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## Selection Criteria For Identifying Gifted And Talented Minority Students In Grades One Through Five In Central Mississippi

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Selection Criteria for Identifying Gifted  
and Talented Minority Students in Grades One through Five in Central Mississippi

A Dissertation  
presented in partial fulfillment of requirements  
for the degree of Doctor of Education  
in the Department of Curriculum and Instruction  
The University of Mississippi

by

TRACEY R. BELL

May 2012

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## ABSTRACT

The purpose of this study was to (a) evaluate and discuss strengths and weaknesses in the current system of identifying gifted students and (b) investigate the effectiveness of using the Naglieri Nonverbal Abilities Test to identify underrepresented and gifted minority students in grades one through five in Central Mississippi. The study consisted of 12 students who were screened using the traditional method of testing and 53 students who were screened using the alternative method of testing.

This study attempted to explore strengths and weaknesses in the current system's minority gifted identification process. The alternate screening process did not demonstrate the ability to select students for participating in gifted programs. There was a significant difference from the traditional assessment. In fact, it was the traditional criterion that was responsible for identifying a significant difference in the selection of students for this particular study.

## DEDICATION

I dedicate this dissertation to my sister, Erica Bell. I am so blessed to be your sister. Thank you for your patience, your encouragement, and your willingness to hang in there with me. Your life is a true testimony of God's power of restoration and healing. Always remember how God restored Job. He is the same God that is restoring you and will continue to restore you with His best. You deserve it! I also dedicate this dissertation to my parents, Barbara and Donnie Bell. Thank you both for your prayers, patience, encouragement, and faith. I appreciate your guidance and reminding me that "the race is not given to the swift, but to the one who endures until the end". To my grandmother, Pinkie Willis, who is a 100-year-young Educator. You are a breath of fresh air, Granny. Thank you for being the pillar of strength that you are. You are a great example of God's grace. I love you all!

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## CHAPTER I

### INTRODUCTION

Assessing students using the traditional method of testing seems to be an unbalanced approach in identifying gifted minority students (Skiba, Simmons, Gibb, Rausch, Cuadrado, & Chung, 2008). Over the past years, studies have indicated a lower performance level on achievement tests among minority students when compared to non-minority students. With this disparity, the achievement gap remains prevalent. This may suggest the existence of an achievement gap based on a continuous emphasis on standardized testing (King, Kozleski, & Lansdowne, 2009). According to Bonner (2000), standardized tests measure in two approaches: a) “Do you know what I know” and b) “What is it that you know”? “The language, culture, and experiences of the individuals who construct these tests become the prevailing benchmarks of success. The tests then become a measure of which students have a better grasp of White, middle-class culture-not what knowledge and information has been learned” (p. 646). Bonner (2000) also pointed out that standardized tests have their place; however, they are not the only indicator of a child’s giftedness.

Identifying a child as gifted based on standardized tests alone is failing to get to know the child as a whole. Teachers, policyholders, and school districts often possess a one-sided perspective of identifying giftedness, especially with minority students. They fail to realize the significance of differentiating testing just as we differentiate instruction. Using an alternate

approach in allowing minority students to demonstrate their level of ability in completing nonverbal abilities tests, would open the doors for more to be identified.

### *Problem Statement*

The purpose of this study was to (a) evaluate and discuss strengths and weaknesses in the current system of identifying gifted students and (b) investigate the effectiveness of using the Naglieri Nonverbal Abilities Test to identify underrepresented and gifted minority students in a Central Mississippi school district.

### *Research Questions*

The following research questions guided the areas of inquiry.

1. What was the percentage of minority students referred to gifted programs initiated by teachers, parents and others?
2. What advantages did the Naglieri Nonverbal Abilities Test present in identifying underrepresented minority populations?
3. Was the Naglieri Nonverbal Abilities Test an effective instrument for identifying potentially gifted students in an underserved population?

### *Study Hypotheses*

H<sub>1</sub>: There will be no significant difference between the proportion of students selected and rejected by the traditional gifted education process compared to the number of students selected and rejected by an alternate gifted education process.

H<sub>2</sub>: There will be no significant difference between the overall grade point averages (GPA) of students selected using traditional criteria compared to the overall grade point averages of students selected using alternative criteria.

### *Significance of the Study*

As our school populations continue to increase with minority students, noticeably the minority representation in many gifted and talented programs has not increased (Ford, Grantham, & Whiting, 2008). Kornhaber (1999) associates this “disproportionate representation with the implementation of traditional assessments, teacher and parent referrals, IQ tests, and standardized tests” (p.144). This study revealed insight on the impact the type of assessment had on a student’s opportunity to proceed through the screening process. In addition, information concerning initial referrals, nonverbal assessments and the relationship of grade point averages and screening criteria were revealed.

Identification disparities can stem from many areas. They often begin with the attitudes of teachers, parents, administrators, and even pre-service teachers. Pre-service teachers who are training to become a facilitator of learning would benefit from classes that provide knowledge and application of giftedness. Bangel, Moon and Capobianco (2010) researched the perceptions and experiences of preservice teachers who had no prior training with gifted and advanced learners. The selected participants were undergraduate elementary education preservice teachers who chose to enroll in an online gifted education course. The preservice teachers were also first-time instructors in a Saturday practicum. The purpose of this study was to measure the effectiveness of two training models in developing an awareness of gifted students’ needs. The two models or “training strategies” consisted of (a) “an online course created to introduce specific concepts about gifted education and (b) field experience as an instructor related to an enrichment program that was held on Saturdays” (p. 210). As a result of these strategies, research revealed that participants lacked prior training with gifted students in their

teacher education program. The preservice teachers gained more knowledge through their field experiences and the online gifted education course. In addition, participants grew in their abilities in teaching advanced learners. “Confidence and realistic perceptions about the needs of gifted learners were developed as a result of this study” (p. 215). Gaining a deeper understanding of giftedness will equip teachers with the knowledge needed to better identify any student who displays gifted characteristics.

Trent, Kea and Oh (2008) indicated that the current focus was primarily on the incorporation of multicultural education in pre-service general and special education teacher preparation programs. The data they reviewed included a total of 46 studies, 39 of which were from general education and seven from special education teacher programs. Through Trent, Kea, and Oh’s (2008) research, the impact of teacher and parental involvement in the identification process of gifted minorities were essential.

Ford, Grantham, and Whiting (2008) proposed that efforts targeting recruitment and retention barriers were imperative in curtailing the under representation of African Americans, Hispanics/Latinos, and American Indians in gifted programs employing a referral process. Some referral factors were related to teacher attitudes, intelligence theories, testing, and other issues within the referral process (Ford et al, 2008). These factors will be discussed in more detail later in this research.

### *Limitations*

Only students who returned their consent forms for initial screening participated in the study. The importance of the study was shared with the teachers in order to share with the students’ parents. When needed, the researcher contacted parents through email or phone to reiterate the importance of the study. Due to the time restraints, a certified gifted

instructor from the neighboring school research site agreed to assist the researcher in retrieving the traditional prescreening data, which included the RAVENS, the grade point averages, birthdates, and homeroom teacher information.

### *Delimitations*

This present research is based on participants only from Central Mississippi. Subjects are from rural environments, many of which are from low socioeconomic status. Only 1<sup>st</sup> -5<sup>th</sup> grade students participated in this study. Parental involvement and parental background was limited, which was considered a delimitation.

### *Terms and Definitions*

1. Intellectually gifted means being identified as “a child or youth who has high intellectual ability” (Mississippi Department of Education, 2006).
2. Nontraditional Testing: The term nontraditional assessment can be defined as a non-standardized test, for this study, nonverbal tests.
3. Performance-based assessments can be defined as assessments where students perform a variety of tasks in a given setting such as logical reasoning, problem solving skills and analytical skills (Lewis, DeCamp-Fritson, Ramage, McFarland, & Archwamety, 2007).
4. DISCOVER is an acronym for Discovering Intellectual Strengths and Capabilities through Observation while allowing for Varied Ethnic Responses (Sarouphim, 2004).
5. Cultural diversity is the diverse population of minority groups represented (Baldwin, 2004).

6. Multicultural education is education implemented to increase respect, understanding, tolerance, awareness, and acceptance of others in the diversity of their cultures (Irwin, 1999).

### *Organization of the Study*

The following chapters address the literature review and methodology. Chapter II presents a theoretical background on giftedness, its history, minority representation, possible reasons of underrepresentation, and possible solutions to better identify underrepresented populations. This review is organized and centered on possible causes of gifted minority students and their under representation in gifted programs. The review of literature provides research on nonverbal alternate-based assessments and its effectiveness in identifying gifted minority students. Chapter III discusses a description of the participants, the instruments used, the procedures used in the collection and analysis of data. Chapter IV of the study discusses the collection of data followed by Chapter V, which discusses the results of the study.

CHAPTER II  
REVIEW OF LITERATURE

*Introduction*

Gifted education involves four areas of giftedness: intellectual, academic, artistic, and creative. The state of Mississippi defines gifted as the following (Miss. Code Ann. §§37-23-171-181):

1. "Intellectually gifted children are found to have an exceptionally high degree of intelligence as documented through the identification process".
2. "Academically gifted children are found to have an exceptionally high degree of demonstrated academic ability as documented through the identification process".
3. "Artistically gifted children are found to have an exceptionally high degree of creativity and an exceptionally high degree of ability in the visual arts as documented through the identification process".
4. "creatively gifted children are found to have an exceptionally high degree of creativity and an exceptionally high degree of ability in the performing arts as documented through the identification process".

The Mississippi Gifted Education Act of 1989, amended in 1993, "requires that each public school district in the state of Mississippi provide a gifted education program for

those students who are identified as intellectually, academically, artistically, and creatively gifted” (Miss. Code Ann. §§ 37-23-171-181). These programs are provided to meet the intellectual, academic, artistic, and creative needs of students in grades 2-12 and in addition to the regular classroom instruction.

To ensure that students are identified and offered the opportunity to participate in the gifted program, one must be able to recognize the characteristics of giftedness. There are both positive and negative characteristics of gifted students including gifted minority students.

### *History of Giftedness*

Giftedness dates back as far as the 1920s. This term can be credited to Dr. Guy Whipple, who was a psychologist and member of the American Psychological Association’s Committee along with Lewis M. Terman. Whipple’s works can be contributed to the application of mental testing to adjusting the instruction for gifted students. His research “introduced the issue of educating gifted students to a larger audience of educators” (Jolly, 2007, p. 55). Whipple’s years of research involved researching, writing, and serving as editor for the 23<sup>rd</sup> National Society for the Study of Education Yearbook. As he researched and wrote for *Classes for Gifted Children of 1920*, Whipple began referring to “bright children” as “gifted children” (Jolly, 2007, p. 55). Therefore, “we owe the term ‘gifted’ as the standard designation of children of supernormal ability” (Henry, 1920, as cited in Jolly, 2007).

