). *Emotional Quotient Inventory: Technical manual.* Toronto: Multi-Health Systems.

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-I). In R. Bar-On & J.D.A. Parker (Eds.), *Handbook of emotional intelligence.* San Francisco, CA: Jossey-Bass.

Borland, J.H. (2003). The death of giftedness: gifted education without gifted children. In J.H. Borland (Ed.), *Rethinking gifted education* (pp. 105-124). New York: Teachers College Press.

Chan, D.W. (2000). Identifying gifted and talented students in Hong Kong. *Roeper Review, 22*, 88-93.

Ciarrochi, J.V., Chan, A.Y.C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences, 28*, 539-561.

Davies, M., Stankov, L., & Roberts, R. (1998). Emotional intelligence: in search of an elusive construct. *Journal of Personality and Social Psychology, 75*, 989-1015.

Davis, G., & Rimm, S. (1985). *Education of the gifted and talented.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Feldhusen, J.F., & Baska, L.K. (1989). Identification and assessment of the gifted. In J.F. Feldhusen, J. VanTassel-Baska, & K. Seeley (Eds.), *Excellence in Educating the Gifted* (pp. 85-101). Denver, CO: Love Publishing.

Feldhusen, J.F., Hoover, S.M., & Sayler, M.F. (1997). *Identifying and educating gifted students at the secondary level.* New York: Royal Fireworks Press

Feldhusen, J.F., Jarwan, F., & Holt, D. (1993). Assessment tools for counselors. In L.K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 239-259). Denver: Love Publishing.

Feldhusen, J.F., & Jarwan, F.A. (2000). Identification of gifted and talented youth for educational programs. In K.A. Heller, F.J. Monks, R.J. Sternberg, & R.F. Subotnik (Eds.), *International handbook of giftedness and talent* (2nd ed.) (pp. 271-282). Oxford, UK: Elsevier Science Ltd.

Feldman, D.H. (2003). A developmental, evolutionary perspective on giftedness. In J.H.Borland (Ed.), *Rethinking gifted education* (pp. 9-33). New York: Teachers College Press.

Gagne', F. (1994). Are teachers really poor talent detectors? Comments on Pegnato and Birch's (1959) study of the effectiveness and efficiency of various identification techniques. *Gifted Child Quarterly, 38*, 124-126.

Gardner, H. (1983). *Frames of mind. The theory of multiple intelligences.* New York: Basic Books.

Goleman, Daniel. (1995). *Emotional intelligence.* New York: Bantam Books.

Gratz, K.L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment, 26*, 41-54.

Gumora, G., & Arsenio, W.F. (2002). Emotionality, emotion regulation, and school performance in middle school children. *Journal of School Psychology, 40*, 395-413.

Hall, C.W., Peterson, A.D., Webster, R.E., Bolen, L.M., & Brown, M.B. (1999). Perception of nonverbal social cues by regular education, ADHD, and ADHD/LD students. *Psychology In the Schools, 36*, 505-514.

Hall, J.A., Carter, J.D. & Horgan, T.G. (2000). Gender differences in the nonverbal communication of emotion. In A.H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives* (pp. 99-117). Paris: Cambridge University Press.

Hallahan, D.P., & Kaufman, J.M. (Eds.). (1994). *Exceptional children.* Boston: Allyn and Bacon.

Halpern, D.F. (1992). *Sex differences in cognitive abilities, 2nd Edition.* New Jersey: Lawrence Erlbaum Associates, Publishers.

Hoge, R.D. (1988). Issues in the definition and measurement of the giftedness construct. *Educational Research, 14*, 6-17.

Hunsaker, S.L., Finley, V.S., & Frank, E.L. (1997). An analysis of teacher nominations and student performance in gifted programs. *Gifted Child Quarterly, 41*, 19-24.

Johnsen, S.K. (1997). Assessment beyond definitions. *Peabody Journal of Education, 72*, 136-152.

Kaufman, A.S., & Harrison, P.L. (1986). Intelligence tests and gifted assessment: What are the positives? *Roeper Review, 8*, 154-159.

