Spring 2010

Gifted student academic achievement and program quality

Katrina Ann Woolsey Jordan
Louisiana Tech University

GIFTED STUDENT ACADEMIC ACHIEVEMENT AND PROGRAM QUALITY

by

Katrina Ann Woolsey Jordan, B.A., M.Ed.

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education in Curriculum and Instruction

COLLEGE OF EDUCATION
LOUISIANA TECH UNIVERSITY

May 2010

LOUISIANA TECH UNIVERSITY

THE GRADUATE SCHOOL

May 2010
Date

We hereby recommend that the dissertation prepared under our supervision by Katrina Ann Woolsey Jordan

entitled Gifted Student Academic Achievement and Program Quality

be accepted in partial fulfillment of the requirements for the Degree of Doctor of Education

Supervisor of Dissertation Research

Head of Department

College of Education
Department

Recommendation concurred in:

Advisory Committee

Approved:
Director of Graduate Studies

Approved:
Dean of the Graduate School

Dean of the College

GS Form 13a
(6/07)

ABSTRACT

Gifted academic achievement has been identified as a major area of interest for educational researchers. The purpose of this study was to ascertain whether there was a relation between the quality of gifted programs as perceived by teachers, coordinators and supervisors of the gifted and the achievement of the same gifted students in 6th and 7th grades as measured by gains on the *i*LEAP from Spring 2008 to Spring 2009 in Louisiana public school districts. Also, the researcher compared gains of gifted public middle school students to the gains of regular education students in the same grades. Demographic information was used to create a profile of the sample surveyed.

The results of the present study showed that there was no significant difference between 6th and 7th grade gifted student (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and those of their non-gifted peers when controlling for Spring 2008 *i*LEAP Scaled scores. Also, the results showed no significant difference between 6th and 7th grade gifted student (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores in high quality programs and *i*LEAP Scaled gain scores of gifted students in programs of lesser quality as defined by the Gifted Program Survey. Likewise, there was no significant correlation between 6th and 7th grade gifted student (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district Gifted Program Survey total score addressing gifted program quality or any of the Survey sub-scores addressing gifted program quality. Implications for practice and recommendations for further research were discussed.

APPROVAL FOR SCHOLARLY DISSEMINATION

The author grants to the Prescott Memorial Library of Louisiana Tech University the right to reproduce, by appropriate methods, upon request, any or all portions of this Dissertation. It is understood that "proper request" consists of the agreement, on the part of the requesting party, that said reproduction is for his personal use and that subsequent reproduction will not occur without written approval of the author of this Dissertation. Further, any portions of the Dissertation used in books, papers, and other works must be appropriately referenced to this Dissertation.

Finally, the author of this Dissertation reserves the right to publish freely, in the literature, at any time, any or all portions of this Dissertation.

Author Katrina Woolsey Jordan

Date 05/01/2010

DEDICATION

This dissertation is dedicated to my loving husband, Bob. Without your help this study would not have been possible. You are my editor, my mentor, my colleague, and my best friend. I will not forget the sacrifices you made to make my dream come true. You make my life so full and wonderful. I did not know what happiness was until I met you. Thank you for everything.

To my wonderful children, Kelsey and Luke. You had to do without so much in order for me to finish my task. Thank you for being encouraging and understanding. You are the best children a parent could have.

To my sister, April. Without your support and encouragement I would have been too depressed to continue. Thank you for being my sponsor, my cheerleader, and my friend.

To my uncle, Bill. Your upbeat attitude reminded me that it was never acceptable to give in and complain. I will not forget that you told me that if getting a doctorate were easy then everybody would have one.

To my parents, Frank and Virginia. You made me know from an early age that this is where I was going. I will not forget that you taught me to value education and to be all I can be. Now you have a doctor in the family and here is your book.

And finally, to my Heavenly Father. I think it goes without saying that I could not have done this without You. Thank You for Your many blessings.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

Many individuals have contributed to the completion of this study. I would like to thank you all for making this dream a reality.

First, to my fantastic husband, Bob. Without you I am a ship without a rudder. Thank you for all of the help and guidance. You are truly the most wonderful person I know. Also, to my children, Kelsey and Luke. You guys are the best.

To my sister, my uncle and my parents. You always made me believe I could do anything I wanted. Thank you for helping me to see that anything is possible.

To the Louisiana State Director of Gifted and Talented, Judy Huckabay. Without your interest in and support for my project I would never have received enough surveys to complete this study. Also to Bonnie Boulton, Susan Yuan, and Fen Chou from the Louisiana State Department of Education. Thank you for all of your kindness and help when I was searching for the right statistics to use.

To all of the educators of the gifted who returned your surveys to me. Taking time out of your busy schedule to fill out a survey from someone you did not know made me realize that there are still many decent people in the world.

To all of my friends and coworkers who let me talk incessantly about my dissertation. Thank you for listening even when it was not interesting and for praying for me even when you did not really know what to pray for. I am truly blessed to have you.

To Dr. Lawrence Leonard. Navigating the LEC program was so much easier with your help. Thank you for all of these years of being only an e-mail away.

And finally, to my committee, Dr. David Gullatt, Dr. Bob Cage, Dr. Rebecca Smith, and Dr. Bennie Lowery. You all were so encouraging and patient.

To Dr. David Gullattt. Even though I kept turning in imperfect papers, you never gave up on me. You have the patience of Job, and I appreciate you so much. Thank you for not accepting any less than my best.

To Dr. Bob Cage. I can truthfully say I could not have done this without your help. Your nurturing spirit and your humor kept me going. Thanks for being the best statistician I know.

CHAPTER 1

INTRODUCTION

Education of the gifted is not a new concept. The identification and education of gifted individuals has been an aspect of societies since the beginning of written history. In the ancient city of Sparta, the populace valued military skills. Therefore, leaders considered those that displayed highly developed skills in the areas of combat, warfare, and leadership as gifted. Plato's Academy, on the other hand, chose girls and boys based on both their intelligence and physical stamina. Europeans during the Renaissance lauded their gifted artists, authors, and architects. China, as early as 618 A.D., housed its child geniuses in the imperial court where they could be nurtured (Colangelo & Davis, 2003).

Gifted Education in America began by the1920s with most large cities having some type program for the gifted. However, interest in the education of the gifted as a group declined sharply during that same decade and continued into the 1930s. Today's attention on Gifted Education started in the 1970s and has been impacted greatly by three national reports: (a) *Education of the Gifted and Talented* in 1972, (b) *A Nation at Risk* in 1983, and (c) *National Excellence: A Case for Developing America's Talent* in 1993 (Colangelo & Davis, 2003).

Research in the area of Gifted Education has steadily increased from the early 1900s (Ornstein & Levine, 2003). One focus of this research has been toward academic

underachievement of the gifted. Beginning in the late 1800s and extending into the 1930s, researchers focused on identification and diagnosis of maladies in persons who were diagnosed as gifted. Much of what we understand about underachievement is based on studies conducted during the 1950s and 1960s. The emphasis of these studies was on identifying deficiencies that could be rectified. Behavioral researchers during this period compared samples of students who were both gifted and normal. Each sample contained both achievers and nonachievers. The researchers used the information gathered as a foundation for documentation of the differences between the two sets (Shultz, 2002).

With the advent of Sputnik I, America funded research concerning Gifted Education as an answer to a national crisis. Even after all of the research reports had been written, gifted academic underachievement was still not fully understood. After this huge thrust, the population's attention began to focus elsewhere. The mistreatment of the handicapped came to the forefront of the nation's consciousness, and so the funding followed (Shultz, 2002).

Throughout the 1980s and 1990s, research was conducted about gifted academic underachievement, but few studies prompted replication. Though studies have investigated the topic, the dilemma of the gifted academic underachiever is still somewhat of a conundrum. The research that is available presents contradictory findings that do little to facilitate the development of intervention strategies (Shultz, 2002).

Justification for the Study

Having children who do not live up to their potential can be exasperating for parents and teachers alike. The situation becomes even more frustrating when that student has been identified as gifted. Gifted academic underachievement has been identified as a

major problem to be addressed through research (Reis & McCoach, 2000). The occurrence of underachievement in the gifted population has been estimated to be between 15% and 40% (Rayneri, Gerber, & Wiley, 2003). In some research, gifted underachievement has been directly linked to teacher perceptions (Kolb & Jussim, 1994). Therefore, assessing the perceptions of teachers, coordinators, and supervisors of a public school district gifted program may lead to ways to improve programs; and, therefore, reduce the gifted academic underachievement rate.

Gifted academic underachievement has also been associated with the No Child Left Behind Act. According to the report *High-Achieving Students in the Era of No Child Left Behind* (Loveless, Farkas, & Duffett, 2008), from the year 2000 until 2007, students who were considered to be the top students had minimal academic gains while students who were considered the low-achievers gained rapidly in academics. The students who performed in the bottom 10% of their student body (i.e. the lowest performing students) showed consistent gains in the areas of reading and mathematics while the gifted or the supposed high-achievers showed little or no academic gain in the same areas. The lack of progress shown by top learners has been attributed not only to No Child Left Behind litigation but to accountability programs in general. Seeing the top students in the nation stagnate while others make progress in leaps and bounds is unacceptable, according to the authors (Loveless, Farkas, & Duffett, 2008).

Time magazine has also cited problems with the education of the gifted in America. In the article "Failing Our Geniuses" journalist John Cloud stated that "our education system has little idea how to cultivate its most promising students" (Cloud, 2007, p. 41). Cloud also stated his belief that schools in the United States are actually

holding the brightest students back and that this can cause isolation and academic underachievement. In his article he also asked this question: "Has the drive to ensure equity over excellence gone too far?" (Cloud, 2007, p. 42). In this educational age, according to Cloud, it has become more important to a school district to identify deficits rather than to nurture gifts. In this society that spends eight billion dollars on children with special needs and just 10% of that on the gifted, he speculates whether or not society actually expects students with the most potential to live up to that potential (Cloud, 2007).

This study focused on how 23 public school districts in the State of Louisiana meet the standards for Gifted Education programs. The study examined the public school district Gifted Educational programs to determine if these programs are of high quality according to the National Association for Gifted Children standards for gifted programs (2000). The researcher examined academic Scaled gain scores of gifted students on the *i*LEAP (Average Scaled scores) in order to see if those programs of high quality also have students who achieve at a higher level than their non-gifted peers. This is important because, as research shows (Reis & McCoach, 2000; Rayneri, Gerber, & Wiley, 2003; Cloud, 2007) the underachievement of the gifted is an ever-growing problem that must be addressed.

Statement of the Problem

Because the quality of a public education gifted program may be directly related to the academic achievement of the gifted (Emerick, 2004), it is crucial that supervisors, coordinators, and teachers of the gifted strive to deliver a high quality academic gifted program to their students. However, many gifted programs do not engage in meaningful,

in-depth evaluations; and, therefore, it is unclear if their gifted programs are of high quality (Purcell & Eckert, 2006). The problem addressed by this study is focused toward the need for more research about gifted instructional program quality so that public school districts can engage in meaningful evaluations in order to create high-quality programs for the gifted. Gifted programs which are found to be of high-quality that can also show gains in student achievement may be able to not only avoid budget cuts but also may serve as an example for educators who seek to provide both equity and excellence for their gifted students (Purcell & Eckert, 2006).

Purpose of the Study

The purpose of this study was to ascertain whether there was a relationship between the quality of gifted programs as perceived by teachers, coordinators, and supervisors of the gifted and the achievement of the same gifted students in 6th and 7th grades as measured by gains on the *i*LEAP from Spring 2008 to Spring 2009 in Louisiana public school districts. Also, the researcher compared gains of gifted public middle school students to the gains of regular education students in the same grades. Likewise, the researcher collected demographic information that was used to create a profile of the sample surveyed.

Theoretical Framework

This study was concerned with the learning processes of the gifted and the environment in which gifted students learn. One theory upon which this study is based is the Behavioral Perspective as put forth by John B. Watson (1914). Watson theorized that people are shaped by the environmental stimuli to which they are exposed. Later, Bandura (1963) took this learning theory a step further. Bandura supported the Social-

Cognitive Learning Theory in which he stated that children learn from observing others in their shared environment (Feldman, 2000). The environment of a student therefore is as important as their in-born gifted characteristics in determining whether they achieve or not.

Another epistemology upon which this study is based is Constructivism. Constructivists believe in three basic principles: (a) Learning is not passive but rather an active process in which students create their own meaning from what they observe in their reality; (b) while knowledge is shaped by a student's previous experiences, he/she is constantly reconstructing his/her concepts; and (c) the construction of one's knowledge is situated within the situations in which it is obtained. Therefore, interactions within a school environment help to shape the knowledge gathered by an individual. Constructivists believe that social interactions and processes with which the student is involved ultimately enable the student to revise and expand their knowledge (Ornstein & Levine, 2003).

Research Questions

In conducting this study, the researcher sought to answer the following questions:

1. Is there a significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and those of their non-gifted peers when controlling for Spring 2008 *i*LEAP Scaled scores?
2. Is there a significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores in high quality programs and *i*LEAP Scaled gain scores of gifted students in programs of lesser quality as defined by the Gifted Program Survey?

3. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey total score?

4. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in the Process of Student Identification?

5. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Professional Development?

6. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Socio-emotional Guidance and Counseling of the Gifted?

7. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Evaluation?

8. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Design?

9. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Administration and Management?

10. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Curriculum and Instruction Used with the Gifted?

Null Hypotheses

1. There is no significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and those of their non-gifted peers when controlling fro Spring 2008 *i*LEAP Scaled scores.

2. There is no significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores in high quality programs and *i*LEAP Scaled gain scores of gifted students in programs of lesser quality as defined by the Gifted Program Survey.

3. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey total score.

4. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in the Process of Student Identification.

5. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Professional Development.

6. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Socio-emotional Guidance and Counseling of the Gifted.

7. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Evaluation.

8. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Design.

9. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Administration and Management.

10. There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Curriculum and Instruction Used with the Gifted.

Instrumentation

For the purpose of this study, the researcher defined achievement as a gain score on the *i*LEAP from one year to the next. Formerly in the state of Louisiana, students in the 6th and 7th grades were given the Iowa Test of Basic Skills (ITBS). The Iowa test was given to these students as well as students in the 3rd, 5th, and 9th grades in the state from the year 1998 until the year 2005. In response to mandates of No Child Left Behind, the State of Louisiana developed an integrated measure (the *i*LEAP or integrated LEAP). In the 2005-2006 school year, students in the 6th and 7th grades (along with students in the 3rd, 5th, and 9th grades) began taking the *i*LEAP (Louisiana Department of Education, 2007).

The survey developed by the researcher was based on the Gifted Program Standards developed by the National Association for Gifted Children (2000). The researcher took the seven essential criteria of the standards and addressed each one in a separate section of the survey. Each section contains Likert-style questions relating to the guiding principles for each standard. The survey was also designed to collect demographic data about each district in order to create a profile of the sample. This survey was given to gifted program teachers, coordinators, and supervisors in various districts in the State of Louisiana.

Population/Sample

The population for this study was all public Gifted Education teachers, coordinators, and supervisors in the 70 public school districts in the State of Louisiana. While the researcher assumed that all districts had the positions of supervisor, coordinator, and a teacher of the gifted filled by different people, it was revealed that each district in the State of Louisiana might have all or only some of these positions filled and that in several districts, the same person might be both supervisor and coordinator and in others the teacher of the gifted also served as coordinator of the gifted program. Out of the 70 districts in the State, there were 20 that did not have all three positions filled by different people and 50 districts that did have all three positions filled by different people. The sample was a sample of convenience of approximately 23 public school districts based on respondents who complete the Gifted Program Survey. Of those 23, 12 of the districts were from the 50 districts will all positions filled by different people and 11 were from the 20 districts with some positions filled by the same people. The Gifted Program Survey was provided by the researcher through electronic

distribution to all gifted supervisors and coordinators in the State of Louisiana. The survey was forwarded to gifted middle school teachers by the supervisors and/or coordinators of a district. The survey was given to those who had not completed it electronically at a Statewide Gifted Coordinators meeting in spring 2010.

Variables

The dependent variables for this study were gain scores on the *i*LEAP test in 6th and 7th grades from 2008 to 2009 and responses from the surveys. The independent variables were teachers, coordinators, and/or supervisors in the 23 districts surveyed.

Limitations/Delimitations

This study was limited to teachers, coordinators, and supervisors of gifted programs in public education districts in the state of Louisiana. The study was further delimited by the number of people who responded to the survey from the 23 districts.

Operational Definitions

Acceleration: allowing students to cover the standard curriculum as quickly as possible while still being beneficial to the student (Maker & Neilson, 1996).

Achievement: gains in standardized test scores, for the purposes of this study.

Differentiation: curriculum that is moved "to a higher level of expectation in respect to content, process, and concept demands" (Van-Tassle-Baska & Little, 2003, p. 3).

Enrichment: activities that add to or go beyond the current curriculum. Enrichment activities may take place either in the regular education classroom or in a different classroom setting (National Association for Gifted Children, 2008b).

Gains: found when subtracting students' *i*LEAP Survey Total (composite) scores for 2008 from their 2009 *i*LEAP Survey Total (composite) scores, for the purposes of this study.

