A DESCRIPTIVE STUDY OF EDUCATORS' GIFTED REFERRAL EFFICACY USING FRASIER'S TABs IN A PREDOMINATELY AFRICAN AMERICAN RURAL ALABAMA SCHOOL DISTRICT

by

ERINN CAMILLE FEARS FLOYD

(Under the Direction of Tarek C. Grantham)

The purpose of this study was to examine educators' gifted referral efficacy and its relationship to referral of students for the gifted education program within a rural, predominately African American school district in the state of Alabama. More specifically, what is known about the identification of rural, African American students who are referred for gifted education programs, and if understanding of Frasier's (1995c) Traits, Aptitudes, and Behaviors (TABs) constructs contributes to greater numbers of African American student referrals for gifted education programs in rural schools. Additionally, the relationship between educators' gifted referral efficacy, gifted program referrals, and training in gifted education were explored. The population for the study consisted of educators who are employed in the Macon County Public School District during the 2011-2012 academic year. The data were collected from a sample of 114 teachers and analyzed using descriptive statistics, Pearson's correlation coefficients (two-tailed), and analysis of variance (ANOVA). The main findings from the study were: (1) the Gifted Referral Efficacy Scale (GRES), a piloted instrument, is a valid and reliable measurement

of educators' use of the TABs as a gifted identification instrument, (2) there was moderately statistically significant correlation between educators' gifted referral efficacy and referrals using TABs, and (3) the training offered to educators did not significantly impact their referrals of rural, predominately African American gifted students. Based on the results of the study, it was concluded that the TABs are useful for assisting educators with looking at rural African, American gifted students through different lenses. Extensive professional development opportunities for all educators in the identification of this population of students is essential to increasing educators' gifted referral efficacy and reversing the underrepresentation and underenrollment of rural, African American students in gifted education programs.

INDEX WORDS: gifted identification, diversity, gifted education, teacher efficacy, TABs

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DEDICATION

To my dear grandmother, Rosa T. Storrs, whose selfless love and monumental support have sustained and motivated me throughout my life. Her example of excellence and professionalism is the catalyst for my pursuit of a terminal degree. At 98 years young, her peaceful energy and gentle smile continue to encourage me in all of my endeavors.

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To the legacy of the late Dr. Mary M. Frasier, who lit my gifted torch.

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CHAPTER 1

I think that we have to begin to recognize what the attributes are that symbolize giftedness. Then we need to venture into different cultural groups and search for how those attributes look…in different cultural contexts, in different economic contexts and, in different language areas. How do these things look the same, because all gifted people to me are people who are highly motivated about something, even if it's not the motivation that we see in school…."(M. Frasier, personal communication, June 22, 2003)

Historical Context

Historically, African American students have experienced a turbulent struggle for inclusive and equitable education (Ford, 1995; Ford & Webb, 1994; Hopkins & Garrett, 2010). Gifted and talented programs, designed to address the needs of students who are functioning, or capable of functioning, at a higher level than can be accommodated in the regular classroom, continue to be the most segregated programs of educational opportunity following the l954 landmark case, *Brown versus The Board of Education of Topeka, Kansas.* Ford and Webb argued that while this landmark case was groundbreaking, it has not solved inequalities in education or the problem of underrepresentation of African American students in gifted and talented programs.

Although giftedness is known to have existed among African American students early in the twentieth century, research regarding this population was virtually non-existent. Furthermore, the association of the term gifted with African American students was unheard of (Jenkins, 1936). In his search to discover the incidence, pattern, and racial composition of 'Negro' children of intelligence, Jenkins found that superior 'Negro' children are evenly distributed across grade and age levels, and are not inherently different from children of other races. His mission was to disprove theories that 'Negro' children were not as intelligent as their Caucasian counterparts and that they could not reach the levels of performance on traditional I.Q. tests that would classify them as 'gifted'. Jenkins concluded that intelligence is a matter of individual rather than racial differences. Prior to the research conducted by Jenkins, many of the studies focused on the academic inferiority of African American students and remediation thereof (Frasier, 1979; Jenkins, 1936; Witty and Jenkins, 1934).

The pioneering efforts of Witty and Jenkins (1935) provided empirical evidence of the intellectual development of persons of African descent and resulted in the first published case study of a gifted 9-year-old African American female student with an exceptional IQ score of 200. This case contradicted previously published research purporting the mental inferiority of the African American race.