Whipple served with Lewis M. Terman, who was a fellow psychologist, on the American Psychological Association’s Committee. These two forefathers of “giftedness” had strong faith in the application of psychology and the concept of intelligence. According to Terman’s definition of giftedness, the concept of intelligence could be measured by an intelligence test. As a continuation of Binet’s studies, Terman transformed the Binet-Simon intelligence scale into the



Stanford-Binet intelligence scale for the American culture. His revision was a compilation of norming data that helped to establish three areas: a) “extension of the lower and upper age ranges, b) established uniform procedures for administration and scoring, and c) provided newly developed test items (Jolly, 2007, p. 16). Students who scored in the top 1% of the normal distribution curve were considered gifted; thusly, identifying an IQ score of 140 as gifted (p. 16).

Similar to Whipple and Terman, Leta Hollingsworth was a pioneer in the field of gifted education in the early 1920s. She was influenced by previous pioneers such as Alfred Binet, Alfred Yoder, James Cattell, and Francis Galton. Hollingsworth frequently referred to Cattell’s research studies about giftedness and intelligence. Galton and Binet were both considered the catalyst for breaking grounds of gifted education (Jolly, 2005, p. 14). Hollingsworth held similar beliefs as Terman, except in one major area. They both believed in one’s mental ability to possess intelligence; however, Hollingsworth believed that giftedness was inherited and could be nurtured through one’s educational and environmental factors. She believed those two factors played instrumental roles in a child’s potential development (Plucker, 2001). As a result of her beliefs, Hollingsworth developed a greater interest in how to effectively nurture and instruct gifted students.

Like Hollingsworth, Whipple noted the importance of nurturing an individual’s learning needs. He believed in the “science of psychology and its application to education” (Jolly, 2007, p. 55).

To anyone who notes the evolution of educational thought and practice, it must be evident that one of the most clearly evident tendencies the present day is the “psychologizing” of instruction-fitting of educational agencies to the needs of the individual pupil. For several years we have recognized the needs of pupils of subnormal

mentality. We now perceive more clearly the even more crying needs of pupils of supernormal mentality. (Henry, 1920 as cited in Jolly, 2007, p. 55)

### *Theoretical Framework*

Howard Gardner proposes these nine areas of intelligence as linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, intrapersonal, interpersonal, naturalist, and existential. These intelligences shape the foundation of differentiated instruction, specifically for gifted and talented students. Provided the educational and environmental stimulation, similar to Leta Hollingsworth's beliefs, these students may develop talents in other areas of intelligence.

1. Linguistic Intelligence is the ability to think in words and use language to express complex meanings.
2. Musical Intelligence is the ability to discern pitch, tone, rhythm, and timber.
3. Logical-mathematical Intelligence is the ability to calculate and process mathematical operations.
4. Spatial Intelligence is the ability to manipulate images, think in three dimensions, spatial reasoning skills and artistic skills.
5. Bodily-kinesthetic Intelligence is the ability to manipulate objects and use a variety of physical skills to accomplish a task through mind-body movements.
6. Intrapersonal Intelligence is the ability to understand oneself and one's thoughts and feelings.
7. Interpersonal Intelligence is the ability to understand and effectively act with others.
8. Naturalist Intelligence is the ability to have sensitivity towards nature and the natural world.

9. Existential Intelligence is having the sensitivity and capacity to address thought provoking questions about human existence. (Gardner, 2012, “The Nine Types of Intelligences”)

These areas of intelligences make it clear to educators that instruction must be adjusted to meet the needs of each individual learner, including the gifted. In the Charlotte-Mecklenburg school district, thousands of students have been challenged by a curriculum designed for their multiple intelligences. The school district’s gifted population, which is 12,000-14,000, made up about 10 percent of the total 2<sup>nd</sup> through 5<sup>th</sup> grade population. This school district transformed their 1961 Gifted Program to a program that based their assessments, curriculum development, and teaching strategies on Gardner’s multiple intelligences. With Gardner’s perspective on giftedness offered in *Frames of Mind (1983)*, the Charlotte-Mecklenburg school district deemed it necessary to broaden the identification of intelligences through finding and solving problems (Reid & Romanoff, 1997, p. 71). Their program mirrors Gardner’s definition of intelligence: “the ability to solve a problem or make something that is valued by a culture” (p. 71).

As an implementation of Gardner’s intelligences, the Charlotte-Mecklenburg school district used a problem-solving assessment to identify gifted students. The assessment measured spatial, linguistic, and logical-mathematical while involving creative, analytical, and problem-solving skills. The process also included the problem-solving approaches of Joseph Renzulli’s 3-Ring Conception Model. Similar to Gardner, Renzulli (2011) believed giftedness involved above-average ability, task commitment, and creativity. According to Renzulli, “giftedness needed to be redefined to encompass above-average thinking, task commitment, and creativity-3 key ingredients to identify true giftedness” (p. 83). Contrary to North Carolina’s traditional standardized IQ and achievement tests in identifying gifted students, a two-fold identification

system was enforced: preassessment and assessment. This two-fold system increased the numbers of gifted students with “less socioeconomic bias” (Reid & Romanoff, 1997, p.72). Twenty-six percent of those students placed (12,000-14,000) came from low-socioeconomic status backgrounds.

In the preassessment phase the regular classroom teachers and coteachers provide opportunities for students to solve problems similar to those during the assessment phase. The lessons incorporate the state’s standards, the multiple intelligences, and problem-solving. The teacher and coteacher, who was the program’s gifted teacher, observed the students’ problem-solving behavior, examined and scored the students’ work. The students’ work was saved in a portfolio and reviewed over time. This method of evaluation encouraged the teachers to develop teaching strategies that enhanced the students’ problem-solving skills (Reid & Romanoff, 1997, p. 72).

In the assessment phase, trained observers administered the assessment. The observers took careful notes of students on individual observation cards as the students completed various problem-solving activities. These observation cards included a list of problem-solving behaviors researched by Maker and colleagues (1994). The performance scale ranged from always evident, strongly evident, evident, or not evident. If a student scored always evident or strongly evident in two out of the three intelligences, the team of observers identified the child as having high areas of intelligence; therefore, eligible to receive gifted services (Reid & Romanoff, 1997, p. 73). The results of Reid and Romanoff’s research indicated that students identified as gifted performed 17%-20% better on standardized math and reading tests than do students who were referred but not identified as gifted. These findings; however, were not limited to gifted students alone.

Through their research, it was proven that a creative and thought-provoking classroom contributed to producing a higher number of students who were effective problem-solvers.

### *Minority Representation of Giftedness*

Disparities in the representation of African American students enrolled in gifted programs can be documented as early as 1936. Jenkins (1936) conducted a study which concluded that regardless of an African American student's high intelligence score, he or she was less likely to be identified as gifted (Ford, Grantham, & Whiting, 2008, p. 289). Since that time, researchers have made some progress, but have yet to make significant gains in the area of minority representation of giftedness. In Ford's 1998 review of reports on gifted minority representation, it was found that there was a continuous underrepresentation of African American, Hispanic/Latino American, and American Indian students. After reviewing over two decades of trend reports, Ford concluded that "these students were consistently overlooked in gifted education" (p.4). Between 1966-1996, 9,801 articles focused on giftedness; however, only 795 of those articles (8%) focused on gifted minorities, 1.1% of those articles focused on Hispanic American students, 1.3% focused on American Indian students, 5% focused on African American students, and 6% focused on Asian American students. The articles written during that time period were not suggestive in providing reasons for disparities among minorities in gifted programs.

The Office for Civil Rights Report in 1992, reported 25,077,421 students enrolled in public schools. Minorities made up the following percentages: 1% American Indian, 4% Asian American, 13.7% Hispanic American, 21.1% African American, and 60% White (Non-minority). The overall population of student enrollment consisted of at least 40%.

Further analysis indicated that 1,412,011 students were identified as gifted (5.7%) at the time of the Office for Civil Rights Report in 1992. Of those students identified as gifted, .5% was American Indian, 7% were Asian American, 7.9% were Hispanic American, 12.1% were African American, and 72.4% were White. In 1992, African American students represented 21.1% of the school population but 12% of gifted education—an underrepresentation of 41%. Further, Hispanic American students were underrepresented by 42%, and American Indians were underrepresented by 50%. Conversely Asian American students were overrepresented by 43% and White students were overrepresented by 17%. (Ford, 1998, p. 5)

These numbers produced national concern, which later contributed to the Jacob K. Javits Gifted and Talented Education Act of 1988. This national mandate began “an intervention that targeted minority students in low-socioeconomic areas while giving top consideration in identifying those students who were limited English proficient, handicapped, economically disadvantaged and gifted minorities” (Sec. 3063 (a)(1)). In essence, the goal of the Jacob K. Javits Gifted and Talented Education Act of 1988 was established “to provide financial assistance to State and local educational agencies, to initiate a coordinated program of research, designed to build a nationwide capability in elementary and secondary schools to meet the special educational needs of gifted and talented students” (Sec. 3062(b)). Shortly after the Jacob K. Javits Gifted and Talented Education Act of 1988 was established, the United States Department of Education established a “culturally inclusive definition of giftedness”:

Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capacity

in intellectual, creative, and/or artistic areas, and unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor. (United States Department of Education, 1993, p. 3)

### *Possible Reasons of Underrepresented Gifted Minorities*

The low gifted minority representation continues to exist due to several factors within a school district: teacher perceptions of gifted minority students, referral sources, and types of assessments used to identify gifted minority students. Many researchers have become concerned about the reliability of teacher referrals. Researchers High & Udall (1983), Kitano & Kirby (1986), and Woods & Achey (1990), all believe that teachers sometimes have negative perceptions or low expectations of students from culturally and linguistically diverse backgrounds; consequently, resulting in low referral rates for minority gifted and talented students. Similarly, Hadaway and Marek-Schroer (1992) believed that “teachers may assume a student is not gifted based on a child’s language proficiency in their first and second language, their use of ‘nonstandard’ English, accent, differing values, aspirations, and levels of motivation” (p. 74).