Gifted: children and youth who "demonstrate abilities that give evidence of high performance in academic and intellectual aptitude" (Louisiana Department of Education, 2003).

Grade Skipping: a type of acceleration which involves the skipping of an entire grade (Coangelo, Assouline, and Gross, 2004).

High Quality Programs: a program that scores above the average (100 or above) on a Likert scale of 1-5 for the majority of the seven domains of program quality as identified by the National Association for Gifted Children (2000), for the purposes of this study.

Low Quality Programs: a program that scores below the average (99 or below) on a Likert scale of 1-5 for the majority of the seven domains of program quality as identified by the National Association for Gifted Children (2000), for the purposes of this study.

Pull-out Programs: a program which removes the student from the regular education classroom for a portion of the school day for special instruction (National Association for Gifted Children, 2008b).

Quality of Programs: evaluated according to the standards set forth by the National Association of Gifted Children (2000).

Scaled Score: raw scores on the *i*LEAP are used to compute this score in order to establish a standard for achievement levels (Louisiana Department of Education, 2009).

Underachievement: a discrepancy between expected performance based on some standardized measure of ability and actual performance. For the purpose of this study, underachievement will be defined as performing the same as or lower than their non-gifted peers on the *i*LEAP as determined by a gain score (Rayneri, Gerber, & Wiley, 2003).

CHAPTER 2

REVIEW OF LITERATURE

Introduction

While the terms gifted and talented are often interchanged, in the State of Louisiana, a distinction is made. According to the Louisiana Department of Education (2000), "Gifted children and youth are those who exhibit abilities that give evidence of high performance in academic and intellectual aptitude" (p. 56). However, the Department recognizes talented students as those students who are in "possession of measurable abilities that give evidence of unique talent in visual and/or performing arts" (p. 60).The National Association for Gifted Children (NAGC) describes the gifted as "students who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities" (2008b, ¶1). Sternberg (2004) states that while there is no consensus on all issues concerning the gifted, there are certain points upon which all parties can agree: (a) being gifted means more than simply having a high IQ; (b) being gifted encompasses both cognitive and non-cognitive areas; (c) the gifted person's environment is important when considering whether a gifted person's potential will be realized; (d) there are many forms of

giftedness; [and] (e) there is a need to develop measures that identify or evaluate gifted individuals in order to operationalize theories. All of these definitions and perspectives combined give an idea that while there is not a single definition of giftedness, there are certain guidelines upon which all can agree.

How to Identify the Gifted

Perhaps the most crucial question in the field of gifted education is "how, when, and why we should identify gifted" students (Reis, 2004, p. xii). When discussing the identification process, Renzulli (1976) emphasizes that a school district gifted program's definition or conception or giftedness should guide the selection of the instruments used in the identification process. Likewise, there must be a relationship between program focus and identification procedures. He also states that while identification of the gifted primarily relied upon IQ scores in the past, programs in the modern era, using broader definitions of giftedness, have incorporated more flexibility into the identification processes.

In the State of Louisiana, the gifted identification process begins when a parent or an educator refers the child for screening. The child is then screened by at least two public school staff members according to each school district's guidelines. If the student passes the screening, he/she is then referred to pupil appraisal for an evaluation. According to the Louisiana Department of Education, "all tests and other procedures used to evaluate children referred for gifted assessments shall be standardized, non-discriminatory, and appropriate for the cultural background of the children being evaluated" (Louisiana Department of Education, May, 2009, p. 9). The State of Louisiana uses a matrix in order to determine if a student qualifies for the gifted program. The

matrix consists of scores for Intellectual Abilities, Achievement in Reading, and Achievement in Mathematics. Each school district is allowed to choose which test to use in order to gather these scores. In addition, the pupil appraisal department is responsible for conducting an interview with the student's parents and his/her teacher(s). Figure 1 is an example of the matrix used:

Points	1	2	3	4
	1.0 ≤ 1.49 SD	1.5 ≤ 1.99 SD	≥ 2.0 SD	≥ 2.5 SD (Preschool and K only)
Intellectual Abilities				
Achievement in Reading				
Achievement in Math				

Note. From The Pupil Appraisal Handbook (Bulletin 1508) by the Louisiana Department of Education (May, 2009). Adapted with permission.

Figure 1. Standard Matrix for Gifted Identification

The student receives points for each block wherein his/her score falls. The student must have a seven on the matrix in order to be considered gifted. If a student scores six, he/she may still qualify for the gifted program if recommended by pupil appraisal (Louisiana Department of Education, May, 2009, p. 9).

Common Myths about Giftedness

Myth 1: There are many misconceptions about what it means to be gifted. For example, many believe that gifted students do not require any help and that they will do well regardless. However, according to NAGC, if gifted children are not challenged and

guided by caring teachers, the result can be boredom and frustration. This in turn may lead to academic underachievement, despondency, and/or unproductive work habits.

Myth 2: Another common misconception about gifted students is that their regular education teachers challenge all of the students in the classroom, including gifted students who are present. Therefore the regular educational setting will be appropriate. While many regular education teachers do attempt to challenge all of their students, those same teachers are often unaware of the needs of the gifted and may be ill-equipped to meet their gifted students' academic needs. In fact, The National Research Center on Gifted and Talented (NRC/GT) stated that 61% of the classroom teachers surveyed did not have training in how to teach highly able learners (Archambault, Westberg, Brown, Hallmark, Emmons, & Zhang, 1993).

Myth 3: Gifted students are often thought to be a role-model for the other students. However, students who are average or below average tend to look to others of like abilities when coping with school. In fact, according to NAGC, watching others of like abilities succeed does more for a struggling student than watching someone succeed who is expected to do well. Likewise, it is beneficial for gifted students to interact with their peers who perform at a similar level as they do.

Myth 4: Many argue that there is no such thing as a gifted student and that all students are gifted. This is true to the extent that all children are special, but that belief fails to recognize that there are students who have academic gifts that necessitate a special educational program for those students. Gifted students will not succeed or reach their full potential without special educational interventions designed for students with such abilities.

Myth 5: Another misconception about the gifted is that certain programs designed to meet the needs of the gifted, such as acceleration or grade skipping, are socially damaging to the gifted student. This belief fails to recognize that gifted children often gravitate toward older students or even adults who they consider as their intellectual peers. While the students may be older than the student who has been accelerated, research shows that the gifted often feel more comfortable being with students who are functioning at similar academic levels.

Myth 6: One prominent idea that is often mentioned in discussions concerning gifted education is the argument that it is elitist. Gifted proponents, however, hold that gifted programs are not about status. The gifted child can be found in every cultural group, in every socio-economic group, and in every ethnic group. Gifted education is about making sure that students with special needs get the education they need and deserve, regardless of race, religion or economic status.

Myth 7: One more misconception about the gifted is that they all achieve at a level equal to their potential. In other words, they all test well and make good grades. This might not always be the case. In fact, when there is a discrepancy between the student's tested ability and his/her actual performance, they may be labeled an underachiever. There are various reasons why this discrepancy may occur including boredom, frustration, or a desire to fit in. Regardless of the causes, underachievement is a problem which must be recognized and addressed by caring, competent adults.

Myth 8: Gifted students are often expected to be well-adjusted and popular in school, but many students in the gifted population have problems, socially. Some of these students struggle with problems of isolation which stem from the perception of others.

More still struggle with perfectionism, emotional intensity, and/or sensitivity. Because of these issues, the gifted often view school as a place to be endured rather than enjoyed. In fact, the gifted are twice as likely to suffer from social and emotional problems as compared to their non-gifted peers (NAGC, 2008a).

The political wars in education have raged and in their midst many believe that the best interests of the gifted children of our nation have been put aside (Colangelo, Assouline, & Gross, 2004). Hopefully, a discussion can be opened between warring parties, namely those who have questions or concerns about gifted education and those who are experts and practitioners in the field, so that these misconceptions can be cleared up and the education of the gifted can become a priority in the nation.

Population

In the United States, NAGC estimates that there may be as many as 3 million children in grades kindergarten through twelve who are gifted. This means that the gifted population represents about 6% of school children in the United States. Other professionals estimate that the gifted numbers should represent about 2.5% of the population, basing their criteria on IQ tests and the fact that about 2.5 % of the population should score about a 130 on IQ tests, or two or more standard deviations above the rest of the population (Carolyn K., 2010). The IES National Center for Educational Statistics (2008) does not separate the academically gifted student from the artistically talented student, so the use of their statistics might be misleading when talking about gifted academics alone. The federal government does not directly provide funding for local gifted programs. Rather, in 2008, Congress provided $7.5 million for gifted education through the Jacob K. Javits Gifted and Talented Students Education Act (Office of

Elementary and Secondary Education, 1987). This Act funds the National Research Center on the Gifted and Talented. It also funds grants that target traditionally underrepresented populations of gifted children in order to lessen achievement gaps and to provide equal educational opportunities for all children (NAGC, 2008c).

In the State of Louisiana, there are 653,885 students in kindergarten through twelfth grades. Out of those students, 19,848, or about 3%, have been labeled as gifted. In the 2004-2005 school year, the State spent $28,000,000 on gifted education. The Louisiana Department of Education (LDE) mandates the identification of gifted students as well as services for those students. Its officials also provide a specific definition of giftedness which the public school districts are required to follow. The LDE specifically addresses areas of intellectual as well as academic giftedness. Likewise, the department provides guidelines for the identification of the gifted. Public school districts throughout the state are expected to follow these guidelines in order to provide a uniform identification process. While state policy leaves early entrance to school and dual-enrollment decisions up to the local education agency, policy does specifically allow middle school students to be dually enrolled in both middle school and high school. The State of Louisiana does not require regular education teachers to have training in meeting the needs of the gifted (NAGC, 2008c).

Inequity

Practically every decision that is made concerning the education of the gifted is made by the state and/or local education coordinators (NAGC, 2008c). Many educators and administrators throughout the state realize that the educational system has an obligation to meet the needs of the gifted; however, funding as well as state laws and

local guidelines differ. The result is often a discrepancy between the education of the gifted and other children with special needs and an uneven protection for gifted students under the jurisdiction of law (NAGC, 2008c).

In countless cases, the rights of gifted children are pursued and protected by an unrelenting parent, a concerned educator, or a caring administrator. These advocates strive to ensure that the needs of the gifted student are being met. They are compelled to make sure that the needs and rights of the gifted are addressed in the regular education classroom as well as through special education services when possible (NAGC, 2008c).

According to a study by Farkas and Dufett included in the report by the Thomas B. Fordham Institute (Loveless, Farkas, & Dufett, 2008), 60% of educators are likely to admit that they place struggling students as their top priority as compared to 23% who say they place the gifted as such. According to this same report teachers admitted that students who are struggling are much more likely to get individual attention from the teacher. A mere 5% of the educators polled said that they give more attention to their top students. However, most teachers (86%) still hold to the belief that all children deserve equal amounts of time and attention. The findings of this study indicate that most educators feel pressured to center their efforts on the children who struggle instead of our high-end learners. According to this study, No Child Left Behind (NCLB) legislation and other accountability programs ignore the need for teachers to challenge every child to attain educational fulfillment by performing to their potential instead of focusing almost exclusively on those who have been left behind. The effect on NCLB legislation upon the instruction of the gifted can be summed up by a quote from a study by Neal and

Schanzenbrach (2007): "[Accountability systems] provide weak incentives to devote extra attention to students who are clearly proficient already..." (p. 2).

Gifted Programs

In a small school district, the gifted program of instruction often consists of one person who teaches students from a wide variety of grades in a small number of instructional sites. In a larger district, the gifted service providers are usually more numerous. Likewise, in larger districts one might see more gifted students and administrators as well as numerous instructional sites. Both of these types of districts face challenges in delivering effective instruction to the gifted. Most districts fall somewhere in between the two, and the majority of programs cannot be clearly defined as one type or another, but usually meld many aspects into a conglomerate (Roets, 1999).

One way all of these types of districts can meet the academic needs of their gifted students is through the use of differentiated curriculum and instruction. Differentiation comes in many forms including acceleration, studying a topic in-depth, complexity, content that is advanced beyond the regular education curriculum, and variety (NAGC, 1994). This differentiation consists of a program that includes, but is not limited to, acceleration, enrichment, sophistication, and novelty (Coangelo & Davis, 2003). Other approaches (often offered as an alternative to acceleration) include "ability grouping, enrichment activities, pull-out resource rooms, classroom differentiation, independent projects, and field trips..." (Coangelo, Assouline, & Gross, 2004, p. 21). The National Association for Gifted Children warns against offering enrichment or acceleration alone. Instead, they support the implementation of a program that combines acceleration and enrichment while providing flexibility and diversity (NAGC, 1994).

Acceleration versus Grouping

While grouping has often been addressed as a separate issue from acceleration, the two are actually related. Grouping students with other students who are in need of advanced curriculum can actually accelerate their education. Conversely, if students are not allowed to be a part of such a group, they will often turn to acceleration such as grade-skipping as their only alternative (Brody, 2004).

Regardless of the possible link between the two, the debate of acceleration versus enrichment raged in the 1970s through the 1980s, ultimately resulting in research which spurred the creation of inventive solutions to the problem of educating the gifted as well as new program models to meet their needs. The acceleration versus grouping debate has also spawned many articles about the two topics. The consensus of all of the authors is that whether a program utilizes acceleration, grouping, or a combination of the two, gifted students must be taught by curricula which has been modified to meet the needs of academically advanced students (Brody, 2004). The following is a discussion of these two approaches (acceleration and grouping) through which those needs are met.

Acceleration

Acceleration is an "educational intervention that moves students through an educational program at a faster than usual rate or [puts them in a program at a] younger than typical age" (Coangelo, Assouline, & Gross, 2004, p. 5). Acceleration can include anything from skipping a single subject to skipping an entire grade to special classes such as Advanced Placement (AP) classes or dual enrollment to entering grade school early and/or entering college early. According to Coangelo, Assouline, and Gross, acceleration does not, however, mean that a child is pushed beyond his/her limits. They also state that

acceleration is not forcing children to learn material that is too advanced for them or expecting them to socialize with students who are much older than they. Acceleration, at its core, is about allowing students to reach their potential while respecting their individuality and allowing for educational flexibility (Coangelo et al., 2004).

One particular type of acceleration is grade skipping. In the past it was not unusual for children with high abilities and IQs to skip a grade. However, since the 1980s many districts have required the gifted to remain in classes with their age group, regardless of the pace at which they learn (Cloud, 2007). Despite the fact that subject or grade skipping is not being utilized, there are reasons why it is still needed. Enrichment, while often a good program, does not always meet the needs of some advanced students. Students who skip grades tend to do exceptionally well in school after they skip (Colangelo, Assouline, & Gross, 2004).

Grouping

Grouping students according to age was mostly due to education laws and the resulting influx of students into the public school system. In an attempt to meet the needs of the new and diverse student population, tracking became a widespread practice. Students were grouped into classes on the basis of IQ scores. However, many people did not agree with the tests used to group these students. They also criticized the system because of how students were expected to stay in the same track throughout their educational careers. School reform eventually led education systems to abandon grouping in favor of inclusion practices which led to classes with students of all ability levels (Brody, 2004).

When grouping by ability became objectionable, many educators sought to meet the needs of their advanced students in other ways which utilized grouping within the class. Cooperative learning, cluster grouping, and enrichment are three practices which are still used in the regular education classroom in order to meet the needs of the gifted. The value of enrichment has led many districts to take the practices outside of the walls of the regular education classroom to encompass extracurricular activities, unique programs, and many other opportunities for the gifted student (Brody, 2004).

Standards

According to the National Association for Gifted Children (NAGC), there are certain standards which characterize a high-quality gifted program. These standards are divided into seven areas by NAGC: (a) Program Design, (b) Program Administration and Management, (c) Student Identification, (d) Curriculum and Instruction, (e) Socio-Emotional Guidance and Counseling, (f) Professional Development, and (g) Program Evaluation. When looking at a gifted program NAGC officials suggest using these standards as the criteria for evaluation. Their evaluation system consists of these seven areas which are divided into three categories: guiding principals, minimum standards, and exemplary standards. When a program meets the minimum standards, that instructional program is considered to have met the essential conditions that make it merely acceptable. However, when that program is shown to have met the exemplary standards, the personnel involved with that program have reached conditions that are not only desirable but also visionary. They have built a program that allows for excellence (NAGC, 2000). Each of these program standards is explained below:

Program Design

This standard focuses on the "development of appropriate gifted education programming (which) requires comprehensive services based on sound philosophical, theoretical, and empirical support" (NAGC, 2000, p. 6). The guiding principles set forth by NAGC for this standard describe a program that has a continuum of services for the gifted and that these services are properly funded. The program must also come from a comprehensive and educationally sound foundation. Gifted programs which meet NAGC standards are considered an integral part of a school. The gifted are planned for and included in not only gifted classes but also regular education classes. Programs for the gifted must be flexible enough to meet the students' needs. One way to do this is through planning for instruction and a curriculum that is differentiated. Specific policies must be developed in order to ensure that the regular education program and the gifted program are not separate or incompatible (NAGC, 2000).