For decades, Alabama, like many states, has suffered from the problem of underrepresentation and underenrollment of culturally diverse students in programs for the gifted and talented and it has been of concern to researchers and practitioners (Ford, 1995, 1996; Ford & Grantham, 2003; Ford, Harris, Tyson, & Trotman, 2002; Frasier, 1997; Frasier & Passow, 1994). Over the years, disproportionately low numbers of African American and Hispanic students have been referred for gifted education services compared to White students (Donovan

& Cross, 2002). Currently, teacher referrals serve as the highest method of placement of students into gifted education programs. In order to increase the regularity of identifying diverse gifted and talented students, it is inherent that gifted training for educators be more inclusive of more objective measures.

The Macon County Public School District has also been noted for its disproportionate overrepresentation of African American males in categories of behavior disorders and mental retardation and underrepresentation in gifted and talented programs (Smith, 2010). In 1963, Detroit Lee, a parent in Macon County, filed a class action lawsuit, *Anthony T. Lee et al. v Macon County Board of Education (Lee v. Macon),* on behalf of sixteen plaintiffs, to enjoin the Macon County board of Education from operating a segregated school system (Lee v. Macon County Board of Education, 267 F. Supp. 458-475-478 (M.D.Ala)). In 1967, all schools across the state were added to the lawsuit, making it a statewide school desegregation order.

In 1997, the problem of low referrals and eligibility of African American and Hispanic students was investigated by the Alabama Office for Civil Rights (*Lee v. Lee County Bd. of Educ.*, 963 F. Supp. 1122, 1124 (M.D. Ala. 1997)). Alabama's procedures were found to be detrimental to the identification of the underrepresented groups. It wasn't until nearly three decades after the initial lawsuit, in 2000, that Judge Myron Thompson and the United States (U. S.) Justice Department ruled that the Alabama Department of Education must settle the issue of overrepresentation in the area of mental retardation. This ruling resulted in the evolution of the *Lee v. Macon* Special Education Consent Decree. The Decree required the State of Alabama Department of Education to undertake initiatives in providing teacher training, establishing a program to improve reading achievement, and to make changes to Alabama administrative law in the areas of pre-referral, referral, evaluation procedures, and eligibility criteria within special

education. The precedent of *Lee v. Macon*, provided the impetus for not only justifying the number of African American students who were identified for special education programs, but also for increasing the number of minority students who were identified for gifted and talented programs.

New referral and eligibility determination procedures were required to address the state's identification process. Alabama's procedures are outlined in The *Alabama Administrative Code*, a compilation of the rules of the Alabama State Department of Education for Special Education Services, which provides school systems with guidelines concerning the referral and eligibility determination of gifted children (Alabama Department of Education, 2008). The resulting changes to the *Code* were implemented in 1999, and all school systems in Alabama were required to implement the changes no later than January 1, 2000. Included in the changes in gifted student identification process was: (1) a move from a single-score identification system to a multiple criteria approach; (2) a statewide mandate for screening of all second grade students; (3) that every second grade teacher received training on broadened views of giftedness and how to recognize atypical and typical gifted behaviors in children; and (4) the use of the TABs (Frasier, 1994) in the second grade gifted screening process.

To address the issue of awareness training for administrators, evaluators, and educators, state administrators (Alabama Department of Education, 2008) provided training on (a) the reasons for overrepresentation and under representation and, (b) the learning and behavioral characteristics of students with disabilities. Additionally, guidance regarding the characteristics of intellectual and creative giftedness in general and special education populations also was provided. State requirements also included screening of all second graders for evidence of gifted behavior. According to the Alabama State Department of Education regulations, all

school districts must conduct a Second Grade Gifted Child Find Procedure to identify gifted students. The second grade teachers observe their students for gifted and talented behaviors during the first semester of second grade. At the end of the first semester, the second grade teachers report the names of potential gifted students. In most school districts within the state, gifted education specialists are required to visit every second grade classroom at least three times to teach lessons that elicit gifted behaviors and products.