Elhoweris, Mutua, Alsheikh, and Holloway (2005) conducted a study that examined the effect of students’ ethnicity on teachers’ perceptions of referring students for gifted programs. This study explored 207 elementary school teachers from a large Midwestern school district. The sample was chosen from 16 elementary schools in three different geographical areas of a Midwestern city. Ninety-two percent of the participants were women and 8% were male. These participants were selected by stratified cluster sampling. Eighty-three percent of the participants

were European American, 11.1% were African American, and 5.9% were other. The instrument was a brief detailed vignette about a student who displayed gifted characteristics and would qualify for eligibility in the gifted program. The instrumentation derived from research-based descriptions retrieved from textbooks by Hallahan and Kauffman (2000). After reading the vignette, the teachers were asked two questions: “(1) the student should be referred for a comprehensive evaluation for possible placement in a gifted and talented student program. (2) I feel this student should be placed in a gifted and talented student program”. The responses were rated on a 6-point Likert scale ranging from 1) strongly agree, 2) disagree, 3) slightly disagree, 4) slightly agree, 5) agree, and 6) strongly agree. One third of the participants were given information that the student mentioned in the vignette was European American; one third of the participants were provided information that the student was African American; and one third served as the control group.

The researcher held a meeting to explain the purpose of the study and that its purpose was to gain information about their perceptions of giftedness and factors in identifying giftedness. The participants completed the rating sheets and consent forms in 15 minutes. The teachers’ referral and placement decision were the dependent variables. The effects of the students’ ethnicity were explored using multivariate analysis of variance (MANOVA). The MANOVA results indicated a significant effect for ethnicity,  $F(4,400) = 2.406, p < .05$ . The between-subjects MANOVA results showed a significant effect for the student’s ethnicity,  $F = 4.807, p < .05$ . To conclude, this means the child’s ethnicity made a difference for the teachers’ referral decision. The placement decision recommendations revealed there was not a function of the students’ ethnicity (Elhoweris, et. al, 2005). In summary, this study indicated that students’ ethnicity makes a difference in a teacher’s decision for a gifted referral.



Contrary to the beliefs teachers are not reliable referral sources, McBee (2006) indicated that “automatic and teacher referrals were much more valuable than other referral sources” (p. 103). Hunsaker, Finley, and Frank’s (1997) study trained teachers to use the Scales for Rating the Behavioral Characteristics of Superior Students and to better recognize gifted characteristics in students from culturally and linguistically diverse backgrounds (p. 104). The results of this study revealed that teachers’ perceptions and ratings on the SRBCSS were correlated with students’ performances in gifted classes. In McBee’s study, it was stated that pioneering researchers, Renzulli and Delcourt, criticized the “teacher predicts IQ approach” (p. 104). McBee credits teacher nominations being a reliable referral source to the research conducted by Renzulli, Delcourt, Gagné, Pagnato, and Birch. The descriptive analysis carried out by McBee consisted of a population dataset from the state of Georgia. The data included nomination sources in the categories of automatic referrals, teacher referrals, parent referrals, self-referrals, peer referrals, and other referral sources.

Automatic referrals were those of students who scored at or above the 90<sup>th</sup> percentile on standardized tests. The other referral sources mentioned were those communicated to the gifted personnel within the school district (i.e. gifted teacher at the school). The overall population was 1,820,635 students from Georgia. All students in grades 1 through 5 were selected. The total number of students selected was 705,074. The analysis provided a breakdown of the numbers: 10% of the students were referred with 80.3% of those referred identified. The automatic referrals yielded the highest validity as indicated by the phi coefficient. Teacher referrals had the second highest validity as a referral source indicated by the phi coefficient. Parent and other referrals were similar in their phi coefficients. Self and peer referrals were very rare, and the lowest in their phi coefficients. According to McBee’s research, “automatic referrals and teacher

referrals are far superior to the other referral sources. The other referral sources were used far less often and were generally much less accurate. The peer-and-self referral options were rarely used and had little or no effect on the phi coefficients” (McBee, 2006, p. 106).

In support of McBee’s findings, teachers who are not trained in their teacher education programs about the needs of gifted students may not be aware of the characteristics of giftedness. For example, teachers may not know that creativity is a characteristic of giftedness and how it connects to high intellectual ability. Karwowski (2007) highlights the validity of teachers’ nominations of students who are creative and addresses the teachers’ ability to recognize true creativity. The author addresses how teachers’ perceptions from different cultures and background experiences can influence their attitudes towards their students. “It is crucial that teachers are able to recognize the traits pinpointing a creative student so they can easily identify creative potential” (p. 265). As Karwowski, Bangel, Moon and Capobianco acknowledge, it is in the best interest of the teacher and the potentially gifted student to have an understanding of the characteristics of giftedness. This type of awareness and receiving training on the concepts of giftedness will assist in decreasing the number of underrepresented minority students referred to gifted programs.

Adams and Pierce (2007) conducted a study in Virginia involving pre-service and experienced teachers as the participants. At a Saturday workshop on differentiated instruction, the participants completed a 5-item Likert type survey ranging from strongly agree to strongly disagree. The Survey of Practices with Students of Varying Needs (SOP) consisted of 35 questions. These questions specifically addressed the attitudes teachers possessed about gifted, the average student, and the special needs student. There were 95

pre-service, experienced, and veteran teachers in the sample for the study. Their teaching experience ranged from 3 to 36 years. The results showed neither negative attitudes nor positive attitudes were dominant among the participants.

Curtis (2005) found that beginning teachers had little or no preparation for teaching gifted and talented learners. Curtis stated that most of the undergraduate education majors had very limited knowledge of special education and the various facets special education involved. According to Curtis, many leaders in teacher education programs adopted a universal system of teacher preparation that mandated all teachers to become more proficient in the intellectual, artistically, and creative educational needs of the students. This change allowed teachers to fully understand the needs of gifted and talented learners, and provided the opportunity to examine their attitudes and beliefs towards them.

Another possible reason for low minority representation in gifted programs is the type of assessments used in the identification process. Stringfield (2007) discussed the role of achievement tests in the education of African Americans and other students placed at risk for underachievement. According to the author, test data was used to assist in the determination of who received certain resources, classes, and were admitted into gifted and talented programs. Test data was also used to determine what magnet schools, advanced colleges and universities, and in which honors programs students were enrolled. Franklin (2007) examined true measurement of intelligence tests among the African American school-aged populations. This article explored underrepresented groups in gifted education and the necessity of using alternative methods to test minority students for achievement. In his investigation of the design of intelligence tests, Franklin found that

“standardized tests were culturally biased and in favor of White middle-class children” (p. 216).

In many school systems across the United States, standardized tests are heavily relied upon as indicators of a child’s giftedness (Harrington, 2001). As a result, minority students struggle with scoring in the highest percentile on standardized tests, which is considered the 90<sup>th</sup> percentile or above. Although the data from standardized tests may be reliable to a degree, it is not a comprehensive approach in determining a child’s overall gifted ability, especially minorities who are African Americans, Hispanics, and Native Americans. These students are culturally and linguistically diverse and enter into school from various backgrounds. They often enter into school with limited learning experiences and vocabulary. “Understanding how an individual’s culture operates and the relation of that culture to an individual’s orientations and choices may help us understand how culturally diverse students approach learning and achievement” (Moore, Ford, & Milner, 2005, p. 170).

An approach to better identify gifted minority students is the implementation of alternative assessments. These types of assessments are the nontraditional style of testing and usually nonverbal. Hadaway and Marek-Schroer (1992) highlighted the effects of implementing alternative assessments to identify gifted minority students. They opposed traditional methods of gifted education, and mentioned alternative assessments as having become more reliable in the screening process of culturally diverse students. A few factors contributed to students being overlooked in the referral process. Some of those factors included students not being good test takers, difference in culture, lack of resources, and even teaching techniques. Since this was the issue, the authors suggested it would seem

more appropriate to pursue an alternative assessment in testing culturally diverse students.

Similarly, authors Kerr and Colangelo (1992) shared concerns of gifted and talented young minority students who scored in the top five percent of the American College Test Assessment. According to the authors, “research focused on specialized guidance to overcome barriers of disadvantages, nontraditional methods of identification, and programming that emphasizes the strengths of minority students deems more effective in the success of gifted minority students” (p. 606). The statement must be reiterated, however, that teachers serve an important role in identifying those students who display gifted characteristics, regardless of standardized test scores. In the conclusion of an article written by Ford and Milner (2007) stated the following:

“This discussion is not meant to blame teachers for the underrepresentation of culturally diverse students in gifted programs or their attrition from these programs. On the contrary, there are many different players (from individuals to tests) responsible, and there is a need to address these different participants. The teacher, however, is a key player in the recruitment and retention of culturally diverse students in gifted education , and more research and discussion are needed to better prepare all who are involved in the future of gifted students” (Ford & Milner, 2007, p. 172).

#### *Possible Solutions for Underrepresentation*

Many alternative assessments have been constructed to better identify minority populations. Lewis, DeCamp-Fritson, Ramage, McFarland, & Archwamety (2007) conducted a study “that compared the effectiveness of the Iowa Test of Basic Skills, Raven’s Standard

Progressive Matrices (RAVENS) and the Naglieri Nonverbal Abilities Test (NNAT) in selecting ethnically diverse students who were potentially gifted” (p. 38). Data on the RAVENS, the NNAT, and each student’s ethnicity were collected from a previous study. The tests were administered during regular class time. Each test took less than one hour per grade. The school district provided a computer-based printout detailing each participant’s ethnicity as reported by parents for grades 3-5 and self-reports were used for grades 6-8. The district also provided a printout of the ITBS scores for each of the participants. Once the files were combined, the students’ names were removed to ensure confidentiality. Only the composite scores of the tests were used for analysis. The scores of the RAVENS, NNAT and the ITBS were compared to determine which assessments identified the greatest number of students in each ethnic group at or above the 80<sup>th</sup> percentile.

To determine the effectiveness of the tests, a Cochran Q analysis was performed as well as a two-way analysis of variance with repeated measures. The results indicated a significant difference among tests in identifying ethnically diverse students who might have been gifted. The results also indicated a significant difference among tests in identifying Caucasian children who might have been gifted. The RAVENS identified 54% more gifted Caucasian children than ethnically diverse children, the NNAT identified 262% more and the ITBS identified 370% more Caucasian students (Lewis et al., 2007). The RAVENS identified 560% more potentially gifted children from ethnically diverse backgrounds compared to the composite percentage of the ITBS or the NNAT. In comparing the two groups of children using the three different types of assessments, a significant difference was found in the students’ scores on the RAVENS and the ITBS.