According to a study done by Joyce VanTassel-Baska (2006), local school district gifted programs are at a standstill because a lack of support and funding. The researchers analyzed gifted program design across 20 sites. These sites were urban, suburban, and rural. Quantitative data were gathered in the form of educator and parent surveys as well as classroom observations. Qualitative data were gathered by reviewing documents, conducting interviews, and by conducting focus groups. Her findings suggest that gifted program design, in general, is lacking and that persons designing gifted programs should focus on guidelines for the development of gifted programs which are already outlined and available from research in the field of gifted education. She further states that in the current educational climate of academic standards and accountability, persons designing

services for the gifted should focus on excellence and concentrate on ways to improve gifted education programs.

Program Administration and Management

According to NAGC, gifted programs must "include the establishment of a systematic means of developing, implementing, and managing services" (NAGC, 2000, p. 7). Those chosen to develop and implement the gifted program must be trained and qualified. Likewise, these professional must build bridges between the gifted program and regular education at all levels, ensuring that all teachers, staff, administration, etc. feel responsible and included in the education of the gifted. Gifted teachers, administrators, and staff need to form positive relationships with people outside of the school such as advocacy groups and compliance agencies. Also, resources and materials such as technological support, a well-stocked library, etc. should be provided.

Karen Rogers (2007) states that gifted program administrators and managers need to bear in mind that the research points to the fact that there is no one program or single practice that will meet all the needs of every gifted learner in every context. According to her research, there are many different ways to implement programs in order to meet the academic needs of the gifted students in a district. It is up to the administrators of each individual program to select the methods that will work best with their gifted students.

Student Identification

The authors of NAGC standards state that students "must be assessed to determine appropriate educational services" (NAGC, 2000, p. 2). The procedures in place for student identification for the gifted program should be comprehensive and cohesive. The instruments used by evaluators should not be one dimensional, but rather they should

be instruments that can be used to measure various abilities and talents as well as student strengths and needs. These assessments should be used in order to draw up an assessment profile in which the evaluator sets forth student strengths and weaknesses in order to develop a plan that is an appropriate intervention for that child. The instruments used should be current and research based. The evaluator(s) should have in writing a form which covers "informed consent, student retention, student reassessment, student exiting, and appeals procedures" (NAGC, 2000, p. 2).

According to Carman and Margison (2006) traditional methods of identification of gifted students do not always allow school districts to locate all gifted students. They argue that the identification process could be made more accurate with the inclusion of additional identification areas, such as a personality measure. Birch (2004) agrees that identification processes should be modified. He suggests that current identification measures are narrowly conceived and that districts should avoid basic, one-dimensional identification processes.

Curriculum and Instruction

In order to be an effective program, gifted education services need to include "curricular and instructional opportunities directed to the unique needs of the gifted learner" (NAGC, 2000, p. 8). The curriculum developed to meet these unique needs must range from pre-kindergarten to the senior year of high school. Likewise, according to NAGC, teachers in the regular education classroom need to be willing to adapt, adjust, or replace the regular education curriculum in order to meet the needs of their gifted students. Teachers and administrators need to see the curriculum as flexible in order to keep up with the accelerated pace of the gifted student. School and district personnel

should be willing to consider both subject skipping and grade skipping as reasonable alternatives for the gifted children in their district. A variety of learning opportunities including curricular options as well as current instructional approaches and appropriate learning materials should be made available to the gifted.

VanTassel-Baska and Brown (2007) conducted a study which focused on the effectiveness of 11 curriculum models in the field of gifted education. The researchers stated that "the substance of gifted education as a field rests on the faithful application of curriculum and program models that are designed to serve gifted students in schools and other contexts" (p. 342). They further stated that using curriculum models based in research is essential to providing effective education and that gifted programs should serve as a guide to other programs in this area. Educators of the gifted should use curriculum models which have been proven to be successful and they should implement these programs with consistency and rigor.

Socio-emotional Guidance and Counseling

The needs of gifted students are different than those of students in the regular education program. Gifted Education programs "must establish a plan to recognize and nurture the unique socio-emotional development of gifted learners" (NAGC, 2000, p. 4). These learners with special needs need to be counseled and guided in accordance with their distinctive socio-emotional development. While gifted students have many talents and might be perceived as capable, they still require services which aid them in making career decisions that complement their unique needs and abilities. Some gifted students considered at-risk for failure must have guidance and counseling that will help them overcome this difficulty in order to reach their full potential. Similarly, the gifted who are

also underachievers should be served instead of dropped from the gifted program. They should also have access to an affective program of study that is designed to meet their socio-emotional needs.

In an article published in *Professional School Counseling*, Peterson (2006) states that school counselor training programs often do not include preparation for dealing with the unique social and emotional needs of the gifted child. The author also stated that common positive stereotypes associated with gifted students may lead people to believe that the gifted are not in need of social and/or emotional guidance. According to Peterson, counselors need to be aware of how being gifted impacts a student's social/emotional development. Counselors need to also be aware of their own perceptions and attitudes concerning the gifted in order to work with gifted students effectively.

Professional Development

Teachers and administrators who deal with the gifted must be trained and qualified; therefore, NAGC standards include the following statement: "Gifted learners are entitled to be served by professionals who have specialized preparation in gifted education, expertise in appropriate differentiated content and instructional materials, involvement in ongoing professional development, and who possess exemplary personal and professional traits" (NAGC, 2000, p. 3). Districts should have in place an all-inclusive professional development program. All staff members who are involved in the gifted program should have access to this professional development. Only those who are qualified to teach the gifted should be hired to do so. School personnel need support in order to meet the needs of the gifted learner, and they should be given time and assistance in order to adequately prepare and implement their educational programming for the gifted.

According to Karnes and Shaunessy (2004) research confirms that to achieve standards-based reform, districts must have systems of professional development that are cohesive and of high quality. They suggest that the use of an individualized professional development plan conceptualized by the teachers themselves instead of administrators alone would provide teachers of the gifted with greater incentive to continue their professional development. This, in turn, would lead to meaningful learning for the teachers and greater student achievement according to the authors.

Program Evaluation

Program evaluation "is the systematic study of the value and impact of services provided" (NAGC, 2000, p. 5). Gifted programs should engage in evaluation procedures that are purposeful, efficient, and economic. This assessment needs to be conducted in both a competent and ethical manner. The results gathered from such an evaluation must be made available in a written report.

Hunsaker (2000) stated that documenting the impact or effectiveness of a gifted program is one of the crucial components of the evaluation process. He also states that this documentation is important in order to gather funding for a district's gifted program. When conducting a program evaluation, coordinators should bear in mind that they should set priorities when gathering data and that they should share important information from the evaluation with decision makers in an appropriate and timely manner.

Underachievement

Academic underachievement has been a focal point for researchers for more than 35 years (Emerick, 2004). Questions about the definition of academic underachievement, the identification of the underachiever, and the underlying reasons for that underachievement are being posed and debated continuously. Many of the programs designed to reverse academic underachievement have been only marginally effective (Reis & McCoach, 2002). According to Spevak and Karinch (2006) experiencing academic underachievement may lead the student to view life in general to be shallow and unrewarding. These students may, in turn, become pessimistic and disillusioned.

Definition

There are many ways to define underachievement; however, most experts in the field of gifted education can concur that "underachievement is a discrepancy between expected performance based on some standardized measure of ability and actual performance" (Rayneri, Gerber, & Wiley, 2003, p. 197). The nation is constantly looking for new and improved ways to teach its children. However, study after study and finding after finding point to the lack of basic skills and our students' lack of preparedness for life after high school (Aaron, 1996; Angelo, 1999; Barrington, Casner-Lotto, & Wright, 2006; Betts, 1995; Coll & Zegwaard, 2006; Crosier, 1982; Fournier, 2002; Garner, 2005; Griffin & Kaleba, 2006; Huggins, 2004; Johnson & Duffett, 2002; Rosenfeld, 2005; Salinger, 2007; Saunders, 2009; Warren, Grodsky, & Lee, 2008). While these statistics are disturbing, what is more disturbing still is the fact that gifted students suffer from the same malady. Of the students who graduate in the top 5% of their class, 40% of those students will not go on to graduate from college. The Scholastic Aptitude Test (SAT)

scores are being re-centered and 10% to 20% of high school dropouts are at the upper end of the ability range. Many culprits have been named including the television, breakdown of the traditional family, busing, a lack of racial integration, funding problems, not enough class time, substandard discipline, etc. All of these arguments ignore one basic tenet: Children are not performing in accordance with their abilities. These students are considered to be academic underachievers. There are underachievers in practically every classroom and neighborhood (Rimm, 2003).

Causes

What causes academic underachievement? Why do some students succeed in school while others fail? No biological reason has been found nor have researchers uncovered any specific cause within the educational system. Some students achieve academically while others with similar abilities fail. These underachievers seem to have learned to be so. These underachieving students often start out as eager, verbal preschool children, but at some point in their educational careers they loose their enthusiasm for learning and in turn their school performance suffers. This happens gradually for some children while for others it is a drastic change. The emergence of underachievement is often tracked by comparing percentages on achievement tests. While the students are motivated and achieving, their scores are consistent. When the underachievement begins, their scores begin to decline (Rimm, 2003).

While all children are susceptible to underachievement, the gifted seem to be especially vulnerable to this phenomenon (Rimm, 2003). Accodring to Heacox (1991) gifted underachievement has been described as a cycle. Failure leads to the student's underachieving in school which then leads to bad feelings about school and self which

then, in turn, lead to failure and more underachievement. Heacox adds that many underachievers are angry, some are hurt, a lot of them have negative feelings about both themselves and the school system, but almost all of them actually have an underlying desire to do well in school. Underachievement experienced by gifted students in our schools has been recognized both locally and nation wide. Many communities and states have demanded that reform and structure be pursued in order to reverse this trend.

Underachievement in the gifted population is considered to be a great social waste. Gifted students usually perform at a satisfactory level, but since they have the potential to achieve much more than average, their actions actually contribute to a loss to themselves and society (Rayneri & Gerber, 2004). Some think the blame lies with the student's parents, while others believe it is the teacher's fault. Others still say that the blame should be placed squarely upon the student's shoulders whose lack of motivation causes him/her to fail. The truth probably lies in a combination of the three (Heacox, 1991).

When does academic underachievement begin? Some studies say that it begins late in the elementary school years. Many studies have found that it is most common in 7th grade (Rayneri, Gerber, & Wiley, 2003). The underachievement of these students can usually be attributed to one of three causes: (a) an obvious problem with underachievement actually is only a symptom of a more severe problem of physical, cognitive, or emotional concerns, (b) the student's underachievement is indicative of a disparity between the child and his or her classroom environment, and (c) the underachievement is a result of a child's individual characteristic (Reis & McCoach, 2002).

One classic study of academic underachievement was conducted in 1959 by Law. She looked at the factors which led rapid learners with above average IQ to underachieve in school. She studied two female students of above average intelligence: one who achieved in school and one who did not. She compared the two girls' grades at the end of the first grading period of their sophomore year in high school. Sue had five As and a C while Jane had five Fs and a D. Law then went on to describe the two students' personalities and their responses during interview sessions in the counseling office. The factors contributing to Jane's underachievement were listed as parental acceptance, self acceptance, and security of position in the home. Law noted that these findings point to the importance of parents in the development of a child. She also pointed out that "well-trained teachers, and counselors, as well as adequate school curriculum and good school administration are indeed necessary and helpful in this development" (p. 81).

Much of the more recent research reviewed focused on making a better fit between the student and their school environment. For example, a study conducted by Kanevsky and Keighley (2003) was a qualitative study about underachievement. The researchers chose an interviewer who spoke to each of the participants, and their answers were recorded. The results were described in terms of the feelings of the participants.

This study took place in a school district that was located in a suburban area in Canada. Educators and school counselors were requested to refer students who were between the ages of 15 and 18 who displayed the following characteristics: (a) they were labeled as gifted at the elementary level, (b) they were currently labeled as underachievers and (c) they had been a drop out or suspended at least one time. Seven females and three males were referred to the researchers. These potential subjects were

called at home, and all agreed to take part in the study. One of the researchers was chosen to be the interviewer. She did not know the participants and was a highly qualified educator. Each of the students took part in two or three partially structured interviews. The interviews lasted about an hour each. The reason given for these interviews was to explore the students' perception of boredom. The boredom they discussed could be in any setting, not just school. In the beginning, to establish rapport, the participants were asked to talk about their school experiences, specifically their involvement in gifted programs. The first set of questions was designed to make the students talk about when and where they felt bored, how they felt when they were bored, what they did to get over being bored, and what they thought the opposite of boredom was. Each interview was taped and transcribed. Just after completing each interview, the researcher made field notes in which she wrote down any additional thoughts she had about the participant. The researcher also kept a journal during the interview portion of the study. After everything was written and transcribed, the researchers submitted the texts to a content analysis. Categories were created using Spradley's Notion of Semantic Domains. As previously stated, the research was based on several sources in order to provide triangulation (Kanevsky & Keighley, 2003).

Although ten students were studied, three were chosen to represent the entire group studied. However, all ten of the participants believed that schooling equaled boredom. Likewise, schooling and learning were not seen as the same thing. The learning these students craved was described using the five Cs: "control, choice, challenge, complexity, and caring" (p. 20). Each of these five areas was discussed using the students' actual words (Kanevsky & Keighley, 2003).

The first conclusion by the researchers was that learning is the opposite of boredom. The second conclusion drawn was that learning is the antidote to boredom. The researchers suggested that interventions created to kick start students experiencing boredom start with an understanding of the individual student's boredom. After the individual student's issues of boredom are pinpointed, curricula that include the five Cs can be differentiated and applied in the student's daily education (Kanevsky & Keighley, 2003).

Another qualitative study conducted by Schultz (2002) approached the problem of underachievement in a slightly different way. The researcher sought to access and document the life experiences of the study's participants. Taking the phenomenological research approach, the author chose to simply be a recorder. In his own words, he says "My role was to provide a clear representation of the reality of being a student bearing a label imposed by others- gifted, yet underachieving" (p. 205). A case study design was used in conducting this research.

From the field site chosen, a candidate pool was drawn. The primary pool of candidates was made up of a list of students who were gifted underachievers in the 10^{th} grade. This list was generated by the district coordinator of the gifted and talented program. Later, peer nominations were also used to find more potential participants. From this population, two students were selected to be studied. "Kate" was 15 years old and "Shawn" was 16 years old.

The researcher used a case study model in order to gather data that focused on the two subjects' perceptions, expectations and experiences. During the course of the study, the author used three modes for collecting data. These included: (a) direct observation

which took place in the student's classrooms every day during the spring semester of their high school, (b) interviews with the two students, and (c) analysis of documents contained in both of the subjects' files.

The findings of this study were discussed in terms of themes that were found within the sets of data. The researcher first discussed the two subjects in terms of their general descriptions. Both of the students were relatively quiet in class. They did their work, but only to the extent that was required. Kate would not contribute to large group discussions, but did much better in a small group. Shawn, however, distanced himself from the other students almost completely. Kate was more interested in fitting in than doing well academically. Shawn's major concern was being in control of every situation. If he could not control the outcome, such as in group discussion, he would not participate. Neither student was a behavior problem, nor were they in danger of failing. They simply were not achieving on the level of which they were capable.

The conclusions drawn from this study were mostly discussed in terms of what the students believed could solve the underachievement dilemma. They suggested that using a curriculum that focused more on the students' needs would be helpful. These young people were longing for the chance to delve into areas of interest in ways that made sense to them. The researcher went on to call for schools to evolve into a community of learners in which all people who have a vested interest in the education system work together. Student input and differentiated curriculum were stressed as important aspects of an appropriate education.

Other studies have been conducted in the area of underachievement, but more still could be accomplished. More quantitative research could be implemented. Therefore,

the study set forth in this paper has the potential to be very enlightening and could add to the knowledge base of what is known about underachievement.

Factors Related to the Problem of Underachievement

Curriculum

Gifted students who have become academic underachievers want one thing: They want school to be different. Many of them want to be successful in school but they are unsure of how to go about it. By designing the curriculum to meet the needs of these students, by making it different than the traditional chalk-and-talk model, the cycle of underachievement might be broken (Heacox, 1991). There have been many approaches utilized by schools in order to meet the needs of the gifted by differentiating the curriculum. However, according to Van-Tassel-Baska and Little (2003), for the most part, the use of organized demanding curricular intervention has been missing. They go on to say that "what the field has lacked is a comprehensive and cohesive curricular framework that uses good curricular design, considers the features of the disciplines under study, and sufficiently differentiates for talented students" (p. 6). They also state that research shows that transfer of learning occurs more frequently when higher order thinking is immersed into the curriculum itself. Therefore, curriculum for the gifted should follow an integrated model so that the students learn to the highest level possible.

Parents

Parents can have a profound effect on student learning. A parent can provide a home environment that is nurturing and supportive in order to build self-esteem and increase motivation. Parents should use moderation in order to be a positive coach for their child. They should recognize not only successes but also any improvement that is

made. Parents should be positive without being insincere. Caregivers must agree on and communicate their expectations, whether they cohabitate or not. It is vital that a child understands what his/her parents expect of him/her. They must realize that it is understandable for a student to struggle from time to time and that overcoming obstacles is a way to allow the student opportunities to grow, learn and build self-esteem. Parents and caregivers should also be prepared to connect effort with results and their children should be shown how their efforts pay off (Heacox, 1991).