Lam, L.T., & Kirby, S.L. (2002). Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *Journal of Social Psychology, 142*, 133-143.

Mayer, J.D., Caruso, D., & Salovey, P. (1999). Emotional intelligence meets the traditional standards for an intelligence. *Intelligence, 27*, 1-32.

Mayer, J.D., Perkins, D.M., Caruso, D.R., & Salovey, P. (2001). Emotional intelligence and giftedness. *Roeper Review, 23*, 131-137.

Mayer, J.D., & Salovey, P. (1997). What is emotional intelligence. In P. Salovey & D. Sluyter, *Emotional development and emotional intelligence: Educational implications* (pp. 3-34). New York: Basicbooks, Inc.

Mayer, J.D., Salovey, P., & Caruso, D.R. (1996). *Adolescent Multifactor Emotional Intelligence Scale (AMEIS)*. Unpublished instrument, University of New Hampshire.

Mayer, J.D., Salovey, P., & Caruso, D.R. (in press). *Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV)*. Toronto, Canada: Multi-Health Systems.

Neisser, U., Boodoo, G., Bouchard, T.J., Boykin, A.W., Brody, N., Ceci, S.J., et al. (1996). Intelligence: Knowns and unknowns. *American Psychologists, 51*, 77-101.

Newsome, S., Day, A.L., & Catano, V.M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29*, 1005-1016.

Nowicki, S., & Duke, M. (1989). A measure of nonverbal social processing ability in children between the ages of 6 and 10. Paper presented at the meeting of the American Psychological Society, Alexandria, VA.

Nowicki, S., & Duke, M. (1994). Individual differences in the nonverbal communication of affect: The Diagnostic Analysis of Nonverbal Accuracy (DANVA) Scale. *Journal of Nonverbal Communication, 18*, 9-18.

Nowicki, S., & Duke, M. (in press). *Manual for the receptive tests of the diagnostic analysis of nonverbal accuracy 2 (DANVA2)*. Fayettville, GA: Dyssemia, Inc.

Osborn, J. (1996). Special education needs of gifted and talented children. *Youth Mental Health Update, 8*, 7-14.

Overstreet, K., & Woerner, C. (1999). *Wechsler abbreviated scale of intelligence – manual.* San Antonio: The Psychological Corporation.

Parker, J.D.A., Summerfeldt, L.J., Hogan, M.J., & Majeski, S.A. (2004). Emotional intelligence and academic success: examining the transition from high school to university. *Personality and Individual Differences, 36*, 163-172.

Pegnato, C.V., & Birch, J.W. (1959). Locating gifted children in junior high schools: A comparison of methods. *Exceptional Children*, 25, 300-304.

Pendarvis, E., & Howley, A. (1996). Playing fair: The possibilities of gifted education. *Journal for the Education of the Gifted, 19, 215-233.*

Pfeiffer, S.I. (2001). Emotional intelligence: Popular but elusive construct. *Roeper Review, 23*, 138-142.

Piechowski, M.M. (1997). Emotional giftedness an expanded view. *APEX, The New Zealand Journal of Gifted Education*, 10, 37-47.

Reis, S.M., & Renzulli, J.S. (2004). Current research on the social and emotional development of gifted and talented students: Good news and future possibilities. *Psychology In the Schools, 41*, 119-130.

Renzulli, J.S. (1978). What makes giftedness: Reexamining a definition. *Phi Delta Kappan, 60*, 180-184.

Richburg, M., & Fletcher, T. (2002). Emotional intelligence: directing a child's emotional education. *Child Study Journal, 32,* 31-38.

Richert, E.S. (1997). Excellence with equity in identification and programming. In N. Colangelo & G.A. Davis (Eds.), (pp. 75-88). *Handbook of gifted education* (2nd ed.). Boston: Allyn & Bacon.

Richert, E.S., Alvino, J., & McDonnel, R. (1982). *The national report on identification: Assessment and recommendation for comprehensive identification of gifted and talented youth.* Sewell, NJ: Educational Information and Resource Center, for U.S. Department of Education.