On March 8, 2007, the United States Justice Department released Alabama from the consent decree provided that all of the initiatives will continue in Alabama through required, ongoing, annual comprehensive monitoring of all local education agencies (LEAs) which occurs twice during a four-year monitoring cycle and requires each LEA to continue to monitor racial disparity and reevaluate identified students with nontraditional assessments. Smith (2010) and the Alabama Department of Education (2008) reported that since the implementation of the *Lee v. Macon* consent decree, there have been significant reductions in racial disparities in the special education classification of intellectual disabilities and the number of Black gifted students has increased.

Reasons for the continued problem of underrepresentation include: (a) narrow definitions of giftedness limited to observable intellectual and academic excellence, (b) identification practices that rely on instruments standardized utilizing the middle-class, White culture, and (c) the lack of knowledge about culture and poverty on the part of educators due to inadequate training. Narrow definitions and practices fail to account for the fact that gifted students bring cultural diversity and a variety of skills, which are shaped by their own culture. For these students, differences in language, family history, social customs, and traditions affect the quantity and quality of learning.

Few educators, regardless of tenure in the field, have received extensive training in multicultural education to assist them in the identification of gifted African American students whose talents and abilities often manifest differently based on cultural differences (Ford, 1995). Therefore, to address the underrepresentation of African American students in gifted education programs, educators must be trained in appropriate identification measures, become more sensitive to their diverse learning styles, and adopt more inclusive practices of identification.

Statement of the Problem

Teacher recommendations account for most gifted referrals and research suggests that teachers may not be the most reliable sources for identifying gifted learners from culturally or racially diverse backgrounds (Ford, 1995; Pegnato and Birch, 1959). Because students from diverse backgrounds exhibit giftedness in nontraditional ways, teachers are not as likely to recognize their behaviors as "gifted", thereby failing to nominate or refer them to programs for the gifted. Deficit thinking (Ford & Grantham, 2003; Ford, et al., 2002) often hinders educators from recognizing the potential of gifted African American students.

The population of the gifted program should mirror the diversity in today's school populations, but traditional identification procedures, such as culturally insensitive instruments (e.g., I.Q. tests), uni-dimensional assessment strategies, and narrow philosophies, definitions and theories of giftedness (Ford, 1996; Frasier, Garcia, & Passow, 1995; Frasier & Passow, 1994) have failed to identify culturally diverse gifted students and those from low socioeconomic backgrounds. The gifts and talents of culturally diverse and/or economically disadvantaged students often go unrecognized and undeveloped due to the lack of education and opportunities among educators to cultivate those talents.

Dr. Mary Frasier, one of the most prominent researchers and educators in the field of

gifted education who advocated for African American students, developed a multiple criteria identification method to increase the identification of culturally, economically, and linguistically diverse students. Passow and Frasier (1996) stated that even with current strides toward increasing numbers and proportions of economically disadvantaged and/or culturally diverse students, underrepresentation of these students in gifted programs seemed not to have changed substantially. Associated with the underrepresentation of these populations of students is the inability of educators to recognize the students' display of gifted behaviors in the classroom. Research by Frasier et al. (1995) at the University of Georgia helped to guide the development of more effective ways to facilitate the recognition of gifted children from these groups.

Continued underrepresentation of culturally different students requires a shift in purpose and pedagogy. It requires staff development and training to rethink teacher preparation and practice. Rural teachers must be trained to use more insightful and inclusive methods to assess students and recognize that giftedness is a measure of the students' abilities rather than how well they "fit in" with the mainstream culture. Assigned the label "gatekeeper", teachers have the right to provide or deny students to gifted programs through referrals, but often fail to fully comprehend the process and purpose of identification and its many components. As a result, educators are believed to be poor judges of talent potential in students (Pegnato & Birch, 1959). Empirical research on teacher nominations and how teachers perceive their ability to make referrals has been limited, especially for students from diverse backgrounds. Educators' and researchers' concerns about the underrepresentation of gifted minority students have thrived over the years (Baldwin, 1987; Ford, 1996; Frasier & Passow, 1994), however, what has not been explored in the field is teacher efficacy for identifying gifted African American students in rural communities. Researchers have found that teachers' sense of efficacy impacts their actions and

thinking (Ashton & Webb, 1986; Bandura, 1977,1986; Pajares, 1992; Woolfolk & Hoy, 1990), but no researcher has used a self-efficacy framework to try to understand teachers' self-efficacy for making gifted program referrals.