Being a positive parental coach is not always easy. Often a parent or guardian must enforce the rules, which can be difficult. They must understand that academic time should be established and enforced. Caregivers must help students understand that they must set aside time and space for their studies. And while it is hard for parents to give up their authority, they must realize that the student should share in the decision making process. This will give the student a sense of ownership that will motivate him/her to meet his/her goals. Guardians should not be afraid to use incentives to help a child reach their goals. Likewise, the parents should communicate clearly with their student in order to promote a feeling of safety and security and to minimize anxiety while building self-esteem (Heacox, 1991).

Students

Each student is unique. His or her academic success or failure can be attributed to many things including the student's learning abilities, likes and dislikes, work ethic, study habits, academic skills, and more personal issues such as self-esteem, stress, and perfectionist tendencies (Heacox, 1991). A study by Emerick (2004) focused on how students perceive the factors related to underachievement. The results were disseminated

according to six areas: (a) out of school interests/activities, (b) parents, (c) the class, (d) goals, (e) the teacher, and (f) self.

Emerick further stated that students believed that having out-of-school interests and hobbies aided their achievement in several ways. First, those interests offered an escape from their monotonous school settings. Second, they thought that their hobbies gave them the opportunity to feel successful regardless of school achievement. Third, the students perceived that hobbies and interests outside of school helped them to cultivate a love for learning and to facilitate their transition toward an independent learning style. Fourth, the students reported that extra-curricular activities helped them realize that some of the things they learn in school actually relate to their own areas of interest.

Emerick also found that the students in her study primarily viewed their parents as a positive influence on their achievement. The students believed that their parents had facilitated their reversal of underachievement by supporting their interests and hobbies. Likewise, the students were helped by their parents' approval, even in the context of their academic failures. Also, the students believed that their parents had maintained a constant and calming influence on them and that they remained objective even during their period of underachievement. She found that students believed that classes that challenged them intellectually and provided them with opportunities for advanced studies helped reverse underachievement. Students also said that academic excellence was promoted when they were allowed to conduct independent studies on topics in which they were interested. Similarly, students felt motivated to achieve when they were allowed to participate in class discussions and when the lessons were relevant or concerned real-life topics. In addition, the students believed that teachers should focus on the learning process as well

as the end product. They showed particular interest in the reduction of traditional grading techniques.

Additionally, students in the study agreed that they were not highly motivated by grades or scores. They believed they were able to reverse their pattern of underachievement by developing their own goals and by relating those goals to academic success. Some of them chose to achieve to break stereotypes, others to improve their self image, and others to simply stop the harassment of teachers, parents, etc. Regardless of their goal, the creation of and working toward that goal helped them achieve.

Student responses concerning teachers were very revealing. They each identified one specific teacher as the most important factor in the reversal of their underachievement. All of those teachers had the following things in common: (a) he/she truly cared for the students and the students believed that their teacher liked them; (b) the teacher was willing to treat the student as a peer; (c) the teacher was both enthusiastic and learned; (d) the teacher was not locked into traditional methods of teaching and he/she encouraged student participation in the learning process; and (e) the teacher maintained high but attainable expectations for their students, even the underachievers.

The final factor covered by Emerick's study was student perceptions of changes within themselves that reversed their underachievement. The student believed that he/she increased his/her self confidence while gaining a positive attitude. To the students, academic achievement became their personal responsibility. They also were able to objectively assess the factors that contributed to their underachievement.

The six factors identified in this study were discussed in terms of student perceptions. These students were underachievers who had reversed that trend to become

achievers once more. In considering the elements of underachievement, one cannot overstate the importance of the student's own perceptions of their academic achievement and the factors influencing that achievement. When students feel their needs have been met, both inside and outside of the classroom, those same students build the foundations to reverse negative educational trends from the inside out (Emerick, 2004).

Teachers

In the 1960s and the 1970s, two influential reports about the influence of teachers and schools on the learning of children were published. The first was *Equality of Educational Opportunity* by Coleman and others (1966), better known as the Coleman Report, and the second was the book entitled *Inequality: A Reassessment of the Effects of Family and Schools in America* by Jencks and his colleagues (1972). These writings basically said that what teachers do at school and the quality of the schools only account for about 10% of student achievement. However, more recent studies analyzed by Brophy and Good (1986) show that classroom teachers have a profound effect upon their students. They said that "The myth that teachers do not make a difference in student learning has been refuted" (p. 370). In fact, according to Sanders and his associates teachers have an even greater influence on student achievement levels than they thought (Marzano, Pickering, & Pollock, 2001).

Heacox (1991) calls for teachers to become academic coaches who inspire and motivate the gifted student. She holds that teachers can address increasing the student's self-esteem as well as making sure the learning environment matches the student's learning style. The teacher must have an understanding of what the child is capable. As a coach, Heacox says that teachers should try to always focus on the positive. Teachers

should always try to find something positive to say about a student's work, even when it is difficult. Giving a child a greater challenge and building their self-esteem is a consistently effective way to increase motivation and achievement. Teachers should also keep their students' problems private. Conferences should be held privately and students should not be berated in front of the entire class. On-on-one conversations are much more effective than public classroom confrontations.

Another way teachers can increase student motivation is to get the students involved. The more a teacher involves his or her students in the learning process the more those students will be motivated to participate and learn. Giving a child a chance to express the ideas about which they are passionate, even if those ideas are not exactly in line with the curriculum, lets the student know that their opinion is valued which in turn builds self-esteem and a feeling of belonging. Teachers should provide variety. There is no better way to guarantee boredom and underachievement than to have the same boring routine day after day. Providing variety not only increases interest, but also allows the teacher the means to address of each of the learning styles (Heacox, 1991).

Teachers should give their students the tools they need to succeed. According to Heacox, some students have no idea about how to organize their work or how to keep up with all of their assignments. Teachers can help students by instructing them in how to develop their study skills and organizational skills. Teachers can also nurture independence and creativity in students in order to keep them involved and motivated (1991).

Meeting the needs of the gifted and increasing student motivation often means that a teacher must adjust the curriculum in order to meet the students' needs. Teachers

must learn about his/her students. He/she needs to know what the students know and what they need to know in the classroom. Every lesson every day should focus on teaching the students what they need to know. This is not a new concept, but it is often a hard one to implement. Heacox goes on to encourage teachers to get their students interested in what is going on in class and to keep them interested by showing how concepts are related and how they can be applied. Learning should be appropriate and students should know what the objectives are for a lesson. Outcomes of learning should not be a mystery. Students need to know what is going on and they will appreciate being respected and included. Evaluations should be minimal and teachers should build success by not only noting a student who excels but also those who are improving (Heacox, 1991).

While teachers play a vital role in the achievement of the gifted, student success actually depends upon the combined effort of parents, teachers, and students. A student's success or failure can not be traced to one source but rather it is a combination of all domains affecting the student that should be considered in order to reverse underachievement. Positive lasting change is more likely to take place when there is a partnership between the school, the student, and the home (Heacox, 1991).

The Myth of Underachievement

While the occurrence of underachievement seems to be a well documented fact, there are some who scoff at the existence of such a phenomenon. In the chapter "Gifted Adolescents" from *The Handbook of Gifted Education*, Schultz and Delisle (2003) purport that underachievement is a "paper tiger" and that "for the most part, underachievement is a myth" (p. 486). They state that gifted underachievement is largely

a pop psychology creation meant to make the gifted student feel guilty about lack of progress or disappointing test scores while relieving parents, teachers, and administrators from any guilt associated with student performance. The authors also say that children in middle school already suffer from plenty of self-doubt without adults expecting them to perform at their acme each and every day. They further state that most of the books and periodical articles written on gifted underachievement should be ignored. According to them, underachievement "is in the eye of the beholder" (p.486). However, Shultz, and Delisle admit that there are a few experts who have written on the subject in an appropriate way. They list Emerick (1988), Keighley (1996), Moore (1996), O'Grady (1995), and Shultz (1999) as authors who wrote about the phenomenon of gifted underachievement from the correct viewpoint which deals with the perspective of the student. The Emerick study, titled Academic Underachievement among the Gifted: Students' Perceptions of Factors Relating to the Reversal of the Academic Underachievement Pattern, was a multiple case study and focused on the student and their thoughts about how they reversed their underachievement. Keighly's study was an unpublished master's thesis which also focused on students called The Odyssey: Reaching an Understanding of Academically Underachieving Gifted Students' Perceptions of Boredom. Moore wrote about the student's perspective in the unpublished doctoral dissertation called Three Case Studies of Gifted Students Who Underachieve in High School. Likewise, O'Grady's study was an unpublished dissertation which focused on students. It was called The Onset of Academic Underachievement among Gifted Adolescents: Causal Attributions and the Perceived Effect of Early Interventions. Shultz himself wrote about underachievement in his dissertation titled Illuminating Learner

Realities: Perceptions, Expectations, and Experiences of Gifted Underachievers in a Secondary School Classroom.

Shultz and Delisle believe that adults must recognize that gifted students have their own interests and that instead of applying undue pressure to achieve they should offer their students unconditional acceptance and allow them to pursue their interests while making education meaningful to them (2003). They seem to agree with Reis' beliefs that postulate that by providing a high-quality program that provides students with challenging and appropriate classes and services, educators can help gifted students do their best without negative consequences (Reis, 2003).

While Shultz and Delisle (2003) consider the problem of gifted academic underachievement to be exaggerated, there can be no doubt that gifted achievement should be a priority. Rimm (2003) calls underachievement a "national epidemic". She states that while it is unclear what percent of the gifted are underachieving, statistics from the National Commission on Excellence in Education show that at least half of gifted learners are not achieving to their tested abilities. She also quotes a study by Seeley done in 1993 that stated between 15% and 40% of our gifted students are at risk to underachieve in school. So, while Shultz and Delisle (2003) believe the problem to be overstated, there is evidence to the contrary that supports the idea that gifted underachievement may be worse than they think (Rimm, 2003).

Summary

While there is no single definition of giftedness, there are certain concepts upon which most experts can agree. These concepts of giftedness lead to the identification of the gifted child. In Louisiana, that process includes referral for screening, a pupil

appraisal evaluation, and interviews with the student as well as the student's parents and teachers. While being identified as gifted can be a good thing, there are also certain myths and misconceptions associated with giftedness. Hopefully these myths can be cleared up and the education of the gifted can become a priority in the nation.

In the United States, there may be as many as 3 million gifted students. Programs for these students are federally funded through the Jacob K. Javits Gifted and Talented Children and Youth Education Act. The State of Louisiana houses 19,848 of those gifted students and the state spent $28,000,000 on gifted education. However, there is often a discrepancy between the education of the gifted and other children with special needs.

There are a wide variety of gifted programs, both large and small, and a wide variety of educational services offered to the gifted. One thing that most programs offer is differentiation of the curriculum. Two prominent ways of offering a differentiated curriculum are acceleration and grouping. While the two methods have often been seen as two separate issues, they are actually related.

In order to create a template for effective gifted education programs to follow, NAGC created certain standards which characterize a high-quality gifted program. The seven standards are: (a) Program Design, (b) Program Administration and Management, (c) Student Identification, (d) Curriculum and Instruction, (e) Socio-emotional Guidance and Counseling, and (f) Professional Development. Current research shows that these standards are indeed components of an effective gifted education program.

Academically underachieving gifted students are those students whose expected performance and actual performance in school do not match. While there are many suspected caused of academic underachievement, no one knows for sure why students

underachieve. The gifted seem to be particularly susceptible to the phenomenon that has been described as a great social waste and is thought to often begin around the 7th grade.

There have been many studies conducted about gifted academic underachievement. Research shows that there are certain factors related to underachievement. Some of these are: (a) curriculum, (b) parents, (c) students, and (d) teachers. While there are many in the field of gifted education who recognize the occurrence of underachievement as a valid and problematic phenomenon, there are some who feel it is overrated.

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to ascertain whether there is a relationship between the quality of gifted programs and the achievement of gifted students therein in 6th and 7th grades as measured by gains on the *integrated*LEAP (*i*LEAP) from Spring 2008 to Spring 2009 in Louisiana public school districts compared to that of regular education students. Also, the researcher compared gain scores of gifted middle school students to the results of the Gifted Program Survey. The researcher also collected demographic information that was used to create a profile of the sample surveyed.

Research Design

Quantitative data was collected using the Gifted Program Survey. Data was gathered using a correlational survey design. This design was used as the researcher was studying the relationships between variables occurring in their natural settings. The study also used elements of parallel-samples design in that the researcher collected data from two or more samples at one point in time (i.e. gifted teachers, coordinators, and supervisors) (Wiersma, 2000). The following, Table 1, provides an illustration of the research model used for this study.

Table 1

Research Model for Study

Groups	Survey Data		
$\bar{X}_1$ (teachers-mean)	O_1		Student *i*LEAP data
X_2 (coordinators)	O_2		
X_3 (supervisors)	O_3		

Sample

The population for this study was all gifted education teachers, coordinators, and supervisors in the 70 public school districts in the State of Louisiana. The sample was a sample of convenience of approximately 23 public school districts based on respondents who completed the survey. The Gifted Program Survey was provided by the researcher through electronic distribution to all gifted supervisors and coordinators in the State of Louisiana. The survey was forwarded to gifted middle school teachers by the supervisors and/or coordinators of a district. The survey was given to those who had not completed it electronically at a Statewide Gifted Coordinators meeting in spring 2010. A sample size was determined by the number of surveys returned; hence 23 public school districts were surveyed. At least 50 teachers were expected be surveyed; however, only 42 teachers in the 23 districts returned a survey.

In order to maintain anonymity while obtaining demographic data, respondents were given a numbered, alphabetical list of school districts along with the survey. Teachers, coordinators, and supervisors of the gifted were asked to put their school

district number at the top of the first page of their survey. None of the respondents was ever asked to give their name on the survey.

Both gifted and regular education (non-gifted) students' *i*LEAP Scaled scores were obtained from the Louisiana Department of Education. These data came in the form of a data disk with all student data de-identified. A code was given to students in order to identify them as gifted and regular education students. This code was used to gather the scores for both types of students in each district. Only Scaled scores were used. The scores were reported in chart form and were analyzed using the Statistical Packages for the Social Sciences (SPSS) program. A State Department official provided the researcher with some demographic information about each school district. This information along with the demographic information gathered by the survey ensured that programs of all types and sizes were included in the study.

Gifted education staff, namely supervisors, coordinators, and teachers of the gifted, was surveyed statewide in all 70 public school districts. Twenty-four of the 70 school districts in the State returned surveys. However, in 12 of those districts, there was no coordinator for the gifted program. Therefore in those districts only surveys from the supervisor and teachers of the gifted were used. Of those 12, one district did not have any gifted 6th grade students in 2008 and was consequently removed from the study. The 23 public school districts in the State of Louisiana that were used consisted of districts with large, medium, and small gifted programs as well as districts from North, Central, and South Louisiana.

Instrumentation

For the purpose of this study, the researcher defined achievement as a gain score on the *i*LEAP from one year to the next. Formerly in the state of Louisiana, students in the 6th and 7th grades were given the Iowa Test of Basic Skills (ITBS). The Iowa test was given to these students as well as students in the 3rd, 5th, and 9th grades in the state from the year 1998 until the year 2005. The ITBS is a norm referenced test and its scores provide a way for educators and parents in Louisiana to compare their students' scores to those of other students from across the nation. After the No Child Left Behind Act (NCLB) of 2002, it became mandatory that the state align its educational content standards with its method of standardized assessment. It also became necessary to communicate student results as defined by that state's performance standards. Therefore, the State of Louisiana developed an integrated measure (the *i*LEAP or integrated LEAP) to meet this NCLB requirement. In the 2005-2006 school year, students in the 6th and 7th grades (along with students in the 3rd, 5th, and 9th grades) began taking the *i*LEAP (Louisiana Department of Education, 2007). The *i*LEAP consists of both NRT (Norm Referenced Test) and CRT (Criterion Referenced Test) components. The NRT portion of the test is taken from the ITBS and is a standardized norm-referenced achievement test. The NRT portion consists of tests in reading, language, and mathematics. The CRT portions of the test are specifically aligned with Louisiana's Grade Level Expectations (Louisiana Department of Education, 2009). Students receive CRT scores in English language arts, mathematics, science, and social studies. For the purposes of this study, only the Average Scaled scores from CRT portions were used to obtain a gain score. Only the CRT portions were used because those portions represent a student's

performance as compared to other students in the State of Louisiana which makes the results more generalizable to the rest of the state.