Another alternative assessment constructed to assist in identifying minority students was the DISCOVER. DISCOVER is an acronym for Discovering Intellectual Strengths and Capabilities through Observation while allowing for Varied Ethnic Responses. Sarouphim's (2004) study examined the effectiveness of DISCOVER in middle grades 6-8. The DISCOVER study examined three main areas of concern: the alignment of Multiple Intelligence and DISCOVER, the appearance of gender differences through the use of DISCOVER, and ethnic differences through the use of DISCOVER.

Research studies were carried out on the alternative assessment, DISCOVER, to show evidence of its validity and reliability. Prior research studies investigated DISCOVER as an alternative assessment tool that was proven reliable. DISCOVER was designed to be culture sensitive and age appropriate to diverse groups. The instructions of the assessment were given in the students' native language. The test was tested for cultural appropriateness and modified to ensure that the assessment was a culturally bias-free instrument (Sarouphim, 2002).

Pearce (1983) compared the Wechsler Intelligence Scale for Children-Revised, Raven's Standard Progressive Matrices, and Meeker's Structure-of-Intellect Screening form in identifying gifted students in West Mississippi. The independent variables were the WISC-R, Raven's Standard Progressive Matrices (SPM), and Meeker's SOI Screening form. The dependent variable was gifted identification. Students who scored at the 90<sup>th</sup> percentile or higher on a previously taken aptitude test at the culmination of their fourth grade year were utilized as participants of this study. The 59 participants included 29 fifth graders with 17 females and 12 males and 30 sixth graders including 11 females and 19 males. Data was collected using the SPM, SOI, and the WISC-R. Participants were

administered the SPM in an untimed small group setting. Participants were asked to respond to categories A-E as they chose the answer most suitable for the design.

Out of the 59 students who participated in the study, five of the students were not identified on the Structure-of-Intellect (SOI) form or the Raven's Standard Progressive Matrices (SPM). Seven students were not identified on any of the three instruments used in the study. One or more of the WISC-R scores met or exceeded the 120 Full Scale IQ score. Three of the participants had a Full Scale IQ score less than 120. Those participants who scored at the 120 Full Scale cut off score were identified as "borderline" gifted students (Pearce, 1983). Those students were not as easily identified. Overall, Pearce's method of identifying potentially gifted students was 50% effective.

Naglieri and Ronning (2000) collected data with the intentions of adding relevance to previous studies conducted using the Naglieri Nonverbal Abilities Test. The sample used was representative of the national population based on a previous study conducted in 1995. According to the results of the study, the NNAT continued to serve as an alternative method of assessing underprivileged students who were not identified as gifted through the use of standardized tests. In a similar study, Naglieri and Ford (2003) investigated the effectiveness of using an alternative assessment known as the Naglieri Nonverbal Abilities Test (NNAT) to identify diverse groups of students. The NNAT is a nonverbal, culture-fair, nonbiased assessment that consists of vividly colored geometric abstract designs arranged in a matrices format. The test measures general ability and does not require verbal skills. The NNAT is divided into seven levels and group administered. Administering the assessment takes 30 minutes. The items are based on reasoning and problem solving.



Naglieri and Ford's (2003) argument for implementing nonverbal assessments is one that has gained more attention over the years. Many of the classrooms in school systems educate students who may not have the exposure to enrichment opportunities, an extended vocabulary, and/or the academic background to score successfully on an achievement test. Given the circumstances, tests, such as the RAVENS and the NNAT, are dependable instruments to measure underprivileged students' general ability. Naglieri and Ford's (2003) study suggested the necessity of using alternative assessments in the identification process of potentially gifted students. Using alternative assessments will allow more minority students to gain eligibility into gifted programs.

#### *Reaching the Underrepresented and Unidentified*

Preparing minority students prior to being tested for giftedness can be a challenge in itself. Teaching students who may not have the academic background or the verbal skills to communicate effectively also have been known to have its share of difficulties. A North Carolina school district developed special procedures to target gifted learners. The state's stakeholders realized the need for change in the gifted education program. The state of North Carolina used achievement and aptitude scores as a driving force. With this in mind, "educators decided on differentiating the curriculum, increasing the rigor of the subject matter, improving instructional processes and assessments for gifted students" (Page, 2000). Implementing the differentiated curriculum encouraged the school district to focus on the quality of education for gifted students. As a spiral effect, educators learned that all students benefited from the newly developed differentiated curriculum. Students participated in rigorous curriculum while using creativity, elaboration, flexibility, and

originality. These were key factors that gifted minority children were encouraged to produce.

Differentiated curriculum can be viewed as varying the teaching and learning styles to best fit the needs of the students. Taylor (1995) reported the importance of differentiating the curriculum especially for high ability learners. She developed the text as a guide to assist teachers in their approaches to gifted education and the means to identify gifts among students. She also developed strategies for assessing the teachers' attitudes and behaviors towards gifted and ways to plan units and activities for high achievers in the regular classroom setting (Taylor, 1995).

Taylor (1995) began the first chapter by emphasizing the need to understand giftedness. Without understanding, progress cannot be made. A teacher can readily identify a student who enters into kindergarten knowing how to read. Students who need careful observation before they can be identified as gifted must be taken into consideration. Once giftedness has been understood and defined, it can then be approached with a deeper level of understanding.

#### *Prepared to Move Forward*

To effectively embrace nonverbal assessments and the role they play in identifying higher numbers of minority students for gifted services, all stakeholders must operate in unity. Working in unity to curtail the disproportionate numbers of minorities in gifted programs includes parental awareness of gifted characteristics, teacher awareness, and also pre-service teacher awareness. Minor, Onwuegbuzie, Witcher, and James (2002), found that not only do novice teachers face the challenge of being unsure of how to adjust instruction in order to meet the needs of gifted learners, but experienced teachers face

those same challenges. In the authors' study, veteran and pre-service teachers found it difficult to adapt their classroom practices to accommodate the diversity of learners. With continuous professional development, however, these teachers learned to develop classroom learning environments that displayed opportunities for problem-solving and growth.

Prepared to move forward is the premise in which Northwestern University had in mind when the School of Education and Social Policy designed Project EXCITE. The program serves 202 high schools and 65 elementary schools. The elementary and high schools serve 47.4% White, 36.6% African American, 10.3% Latino, 3.2% Asian, and 2.5% multiracial students. Project EXCITE provides supplemental education opportunities for students who are underrepresented in math and science. These opportunities are provided in addition to the regular classroom and held after school, weekends, and during the summer. Lee, Olszewski-Kubilius, and Peternel conducted a follow-up study after 6 years of participation in the Project EXCITE program. This project was designed to address the achievement gap that exists between minority and non-minority students in the Evanston schools. Its long-term goal is to decrease if not eliminate the achievement gap between minority and non-minority students.

The purpose of this study was to investigate how Project EXCITE "served these minority students and affected them and their parents in terms of developing their academic talents, altering peer relationships, and building systems of support" (Lee et al., 2009, p. 140). Fourteen of 17 students and their parents participated in this study. Two 30-45 minute interviews were conducted with the EXCITE student and the parent. Although the questions were slightly different for the student and parent, the focus was on

their perceptions and experiences with Project EXCITE. The students were asked about their fondness of the activities during the program, if new friends were made, if they believed the EXCITE teachers were interested in what they were teaching, and how they felt about the benefits of the program. The parents' questions focused on the benefits and effects of the program, expectations of their child's academic performance, and their parental involvement in the seminars offered, their child's academic performance in math and science, and family home support for the child. The interviews were analyzed in 3-way coding procedures: open coding, axial coding, and selective coding for qualitative data analysis (Lee et al., 2009, p. 143).

The analyzed data yielded positive results of the students' and parents' experiences with Project EXCITE. The participants described the program as fun, exciting, and challenging. The main challenge for the participants was balancing academic work and social time with peers and others; however, none of the participants shared information about negative peer pressure. Project EXCITE "is an experiment that demonstrates how implementing supplementary experiences outside of the regular school day can positively affect student performance. Moreover, the lack of successful in-school interventions documented in literature as well as the unsuccessful efforts of the schools involved made it clear that the supplementary schooling approach of Project EXCITE was a necessary alternative". (Lee et al., 2009, p. 151)

It was concluded that the six year participation in Project EXCITE enabled students to increase their scientific and mathematical knowledge, enhance their interests of math and science, and retain their mathematical and scientific knowledge; therefore, meeting one of the primary goals of the program.

### *The Screening Process*

The screening process consisted of six steps: referral, local school review, parental consent for testing, assessment-mainly administered by the district's psychometrist, written results of the assessment and the eligibility ruling of the local school committee. Teachers, administrators and parents make up the school's local review committee. There were two options in conducting the screening referral process for the research sites. Option one entailed a mass screening for first graders. If the student scored at or above the 90<sup>th</sup> percentile on the screening assessment, a parental consent form and a FERPA (The Family Education Rights and Privacy Act) letter was sent home to the parent. If the student did not meet these criteria, no additional testing was conducted. The parental consent form was signed to proceed with further testing. Having received the parental consent form, the regular classroom teacher completed the Gifted Rating Scale and returned it to the school's gifted teacher.

The Gifted Rating Scale or GRS is a teacher-completed rating scale chosen by the research sites' school district to include in the screening process. This scale is an assessment tool that provides teachers with a list of observable student behaviors, which could indicate giftedness. It can be administered to a group or an individual part of the screening process. In addition, "the GRS can be used across ethnic populations as part of the screening process" (Pfeiffer & Jarosewich, 2003). The GRS-S was designed for children in elementary and middle school. For the purpose of this research, the researcher utilized data from the GRS-S only. A more thorough description of the GRS is discussed in Chapter III of this research.

After receiving the GRS from the regular classroom teacher, the gifted teacher administered the OLSAT (Otis Lennon School Ability Test) to the students who were screened. The OLSAT is a group or individual administered assessment that evaluates a student's thinking and reasoning skills. This assessment allows educators and students to understand their strengths and weaknesses. Moreover, "the OLSAT provides educators with the opportunity to construct educational programs to enrich the students' strengths while offering support to develop areas of weaknesses" (The Psychological Corporation, 2006).

Scores on each assessment must be at or above the 85<sup>th</sup> percentile (GRS) and the 90<sup>th</sup> percentile (OLSAT) to proceed in being tested by the districts' psychometrist. The initial screening assessment (RAVENS), the GRS-S and the OLSAT were assessments decided upon by the district that would offer a comprehensive approach in identifying giftedness. The scores yielded from these assessments were indicators of a student's potential area(s) of giftedness. These were percentiles deemed sufficient by the school district's gifted education department to proceed in the screening process.