Relative to this study, there has been a lack of research on Alabama educators' self-efficacy regarding their knowledge and the skills needed to make reliable referrals of African American gifted students at the public school levels in rural Alabama. As a consequence, we do not know if teachers' beliefs about themselves influence their low referrals of African American students for gifted programs or if it is their beliefs about the students themselves. What we do know is that African American students have often been misdiagnosed and misplaced, which creates major academic challenges for teachers and administrators. Therefore, we must investigate how African American teachers perceive themselves and their knowledge and ability regarding referral of African American students identified for rural, predominately African American public school districts in the state of Alabama.

Purpose of the Study

The state of Alabama has adopted a multiple criteria approach to address the problem of underrepresentation and under enrollment of African American gifted students. The purpose of this study was to examine educators' gifted referral efficacy and its relationship to referral of students for the gifted education program within a rural, predominately African American school district in the state of Alabama. More specifically, what do teachers know about the identification of rural students who are referred for gifted education programs using Frasier's (1995a; 1995b; 1995c; 1995d) Traits, Aptitudes, and Behaviors (TABs) constructs and how teachers' perceive knowledge and ability contributes to greater numbers of student referrals for gifted education programs in a rural Alabama school district.

Research Questions

The study examined the following research questions in order to address the stated purpose of the research:

1. What is the gifted referral efficacy (i.e., perception of referral knowledge (PRK), and perception of referral ability (PRA)) of educators using TABs?
2. What is the relationship between educators' gifted referral efficacy (knowledge, ability) and gifted program referrals?
3. What is the relationship between educators' gifted training and gifted program referrals using TABs?

Alternative Hypotheses

The study tested the following hypotheses:

H_1: Educators will have a low gifted referral efficacy using TABs.

H_2: There will be a positive relationship between educators' Gifted Referral Efficacy (GRES) score and frequency of TABs referrals.

H_3: Educators who have received gifted education training will have statistically significantly higher mean gifted referral efficacy scores than those who have had no gifted education training.

Definition of Terms

1. *Frasier's TABs*: Traits, Aptitudes, and Behaviors (TABs) are ten core attributes associated with giftedness. The TABs are:
    - Motivation;
    - Interest;
    - Communication;

- Problem Solving;
- Memory;
- Inquiry;
- Insight;
- Reasoning;
- Creativity/Imagination;
- and Humor (Frasier, et al., 1995c).

2. *Gifted referral efficacy*: The perceptions or beliefs, values, and assumptions an educator has about his or her knowledge and ability related to referring students for gifted program services.
3. *Perception of referral knowledge*: an awareness of the characteristics that constitute one's knowledge about what the TABs are and using them to refer students to the gifted education program.
4. *Perception of referral ability*: an awareness of the characteristics that constitute one's ability to recognize gifted characteristics in students upon observation and interaction.
5. *Perception of TABs*: an awareness of the characteristics that constitute one's manifestations of any of the ten Traits, Aptitudes, or Behaviors (TABs).
6. *Educators' professional background*: the specific career experiences of an individual (i.e., highest degree earned, number of years as an educator, experience teaching gifted students and/or gifted certification).
7. *Years of professional experience as an educator*: the number of years an educator has worked in the field of education in any capacity as an employee of a school district since obtaining an undergraduate degree.

8. *Professional training in gifted education*: any formal experiences an educator has received to develop knowledge, skills, and dispositions related to gifted learners including cultural and socioeconomic factors that impact identification, development and characteristics of gifted learners, individual learning styles, instructional planning, assessment, collaboration, and professional and ethical practice.
9. *Level of education*: the extent of education a person has received (i.e., certification or degrees earned, or coursework completed).
10. *Gifted program referrals using TABs*: the process of collecting student information related to traits, aptitudes and behaviors associated with giftedness and making a recommendation that a student is considered for further assessment for gifted program services.

Summary

This chapter presented the introduction, purpose of the study, research questions, hypotheses and key terms inherent to this study. In gifted education, teachers are the primary referral sources for student screening and participation. Prior research has indicated the role of self-efficacy in teacher thought and behavior (Hunsaker, Finley, & Frank; 1997; Pajares, 1992; Podell & Soodak, 1993) regarding gifted program referrals. It is important for educators of gifted students to have high gifted referral efficacy (PRK and PRA) using TABs to increase the number of gifted education students in rural areas. If educators have low gifted referral efficacy, opportunities for professional development in gifted referral and identity will be key to increasing referral efficacy and gifted program participation in rural areas.