The *i*LEAP scores are reported for the gifted in several ways. The report that details test results shows percent correct on each one of the standards as well as percent of students attaining each level of comprehension (Louisiana Department of Education, 2007). There are five achievement levels which may be attained on each portion of the *i*LEAP. These are Unsatisfactory, Approaching Basic, Basic, Mastery, and Advanced. According to officials at the Louisiana State Department of Education, a student scoring at the Unsatisfactory level "has not demonstrated the fundamental knowledge and skills needed for the next level of schooling" (Louisiana Department of Education, 2005, p. x). Students who score at the Approaching Basic level have "only partially demonstrated the fundamental knowledge and skills needed for the next level of schooling" (Louisiana Department of Education, 2005, p. x). Likewise, students scoring at the Basic level have "demonstrated only the fundamental knowledge and skills needed for the next level of schooling" (Louisiana Department of Education, 2005, p. x). A student scoring at the Mastery level has "demonstrated competency over challenging subject matter and is well prepared for the next level of schooling" (Louisiana Department of Education, 2005, p. x), while students at the Advanced level have "demonstrated superior performance beyond the level of mastery" (Louisiana Department of Education, 2005, p. x). A School Performance Score is calculated for each school in a district. A portion of that score is based on student scores on the *i*LEAP. An Unsatisfactory gives a school zero points, an Approaching Basic gives them 50 points, a Basic gives them 100 points, a Mastery gives

them 150 points, and an Advanced gives them 200 points (Louisiana Department of Education, December, 2009)

The score report for each school district, while showing achievement levels, also gives an Average Scaled score for each group (Louisiana Department of Education, 2007). The researcher used the Average Scaled scores for the gifted in each school district as well as the Average Scaled scores for regular education students in each school district for this study. The scores were taken from the CRT Average Scaled Scores of the students in a district. These scores were attained from the Louisiana State Department of Education.

Evaluation is a very important part of providing quality programs for gifted students (ERIC, 2002). The most frequently used process of gathering data for the purpose of evaluation is the survey. The written survey is most often given to program participants in order to gather information about program quality. Therefore, a survey that provides an opportunity for teachers and administrators of programs to engage in self-evaluation is a highly acceptable way to gather data (Posavac & Carey, 2003). While there were several surveys in use in the 1980s which evaluated gifted program quality, these surveys were not considered to be of high quality and have long since gone out of print (Mental Measurements Yearbook, 1991). Therefore, a newly developed Gifted Program Survey was used in this study. This survey was developed by the researcher using the National Association for Gifted Children (2000) *Pre-k-Grade12 Gifted Program Standards.* Its purpose is assessing the quality of a gifted education program from the point of view of educators and administrators. This four-page survey is

administered on an individual basis. Each question of the survey, minus the demographic questions, directly correlates to a program standard (See Appendix A).

Validity and reliability are two areas with which every researcher must be concerned (Wiersma, 2000). The developers of the *i*LEAP were concerned with both. To establish content validity, they first defined the content domain. Initially, this definition was provided by committees formed in the State of Louisiana. These committees consisted of teachers, Department of Education staff, and an external consultant. This resulted in the formation of standards for each subject and each grade level in the state. Those standards were then sent across the state in order to gain input from the public before making revisions. After the revisions were completed, content frameworks were created and a test blueprint was used to guarantee that the test aligned with the content standards. Furthermore, content validity was established by committees which reviewed the content and its alignment. Field tests were conducted in order to ensure validity as well (Louisiana Department of Education, 2008).

Reliability for the *i*LEAP was established in order to ensure consistency and accuracy of test scores. The Louisiana Department of Education ran two statistical procedures on a sample from the Spring 2008 administration of the test. They used both a Cronbach's alpha and a stratified alpha. The stratified alpha was conducted because it is a measure which considers tests with constructed response items. After conducting these procedures, the researchers concluded that, according to the Standard Error of Measurement (SEM), they expect a student's true score will fall within one SEM of their observed score 68% of the time.

Validity and reliability were also a concern for the researcher in the development of the Gifted Program Survey. Content validity was established for the survey by sending it to gifted educators "to gauge agreement among raters regarding how essential individual test items were for inclusion in the [survey]" (Wiersma, 2000, pp. 157-158). The results established that the survey does indeed measure gifted program quality.

Inter-rater reliability can be established after the survey has been given to three different people from each district: the teacher(s), the coordinator, and the supervisor. Data from the instrument will need to be tabulated and synthesized. The researcher would have to see how frequently the subjects coded items identically. This would be accomplished using frequencies or means.

Pilot Study

Before any data collection, the researcher received topic approval. Afterward, the researcher developed a survey since there is not an appropriate survey in print which measures the quality of gifted programs. The Gifted Program Survey developed by the researcher is a new measure based on NAGC standards. Therefore, a pilot study was conducted to establish the survey as a valid and reliable instrument. Initially, the researcher used her home district to pilot the survey. The first edition of the survey was given to school administrators, teachers, parents of gifted students, and gifted students. Three administrators, 14 teachers, two parents and 16 students gave the researcher feedback about the instrument. After reviewing the results and consulting with three professors, including a statistician, the researcher deemed that the initial survey was too convoluted and data gathered was not easily measured as the items were not in Likert scale format. Therefore, a second version of the survey was created. All of the questions

(except the demographic data) were formatted using a Likert scale and were based specifically and exclusively on the Gifted Program Standards which were created by the National Association for Gifted Children. After this second survey was created, the researcher showed it to professors. Likewise, it was sent to one gifted teacher, one former state director of the gifted, one current state director of the gifted, one supervisor of the gifted, and one former state president of a gifted association to establish content validity.

Content validity was ensured as the respondents established that the survey does indeed measure gifted program quality. However, the researcher changed several things about the survey. First, the Likert questions were changed in order to make the positive end of the scale come first. The scale was also changed to reflect answers in the form of one's beliefs. Also, the researcher changed some of the demographic data. A question was added that let the respondents tell if they were certified in gifted education. Another question was added that asked the respondents to tell how many years they had worked with the gifted in a district. The item that covered number of student hours in the program each week was changed so that the choices did not overlap. The survey was then sent to a second set of people who reflect the sample that was taken in the fall: (a) three supervisors of special education, (b) three gifted program coordinators, and (c) three gifted education teachers. All respondents agreed that the survey measures gifted program quality.

In order to make sure the instrument was a valid one, a third and final pilot study was conducted using teachers, coordinators, and supervisors of the gifted. Twenty respondents' surveys were used in order to calculate an Alpha level for the survey. The Alpha level, according to the results of the Chronbach's Alpha statistical procedure, was

0.9. After this final pilot study, the researcher removed the last question of the survey which was an open-ended question that was not needed. The resulting instrument was a survey that will not only provided demographic data but also quantitative data related to program quality of the state's gifted programs. After the research was approved by the Louisiana Educational Consortium committee and the Institutional Review Board, permission was gained from the State Director of Gifted Programs. Permission to use students de-identified *i*LEAP scores was obtained from the Louisiana State Department of Education. The surveys were then given to teachers, coordinators and supervisors of gifted programs in the state. The data from these surveys were analyzed and compared to students' standardized test scores. After all data were analyzed, the final report was written and defended.

Data Collection

The Gifted Program Survey was provided by the researcher through electronic distribution to all supervisors and coordinators of gifted programs in the State of Louisiana. The survey was forwarded to middle school teachers of the gifted by the supervisors and/or coordinators of a district. The survey was given to those who had not completed it electronically at a Statewide Gifted Coordinators meeting in spring 2010. The survey was accompanied by a human subjects consent form (see Appendix B). Beside the survey data, the researcher also used gain scores from the CRT Average Scaled scores of the *i*LEAP. While defining underachievement solely on standardized test scores is problematic, the researcher focused on data that were available in order to establish a means to ascertain the occurrence of underachievement in the State of Louisiana.

Data Analysis

The researcher first calculated gain scores for each school district using the CRT Average Scaled scores for both gifted and regular education students in the 7th grade. These were calculated by subtracting the 2008 6th grade *i*LEAP Scaled scores (pre-test) from the 2009 7th grade *i*LEAP Scaled scores (post-test). A Pearson Correlation was used to test the relationship between gifted students gain scores to those of their non-gifted peers. Also, an Analysis of Covariance (ANCOVA) was used to control for the fact that gifted *i*LEAP Scaled scores were higher than those of their non-gifted peers. The use of an ANCOVA is helpful because it makes adjustments that help make pre-formed groups equal (Wiersma, 2000). An ANCOVA controlled for the possibility that the gifted students' pre-test scores were higher than the regular education students and therefore the gain score accurately reflects the growth in both groups. Finally, a Mann-Whitney U test was performed in order to test for significant differences between the mean ranks of the two groups.

Data from the surveys were analyzed using several statistical procedures. The Gifted Program Survey consists of six questions related to demographics (numbers one through six). These questions were analyzed by school district in order to get an accurate idea of the type of public school district in which the gifted program resides. This information was gathered to ensure that districts of all types and sizes are represented in the study. The rest of the survey gathered data in seven areas: (a) Student Identification (five questions); (b) Professional Development (four questions); (c) Socio-emotional Guidance and Counseling (five questions); (d) Program Evaluation (four questions); (e) Program Design (six questions); (f) Program Administration and Management (four

questions); and (g) Curriculum and Instruction (five questions). There are 39 total questions on the survey. The 33 questions dealing with the seven factors of program quality (numbers seven through 39) are arranged in a Likert scale format. The researcher counted a response of always as a five and a response of never as a one. The researcher assigned a score for each factor for each of the respondents (teachers, coordinators, and supervisors) in a school district. The researcher also assigned a survey total for each respondent. Possible Survey totals ranged from 33 points to 165 points.

A Pearson Correlation was calculated to compare gifted gain scores to Gifted Program Survey Total scores as well as to compare gain scores to each sub-test of the Gifted Program Survey. This was done by using survey totals for teachers (mean), coordinators, and supervisors. These scores were compared to the gain scores for the CRT Average Scaled scores for gifted students in each district.

Because there were no significant correlations between gifted students' gain scores and gifted program staff on the Gifted Program Survey, the researcher felt that further analyses were needed. Therefore, several Post Hoc tests were performed. First, the researcher compared the Gifted Program Survey mean scores in the districts with positive gifted student *i*LEAP Scaled gain scores to the Gifted Program Survey scores in the districts with negative gifted student *i*LEAP Scaled gain scores. A t-test was conducted in order to determine if there was a significant mean difference between the two groups and their mean scores. Since a significant difference was found between the Gifted Program Survey total means in the two groups of districts, the researcher hypothesized that mean differences might also be found on the sub-levels of the Gifted Program Survey. Therefore, the researcher conducted a Multiple Analysis of Variance (MANOVA)

comparing the 14 districts with positive gain and the nine districts with negative gains and using district scores on the seven sub-sections of the Gifted Program Survey (Student Identification, Professional Development, Socio-emotional Guidance and Counseling, Program Evaluation, Program Design, Program Administration and Management, and Curriculum and Instruction). Since the MANOVA showed that all seven of the sub-tests were not collectively different, the researcher then conducted tests of Between-Subject effects.

CHAPTER 4

RESULTS

The purpose of this study was to ascertain whether there was a relationship between the quality of gifted programs as perceived by teachers, coordinators, and supervisors of the gifted and the achievement of the same gifted students in 6th and 7th grades as measured by gains on the *i*LEAP from Spring 2008 to Spring 2009 in Louisiana public school districts. Also, the researcher compared gains of gifted public middle school students to the gains of regular education students in the same grades. Likewise, the researcher collected demographic information that was used to create a profile of the sample surveyed.

The research questions addressed differences in achievement between gifted students and their non-gifted peers and the relationship between program quality and gifted achievement. The researcher hypothesized that there would be no significant difference between the academic gains of gifted students as compared to the academic gains of their non-gifted peers. Also hypothesized was that there would be no relation between a gifted program's quality and gifted achievement of the students

Research Questions

In conducting this study, the researcher sought to answer the following questions:

1. Is there a significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and those of their non-

gifted peers when controlling for Spring 2008 *i*LEAP Scaled Scores? 2. Is there a significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores in high quality programs and *i*LEAP Scaled gain scores of gifted students in programs of lesser quality as defined by the Gifted Program Survey?

3. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey total score?

4. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in the Process of Student Identification?

5. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Professional Development?

6. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Socio-emotional Guidance and Counseling of the Gifted?

7. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Evaluation?

8. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Design?

9. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Administration and Management?

10. Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Curriculum and Instruction Used with the Gifted?

Data Analysis Strategy

The Gifted Program Survey was given to supervisors, coordinators, and teachers of gifted students in all public school districts in the State of Louisiana. Results from the survey were collected from 23 of those districts. Likewise, data from these 23 districts in the form of 6th grade students' Average Scaled Scores from the *i*LEAP from 2008 and 7th grade students' Average Scaled Scores from the *i*LEAP from 2009 were collected and analyzed. Only scores from those students in districts coded as regular education and those students in districts coded as gifted were used in the study.

Findings

Research Question 1

Is there a significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and those of their non-gifted peers when controlling for Spring 2008 *i*LEAP Scaled Scores?

This study used *i*LEAP Scaled Scores for the gifted and for their non-gifted peers in 23 public school districts. In order to calculate a gain score, *i*LEAP Scaled scores in English language arts, mathematics, science and social studies from 6th grade students in 2008 were averaged and subtracted from the average of *i*LEAP Scaled scores in English language arts, mathematics, science, and social studies from 2009. Likewise, an Analysis of Covariance (ANCOVA) was used to control for the fact that gifted iLEAP Scaled scores were higher than those of their non-gifted peers. Finally, a Pearson Correlation was used to test the relationship between gifted students gain scores to those of their non-gifted peers.

Null Hypothesis 1

There is no significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and those of their non-gifted peers when controlling for Spring 2008 *i*LEAP Scaled scores.

As a condition for using ANCOVA, the Pearson Correlation showed a significant correlation between the gain scores and the 2008 *i*LEAP Scaled data (see Table 2). The *i*LEAP Scaled gain scores of gifted students from the 23 districts were compared to those of their non-gifted peers. The Analysis of Covariance showed that the mean gain scores between the gifted and their non-gifted or regular education peers, when controlling for

2008 spring *i*LEAP Scaled scores, had no significant difference (see Tables 3 and 4). Null Hypothesis 1 was accepted.

Table 2

Pearson Correlation (Gifted and Non-gifted- Gain Scores)

		Covariate	Gain Score
Covariate	Pearson Correlation	1.000	-.393
	Sig. (2-tailed)		.007*
	N	46	46
Gain Score	Pearson Correlation	-.393	1.000
	Sig. (2-tailed)	.007*	
	N	46	46

Note: *p < .05.

Table 3

Tests of Between-Subjects Effects (ANCOVA)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	540.893a	2	270.446	4.110	.023
Intercept	122.603	1	122.603	1.863	.179
Covariate	97.964	1	97.964	1.489	.229
Groups	21.541	1	21.541	.327	.570*
Error	2829.254	43	65.797		
Total	5170.273	46			
Corrected Total	3370.146	45			

a. R Squared = .160 (Adjusted R Squared = .121)
Note: *p > .05.

Table 4

Covariate, Dependent Variables, and Adjusted Dependent Variable Means (Gifted and Non-gifted)

Exceptionality Code	Covariate 2008	Dependent Var Gain Score	Adjusted Dependent Var Adjusted Gain Score
1 (gifted)	376.14	3.1526	9.150
2 (non-gifted)	299.02	9.35587	3.361

Research Question 2

Is there a significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores in high quality programs and *i*LEAP

Scaled gain scores of gifted students in programs of lesser quality as defined by the Gifted Program Survey?

The researcher compared the *i*LEAP Scaled gain scores of gifted students in programs of high quality and those of lesser quality, as defined by scores on the Gifted Program Survey. There were 20 districts in the State of Louisiana in which the gifted staff reported a program of high quality. The remaining three districts included in the study had scores which labeled them as programs of lesser quality. Since the sizes of the two groups were small and disproportionate, a Mann-Whitney U test was performed in order to test for significant differences between the mean ranks of the two groups.

Null Hypothesis 2

There is no significant difference between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores in high quality programs and *i*LEAP Scaled gain scores of gifted students in programs of lesser quality as defined by the Gifted Program Survey.

The mean ranks of the gifted students in the 20 districts which had programs judged to be of high quality were compared to the mean rank of the gifted students in the three districts in which the staff judged programs of lesser quality. The results of the Mann-Whitney test showed that there was no significant difference between the mean rank of students in programs of high quality and the mean rank of students in programs of lesser quality (see Tables 5 and 6). Therefore, Null Hypothesis 2 was accepted.

Table 5

Mann-Whitney Test Ranks (Gifted Mean Rank from High and Lesser Quality Programs)

	Groups	N	Mean Rank	Sum of Ranks
Gain	High	20	12.90	258.00
	Lesser	3	6.00	18.00
	Total	23		

Table 6

Mann-Whitney Test Statistics

Test Statistics[b]	Gain
Mann-Whitney U	12.000
Wilcoxon W	18.000
Z	-1.644
Asymp. Sig. (2-tailed)	.100
Exact Sig. [2*(1-tailed Sig.)]	.115a

a. Not corrected for ties.
b. Grouping Variable: Groups

Research Question 3

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey total score?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey totals from the 23 districts. A Pearson Correlation was calculated to compare gifted gain scores to Gifted Program Survey Total scores.

Null Hypotheses 3

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey total score.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Total scores. The correlation between gifted gain scores and the Survey Total was r=.238 with P=.274 (see Table 7). Since the correlation coefficient was not significant, Null Hypothesis 3 was accepted.