Option two was quite similar; however, the referral process began by the referral of a parent, a teacher, peer student, and/or an individual student. Parents were notified of the referral and a parental consent form was sent home along with The Family Education Rights and Privacy Act (FERPA) notification. Once parental permission was granted, the student was administered the RAVENS and the GRS and OLSAT were requested from the district psychometrist. The GRS was completed by the referring teacher and the OLSAT was administered by the gifted teacher. When a student's test scores ranked in the 90<sup>th</sup>

percentile, he or she proceeded to the psychometrist for further testing to determine eligibility.

CHAPTER III  
METHODOLOGY

This purpose of the study was to (a) evaluate and discuss strengths and weaknesses in the current system of identifying gifted students and suggest possible solutions that would improve areas of weaknesses, and (b) examine the selection criteria process in identifying under represented and gifted minority students in a Central Mississippi school district. To reiterate the literature review, the following research questions and study hypothesis will guide the areas of inquiry.

1. What was the percentage of students referred to gifted programs initiated by teachers, parents and others?
2. What advantages did the Naglieri Nonverbal Abilities Test present in identifying underrepresented minority populations?
3. Was the Naglieri Nonverbal Abilities Test an effective instrument for identifying potentially gifted students in underserved populations?

*Study Hypotheses*

H<sub>1</sub>: There will be no significant difference between the proportion of students selected and rejected by the traditional gifted education process compared to the number of students selected and rejected by an alternate gifted education process.

H<sub>2</sub>: There will be no significant difference between the overall grade point averages (GPA) of students selected using traditional criteria compared to the overall grade point averages of students selected using alternative criteria.



### *Research Design*

The design of this study was primarily descriptive. The following section provides information about the population, sample subjects in the study, the instruments of the study, the statistical tests, and methods of data analysis that was used. This study was designed to gather descriptive information about the possible increase of minority students potentially identified as gifted using an alternative assessment process and the effectiveness of assessments used to screen underrepresented students in urban student populations.

### *Participants*

The participants in this descriptive study consisted of students in 1<sup>st</sup> through 5<sup>th</sup> grades of a Title I school district in Central Mississippi. There were 65 participants in all: 12 students in Group 1, the Traditional Criteria and 53 students in Group 2, the Alternate Criteria. Ninety-eight percent of the student population received free and reduced lunch. The majority of the student body (98%) consisted of African Americans with a small percentage of both Caucasian and other (2%).

### *Instrumentation*

Implementing alternative assessments in the screening process could assist in reducing the problem of underrepresentation of minorities in gifted programs. It has been recommended in previous studies that alternative assessments such as the RAVENS and the NNAT would be used for identification purposes, especially for the placement of students in gifted programs (Sarouphim, 2004). Lewis, DeCamp-Fritson, Ramage, McFarland, & Archwamety (2007) suggested assessments such as the RAVENS and NNAT

be used to further establish equity in gifted education and diversity in gifted education programs.

Similar to other studies that have been researched, this particular study examined the effectiveness of the Naglieri Nonverbal Ability Test (NNAT) in identifying underrepresented minority groups for gifted programs (Naglieri & Ford, 2003). The Naglieri Nonverbal Ability Test is a brief, culture-fair, nonverbal assessment that measures general ability. The test is timed and group administered and does not require the student to read, write or speak. It is divided into seven levels ranging from Level A to Level G. The NNAT uses similar progressive matrices like the RAVENS, but different in three ways. The first difference is the original version was designed with items using only the colors white, black, blue and yellow. The current version of the NNAT uses a variety of vivid colors. The second difference is its standardization on a K-12 student sample of more than 89,000. The third difference is the “psychometric properties of the test are amply documented” (Naglieri & Ford, 2003). “There is a research base on the NNAT and its earlier versions that support its use for diverse populations of children” (p. 156). Reliability was computed in the form of internal consistency and yielded results ranging from .80 to .93 (Naglieri & Ford, 2003). There was no test-retest reliability coefficients presented, which was considered a weakness of the instrument.

Similar to the NNAT, the RAVENS, created by J. C. Raven, is a nonverbal assessment designed to measure a student’s ability to reason and apply thinking skills. It has a test-retest reliability of .70 and .90 with internal consistency coefficients of .80 to .90. The RAVENS may be used with individuals ranging from six years old to adulthood. The scoring consists of sixty items arranged in five sets. Each item contains a figure or puzzle with a

piece missing. Students must determine which missing piece best completes the puzzle. The test is formatted in a progressive level of difficulty. The norm groups included are British and Irish children between the ages of six to sixteen. Children from the United States, Germany and Canada are also included in the norm referenced group (The Psychological Corporation, 2003).

The Otis Lennon School Ability Test (OLSAT) is an assessment that measures a student's abstract thinking and reasoning abilities. It helps educators to first identify areas of strengths and weaknesses. Upon identifying those areas, educators can then organize an educational program that enhances a student's strengths and help further develop areas of weaknesses. The OLSAT consists of seven levels that range from K-12<sup>th</sup> grades. This assessment population includes samples from various geographic regions, socioeconomic status, ethnicity, public and nonpublic schools, as well as students with disabilities. The reliability coefficients for the OLSAT range from .80 to .90 and above (Bright hub, 2011). As part of a comprehensive approach in screening students for gifted programs, the Gifted Rating Scale has given educators additional means to review a child's overall ability. The GRS is grouped into six categories. These categories or scale scores reveal a student's potential giftedness in the areas of intellectual ability, academic ability, creativity, artistic talent, leadership ability and motivation (Pfeiffer & Jarosewich, 2003). The first category is intellectual ability. This category refers to a student's verbal and/or nonverbal mental skills, capabilities and intellectual competence. The second category or scale is the academic ability, which refers to a child's regular classroom curriculum. The third category is creativity. Creativity refers to the student's ability to create original and innovative thoughts and products, which can be demonstrated in numerous

ways. The fourth category is artistic talent. This scale refers to a student's ability or potential for drama, musical talents, dance, painting and/or sculpting. Leadership ability is the category where the student has the ability to motivate and lead others to a common goal. The final scale is motivation. Motivation refers to a student's desire to succeed, persistence, drive, the ability to work with little or no reinforcement or encouragement and the tendency to enjoy challenging tasks.

(Pfeiffer & Jarosewich, 2003, p.7)

Reliability and validity coefficients for the Gifted Rating Scale were computed based on a sample of 154 students. The test-retest reliability indicated consistency over time with correlations ranging from .83 to .97 on the Artistic and Academic Ability scale. Consistent ratings of high retest reliabilities indicated .90 and higher (p. 31). According to Pfeiffer and Jarosewich (2003), a cumulative percentage of 84%-97% indicates a high probability of gifted classification. "A percentage of 98% or higher indicates a very high probability of gifted classification. A percentage score of 69%-83% indicates a moderate probability of gifted classification, which is your average regular curriculum student. A percentage score of less than 69% is a student who has low probability of gifted classification" (p. 16).

### *Methods and Procedures*

Approval was obtained from the dissertation committee. An application to conduct research was submitted to the Institutional Review Board of The University of Mississippi Office of Research and the proposed research sites' school district prior to conducting this study. After approval had been granted, the researcher contacted the principals at both schools to inform them of the starting date for the study. The researcher worked closely with the schools' gifted teacher in retrieving NNAT and prescreening data. First grade

students were mass screened using the RAVENS test. Those that scored in the 90<sup>th</sup> percentile range of the RAVENS and the 84<sup>th</sup> percentile of the GRS proceeded with the NNAT test to proceed further in gifted evaluation. The principals allowed the researcher time to inform the teachers of the proposed schedule during the week's faculty meeting or through written documentation.

For this study, the referral process was carried out as follows: (a) the students were referred for gifted screening; (b) Permission forms to begin screening process along with the Parent Observation documentation were sent home for a signature by a guardian/parent; (c) Once the forms were returned with parental consent to proceed, the teachers were provided with a Gifted Rating Scale form to complete; (d) The gifted teacher scored the documents. The numbers were calculated and recorded on the Mississippi criteria information sheet; (e) The gifted teacher administered the OLSAT test; (f) If the student scored in the 90<sup>th</sup> percentile, his or her information was sent to the district psychometrist to determine the assessment warranted. For the proposed research sites, the NNAT was administered to determine eligibility. From there, it was determined if the child should receive a psychological evaluation (IQ or alternative assessment) test. If so, a consent form was sent to the parents to inform them of the testing progress. If not, a comprehensive exam was not warranted and letters informing the parents of the results were sent to the parents.

Data on each student's ethnicity was collected from the Department of Exceptional Children for the two research sites. Once the files for each student had been combined, the names of the students were removed to ensure confidentiality. Grades and other data in regards to the students' performance level in the classroom were collected to support the

purpose of the study. Only the composite scores of the tests were used for analysis. The proportion of students selected using the Naglieri Nonverbal Abilities Test were compared to students identified by current means to determine the proportions for students at or above the 90<sup>th</sup> percentile. District personnel completed an assessment report explaining pertinent data related to the students' screening process and the results. A copy of this report was provided to the parents upon request.

### *Data Analysis*

Through this data, the researcher was able to (a) evaluate and discuss strengths and weaknesses in the current system of identifying gifted students and (b) investigate the effectiveness of using the Naglieri Nonverbal Abilities Test to identify underrepresented and gifted minority students in an urban school district located in Central Mississippi. Collecting data for the population and the sample began when permission was granted from the parent to begin the gifted screening process. Parents completed documentation notating potential giftedness in their child. Granted permission to begin the process, documentation pertaining to giftedness was then distributed to the teachers and returned to the researcher within one week of distribution. The research was analyzed and the results of the teachers' observations were recorded on the Gifted Rating Scale. If a child met the Mississippi state criteria to proceed with a comprehensive evaluation, his or her information was forwarded to the Department of Gifted Services. A licensed psychometrist visits each proposed research site to administer the comprehensive exam(s) prior to the end of the school year.

To determine the effectiveness of the alternate test selection process versus the traditional process, a T-test was used to examine the mean scores of students' grade point

averages as selected by the alternate criteria and the mean scores of students' grade point average selected by the traditional criteria. Effectiveness of the use of alternate criteria will be judged in terms of the proportion of minority students identified using the alternative screening method compared to the traditional screening method. A z-test of Independent Sample Proportions was used at the  $p=.05$  significance level.