Rimm, S.B. (1996). *Why bright kids get poor grades: And what you can do about it.* New York: Crown Publishing.

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.

Sattler, J.M. (1992). *Assessment of children* (3rd ed.). San Diego: Jerome Sattler Publisher, Inc.

Schack, G.D., & Starko, A.J. (1990). Identification of gifted students: an analysis of criteria preferred by preservice teachers, classroom teachers, and teachers of the gifted. *Journal for the Education of the Gifted, 13*, 346-363.

Siegle, D. (2001, April). *Teacher bias in identifying gifted and talented students*. Paper presented at the Council for Exceptional Children Annual Convention, Kansas City, MO.

Sternberg, R.J. (1997). A triarchic view of giftedness: theory and practice. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (2nd ed.) (pp. 43-53). Boston: Allyn & Bacon.

Tabachnick, B.G., & Fidell, L.S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn & Bacon.

Terman, L. (1925). Mental and physical traits of a thousand gifted children. *Genetic Studies of Genius, Vol. 1.* Stanford, CA: Stanford University Press.

Terman, L., & Oden, M. (1959). The gifted group at mid-life. *Genetic Studies of Genius, Vol. 5.* Stanford, CA: Stanford University Press.

Terra Nova Technical Report. (2001). Monterey, CA: CTB/McGraw-Hill.

Windle, M., & Lerner, R. (1986). Reassessing the dimensions of temperamental individuality across the lifespan: the revised dimension of temperament survey (DOTS-R). *Journal of Adolescent Research, 1*, 213-230.

Woitaszewski, S.A. (2000). The contribution of emotional intelligence to the social and academic success of gifted adolescents (Doctoral dissertation, Ball State University, 2000). *Dissertation Abstracts International, 62*, 81.

Wong, C., Day, J., Maxwell, S., & Meara, N. (1995). A multitrait-multimethod study of academic and social intelligence in college students. *Journal of Educational Psychology, 87*, 117-133.

Appendix A

Consent to Participate in Research Project (Parent)

St. John's University
Doctoral Program in School Psychology
8000 Utopia Parkway
Jamaica, NY 11439

Title: Social and Academic Predictors of Success for Gifted Children

Principal Investigator: David P. Doring

Participant's Name: _____

Your child is invited to take part in a research study examining the relationship between academic success and gifted students' emotional intelligence, IQ, and teacher rating scales of the students' performance.

Procedures: If you choose to allow your child to participate in this study, he/she will be asked to complete two measures of emotional intelligence. One of the measures will be a brief paper and pencil questionnaire and then your child will be asked to watch a series of computer-based audio/video segments of people expressing an emotion and your child will be asked to identify the emotion that they feel is being presented. The entire procedure will take approximately 30 minutes. In addition, student grades, achievement test scores, IQ scores, and teacher recommendations will be accessed from the students' Magnet Program Screening files.

Benefits: Previous research has shown that emotional intelligence impacts the academic performance of students. The current study aims to identify the factors that best predict gifted students' academic success. This information may be helpful in developing appropriate educational programming for students, as well as in the identification of gifted students.

Potential Risks: There are no known risks in the procedures themselves. Most people who have participated in similar research have found the experience to be somewhat enjoyable. In the case that your child feels any discomfort or feels that he/she is unwilling to continue, he/she is free to discontinue at any time.

Confidentiality: The information from your child's ratings and academic records will remain strictly confidential. Children's responses will be identified by a number and the identity of any participant will be kept anonymous. In addition, names of the students will not appear in any publication or presentation of the research.

Freedom of Choice to Participate: Participation in this study is completely voluntary and participants are free to withdraw from the study at any time for any reason without penalty. In addition, **the student's standing in the Magnet Program and regular education setting will in no way be affected by their participation or non-participation in this study**. Please feel free to ask the investigator (Mr. David Doring, 516-797-6050) any questions before signing this form or at any time during the study.