Table 7

Pearson Correlation between Gifted Gain Scores and Gifted Program Survey Total Scores

	Survey Total
Pearson Corr	.238
Sig. (2-tail)	.274

Research Question 4

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in the Process of Student Identification?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Student Identification scores from the 23 districts. A Pearson Correlation was calculated to compare gifted gain scores to Gifted Program Survey Student Identification scores.

Null Hypothesis 4

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in the Process of Student Identification.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Student Identification scores. The correlation coefficient between gifted gain scores and Student Identification scores was r=.268 with P=.215 (see Table 8). Since the correlation coefficient was not significant, Null Hypothesis 4 was accepted.

Table 8

Pearson Correlation between Gifted Gain Scores and Student Identification Scores

	Student Identification
Pearson Corr	.268
Sig. (2-tail)	.215

Research Question 5

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Professional Development?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Professional Development scores from the 23 districts. A Pearson Correlation was used to compare gifted gain scores to Gifted Program Survey Professional Development scores.

Null Hypothesis 5

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Professional Development.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Professional Development scores. The correlation between gifted gain scores and Professional Development scores was r=.193 with P=.376

(see Table 9). Since the correlation coefficient was not significant, Null Hypothesis 5 was accepted.

Table 9

Pearson Correlation between Gifted Gain Scores and Professional Development Scores

	Professional Development
Pearson Corr	.193
Sig. (2-tail)	.376

Research Question 6

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Socio-emotional Guidance and Counseling of the Gifted?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Socio-emotional Guidance and Counseling of the Gifted scores from the 23 districts. A Pearson Correlation was calculated to compare gifted gain scores to Gifted Program Survey Socio-emotional Guidance and Counseling of the Gifted scores.

Null Hypothesis 6

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Socio-emotional Guidance and Counseling of the Gifted.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Socio-emotional Guidance and Counseling of the

Gifted scores. The correlation between gifted gain scores and Socio-emotional Guidance and Counseling of the Gifted scores was r=.107 with P=.628 (see Table 10). Since the correlation coefficient was not significant, Null Hypothesis 6 was accepted.

Table 10

Pearson Correlation between Gifted Gain Scores and Socio-emotional Guidance and Counseling of the Gifted Scores

	Socio-emotional Guidance and Counseling of the Gifted
Pearson Corr	.107
Sig. (2-tail)	.628

Research Question 7

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Evaluation?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Gifted Program Evaluation scores from the 23 districts. A Pearson Correlation was used to compare gifted gain scores to Gifted Program Survey Gifted Program Evaluation scores.

Null Hypothesis 7

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Evaluation.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Gifted Program Evaluation scores. The correlation between gifted gain scores and Gifted Program Evaluation scores was r=.214 with P=.327 (see Table 11). Since the correlation coefficient was not significant, Null Hypothesis 7 was accepted.

Table 11

Pearson Correlation between Gifted Gain Scores and Gifted Program Evaluation Scores

	Gifted Program Evaluation
Pearson Corr	.214
Sig. (2-tail)	.327

Research Question 8

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Design?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Gifted Program Design scores from the 23 districts. A Pearson

Correlation was used to compare gifted gain scores to Gifted Program Survey Gifted Program Design.

Null Hypothesis 8

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Design.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Gifted Program Design scores. The correlation between gifted gain scores and Gifted Program Design scores was r=.185 with P=.399 (see Table 12). Since the correlation coefficient was not significant, Null Hypothesis 8 was accepted.

Table 12

Pearson Correlation between Gifted Gain Scores and Gifted Program Design Scores

	Gifted Program Design
Pearson Corr	.185
Sig. (2-tail)	.399

Research Question 9

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Administration and Management?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Gifted Program Administration and Management scores from the 23 districts. A Pearson Correlation was calculated to compare gifted gain scores to Gifted Program Survey Gifted Program Administration and Management.

Null Hypothesis 9

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Gifted Program Administration and Management.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Gifted Program Administration and Management scores. The correlation between gifted gain scores and Gifted Program Administration and Management scores was r=-.021 with P=.926 (see Table 13). Since the correlation coefficient was not significant, Null Hypothesis 9 was accepted.

Table 13

Pearson Correlation between Gifted Gain Scores and Gifted Program Administration and Management Scores

	Gifted Program Administration And Management
Pearson Corr	-.021
Sig. (2-tail)	.926

Research Question 10

Is there a significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Curriculum and Instruction Used with the Gifted?

The researcher sought to compare gain scores of the gifted students and the Gifted Program Survey Curriculum and Instruction Used with the Gifted scores from the 23 districts. A Pearson Correlation was used to compare gifted gain scores to Gifted Program Survey Curriculum and Instruction Used with the Gifted.

Null Hypothesis 10

There is no significant correlation between 6th and 7th grade gifted students' (Spring 2008 to Spring 2009) *i*LEAP Scaled gain scores and a district's Gifted Program Survey score in Curriculum and Instruction Used with the Gifted.

The Pearson Correlation showed no significant relationship between gifted gain scores and Gifted Program Survey Curriculum and Instruction Used with the Gifted scores. The correlation between gifted gain scores and Curriculum and Instruction Used

with the Gifted scores was r=.257 with P=.237 (see Table 14). Since the correlation coefficient was not significant, Null Hypothesis 10 was accepted.

Table 14

Pearson Correlation between Gifted Gain Scores and Curriculum and Instruction Used with the Gifted Scores

	Curriculum and Instruction Used with the Gifted
Pearson Corr	.257
Sig. (2-tail)	.237

Post Hoc Tests

While no significant relationships were found when correlations were conducted between *i*LEAP Scaled gain scores and Gifted Program Survey scores, further analyses were conducted. There were 14 districts in which the gifted students had positive *i*LEAP Scaled gain scores and nine in which the students had negative gifted student *i*LEAP Scaled gain scores. Based on the findings of non-significant correlations between gifted students' gain scores and gifted program staff on the Gifted Program Survey, the researcher hypothesized that the 14 districts with positive gain scores, when compared to the nine districts that did not have positive gains, that the faculty in the 14 districts may have expressed different opinions than those faculty from the nine districts. Because of the discrepancy between the nine with negative gain scores with only three of the staffs of those districts perceiving a program of lesser quality, the researcher decided that further investigation was important to this study. The researcher compared the Gifted

Program Survey mean scores in the districts with positive gifted student *i*LEAP Scaled gain scores to the Gifted Program Survey scores in the districts with negative gifted student *i*LEAP Scaled gain scores. A t-test was conducted and through it the researcher found that there was a significant mean difference at the .05 level. In those 14 districts that showed positive gains from 2008 to 2009, the Gifted Educators had a significantly higher mean on the Survey than those with negative gains. The mean for the 14 positive gain districts was 124.69 and the mean for the nine negative gain districts was 109.07, with P= .05 (see Table 15).

Table 15

t-Test for Districts with Positive and Negative Gain Scores

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig	t	df	Sig (2-tailed)
Survey Total (Equal Variances Assumed)	.326	.574	3.457	21	.002*

Note: *p < .05

Since a significant difference was found between the Gifted Program Survey total means in the two groups of districts, the researcher hypothesized that mean differences might also be found on the sub-levels of the Gifted Program Survey. The researcher then conducted a Multiple Analysis of Variance (MANOVA) comparing the 14 districts with positive gain and the nine districts with negative gains using district scores on the seven sub-sections of the Gifted Program Survey (Student Identification, Professional Development, Socio-emotional Guidance and Counseling, Program Evaluation, Program

Design, Program Administration and Management, and Curriculum and Instruction). The general linear model used groups labeled as Positive or Negative gains as the between-subjects factors. There were 14 groups labeled as Positive Gains and nine labeled as Negative gains. Within the MANOVA, multiple effects were observed such as the Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root. The MANOVA showed that the values for the full factorial were not significant at the .05 level (see Table 16).

Table 16

Multiple Analysis of Variance for Gifted Program Survey Sub-tests between Districts with Positive and Negative Gains

Effect		Value	F	Hypo df	Error df	Sig.
Positive/ Negative Gain	Pillai's Trace	.527	2.389	7.0	15.0	.074
	Wilks' Lambda	.473	2.389	7.0	15.0	.074
	Hotelling's Trace	1.115	2.389	7.0	15.0	.074
	Roy's Largest Root	1.115	2.389	7.0	15.0	.074

Since the MANOVA showed that all seven of the sub-tests were not collectively different, the researcher then looked at tests of Between-Subject effects. When these multiple F-tests were run, the researcher found that three of the subtests were significant at the .05 level. Those subtests were Student Identification, Program Design, and Curriculum and Instruction (see Table 17). Mean scores for these subtests in districts with positive gains and districts with negative gains are given in Table 18.

Table 17

Tests of Between-Subject Effects between Positive and Negative Gains and Survey Sub-scores

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Student ID	41.947	1	41.974	11.074	.003*
	Prof Devel	6.045	1	6.045	2.843	.107
	Socio Emt	17.581	1	17.581	3.883	.062
	Prog Eval	24.778	1	24.778	3.480	.076
	Prog Desn	80.907	1	80.907	8.835	.007*
	Adm Mng	2.605	1	2.605	.769	.390
	Curr Instr	61.985	1	61.985	10.689	.004*

Note: *p < .05.

Table 18

Mean Scores for Subtests in Districts with Positive Gains and Districts with Negative Gains

Subtest	Positive Gain Districts	Negative Gain Districts
Student ID	22.18	17.38
Prog Desn	21.84	18.00
Curr Instr	17.80	14.44

Demographic Data

In order to compare districts with positive gains and those with negative gains, the researcher looked at demographic data gathered by the Gifted Program Surveys and data from the State of Louisiana. The results of this comparison are discussed in the following narrative.

District 1 was a district that had a positive gifted student gain score. Its gifted program services between 50 and 300 students. While the Supervisor of Gifted Services does not have gifted certification, all of the teachers responding to the survey as well as the Coordinator of Gifted Services all have gifted certification. This district offers a wide range of services for their gifted students. These services include pull/out resource room, acceleration, grade-skipping, differentiation of the regular education curriculum, and enrichment. The gifted staff of this district also offers a consultative service to the regular education teachers which ensure that gifted students' academic needs are being met even in the non-gifted classroom.

District 3 also had a positive gain score. This district's gifted program serves between 50 and 300 students. Neither the Supervisor nor the Coordinator of Gifted

Services has gifted certification; however, the teacher responding to the survey does have gifted certification. Gifted services in this district include pull-out/resource room and enrichment. Gifted staff also uses differentiation of the regular education curriculum to meet the academic needs of the gifted students.

District 4 had a positive gain score. This district serves over 300 gifted students. Both the Supervisor and Coordinators of Gifted Services in this district have gifted certification along with almost all of the teachers who responded to the survey. This district meets the needs of their gifted students through many means including pull-out/resource room, acceleration, grade-skipping, and enrichment. In addition, some gifted students in this program receive gifted hours through taking gifted content classes (i.e. math, English, science, and social studies) while others often have one full day of gifted activities during the regular school week. This district, like those previously mention, differentiates the regular education curriculum in order to meet the needs of the gifted.

District 7 likewise had positive gains. The gifted staff there meets the academic needs of over 300 gifted students. Although the Supervisor of Gifted Services in this district does not have gifted certification, the Coordinator and the responding teacher are certified in gifted education. While they do not presently have students taking advantage of the entire list of options for services, this district offers all of the services listed on the Gifted Program Survey (pull-out/resource room, full-day classes, acceleration, grade skipping, differentiation of the regular curriculum, enrichment, and one full-day of gifted classes during the week).

District 8 serves over 300 gifted students and also had a positive gain score. The Supervisor does not have gifted education certification nor does the Coordinator of Gifted

Programs. However, the teacher of the gifted responding does have certification to teach the gifted. This district offers pull-out/resource room, acceleration, grade skipping, and enrichment. It is interesting to note that this district, even as large as it is, does not offer differentiation of the regular education curriculum.

District 9 serves between 50 and 300 gifted students and showed positive gains. While the supervisor and the coordinator do not have gifted certification, the teacher does. This district, like most of the others with positive gains, offers differentiation of the regular education curriculum. Services in this district also include pull-out/resource room, acceleration, and enrichment.

District 10 also had positive gains. The gifted staff of this district serves between 50 and 300 students as well. Like in so many other districts in this study, neither the supervisor nor the coordinator has gifted certification. However, in this case, the responding teacher does not have certification either. The incidence of none of the gifted staff having certification only occurs in one other district with positive gains. While this district does not often use differentiation of the regular education curriculum, the gifted staff there does use enrichment on a regular basis.

District 14 had one of the largest gains with a pre-adjusted gain of 19.5 points. This district serves less than 50 gifted students. The supervisor does not have certification, but the teacher/coordinator does. While tied for second for the highest gain, their program remains simple. They only offer pull-out/resource room and/or enrichment classes for their gifted students, but those methods seem to be enough to meet the students' academic needs.

District 15 had the highest positive pre-adjusted gain with 27.5 points of growth. The gifted staff there serves between 50 and 300 students. The supervisor does not have gifted certification while the teacher/coordinator does. Although this district had the highest gain score, their program is very simple. They only offer pull-out/resource room activities for their gifted students. This simple and straightforward approach seems to be adequate for the students served.

District 16 serves less than 50 gifted students and had a positive gain score. Neither the supervisor nor the teacher/coordinator has gifted certification. Likewise, they only offer pull-out/resource room.

District 17 was tied with District 14 for the second highest gain score. It is a small district with fewer than 50 gifted students. The Supervisor of Gifted Services there does not have certification in gifted education. However, both of the teachers responding to the survey have the certification. This district offers some pull-out/resource room activities as well as enrichment classes.

District 18, which had a positive gain score, is a relatively small district. The gifted staff there serves less than 50 gifted students. The responding teacher does have certification while the supervisor/coordinator does not. While this district is not very larger, they offer a wide variety of gifted services. The meet the academic needs of the gifted through use of pull-out/resource room, full-day, all inclusive gifted classes, acceleration, grade skipping, and differentiation of the regular education curriculum, enrichment. This district also has teachers with gifted certification who teach gifted classes at the high school level.

District 21 had the second lowest gain score with only 2.5 points. This district offers gifted services to between 50 and 300 students. The Supervisor of Gifted Services did not respond to the survey question about gifted certification. However, both of the teachers who responded have it. This district has several ways in which they serve their students. They have pull-out/resource room activities as well as acceleration, grade skipping, and enrichment. Likewise, they offer differentiation of the regular education curriculum as well as some content instruction in math.

District 23 had the lowest gain score of only 2 points, but their gains were positive. It is a rather large district. Its program serves over 300 gifted students. The supervisor/coordinator and all but one of the teachers who responded have gifted certification. This district is able to offer a wide variety of gifted services. They utilize pull-out/resource room activities as well as full-day, all inclusive gifted classes in some cases. In addition, the gifted staff also provides acceleration and differentiation of the regular education curriculum as well as enrichment and occasional full-days of gifted activities.

The districts with positive gains did not share all things in common, however. For example, the gifted staff members in these districts were not all certified in gifted education. In fact, in many cases, the teachers were the only persons certified to teach in the gifted program. Also, the experience of the gifted education staff members in these districts ranged anywhere from zero to three years of experience to more than ten years. Likewise, students in these districts spent as little as less than one hour per week to as much as five hours or more per week in gifted classes. Students in these districts had anywhere from zero percent to over 71% of their content classes taught as a gifted class.

However, of the districts with positive gains, regardless of location, size, certification of the staff or any other factor, there were several services which were offered in almost all of the programs: Pull-out/resource room classes were offered in all but one district; enrichment activities were offered in all but two districts; and differentiation of the regular education curriculum was offered in the vast majority of districts.

In this study, there were nine districts in which gifted students had a negative gain score. These districts were similar to the 14 districts with positive gains in many ways, however. They ranged in size from programs with less than 50 students to programs with up to 300 students. The programs were located in all parts of the state and the gifted staff offered many different types of gifted services from enrichment to acceleration. Similarly, these programs offered anywhere from less than one hour per week to as much as five hours or more per week in gifted classes. However, there were four districts in which at least one teacher of the gifted was not certified in the education of the gifted. Only one district of the nine had a supervisor who was certified in gifted education. Of the teachers responding to the survey in these districts, 73% of them had six years or less of experience in teaching the gifted in their district. All of the district gain scores, both positive and negative, are listed by district (see Table 19).

Table 19

District Gain Scores

District	Gain Score
District 1	9.0
District 2	-8.5
District 3	3.25
District 4	3.25
District 5	-0.5
District 6	-2.75
District 7	6.0
District 8	2.25
District 9	6.0
District 10	5.0
District 11	-8.24
District 12	-5.0
District 13	-3.25
District 14	19.5
District 15	27.5
District 16	11.5
District 17	19.5
District 18	10.5
District 19	-12.0
District 20	-2.25
District 21	2.5
District 22	-12.75
District 23	2.0

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to ascertain whether there was a relationship between the quality of gifted programs as perceived by teachers, coordinators, and supervisors of the gifted and the achievement of the same gifted students in 6th and 7th grades as measured by gains on the *i*LEAP from Spring 2008 to Spring 2009 in Louisiana public school districts. Also, the researcher compared gains of gifted public middle school students to the gains of regular education students in the same grades. Likewise, the researcher collected demographic information that was used to create a profile of the sample surveyed.