The following Research Methods Chart (Figure 1) shows the specifics of each group assessed and the comparison methods. The RAVENS, created by J. C. Raven, is a nonverbal assessment designed to measure a student's ability to reason and apply thinking skills. The Gifted Rating Scale has given educators additional means to review a child's overall ability. The GRS is grouped into six categories. These categories or scale scores reveal a student's potential giftedness in the areas of intellectual ability, academic ability, creativity, artistic talent, leadership ability and motivation (Pfeiffer & Jarosewich, 2003). The Otis Lennon School Ability Test (OLSAT) is an assessment that measures a student's abstract thinking and reasoning abilities. It helps educators to first identify areas of strengths and weaknesses. The Naglieri Nonverbal Ability Test is a brief, culture-fair, nonverbal assessment that measures general ability. The test is timed and group administered and does not require the student to read, write or speak.

Figure 1

*Research Methods for Comparisons*

<p style="text-align: center;"><b><u>Traditional Criteria/Group 1</u></b></p> <p style="text-align: center;"><b>N=12</b></p>	<p style="text-align: center;"><b><u>Alternate Criteria/Group 2</u></b></p> <p style="text-align: center;"><b>N=53</b></p>
<p>*RAVENS</p> <p>*Gifted Rating Scale</p> <p>*Otis Lennon School Abilities Test</p> <p>*Naglieri Nonverbal Abilities Test</p> <p>*Raw scores of traditional criteria= proportions by grade level and overall proportions regardless of grade level</p>	<p>*RAVENS</p> <p>*Overall GPA</p> <p>*Naglieri Nonverbal Abilities Test</p> <p>*Raw scores of alternate criteria= proportions by grade level and overall proportions regardless of grade level</p> <p>*Mean scores of overall GPA</p>

*Conclusions*

In conclusion, the researcher’s goal in this study was to provide relevant evidence using nonverbal abilities assessments to identify minority students for gifted programs. The literature review supports numerous occasions where nontraditional assessments were necessary in decreasing the under representation of minority students. The results of this present study presented possible recommendations to further increase and/or balance the numerical representation of students who may not display the characteristics of a typical gifted student. The information obtained through this study offers a pathway in recognizing the notion that differentiating instructional practices is important. Moreover, differentiating assessment practices is equally important.



## CHAPTER IV

### RESULTS

This chapter presents the results of the data that examined a school district's traditional criteria for screening minority students for giftedness and the alternative criteria for screening minority students for giftedness. The purpose of this study was to (a) evaluate and discuss strengths and weaknesses in the current system of identifying gifted students and (b) investigate the Naglieri Nonverbal Abilities Test as an effective instrument to identify gifted minority students. This study explored 65 students (38 first graders, 14 second graders, one 3<sup>rd</sup> grader, eight 4<sup>th</sup> graders and three 5<sup>th</sup> graders. Twelve of those students, who were referred by their classroom teacher, represented Group 1. The screening process for Group 1 included the RAVENS, the Gifted Rating Scale (GRS) and the Otis-Lennon School Abilities Test (OLSAT). These students were also administered the Naglieri Nonverbal Abilities Test and grade point averages were calculated. Group 2 consisted of 53 participants, who were mass screened. The process for Group 2 represented the alternative criteria for screening. This group consisted of students who completed the RAVENS, the Naglieri Nonverbal Abilities Test (NNAT-2), and grade point averages. Data obtained from the assessments were analyzed using AcaStat. The data were analyzed to determine whether the Naglieri Nonverbal Abilities Test was an effective instrument for identifying potentially gifted students. The following hypotheses were formulated to investigate any differences between criteria used in this study:

H<sub>1</sub>: There is no significant difference between the proportion of students selected and rejected by the traditional gifted education process compared to the number of students selected and rejected by an alternate gifted education process.

H<sub>2</sub>: There is no significant difference between the overall grade point averages of students selected using traditional criteria compared to the overall grade point averages of students selected using alternative criteria.

### Hypothesis 1

The traditional screening process versus the alternate screening process served as the independent variable (Naglieri Nonverbal Abilities Test versus RAVENS), while the proportion of students selected and rejected served as the dependent variable. To examine H<sub>1</sub>, a two-tailed Z-test was used to determine whether there was a significant difference between the proportion of students selected and rejected by the traditional versus alternate screening process in Group 1. A second Z-test to compare the proportion of students selected and rejected by the alternate versus traditional screening process in Group 2 (N=53 students) was cancelled, since the proportions were identical for the alternate versus traditional screening processes.

The results of the first Z-test revealed there was a significant difference in the number of students accepted by traditional criteria versus alternative criteria for Group 1 (N=12 students);  $Z = -4.5066, p < 0.0000$ . Therefore, we reject the null hypothesis, since there were significantly more students accepted by the traditional criteria than the alternate criteria with regard to participation in gifted education.

The results of the second Z-test for Group 1 (N=12 students) indicated that there was a significant difference in the number of students rejected by the alternate criteria versus the traditional criteria ( $Z = 4.5066, p < 0.0000$ ) with respect to participation for gifted education.

## Hypothesis 2

The second hypothesis was formulated to examine a comparison of the mean grade point average for students accepted by the alternative criteria versus the mean grade point average of students accepted by the traditional selection criteria.

H<sub>2</sub>: There will be no significant difference between the overall grade point averages of students selected using traditional criteria compared to the overall grade point averages of students selected using alternative criteria.

The Naglieri Nonverbal Abilities Test and the RAVENS represented the independent variables, while the grade point averages served as the dependent variable. H<sub>2</sub> was a comparison of means between students selected using alternate criteria versus traditional criteria. The statistical analysis compared the mean grade point average of the students selected using the alternate criteria ( $M_1=3.57$ ) versus the mean grade point average of students selected by the traditional criteria ( $M_2=3.37$ ).

The T-test of means, for equal variances, was  $T_{(22)}=1.4896$ ,  $p < .1505$  and for unequal variances  $T_{(11)}=1.4896$ ,  $p < .1644$ . These results indicated there was no significant difference between the grade point averages of students selected using either the alternate or traditional selection criteria.

The homogeneity of variance indicated there was a significant difference between the standard deviation of groups compared using the traditional criteria compared to the standard deviation of the group selected using alternative criteria (N=1 student in Group 1 selected using alternative criteria and N=12 students selected in Group 1 using the traditional criteria).

Therefore, we fail to reject the null hypothesis, since there was no difference found in the grade point averages of students selected by the alternate or the traditional criteria.

Table 1 summarizes the screening results used in all statistical test for the hypotheses that examined the comparison of proportions of students (Groups 1 and 2) using alterative and traditional screening instruments (i.e., NNAT versus RAVENS). Table 2 summarizes the results of hypothesis testing for the comparison of proportions for Groups 1 and 2 (N=12 and N=53, respectively) that emerged from traditional screening and other given alternate tests.

**Table 1**

## Selection Results and Proportions for Alternate and Traditional Criteria

Group1 (N=12)				
Criteria*	Number		Total	Proportion(s)
	Accepted	Rejected		
Alternate**	1	11	12	(1/12) = .0833 Accepted; (11/12) = .9167 Rejected
Traditional***	12	0	12	(12/12) = 1.0000 Accepted; (0/12) = 0.0000 Rejected

Group 2 (N=53)				
Criteria*	Number		Total	Proportion(s)
	Accepted	Rejected		
Alternate**	0	53	53	(0/53) = 0 Accepted; (53/53) = 1 Rejected
Traditional ***	0	53	53	(0/53) = 0 Accepted; (53/53) = 1 Rejected

Note: \* = PR > 90 needed for acceptance using either criterion.

\*\* = NNAT (Naglieri Nonverbal Abilities Test)

\*\*\* = RAVENS Test

**Table 2**

Z-Test Results for Comparison of Proportions

<u>Group 1 (N=12)</u>		
<u>Criteria</u>	<u>Proportions*</u>	
Alternate v Traditional	<u>Accepted</u> Z=-4.5066, p < 0.0000	<u>Rejected</u> Z=4.5066, p < 0.000

\*Note: Significant differences favored traditional criteria for both accepting more and rejecting fewer students for gifted participation.

<u>Group 2 (N=53)</u>		
<u>Criteria</u>	<u>Proportions</u>	
Alternate v Traditional	No statistical tests were performed for Group 2 since there was no difference in the proportions accepted (zero and zero; respectively) or proportions rejected (1 and 1, respectively) for Group 2 given traditional testing for selection followed by alternate testing (See also Table 1).	

## CHAPTER V

### DISCUSSION

This chapter provides a conclusion of the study, a discussion of the findings, and recommendations for further research in the area of implementing effective assessments to identify gifted minority students.

The purpose of this research was to (a) evaluate and discuss strengths and weaknesses in the current system of identifying gifted students and (b) investigate the effectiveness of using the Naglieri Nonverbal Abilities Test to identify underrepresented and gifted minority students in a Central Mississippi school district. This study consisted of 65 students with only 12 participants in Group 1 and 53 students in Group 2. Group 1 included three first graders, two second graders, zero third graders, five fourth graders and two fifth graders. These students, who were referred by their teachers, scored at or above the 90<sup>th</sup> percentile on the RAVENS, scored at or above the 84<sup>th</sup> percentile in at least two areas on the GRS, including intellectual ability, creativity, and leadership, and also a reasonable score (determined by the psychometrist) on the OLSAT. The district utilizes the OLSAT to gain a perspective of the nonverbal and verbal component of the student. Group 2 consisted of 53 students: 36 first graders, 12 second graders, one 3<sup>rd</sup> grader, three 4<sup>th</sup> graders, and one 5<sup>th</sup> grader. This group was mass screened using the RAVENS, mass screened using the NNAT2 and grade point averages were reviewed.

### *Findings, Limitations and Recommendations*

This study attempted to explore strengths and weaknesses in the current system's minority gifted identification process. The alternate screening process did not demonstrate the ability to select students for participating in gifted programs. There was a significant difference from the traditional assessment. In fact, it was the traditional criterion that was responsible for identifying a significant difference in the selection of students. The following research questions guided the exploration of the study.

1. What is the percentage of minority students referred to gifted programs initiated by teachers, parents, and others?

Twenty-nine students were referred by the teachers, but only 12 students scored in the 90<sup>th</sup> percentile or above on the traditional screening assessment. Only one scored in the 90<sup>th</sup> percentile on the alternate assessment. There were no students whose referral was initiated by the parent or other (i. e. counselor, peer, self).

2. What advantages does the Naglieri Nonverbal Abilities Test present in identifying underrepresented minority populations?

There were more students accepted by the traditional (RAVENS) criteria than the alternate criteria (NNAT). Therefore, the NNAT was not an effective instrument for identifying potentially gifted students for the number of participants in this particular study.