Consent: This project has been explained to me to my satisfaction and in a language I can understand, and I have received a copy of this consent form. I understand what my child's participation in this study will involve and I grant consent for my child to take part in this project under the terms of this agreement. If I have further questions, I may contact David Doring, a doctoral student at St. John's University, Jamaica, New York, under the supervision of Dr. Thomas Boone, Assistant Professor of Psychology, at St. John's University, 8000 Utopia Parkway, Jamaica, New York, 11439, telephone (718) 990-1478, or the Chair of the St. John's Review Board for the protection of human subjects, Dr. Willard Gingerich (718)-990-1442.

****

I, _____, agree to allow my child _____ to participate in this research project entitled, "Social and Academic Predictors of Success for Gifted Children." I have read the description of this project and give my consent for my child to participate.

_____ _____

Parent's Signature Date

Appendix B

Participant Verbal Assent Script

"Social and Academic Predictors of Success for Gifted Children"

David P. Doring

I am doing a study with some of the 5th and 6th grade students in the Magnet Program this year. I am interested in looking at reasons why students in the Magnet Program get good grades. I would like you to complete two brief tasks that will take about 25 minutes. First, you will be asked to answer some questions about how you handle different situations. Next, I am going to show you some pictures and you are going to hear some voices of children on a computer program and you will be asked to choose what feeling the children are displaying. Your parents have given their permission for you to complete these tasks with me. Are you willing to complete these tasks?

Appendix C

Gifted & Talented Program Progress Report

School Year _____

Student: _____ Grade: _____

Home School: _____

4 - Indicates that your child's achievement is outstanding
3 - Indicates that your child's achievement is above average
2 - Indicates that your child's achievement is satisfactory
1 - Indicates that your child's achievement needs improvement

1. The student is self-motivated and willing to investigate new ideas to his/her advantage.

_____

2. The student applies critical thinking skills and problem solving techniques.

_____

3. The student exhibits the self-discipline needed to work in the Magnet setting.

_____

4. The student works toward achieving group goals.

_____

5. The student works independently and shows commitment to tasks.

_____

6. The student exhibits creative thinking through products or ideas.

_____

7. The student carries out responsibilities and is organized.

_____

8. The student is prepared for class.

_____

COMMENTS:

Appendix D

Teacher Rating Scale

Student _____ School _____ Grade _____

Teacher _____ Date _____

The qualities included in this survey are often seen in highly capable children. A child may show the characteristics to a greater of lesser extent. Please complete each of the items to describe the student. Consider each item separately and indicate the degree to which you have observed each characteristic. Please read statements carefully and write the appropriate number from the scale below.

1. You have SELDOM observed this characteristic.
2. You have observed this characteristic OCCASIONALLY.
3. You have observed this characteristic FREQUENTLY.
4. You have observed this characteristic ALMOST ALWAYS.

_____1. The student is self-motivated and willing to investigate new ideas to his/her advantage.

_____2. The student applies critical thinking skills and problem solving techniques.

_____3. The student exhibits age appropriate self-control.

_____4. The student works well independently and shows commitment to tasks.

_____5. The student exhibits creative thinking through products or ideas.

_____6. The student works toward achieving goals in small group projects.

_____7. The student carries out responsibilities and is organized.

_____8. The student is prepared for class.

_____9. The student completes assigned work in a timely manner.

_____10. The student exhibits above average ability in written language.

_____11. The student is appreciative of the ideas of others.

_____12. The student exhibits leadership skills.

_____13. Generates a large number of ideas and or solutions to problems and questions.

1. You have SELDOM observed this characteristic.
2. You have observed this characteristic OCCASIONALLY.
3. You have observed this characteristic FREQUENTLY.
4. You have observed this characteristic ALMOST ALWAYS.