CHAPTER 2

LITERATURE REVIEW

This chapter summarizes the literature concerning gifted education, rural education, and African American gifted education. According to the National Association of Gifted Children (2011), a gifted student is an individual who demonstrates outstanding aptitude or competence in one or more domains. *Aptitude* is defined as an exceptional ability to learn or reason, while *competence* is defined as documented performance or achievement in the top ten percent of the population. (National Association of Gifted Children) Unfortunately, minority students remain underrepresented within the national gifted population. As a result, the ways in which giftedness is measured and students are identified has changed over time to include other dimensions or constructs which contribute to the construct of giftedness among students (Ford, Grantham, & Whiting, 2008; Frasier, 1987, 1997; Frasier, et al., 1995). In this chapter, I will answer the research questions identified in Chapter 1 through: (a) a general overview of gifted education history, research, and theory; (b) a description of gifted education measures; (c) an overview of student identification; and (d) a description of teacher professional development in gifted education and teacher identification of gifted students.

Gifted Education

History of gifted education

In 1868, the first known American efforts to educate students of exceptional academic ability were made by the superintendent of schools in St. Louis, Missouri, William Torrey Harris, who designed a system for early grade promotions for academically gifted students

(Jolly, 2009). Unfortunately, Harris' attempts to identify and educate the gifted students were very subjective and lacked a systematic or scientific measurement of students' abilities. One year into his seminal work, *Hereditary Genius*, Francis Galton (1869) proposed that intelligence was solely derived from heredity and passed through successive generations by a process of natural selection. Galton viewed intelligence as fixed with several characteristics, including physical characteristics passed from parents to offspring using pea pods such as height, strength, weight, length and breadth of the head, arm span and lung capacity, visual and auditory reaction time, and perceptions of length, to which he could assign a numerical measure (Johnson, 1895).

However, it was at the turn of the twentieth century that French researchers Binet and Simon (1905) began to develop a series of instruments designed to identify and separate children of inferior or lower intelligence from normal or exceptional functioning children for placement in special academic programs, thereby establishing a social and academic hierarchy within American classrooms, schools, and society as a whole. Researchers (Binet & Simon, 1905; Terman, 1922; Vialle, 1994) sought to examine mental inheritance and to construct instruments to measure each child's quotient or capacity for intelligence. Giftedness, as a construct, was a response to the developing research of the time on intelligence (National Association for Gifted Education, 2008; Terman). The initial study of giftedness and gifted education evolved from these early 20th century studies on the mental capacity and intelligence of children.

Specifically, Alfred Binet's (1905) theory identified intelligence as an individual's ability to use common sense in social interactions. Binet believed that intelligence was a combination of many skills that were shaped by one's environment. He considered intelligence to be the faculty of adapting oneself to circumstances so intelligence was evidenced by the ability to adapt to different social environments. Binet also rejected the idea that intelligence is a fixed and

innate quality. Credited with the concept of IQ, or Intelligence Quotient, much of Binet's research evolved out of his goal to help teachers adapt their teaching style and methodology to meet the varying abilities of their students. The first intelligence test, created in 1905 by Alfred Binet and Theodore Simon, was created to determine which French school children were too "slow" to benefit from regular instruction. The scientists' concept of giftedness was equated with mental age and attempted to capture intelligence with a single number (Binet & Simon, 1905).

The cultural influence on intelligence can be observed in several theories. Lewis Terman, considered by many to be the "father" of the gifted education movement (Karnes & Nugent, 2004), was the first to translate and publish the Stanford-Binet Tests of Intelligence in English, and was credited with forever changing intelligence testing and the face of American education (National Association for Gifted Children, 2008). In 1925, his longitudinal study of 1,500 gifted children, 90 percent of whom were White, upper middle class children, tracked the lives of the students to assess their developmental characteristics into adulthood (Vialle, 1994). In his development and revision of a variety of mental acuity tests, Terman normed student samples that were exclusively white, urban, and middle-class. He and his colleagues insisted that these tests measured natural endowment. Vialle reported that Terman and his colleagues did not consider cultural, social, or environmental factors. In other words, Terman's research was driven by a hereditarian view of the world that envisioned a meritocratic society. Terman's beliefs regarding the lack of intelligence of other non-white races and ethnicities not only influenced the interpretation of his data, but also the measures he used to gather those data. In other words, white, male, and middle class were considered the "norm," not only in education, but also, most notably in gifted education.