3. Is the Naglieri Nonverbal Abilities Test an effective instrument for identifying potentially gifted students in this Central Mississippi school district?

The advantages of the NNAT were its brevity, a group administered assessment, and its identification of a student's general ability without requiring the student to read, write, or speak.



**Limitation 1:** After an analysis of the data, the first research question revealed that the number of students included in Group 1 of the study were all teacher referrals. Twenty-nine students were referred by the teachers overall in the study, however, only 12 students scored 90% or above to proceed in the screening process. Zero percent of students were referred by their parents and other referral sources. It was the desire of the researcher to identify more students by utilizing the alternative screening method (NNAT), however, only one student scored in the 90<sup>th</sup> percentile on this assessment. Therefore, it can be concluded that the traditional criteria for identifying gifted students in the research site's school district is an effective method. The RAVENS yields a higher number of students who proceeded through all levels of the gifted screening process for this study.

**Recommendation 1:** Future studies should involve teacher perceptions of identifying gifted students as a contributing factor to the referral process. For this research question, the teachers were a great referral source. Despite this evidence, however, the need for professional development in the area of giftedness is recommended. This type of professional development would inform teachers of the meaning of giftedness, how to recognize giftedness, positive and negative characteristics of gifted students, types of giftedness, the referral process, classroom activities to engage gifted students, and learning and teaching strategies to differentiate instruction for gifted students. As previously stated in Chapter II, teachers' perceptions about a students' ethnicity makes a difference in the decision for a gifted referral (Elhoweris, Mutua, Alsheikh, & Holloway, 2005).

**Limitation 2:** Zero percent of parents and others, such as counselors or administrators, referred students for the gifted screening process. This limits the number of students who were actually referred from other sources rather than the classroom teacher. Even though

the teacher has the student the majority of the school day, the child could very well express areas of giftedness at home with the parents and others. A parent's insight and observation may possibly increase a student's chances of proceeding in the gifted referral process.

**Recommendation 2:** Many parents are not aware of their power in the gifted referral process. Parents have the right and ability to recommend their child for gifted screening. According to McBee's (2006) research, "Other referral sources (such as parents) were used far less often and were generally much less accurate" (p. 106). The number of students referred by their parents could increase if parents were informed of their ability and their right to begin the gifted referral process.

Ford and Thomas (2007) indicated that parents who had high expectations of their children also encouraged them to pursue challenging careers and higher levels of education. The children were reared in a value system that taught them to reach past social and racial barriers to obtain higher goals (para. 9). In addition, it was found that minority families who had achieving students were involved in their child's academic progress, held obtainable and realistic expectations, provided enriching experiences and opportunities, communicated consistently with their child, and provided a nurturing and supportive environment for their child to excel. Those who parented underachievers held lower expectations of their child and were not assertively involved in their child's academic progress, goals, or expectations (Ford & Thomas, 2007, para. 10).

It is recommended that parents should be provided with informative training about giftedness. The topics should cover the definition of giftedness, positive and negative characteristics of giftedness, how to recognize giftedness, strategies that work for parents of a gifted child, and the legal rights of a parent-FERPA (Family Educational Rights and

Privacy Act). Equipping parents with the knowledge and access to this information should encourage them to exercise their parental rights more effectively.

Simultaneously with the parent trainings, parents should also have an informative session on how to accurately complete a parent observation checklist. This checklist, created by district personnel or modified by district personnel, should be an instrument implemented to gain a deeper understanding of the individual student through the eyes of the parent. A contribution of such would supply a more balanced image of the student being referred for gifted services.

**Limitation 3:** Another limitation involved in this study was the number of minority students that participated in the screening process. First through 5<sup>th</sup> grade students at two neighboring schools participated in this study. There were 14 students referred to the gifted screening process from the neighboring school (School B), but only six students returned their signed consent forms. Fifty-three first graders were mass screened, but only 39 students returned their signed consent forms. All 2<sup>nd</sup>-5<sup>th</sup> grade students, who were referred by their teachers, returned their consent forms equaling a total of 65 participants for this study.

**Recommendation 3:** With regards to Research Question 2, future studies should investigate the advantages the Naglieri Nonverbal Abilities Test presents to reveal in identifying underrepresented minorities with a larger sample. Future studies should also conduct this study with a more diverse population. As previously stated in Chapter II, Naglieri and Ronning (2000) conducted a study with a sample size representative of the national population based on a previous study conducted in 1995. The results revealed that the Naglieri Nonverbal Abilities Test continued to serve as an alternative method of

assessing underprivileged students. With this in mind, conducting this study again with a larger and more diverse sample size could provide the researcher with a broader scope of results.

**Limitation 4:** As a component of the traditional criteria for screening students for giftedness, the RAVENS assessment was the only instrument used to determine if a student proceeded in the screening process. When a student scored at or above the 90<sup>th</sup> percentile on this assessment, he or she would continue in the screening process. The RAVENS would be followed by the Gifted Rating Scale, completed by the classroom teacher, and the Otis Lennon School Abilities Test (OLSAT). The 89<sup>th</sup> percentile scores and below on the RAVENS raises some concern. When students score below the 84<sup>th</sup> percentile in at least two areas on the Gifted Rating Scale, concerns emerge as well. These concerns also exist when a student's scores are below district approval on the OLSAT.

**Recommendation 4:** Future studies should involve administering the OLSAT to all students as a screening assessment. Other alternative combination tests might prove to be more effective in identifying more students, because the OLSAT features a verbal and nonverbal component. "The OLSAT is a group or individual administered assessment that evaluates a student's thinking and reasoning skills. This assessment allows educators and students to understand their strengths and weaknesses. Moreover, the OLSAT provides educators with the opportunity to construct educational programs to enrich the students' strengths while offering support to develop areas of weaknesses" (The Psychological Corporation, 2006). Future studies should explore the strengths and weaknesses of a student's OLSAT scores. This screening process should create awareness of a student's

abilities, thereby fostering an environment where skills can be enhanced and particular areas of giftedness could be addressed.

Other assessments can be implemented as an alternative or combination approach to identify gifted minority students. For example, Lewis, DeCamp-Fritson, Ramage, McFarland, & Archwamety (2007) conducted a study “that compared the effectiveness of the Iowa Test of Basic Skills, Raven’s Standard Progressive Matrices (RAVENS) and the Naglieri Nonverbal Abilities Test (NNAT) in selecting ethnically diverse students who were potentially gifted” (p. 38). Another alternative assessment constructed to assist in identifying minority students was the DISCOVER. DISCOVER is an acronym for Discovering Intellectual Strengths and Capabilities through Observation while allowing for Varied Ethnic Responses. The DISCOVER study examined three main areas of concern: the alignment of Multiple Intelligence and DISCOVER, the appearance of gender differences through the use of DISCOVER, and ethnic differences through the use of DISCOVER (Sarouphim’s, 2004). Naglieri and Ford’s (2003) study suggested the necessity of using alternative assessments in the identification process of potentially gifted students. Using alternative assessments would allow more minority students to gain eligibility into gifted programs.

**Limitation 5:** Finally, the traditional mass screening for 1<sup>st</sup> grade has proven to be effective in identifying gifted minority students. Although there were not a significant number of students identified traditionally, there were a higher number of students identified in 1<sup>st</sup> grade than the other grade levels. This is categorized as a limitation for 2<sup>nd</sup> through 5<sup>th</sup> grades. Students in the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, or 5<sup>th</sup> grade are primarily referred by the classroom teacher.

**Recommendation 5:** Future studies should investigate the number of students identified by mass screening all grade levels. Mass screening all grade levels could potentially identify students who were not initially referred by the classroom teacher, parent, or other referral source. This includes children enrolled in preschool programs, who demonstrate areas of giftedness. Scott and Delgado (2005) screened and identified preschool children who were placed in their school's gifted program by the first or second grade level. As emphasized previously, screening a child for giftedness at any grade level could possibly increase the number of students referred for gifted programs and decrease the number of students who could have possibly been overlooked.

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## List of Appendices

APPENDIX: A

## Institutional Review Board Approval

# THE UNIVERSITY OF MISSISSIPPI

Office of Research and Sponsored Programs  
100 Barr Hall  
P.O. Box 907  
University, MS 38677  
Office (662) 915-7482

February 13, 2012

Ms. Tracey Bell  
Post Office Box 10704  
Jackson, MS 39289

Dr. Thea Williams-Black  
Curriculum and Instruction  
University, MS 38677

Dear Ms. Bell and Dr. Williams-Black;

This is to inform you that your application to conduct research with human participants, *Evaluating the Effectiveness of the Screening Process in Identifying Gifted and Talented Minority Students in Grades 2nd-5th in Central Mississippi* (Protocol 12-223), has been approved as Exempt under 45 CFR 46.101(b)(1).

Please remember that all of The University of Mississippi's human participant research activities, regardless of whether the research is subject to federal regulations, must be guided by the ethical principles in *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*.

It is especially important for you to keep these points in mind:

- You must protect the rights and welfare of human research participants.
- Any changes to your approved protocol must be reviewed and approved before initiating those changes.
- You must report promptly to the IRB any injuries or other unanticipated problems involving risks to participants or others.

If you have any questions, please feel free to call me at (662) 915-7482.

Sincerely,

Diane W. Lindley  
Coordinator, Institutional Review Board



APPENDIX: B

Permission Letter to Department of Accountability and Research

February 15, 2012

Dear Dr. Willie Johnson,

My name is Tracey Bell and I am a teacher with the Jackson Public School District. I am also a doctoral candidate in the Curriculum and Instruction Department at The University of Mississippi in Oxford, MS. I am in the process of writing my dissertation entitled: *Evaluating the Effectiveness of the Screening Process in Identifying Gifted and Talented Minority Students in Grades 1<sup>st</sup>-5<sup>th</sup> in Central Mississippi*. I am requesting permission to conduct my study in the Jackson Public School District. I strongly believe your school district will be a great contribution to my research and to the field of gifted education.

The purpose of my study is to investigate the effectiveness of a nonverbal assessment, the Naglieri Nonverbal Abilities Test, in identifying underrepresented and gifted minority students. Participants for this study will include students who have been referred for gifted screening in grades 1<sup>st</sup>-5<sup>th</sup>. The process will include using the traditional method of testing and students who will be screened using the alternative method of testing.

The traditional method of screening includes students being given the Raven's Standard Progressive Matrices (RAVENS), Gifted Rating Scale (GRS), the Otis-Lennon School Abilities Test (OLSAT), and the mean scores of their overall Grade Point Averages (GPA) of minority students referred for gifted screening. The alternative method of screening consists of the Raven's Standard Progressive Matrices (RAVENS), Gifted Rating Scale (GRS), the mean scores of overall Grade Point Averages (GPA), and the Naglieri Nonverbal Abilities Test (NNAT).