_____14. Displays a great deal of curiosity: wants to know the reasons and causes for things.

_____15. Is confident about own ideas and opinions: is not afraid to express or defend them.

_____16. Develops original ideas: is able to put two or more ideas together to get a new idea.

_____17. Displays a mature and keen sense of humor (puns, associations): enjoys the unusual, clever and unique.

_____18. Is flexible, adjusts to changes: is not afraid of new ideas.

_____19. Has unusually advanced vocabulary for age: possesses a large storehouse of information about a variety of topics.

_____20. Learns rapidly, understands abstract ideas readily: sees patterns of relationships very quickly.

_____21. Reads a great deal: prefers books at higher maturity levels.

_____22. Exhibits desire to excel: likes the challenge of difficult problems and activities.

_____23. Enjoys working independently.

_____24. Is a keen and alert observer: recognizes a deeper meaning in an answer or solution.

Appendix E

Difficulties in Emotion Regulation Scale (DERS)

Please indicate how often the following statements apply to you by writing the appropriate number from the scale below on the line beside each item:

1	2	3	4	5
almost never (0-10%)	sometimes (11-35%)	about half the time (36-65%)	most of the time (66-90%)	almost always (91-100%)

_____ 1) I am clear about my feelings.

_____ 2) I pay attention to how I feel.

_____ 3) I experience my emotions as too much for me to control.

_____ 4) I have no idea how I am feeling.

_____ 5) I have difficulty making sense out of my feelings.

_____ 6) I pay special attention to my feelings.

_____ 7) I know exactly how I am feeling.

_____ 8) I care about what I am feeling.

_____ 9) I am confused about how I feel.

_____ 10) When I'm upset, I recognize and accept my emotions.

_____ 11) When I'm upset, I become angry with myself for feeling that way.

_____ 12) When I'm upset, I become embarrassed for feeling that way.

_____ 13) When I'm upset, I have difficulty getting work done.

_____ 14) When I'm upset, I become out of control.

_____ 15) When I'm upset, I believe that I will stay that way for a long time.

_____ 16) When I'm upset, I believe that I'll end up feeling very sad and depressed.

_____ 17) When I'm upset, I believe that my feelings are normal and important.

_____ 18) When I'm upset, I have difficulty focusing on other things.

_____ 19) When I'm upset, I feel out of control.

_____ 20) When I'm upset, I can still get things done.

_____ 21) When I'm upset, I feel ashamed with myself for feeling that way.

----- 1	----------2	----------3	----------4	----------5------
almost never (0-10%)	sometimes (11-35%)	about half the time (36-65%)	most of the time (66-90%)	almost always (91-100%)

_____ 22) When I'm upset, I know that I can find a way to eventually feel better.

_____ 23) When I'm upset, I feel like I am weak.

_____ 24) When I'm upset, I feel like I can stay in control of my behaviors.

_____ 25) When I'm upset, I feel guilty for feeling that way.

_____ 26) When I'm upset, I have difficulty concentrating.

_____ 27) When I'm upset, I have difficulty controlling my behaviors.

_____ 28) When I'm upset, I believe that there is nothing I can do to make myself feel better.

_____ 29) When I'm upset, I become annoyed with myself for feeling that way.

_____ 30) When I'm upset, I start to feel very bad about myself.

_____ 31) When I'm upset, I believe that continuing to think about it is all I can do.

_____ 32) When I'm upset, I lose control over my behaviors.

_____ 33) When I'm upset, I have difficulty thinking about anything else.

_____ 34) When I'm upset, I take time to figure out what I'm really feeling.

_____ 35) When I'm upset, it takes me a long time to feel better.

_____ 36) When I'm upset, my emotions feel overwhelming.

VITA

Name:	David P. Doring
Date of Birth:	April 10, 1970
Elementary School:	Stanhope Elementary Stanhope, New Jersey
Date Graduated:	June, 1984
High School:	Lenape Valley Regional Stanhope, New Jersey
Date Graduated:	June, 1988
Baccalaureate Degree:	Bachelor of Arts Concordia College Bronxville, New York
Date Graduated:	May, 1992
Other Degree:	Master of Science College of New Rochelle New Rochelle, New York
Date Graduated:	May, 1996