Conclusions

When testing Hypothesis 1, the researcher found that there was no significant difference between the gain scores of gifted students and their non-gifted peers even after controlling for pre-differences in the 2008 *i*LEAP Scaled scores for all 23 districts included in the study. Since the students in gifted programs have a higher IQ and the potential to score significantly higher on standardized tests than their non-gifted peers, the gifted gains should be higher than the non-gifted gains in every district. However, the results of this study show that there is no significant difference between the academic achievement of gifted middle school students and their non-gifted middle school peers in

the State of Louisiana as evidenced by gains on the *i*LEAP from Spring 2008 to Spring 2009. When testing Hypothesis 2, the researcher found by using the Mann-Whitney U test that there was no significant difference between the 20 districts in which the gifted staff believed their program was of high quality and the three districts in which the gifted staff believed their program was of lesser quality. While the Gifted Program Survey Scores are based on the perceptions of the gifted staff taking the survey, one would expect that programs, in which the gifted staff reported high quality, would all have higher gain scores than programs reported to be of lesser quality. However, since no significant difference was found, it can be concluded that this was not the case. In fact, in many instances, programs which the staff reported as high quality actually had negative gains scores.

When the researcher tested Hypotheses 3 through 10, no significant correlations were found between *i*LEAP Scaled gain scores and Gifted Program Survey totals or for each of the survey's sub-parts. Based on these data for the 23 school districts, it can be concluded that many gifted faculty members who responded to the survey held beliefs about their programs which were not consistent with the gain scores in their districts. These inconsistencies prompted the researcher to conduct further statistical procedures.

When no significant relationships were found when testing Hypotheses 3 through 10, the researcher believed that further investigations into gifted program quality were warranted. When testing a post hoc hypothesis with the use of a t-test, the researcher found differences in the mean Gifted Program Survey Total scores between the 14 districts that had positive gifted gain scores and the nine districts with negative gifted gain scores. The researcher found that there was a significant mean difference in Gifted

Program Survey totals between the two types of districts. Districts with a positive gain score had a significantly higher mean on the Survey than the districts with negative gains. The researcher also discovered through the use of a MANOVA that there was a significant difference in Gifted Program Survey sub-scores for Student Identification, Program Design, and Curriculum and Instruction between the faculty of the 14 districts with positive gains and the faculty of the nine districts with negative gains. The researcher concluded from these findings that there was indeed a relationship between positive gifted student gains and the three sub-scores of the Gifted Program Survey, namely Student Identification, Program Design, and Curriculum and Instruction.

Discussion of Results

Faculties of gifted programs throughout the State of Louisiana strive to provide the best program possible for their students. However, sometimes it is difficult for someone on the inside to objectively look at his/her own program. While self-evaluation might be cost-effective and time-saving, gifted programs might benefit from inviting an outside evaluator to observe their program and to offer suggestions from time to time. Districts may even consider observing in neighboring districts in order to gather ideas as well as to offer helpful suggestions for improvement.

Even though there were no significant correlations between gain scores and gifted faculty survey responses on the Gifted Program Survey, 14 of the 23 districts were identified as having positive gain scores which speaks to the quality of their programs. Of the 14, all of the districts' Gifted Program Survey Totals were above 99, with total scores ranging from 103.50 to 141.33 out of a possible 165. These districts were located throughout the State of Louisiana, from the North to the South. Likewise, those programs

ranged in size from those serving less than 50 gifted students to those serving over 300. Services ranged from pull-out enrichment to acceleration. What these data suggest is that it is not important how large or how small a district is or where it is located: all districts have the potential to meet the needs of the gifted and to help those students to make positive academic gains.

The 14 districts with positive gains did not share all things in common, however. For example, the gifted staff members in these districts were not all certified in gifted education. In fact, in many cases, the teachers were the only persons certified to teach in the gifted program. Also, the experience of the gifted education staff members in these districts ranged anywhere from zero to three years of experience to more than ten years. Likewise, students in these districts spent as little as less than one hour per week to as much as five hours or more per week in gifted classes. Students in these districts had anywhere from zero percent to over 71 % of their content classes taught as a gifted class. However, of the districts with positive gains, regardless of location, size, certification of the staff or any other factor, there were several services which were offered in almost all of the programs: Pull-out/resource room classes were offered in all but one district; enrichment activities were offered in all but two districts; and differentiation of the regular education curriculum was offered in the vast majority of districts.

In this study, there were nine districts in which gifted students had a negative gain score. These districts were similar to the 14 districts with positive attributes in many ways. They ranged in size from programs with less than 50 students to programs with up to 300 students. The programs were located in all parts of the state and the gifted staff offered many different types of gifted services from enrichment to acceleration.

Similarly, these programs offered anywhere from less than one hour per week to as much as five hours or more per week in gifted classes. However, there were four districts in which at least one teacher of the gifted was not certified in the education of the gifted. Only one district of the nine had a supervisor who was certified in gifted education. Of the teachers responding to the survey in these districts, 73% of them had six years or less of experience in teaching the gifted in their district.

Implications for Practice

As the results of this study showed, pull-out/resource room activities are a simple but effective way to meet the academic needs of gifted students. Coangelo, Assouline, & Gross (2004) name the use of pull-out activities as an alternative to the use of acceleration. In many cases, what the students receive in pull-out classes is actually enrichment. Enrichment is a practice which is often used in the regular education classroom in order to meet the needs of the gifted. According to Brody (2004) the value of enrichment has led many districts to take the practices outside of the walls of the regular education classroom to encompass extracurricular activities, unique programs, and many other opportunities for the gifted student. Likewise, Coangelo, Assouline, & Gross (2004), state that enrichment is often used when a district is unable to offer acceleration. However, The National Association for Gifted Children cautions programs against offering enrichment alone (NAGC, 1994). Likewise, Colangelo, Assouline, & Gross (2004) stated that even if enrichment is a good program, it might not always meet the needs of some advanced students. However, enrichment may be the most cost effective way to meet gifted students' academic needs. A single teacher of the gifted can offer enrichment to a large number of students, therefore cutting down on the number of

teachers needed. While this is not the ideal situation, in these times of economic hardship when many gifted programs are feeling the sting of recession, it is comforting to know that districts of all sizes and with budgets in all ranges can still give their students much of what they need.

One thing that most programs are able to offer, including those included in this study, is differentiation of the curriculum. (Colangelo & Davis, 2003; Colangelo, Assouline, & Gross, 2004). Differentiation comes in many forms including acceleration, studying a topic in-depth, complexity, content that is advanced beyond the regular education curriculum, and variety (NAGC, 1994). This differentiation consists of a program that includes, but is not limited to, acceleration, enrichment, sophistication, and novelty (Coangelo & Davis, 2003). Differentiation of the regular education curriculum may be one of the most important ways in which gifted staff might continue to meet the needs of their students even when they are not present in the gifted classroom. When teachers of the gifted collaborate with regular education teachers, the gifted may be served during the entire school day, which may lead to higher academic achievement.

In order to both evaluate and implement gifted programs, some type of standards must be used as the benchmark and by which a program might improve. The National Association for Gifted Children Standards provides such benchmarks. Through years of research, they have developed the standards by which members of a gifted program might measure their program (NAGC, 2000). However, the standards are only useful when used in conjunction with honest and objective introspection. Hunsaker (2000) stated that documenting the impact or effectiveness of a gifted program is one of the crucial components of the evaluation process. The results of this study show that while many

programs think that they are meeting the academic needs of their gifted students, the gain scores of those students are often negative gains. In some cases, there is even evidence of gifted academic underachievement. Gifted education staff must recognize that their gifted students are not often living up to their potential and that the implementation of a gifted program that keeps the gifted students interested and engaged might stymie and even reverse the occurrence of underachievement (Emerick, 2004). However, ensuring that gifted students achieve at a high level is not only a job for supervisors, coordinators, and teachers of the gifted. Parents of the gifted must also be willing to recognize the signs and to work with gifted education staff as well as the gifted student in order to help them achieve at the highest level possible. Likewise, the gifted student must be made a part of the process so that he/she wants to achieve. Without cooperation and buy-in from the student, the gifted underachievement cycle cannot be broken. In fact, according to Heacox (1991) positive lasting change is more likely to take place when there is a partnership between the school, the student, and the home. Likewise, according to the findings of Emerick (2004), when students feel their needs have been met, both inside and outside of the classroom, those same students build the foundations to reverse negative educational trends from the inside out.

While cooperation and effort on the part of students, parents, and gifted education staff might start the process of academic achievement, there can be no true change in a program without the support, both in word and in deed, from the local administration. In short, gifted programs cannot thrive without the support of their district. The central office staff needs to understand that the gifted are our future. According to Colangelo, Assouline, & Gross (2004) the political wars in education have raged and in their midst

many believe that the best interests of the gifted children of our nation have been put aside. However, when we ensure that the academic needs of the gifted are being met we are investing in our future teachers, doctors, scientists- people who will change the world. Oftentimes, money is pumped into programs that, while fun or marginally beneficial, might never make a lasting difference for students academically. If districts want true returns for their investment, gifted programs are their best bet. Simply making sure that these students make it to high school graduation is a poor excuse for a vision of the future. If those in charge at the local, state, and federal levels want to shape the future, they need look no further than the gifted student. Likewise, if they want to increase School Improvement Scores, helping the gifted achieve an Advanced score gives them 200 points, whereas helping other students achieve a Basic score will only yield 100 points. Therefore, if administrative staff members want to see higher scores for their school, perhaps they should invest in the education of the gifted.

Recommendations for Further Study

While no significant correlations were found between gain scores of the gifted and Gifted Program Survey scores across all districts, a correlation might be found if different data were used. For instance, further research might be conducted using not one gain score for all gifted students in a district but rather using the individual scores from all gifted students in a district. Similarly, instead of using an average score from the Supervisor, Coordinator, and Teacher of the Gifted, all gifted education staff from all schools and departments across the district might be surveyed. In turn, these surveys might be correlated to all students' gain scores in order to test the hypothesis that there is no relationship between gain scores and Gifted Program Survey scores. With a larger data

set for each district, relationships might be observed at the district level. Likewise, different grade levels might be used to study gifted gains. For example, research could be conducted using gifted students' scores on the LEAP from 4th to 8th grades. Research could also be done by comparing rural gifted students to urban gifted students or by comparing gifted males to gifted females. Also, a better method of gathering surveys might ensure a better return. Through the use of an established on-line survey company, such as Survey Monkey, a researcher might be more likely to gather responses from all gifted personnel than by attaching a survey to an e-mail. Since the on-line survey program makes the survey simple to find and to take, respondents might be more likely to take the survey, thereby providing the researcher with a larger data set with which to work. Professional development focused toward training teachers of the gifted is also an area of research to be considered.

APPENDIX A

GIFTED PROGRAM SURVEY

Gifted Program Survey

(Based on the NAGC *Pre-K-Grade 12 Program Standards*)

Directions: Please read each question carefully and mark each answer clearly. If providing a written response, please be sure to write legibly or print.

1. Role: (Please choose one)
☐ **Supervisor**
☐ **Coordinator**
☐ **Teacher**

2. Do you have gifted certification? ☐Yes ☐No

3. How many years have you worked with the gifted program in this district including this year? (Please choose one)
☐ 0-3 years ☐ 4-6 years ☐ 7-10 years ☐ more than 10 years

4. What type of program do the gifted teachers in your district use to teach gifted students? (Please check all that apply)
Pull-out/ resource room
Full-day, all inclusive gifted classes
Acceleration
Grade skipping
Differentiation of the regular education curriculum
Enrichment
One Full-day during the regular school week
Other (please specify): _____

5. Please check the average number of hours per week the gifted students in your district receive gifted services/attend gifted classes (Please check one):
0 hours to <1 hour 1hour to <2 hours 2 hour to <3 hours
3 hours to <4 hours 4 hours to <5 hours 5 hours or more

6. What percentage of gifted students in your district receives gifted content instruction (i.e. gifted math or language arts or history, etc.)? (Please check one):
Zero to 10% 11 to 30% 31 to 50% 51 to 70% 71% to 100%

Based on your knowledge of <u>the process of student identification</u> in your district, please check how often you believe these things occur:

7. A comprehensive and cohesive process for student nomination has been established to determine eligibility.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

8. Instruments used for student assessment to determine eligibility for gifted services measure diverse abilities, talents, strengths, and needs.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

9. A student assessment profile of individual strengths and needs is developed for each gifted student in order to plan appropriate interventions.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

10. Student identification procedures and instruments are based on current theory and research.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

11. Written procedures for student identification include provisions for informed consent, student retention, student reassessment, student exiting and appeals procedures.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Based on your knowledge of professional development in your district, please check how often you believe these things occur:
12. A comprehensive staff development program is provided for all school staff involved in the education of gifted learners.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

13. Qualified personnel are involved in the education of gifted learners.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

14. School personnel are supported in their specific efforts related to the education of gifted learners (i.e. professional development is offered and funded by the district to educate the personnel and time off is given in order to further the education of the gifted).
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

15. The educational staff are provided with time and other support for the preparation and development of the differentiated education plans, materials, and curriculum.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Based on your knowledge of socio-emotional guidance and counseling of the gifted in your district, please check how often you believe these things occur:
16. Gifted learners are provided with differentiated guidance efforts to meets their unique socio-emotional development.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

17. Gifted learners are provided with career guidance services especially designed for their unique needs.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

18. Gifted at-risk students are provided with guidance and counseling to help them reach their potential.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

19. Gifted learners are provided with affective curriculum in addition to differentiated guidance and counseling services.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

20. Underachieving gifted learners are served rather than omitted from differentiated services.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Based on your knowledge of <u>gifted program evaluation</u> in your district, please check how often you believe these things occur:
21. Evaluation of our program is purposeful, addressing questions raised by all groups and including the needs and interests of all stakeholders.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

22. Evaluations of our program are efficient and economic.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

23. Evaluations of our program are conducted competently and ethically.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

24. Evaluation results are made available to all stakeholders through a written report.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Based on your knowledge of <u>gifted program design</u> in your district, please check how often you believe these things occur:
25. Rather than any single gifted program, a continuum of programming services exists for all gifted learners.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

26. Gifted education is adequately funded in our district.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

27. Gifted education programming evolves from a comprehensive and sound base (guided by a philosophy statement, goals and objectives, a continuum of services and submitted for outside review).
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

28. Gifted education programming services are an integral part of the general education school day.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

29. Flexible groupings of students are developed in order to facilitate differentiated instruction and curriculum.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

30. School policies include provisions for the needs of the gifted and gifted education policies exist for early entrance, grade skipping, ability grouping, and dual enrollment.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Based on your knowledge of <u>gifted program administration and management</u> in your district, please check how often you believe these things occur:

31. Appropriately qualified personnel direct services for the education of gifted learners.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

32. Gifted education programming is integrated into the general education program.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

33. Gifted education programming includes positive working relationships with constituency and advocacy groups, as well as compliance agencies.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

34. Requisite resources and materials are provided to support the efforts of gifted education programming.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Based on your knowledge of <u>curriculum and instruction used with the gifted</u> in your district, please check how often you believe these things occur:

35. Differentiated curriculum for the gifted learner spans grades pre-k through 12.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

36. Regular classroom curricula and instruction are adapted, modified, or replaced to meet the unique needs of the gifted learner.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

37. Instructional pace is flexible to allow for the accelerated learning of gifted learners as appropriate.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

38. Educational opportunities for subject and grade skipping are provided to gifted learners.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

39. Learning opportunities for gifted learners consists of a continuum of differentiated curricular options, instructional approaches, and resource materials.
☐ always ☐ often ☐ sometimes ☐ seldom ☐ never

Thank you for your participation in this survey.

APPENDIX B

HUMAN SUBJECTS CONSENT FORM

HUMAN SUBJECTS CONSENT FORM

The following is a brief summary of the project in which you are asked to participate. Please read this information before signing the statement below.

TITLE OF PROJECT: Gifted Academic Underachievement and Program Quality

PURPOSE OF STUDY/PROJECT: The purpose of this study is to ascertain whether there is a relation between the quality of gifted programs and the achievement of gifted students.

PROCEDURE: Gifted education supervisors, coordinators, and middle school teachers from 20 public school districts will voluntarily complete the Gifted Program Survey. Data will then be analyzed to determine gifted program quality. The program quality scores will then be compared to *i*LEAP gain scores to determine the relationship, if any, between program quality and the achievement of gifted students.

INSTRUMENTS: The Gifted Program Survey

RISKS/ALTERNATIVE TREATMENTS: The participant understands that Louisiana Tech is not able to offer financial compensation nor to absorb the costs of medical treatment should you be injured as a result of participating in this research.

The following disclosure applies to all participants using online survey tools: This server may collect information and your IP address indirectly and automatically via "cookies".

BENEFITS/COMPENSATION: None

I, _____, attest with my electronic signature and by returning this survey electronically that I have read and understood the following description of the study, "Gifted Academic Underachievement and Program Quality ", and its purposes and methods. I understand that my participation in this research is strictly voluntary and my participation or refusal to participate in this study will not affect my relationship with the Louisiana State Department of Education in any way. Further, I understand that I may withdraw at any time or refuse to answer any questions without penalty. Upon completion of the study, I understand that the results will be freely available to me upon request. I understand that the results of my survey will be confidential, accessible only to the principal investigators, myself, or a legally appointed representative. I have not been requested to waive nor do I waive any of my rights related to participating in this study.