Two schools will be chosen for this research study, French Elementary and Raines Elementary Schools. All personal student information will be kept confidential. This study presents no risk to students, teachers, parents, or staff members in the district. Names of students or any specific descriptions related to students, schools, or school district will not be disclosed in the dissertation. Upon completion of the study, a copy of the findings will be mailed to you for your review.

Thank you in advance for your consideration in allowing me the opportunity to conduct research within the Jackson Public School District. This research will greatly contribute to the underserved population of gifted minority students. Using an alternative method and assessment, school districts will be able to identify gifted minority students using a more balanced approach. If you have any questions, please feel free to contact:

Tracey Bell  
Black  
P. O. Box 10704  
Jackson, MS 39289  
Telephone: (662) 820-3732

or

Dr. Thea Hayes Williams-  
Associate Professor  
The University of Mississippi  
303 Guyton Hall  
Post Office Box 1848  
University, MS 38677-1848  
(662) 915-7123  
[twhayes@olemiss.edu](mailto:twhayes@olemiss.edu)

Sincerely,

*Ms. Tracey R. Bell*

Tracey R. Bell  
Gifted Teacher  
Jackson Public Schools  
Doctoral Candidate, The University of Mississippi

APPENDIX: C

## Permission Letter to School Principal

March 1, 2012

Dear Principals Brown and McCray,

My name is Tracey Bell and I am a teacher with the Jackson Public School District. I am also a doctoral candidate in the Curriculum and Instruction Department at The University of Mississippi in Oxford, MS. I am in the process of writing my dissertation entitled: *Evaluating the Effectiveness of the Screening Process in Identifying Gifted and Talented Minority Students in Grades 1<sup>st</sup>-5<sup>th</sup> in Central Mississippi*. I am requesting permission to conduct my study in your school. I strongly believe your school will be a great contribution to my research and to the field of gifted education.

The purpose of my study is to investigate the effectiveness of a nonverbal assessment, the Naglieri Nonverbal Abilities Test, in identifying underrepresented and gifted minority students. Participants for this study will include students who have been referred for gifted screening in grades 1<sup>st</sup>-5<sup>th</sup>. The process will include using the traditional method of testing and students who will be screened using the alternative method of testing.

The traditional method of screening includes students being given the Raven's Standard Progressive Matrices (RAVENS), Gifted Rating Scale (GRS), the Otis-Lennon School Abilities Test (OLSAT), and the mean scores of their overall Grade Point Averages (GPA) of minority students referred for gifted screening. The alternative method of screening consists of the Raven's Standard Progressive Matrices (RAVENS), Gifted Rating Scale (GRS), the mean scores of overall Grade Point Averages (GPA), and the Naglieri Nonverbal Abilities Test (NNAT).

Two schools have been chosen for this research study, French Elementary and Raines Elementary Schools. All personal student information will be kept confidential. This study presents no risk to students, teachers, parents, or staff members in the district. Names of students or any specific descriptions related to students, schools, or school district will not be disclosed in the dissertation. Upon completion of the study, a copy of the findings will be mailed to you for your review.

If this request meets your approval, please inform me by March 6, 2012. Thank you in advance for your consideration in allowing me the opportunity to conduct research within your school. This research will greatly contribute to the underserved population of gifted minority students. Using an alternative method and assessment, school districts will be able to identify gifted minority students using a more balanced approach. If you have any questions, please feel free to contact:

Tracey Bell  
P. O. Box 10704  
Jackson, MS 39289  
Telephone: (662) 820-3732

or

Dr. Thea Hayes Williams-Black  
Associate Professor  
The University of Mississippi  
303 Guyton Hall  
Post Office Box 1848  
University, MS 38677-1848  
(662) 915-7123  
[twhayes@olemiss.edu](mailto:twhayes@olemiss.edu)

Sincerely,



Tracey R. Bell  
Gifted Teacher  
Jackson Public Schools  
Doctoral Candidate, The University of Mississippi

APPENDIX: D

## Permission Letter to Parent

March 5, 2012

Dear Parents,

My name is Tracey Bell and I am a teacher at French Elementary with the Jackson Public School District. I am also a doctoral candidate in the Curriculum and Instruction program at The University of Mississippi in Oxford, MS. I am in the process of conducting research related to choosing the best assessment to identify gifted minority students in grades 1<sup>st</sup>-5<sup>th</sup> in Central Mississippi.

You are receiving this letter because your child has been referred for gifted screening. If your child has been referred for gifted screening this year and took the RAVENS, he or she will be administered the Naglieri Nonverbal Abilities Test to determine which test is most effective. If this is your child's first time being referred, he or she will be administered the RAVENS as well as the Naglieri Nonverbal Abilities Test. The tests will be given on separate days and presents no risk to your child.

The Naglieri Nonverbal Abilities Test is quite similar to the RAVENS, the test given traditionally to students referred for gifted screening. The Naglieri Nonverbal Abilities Test is a nonverbal, culture-fair, nonbiased assessment that consists of vividly colored geometric designs arranged in a matrices format. The test measures general ability and does not require verbal skills. Administering the assessment takes 30 minutes. The items are based on reasoning and problem solving.

If you are interested in having your child participate in this research, at no charge to you, please complete the attached consent form and return to your child's teacher by March 8, 2012. Your child's assessment information is confidential, will not be disclosed to any other parties during any phase of the research process, and falls under the Family Educational Rights and Privacy Act guidelines.

Again, the purpose of my research is to investigate the effectiveness of the Naglieri Nonverbal Abilities Test in identifying gifted minority students. This research may provide valuable information concerning the utilization of alternative assessments in identifying gifted minority students.

Thank you in advance for your consideration in allowing me the opportunity to work with your child and to contribute to the field of gifted education. If you have any questions, please feel free to contact me using the information listed below.

Sincerely,

*Ms. Tracey R. Bell*

Tracey R. Bell  
Gifted Teacher  
French Elementary  
Jackson Public Schools  
Doctoral Candidate, The University of Mississippi  
(601) 960-5316

**Student's Name** \_\_\_\_\_

\_\_\_\_\_ Yes, I give \_\_\_\_\_ No, I do not give  
my child permission to participate in the gifted research study.

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Date



APPENDIX: E

## Approval Letter from the Department of Accountability and Research

Willie C. Johnson, Ph.D.  
Executive Director III  
Accountability & Research



Phone 601-960-8850  
Facsimile 601-960-8849  
Email [wjohnson@jackson.k12.ms.us](mailto:wjohnson@jackson.k12.ms.us)  
[www.jackson.k12.ms.us](http://www.jackson.k12.ms.us)

February 29, 2012

Tracy Bell  
P.O. Box 10704  
Jackson, MS 39289

Dear Ms. Bell:

The Jackson Public School District's Research Review Committee has approved your request to conduct your study "**Evaluating the Effectiveness of the Screening Process in Identifying Gifted and Talented Minority Students in Grades 1<sup>st</sup>-5<sup>th</sup> in Central Mississippi.**" Please ensure that all information pertaining to individuals identity and facilities used in the research remain anonymous. This letter certifies that your study will be conducted during the **2011-2012** school year. If you should need further assistance, please do not hesitate to contact our office. Best wishes with your research.

Sincerely,

A handwritten signature in black ink, appearing to read 'W.C. Johnson III', written over a horizontal line.

Willie C. Johnson  
Executive Director III

APPENDIX: F

## Approval Letter from French Elementary

Sebrina Brown, M.Ed.  
Principal



Phone 601-960-5316  
Facsimile 601-592-2495  
Email [sebrown@jackson.k12.ms.us](mailto:sebrown@jackson.k12.ms.us)  
[www.jackson.k12.ms.us](http://www.jackson.k12.ms.us)

**French Elementary School**  
"A School of Opportunity, Just Imagine the Possibilities"



March 1, 2012

Ms. Bell,

The staff and students at French Elementary School are excited to have been asked to participate in your investigative study regarding the *Effectiveness of the Screening Process in Identifying Gifted and Talented Minority Students in Grades 1<sup>st</sup> – 5<sup>th</sup> in Central Mississippi*. It is our desire to fully participate and support your efforts; therefore, please allow this letter of support to grant approval to officially begin your study.

Congratulations and best wishes to you as you complete your Doctoral program.

Sincerely,

  
Sebrina Palmer-Brown

## Approval Letter from Raines Elementary

Melissa McCray, M.Ed.  
Principal



Phone 601-923-2544  
Facsimile 601-923-0555  
Email [mmccray@jackson.k12.ms.us](mailto:mmccray@jackson.k12.ms.us)  
[www.jackson.k12.ms.us](http://www.jackson.k12.ms.us)

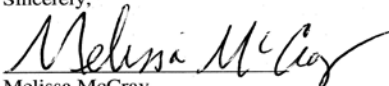
March 1, 2012

Ms. Bell,

The staff and students of Raines Elementary School are glad that you are interested in us participating in your investigative study regarding the *Effectiveness of the Screening Process in Identifying Gifted and Talented Minority Students in Grades 1<sup>st</sup> – 5<sup>th</sup> in Central Mississippi*. We will fully participate and support your efforts; therefore, please accept this letter of support as granting approval to officially begin your study.

Congratulations and we wish you the best as you complete your program of study.

Sincerely,

  
Melissa McCray

## VITAE

Tracey Renada Bell was born on June 28, 1980 in Glen Allan, Mississippi. She graduated from South Delta High School in Rolling Fork, Mississippi of May 1998. After graduating from high school, Tracey attended Mississippi Valley State University where she received a Bachelor of Science Degree in Elementary Education in 2002. In August 2003, she entered The University of Mississippi and received a Masters of Education Degree in Curriculum and Instruction. In January 2006, Tracey was accepted into the Doctorate of Education Degree Program in Curriculum and Instruction at The University of Mississippi. She holds an educator and administration license in both Tennessee and Mississippi. In May 2012, Tracey graduated and received her Doctorate of Education degree from The University of Mississippi. She was also chosen as a Fulbright Scholar through the College of Lifelong Learning at Jackson State University, spring 2012.

Tracey has worked as a regular classroom teacher for 2<sup>nd</sup> and 3<sup>rd</sup> grades, high school reading teacher, and a gifted teacher who served grades one through five. Tracey is currently working as a gifted teacher in the Jackson Public School District and lives in Brandon, Mississippi.