Electronic Signature of Participant **Date**
(Type name here)

Note: By returning an electronic copy of this survey you agreeing to participate in this study.

CONTACT INFORMATION: **The principal experimenter listed below may be reached to answer questions about the research, subjects' rights, or related matters.**

Katrina Jordan (318-628-3557 or shrickfreak@aol.com)

Members of the Human Use Committee of Louisiana Tech University may also be contacted if a problem cannot be discussed with the experimenters:

Dr. Les Guice (257-3056)
Dr. Mary M. Livingston (257-2292 or 257-4315)

APPENDIX C

INTERNATIONAL REVIEW BOARD

APPROVAL FORM

DEPARTMENT HEAD APPROVAL FORM

TO: Project Directors

FROM: Barbara Talbot, Office of University Research
btalbot@latech.edu
318-257-5075 phone
318-257-5079 fax
http://research.latech.edu/

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE:

Please submit this page signed by your Department Head or Dean when submitting a proposal to the Human Use Committee for expedited approval. Their signature is stating that they are aware of this proposal and/or survey that is being conducted.

(print or type below)

Department

_____

Department Head Name

_____

_____ _____

Signature Date
(Actual original signature required)

REFERENCES

Aaron, H. J. (Summer, 1996). Snapshots of American education. *Brookings Review, 14*(3), 4-5.

Angelo, T. A. (1999). The campus as learning community: Seven promising shifts and seven powerful levers in Pescosolido & Aminzade, *The social worlds of higher education* (pp. 110-116). Thousand Oaks, CA: Pine Forge Press.

Archambault, F. S., Westberg, K. L., Brown, S. W., Hallmark, B. W., Emmons, C. L., & Zhang, W. (1993). *Regular classroom practices with gifted students: Results of a national survey of classroom teachers*. Storrs, CT: The National Research Center on the Gifted and Talented.

Bandura, A. (1963). *Social learning and personality development.* New York: Holt, Rinehart, and Winston.

Barrington, L., Casner-Lotto, J., & Wright, M. (2006). Are they really ready to work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century U.S. workforce (report number BED-06-WF-KF). Retrieved from the World Wide Web on August 2, 2009 from http://www.conference-board.org/pdf_free/BED-06-WF-KF.pdf

Betts, J. R. (1995). Does school quality matter? Evidence from the National Longitudinal Survey of Youth. *The Review of Economics and Statistics*, 77(2), 231-250.

Birch, J. W. (2004). Is any identification procedure necessary? In J. Renzuli (Ed.), *Identification of students for gifted and talented programs* (pp. 1-10). Thousand Oaks, CA: Corwin Press.

Brody, L. (2004). Introduction to grouping and acceleration practices in gifted education. In L. Brody (Ed.), *Grouping and acceleration practices in gifted education* (pp.xxiii-xxxii). Thousand Oaks, CA: Corwin Press.

Brophy, J., & Good, T. (1986). Teacher behavior and student achievement. In M. Whitrock (Ed.), *Handbook of research on teaching* (pp. 328-375). New York: Macmillan.

Carman, C. A., & Margison, J. A. (Winter, 2006). Relationships among traditional and modern constructs used in identifying giftedness. *Roeper Review, 28*(2), p.111

Cloud, J. (August, 2007). Failing our geniuses. *Time Magazine, 170*(9), 40-47.

Colangelo, N., & Davis, G. (Eds.). (2003). *Handbook of gifted education* (3rd ed.). Boston: Allyn and Bacon.

Colangelo, N., Assouline, S, & Gross, M. (2004). *A nation deceived: How schools hold back America's brightest students* (Vol.1). Iowa City, IA: The University of Iowa.

Coleman, J. (1966). *Equity of educational opportunity.* Washington, D.C. (FR Doc. OE-38001). Washington, DC: U.S. Government Printing Office.

Coll, R. K., & Zegwaard, K. E. (2006). Perceptions of desirable graduate competencies for science and technology new graduates. *Research in Science & Technological Education, 24*(1), 29-58.

Crosier, R. (Summer, 1982). The Prospect of mandating minimum competencies. *North Central Association Quarterly, 57*(1), 3-13.

ERIC Clearinghouse on Disabilities and Gifted Education (January, 2002). Evaluating gifted programs. Retrieved on July 5, 2004, from http://ericec.org/faq/gt-eval.html

Emerick, L. (1988). Academic underachievement among the gifted: Students' perceptions of factors that reverse the pattern. Unpublished doctoral dissertation, University of Connecticut, Storrs.

Emerick, L. (2004). Academic underachievement among the gifted: Students' perceptions of factors that reverse the pattern. In S. Moon (Ed.), *Social/emotional issues, underachievement, and counseling of gifted and talented students* (pp.105-119). Thousand Oaks, CA: Corwin Press.

Feldman, R. (2000). *Development across the lifespan* (2nd ed.). New Jersey: Prentice Hall.

Fournier, E. J. (2002). World regional geography and problem-based learning: Using collaborative learning groups in an introductory-level world geography course. *The Journal of General Education, 51*(4), 293-305.

Garner, B. A. (Winter, 2005). The year 2004 in grammar, usage & writing. *Green Bag, 8*(2d), 201–06.

Griffin, A., & Kaleba, K. (2006). Young Workers Lack Critical Skills. *T+D, 60*(12), 19.

Heacox, D. (1991). *Up from underachievement: How teachers, parents and students can work together to promote student success.* Minneapolis, MN: Free Spirit Publishing.

Huggins, E. M. (2004). A seamless P-16 system of education: Best practices high school reform. Retrieved from the World Wide Web on August 2, 2009 from http://web1.ode.state.or.us/teachlearn/specialty/pre-post/p16reformfinal.pdf

Hunsaker, S. (December, 2000). Documenting Gifted Program Results for Key Decision-Makers. *Roeper Review, 23*(2), 80-82.

IES National Center for Educational Statistics (2008). Number of gifted and talented students in public elementary and secondary schools, by sex, race/ethnicity, and state: 2004 and 2006. *Digest of Educational Statistics*. Retrieved on March 14, 2010 from http://nces.ed.gov/programs/digest/d08/tables/dt08_053.asp

Jencks, C., Smith, M., Acland, H., & Bane, M. (1972). *Inequality: A reassessment of the effect of family and schooling in America.* New York: Basic Books.

Johnson, J., & Duffett, A. (March, 2002). Reality check 2002. *Education Week, 21*(25), 1-8.

K., Carolyn (2010). Identification of gifted children. Retrieved on March 14, 2010 from http://www.hoagiesgifted.org/identification.htm

Kanevesky, L., & Keighley, T. (Fall, 2003). To produce or not to produce? Understanding boredom and the honor in underachievement. *Roeper Review, 26*(1), 20-28.

Karnes, F., & Shaunessy, E. (Summer, 2004). The application of an individual professional development plan to gifted education. *Gifted Child Today, 27*(3), 60-63.

Keighley, T. (1996). The odyssey: Reaching an understanding of academically underachieving gifted students' perceptions of boredom. Unpublished master's thesis, Simon Fraser University, British Colombia, Canada.

Kolb, K., & Jussim, L. (September, 1994). Teacher expectations and underachieving gifted children. *Roeper Review, 17*(1), 26-30.

Law, B. W. (1959). Factors contributing to underachievement in a rapid learner. *Gifted Child Quarterly, 3* (79), 79-81.

Louisiana Department of Education (2000). *Regulations for implementation of the children with exceptionalities act: Bulletin 1706.* Retrieved June 19, 2009 from http://www.doe.state.la.us/lde/uploads/1418.pdf

Louisiana Department of Education (2003). *Guidelines for gifted evaluation.* Retrieved July 5, 2004, from http://www.doe.state.la.us/lde/misc/pub.asp

Louisiana Department of Education (2005). *iLEAP assessment guide: English, language arts, math, science, and social studies grade 6.* Retrieved August 2, 2009 from http://www.doe.state.la.us/lde/uploads/7775.pdf

Louisiana Department of Education (2007). *iLEAP 2007 annual report.* Retrieved June 18, 2009, from http://www.doe.state.la.us/lde/uploads/11494.pdf

Louisiana Department of Education (2008). *iLEAP 2008 technical summary.* Retrieved June 19, 2009 from http://www.doe.state.la.us/lde/uploads/13125.pdf

Louisiana Department of Education (2009). *i*LEAP interpretive guide: Grades 3, 5, 6, 7, and 9. Retrieved August 2, 2009 from http://www.doe.state.la.us/lde/uploads/9725.pdf

Louisiana Department of Education (May, 2009). The Pupil Appraisal Handbook (Bulletin 1508). Retrieved August 2009 from http://wwwprd.doa.louisiana.gov/laservices/publicpages/ServiceDetail.cfm?service_id=2316

Louisiana Department of Education (December, 2009). The Louisiana School, District, and State Accountability System: Bulletin 111. Retrieved March 17, 2010 from http://www.doe.state.la.us/lde/bese/1041.html

Loveless, T., Farkas, S., & Duffett, A. (2008). *High-Achieving Students in the Era of NCLB (Thomas Fordham Institute Report).* Retrieved June 18, 2009, from http://www.edexcellence.net/doc/20080618_high_achievers.pdf

Maker, C., & Nielson, A. (1996). *Curriculum development and teaching strategies for gifted learners,* (2nd ed.). Austin, TX: Pro-Ed Inc.

Marzano, R., Pickering, D., & Pollock, J. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Alexandria, VA: Association for Supervision and Curriculum Development.

Mental Measurements Yearbook (1991). The gifted program evaluation survey. Retrieved July 3, 2004, from Louisiana Tech University Web site: http://www.latech.edu/tech/library/

Moore, B. J. (1996). Three case studies of gifted students who underachieve in high School. Unpublished doctoral dissertation, University of Virginia, Charlottesville.

National Association for Gifted Children (1994). Position paper: Differentiation of curriculum and instruction retrieved from the World Wide Web from www.nagc.org/index.aspx?id=387 on July 7, 2009.

National Association for Gifted Children (2000). *Pre-k-grade12 gifted program standards.* [Brochure]. Washington, D.C.: NAGC.

National Association for Gifted Children (2008a). *Common gifted education myths* retrieved from the World Wide Web from www.nagc.org/myths.aspx on July 7, 2009.

National Association for Gifted Children (2008b). *Frequently asked questions* retrieved from the World Wide Web from www.nagc.org/index2.aspx?id548 on July 7, 2009.

National Association for Gifted Children (2008c). *State by state statistics* retrieved from the World Wide Web from www.nagc.org/index.aspx?id=637 on July 7, 2009.

Neal, D., & Schanzenbach, D. (2007). Left behind by design: Proficiency counts and test-based accountability. National Bureau of Economic Research Working Paper Number W13293 retrieved from http://economics.uchicago.edu/neal_schanzenbach_oct_24.pdf on the World Wide Web on September 23rd, 2008.

Office of Elementary and Secondary Education. (1987). *Jacob J. Javits gifted and talented children and youth education act, and office of comprehensive school health education act of 1987*(FR Doc. E8–8589). Washington, DC: U.S. Government Printing Office.

O'Grady, A. L. (1995). The onset of academic underachievement among gifted adolescents: Causal attributions and the perceived effect of early interventions. Unpublished doctoral dissertation, University of Connecticut, Storrs.

Ornstein, A., & Levine, D. (2003). *Foundations of education* (8th ed.). Boston: Houghton Mifflin Company.

Peterson, J. S. (October, 2006). Addressing counseling needs of gifted students. *Professional School Counseling, 10*(1), 43-51.

Posavac, E., & Carey, R. (2003). *Program evaluation: Methods and case studies* (6th ed). New Jersey: Prentice Hall.

Purcell, J., & Eckert, R. (Eds.). (2006). *Designing services and programs for high-ability learners: a guidebook for gifted education.* Thousand Oaks, CA: Corwin Press.

Rayneri, L., & Gerber, B. (Winter, 2004). Development of a student perception inventory. *Roeper Review, 26*(2), 90-95.

Rayneri, L., Gerber, B., & Wiley, L. (Summer, 2003). Gifted achievers and gifted underachievers: The impact of learning style preferences in the classroom. *Journal of Secondary Gifted Education, 14*(4), 197-204.

Reis, S., & McCoach, D. (Summer, 2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly, 44*(3), 152-170.

Reis, S. (2003). Reconsidering regular curriculum for high-achieving students, gifted underachievers, and the relationship between gifted and regular education. In J. Borland (Ed.), *Rethinking gifted education* (pp.186-200). New York: Teachers College Press.

Reis, S. (2004). Series introduction. In J. Renzulli (Ed.), Identification of students for gifted and talented programs (pp. ix-xxi). Thousand Oaks, CA: Corwin Press.

Renzulli, J. S. (1976). The enrichment triad model: A guide for developing defensible programs for the gifted and talented. *Gifted Child Quarterly, 20,* 303-326.

Rimm, S. (2003). Underachievement: A national epidemic. In N. Coangelo & G. Davis (Eds.), *The handbook of gifted education* (3rd ed) (pp. 483-492). Boston, MA: Pearson Education, Inc.

Roets, L. (1999). *How to survive and thrive as educator of gifted and talented students,* (4th ed). Des Moines, Iowa: Leadership Publishers Inc.

Rogers, K. (2007). Lessons learned about educating the gifted and talented: A synthesis of the research on educational practice. *Gifted Child Quarterly, 51*(4), 382-396.

Rosenfeld, E. (October, 2005). High school and college: The skills disconnect. *Teacher Librarian, 33*(1), 6.

Salinger, T. (2007). Setting the agenda for adolescent literacy in J. Lewis & G. Mooreman (Eds.) *Adolescent literacy instruction: Policies and promising practices* (p. 3-19). Newark, DE: International Reading Association.

Saunders, R. (2009). Fostering employer investment in workplace learning: Report on a series of regional roundtables. Ottawa, Canada: Work and Learning Knowledge Centre and Canadian Policy Research Networks.

Shultz, R. (1999). Illuminating learner realities: Perceptions, expectations, and experiences of gifted underachievers in a secondary school classroom. Unpublished doctoral dissertation. Kent State Iniversity, Kent, Ohio.

Shultz, R. (Summer, 2002). Illuminating realities: A phenomenological view from two underachieving gifted learners. *Roeper Review, 24*(4), 203-209.

Schultz, R., & Delisle, J. (2003). Gifted adolescents. In N. Coangelo & G. Davis (Eds.), *The Handbook of Gifted Education* (3rd ed) (pp. 483-492). Boston, MA: Pearson Education, Inc.

Spevak, P., & Karinch, M. (2006). *Empowering underachievers: New strategies to guide kids (8-18) to personal excellence* (Rev. ed.). Far Hills, NJ: New Horizon Press.

Sternberg, R. (2004). Introduction to definitions and conceptions of giftedness. In R. Sternberg (Ed.), *Definitions and Conceptions of Giftedness* (pp. xxiii-xxvi). Thousand Oaks, CA: Corwin Press.

VanTassel-Baska, J., & Little, C. (2003). *Content-based curriculum for high-ability learners.* Washington, D.C.: Prufrock Press.

VanTassel-Baska, J. (2006). A content analysis of evaluation findings across 20 gifted programs: A clarion call for enhanced gifted program development. *Gifted Child Quarterly, 50*(3), 199-215.

VanTassel-Baska, J., & Brown, E. (2007). Toward best practice: An analysis of the efficacy of curriculum models in gifted education. *Gifted Child Quarterly, 51*(4), 342-358.

Warren, J. R., Grodsky, E., & Lee, J. C. (January, 2008). State high school exit examinations and postsecondary labor market outcomes. *Sociology of Education, 81*(1), 77-107.

Watson, J. (1914). *Behavior, an introduction to comparative psychology.* New York: Holt.

Wiersma, W. (2000). *Research methods in education.* Boston: Allyn and Bacon.

VITA

Katrina Woolsey Jordan is a native of Louisiana where she graduated with high honors from the University of Louisiana at Monroe (formerly Northeast Louisiana University). She completed the requirements for a Bachelor of Arts degree in elementary education. Jordan attended graduate school at Northwestern State University where she earned a Masters of Education in Early Childhood Education.

Jordan began her teaching career in a private school in Monroe, Louisiana. Later, she moved to Winnfield, Louisiana, where she taught pre-k for five years. She began teaching Gifted Academic classes as an itinerant teacher for Winn Parish. She was also named the Coordinator of the gifted program in that parish. During this time she was named the Louisiana Association of Computer Using Educators Middle Teacher of the Year in 2006 as well as the Hoagie's Gifted Teacher of the Year in 2009. It was also during this time that Jordan began working toward a doctorate in Curriculum and Instruction with a cognate in Special Populations at Louisiana Tech University in the Louisiana Educational Consortium with the University of Louisiana at Monroe and Grambling State University.

Jordan is an active member of Winnfield First Baptist Church and Phi Kappa Phi Honor Society as well as Pilot Club Intentional and many other service organizations.