Immediately following World War II, gifted education research and school programming options for gifted students were at an all time low. Interest in gifted education waned and there were only occasional programs. Jolly (2009) noted the significance of current events on gifted education, describing the Soviet launch of Sputnik as signaling "a momentary Cold War victory further perpetuating the fears of the American public and galvanizing the efforts of the U. S. government through the pursuit of excellence and development of talent".

In the same decade, the Civil Rights Movement spurred renewed interest in equitable, education for all children, especially those from low socioeconomic backgrounds and minorities (Jolly, 2009). This era is most notably recognized by the case that launched the movement in 1954, *Brown v. Board of Education of Topeka, Kansas*. The case represented a tireless drive to end segregated education and to provide more equitable opportunities for children, specifically, African American, and those from diverse backgrounds, to have equal access to a good education. Ford (1995) argued that because the Supreme Court has not mandated federal legislation or a precedent on gifted education specifically, Brown v. Board of Education has served as an analogous case from which to make inferences for gifted education and equality of education for all students.

Equitable definitions of gifted. The connection between giftedness, intelligence, and the need to desegregate gifted education continue to drive the debate among researchers, educators, and policy makers. As a result, varying definitions of "intelligence" and "giftedness" have emerged among psychological and educational theorists (Ford, 1995; Ford et al., 2002). The widespread impact of governmental involvement and evaluation led to federal policy to evaluate the impact of programs that used federal dollars (Ford, 1995; Jolly, 2009). The first formal definition of giftedness, issued by the United States Department of Education was provided in

what is known as the *Marland Report* (1972), which defined gifted and talented children as those identified by professionally qualified persons, who, by virtue of outstanding abilities, are capable of high performance. According to the *Marland Report*, the abilities of gifted students include:

(1) a general intellectual ability;

(2) specific academic aptitudes;

(3) creative or productive thinking;

(4) leadership ability;

(5) visual and performing arts; and

(6) psychomotor ability.

In 1983, the report *A Nation At Risk* indicated that America's best and brightest students failed to compete with their international counterparts. This report became part of the Reauthorization of the Elementary and Secondary Education Act (ESEA). Later, in 1988, Congress passed the Jacob K. Javits Gifted and Talented Students Education Act, which also became a part of the Reauthorization of the ESEA. The Javits Act identified gifted students as a natural resource critical to the nation's progress and underscored the lack of interest in the academic needs of gifted students (Jolly, 2009). The act also provided grant monies to state and local educational agencies responsible for developing and maintaining gifted programs. One of the highlights of the act is its high priority on the identification of gifted racial minority and economically disadvantaged students (Ford, 1995). Following the Javits legislation, the National Association for Gifted Children published a position statement urging educators to use more than one test to make educational and placement decisions about gifted students, and to seek equity in their identification and assessment instruments, policies, and procedures (Ford, et al., 2002).

The United States Department of Education developed a broad, overarching 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 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. (U.S. Department of Education, 1993, p. 3)

This version of the federal government's definition of giftedness is key because prior federal definitions of giftedness did not address issues of equity and diversity (Ford, 1998). The same year, the *National Excellence- A Case for Developing America's Talent* (1993) outlined how America neglected its most talented youth and made a number of recommendations to improve the state of affairs for gifted education programs across the nation. Recommendations included:

- establishing challenging curriculum standards;
- establishing high-level learning opportunities;
- ensuring access to early childhood education;
- expanding opportunities for economically disadvantaged and minority children;
- encouraging appropriate teacher training and technical assistance; and

- ensuring that high-achieving students in the United States match or exceed the performance of high-achieving students anywhere in the world.

The current federal definition of gifted states:

> Students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities.

It is interesting to note that states and districts are not required to use the federal definition, although many states base their definitions on the federal definition (NAGC, 2008).

Beyond traditional theories of intelligence. More contemporary theories of intelligence are based on the concept that intelligence is not a single construct but is several constructs that may overlap, intersect, and interact. Unlike Binet (1905) who believed that intelligence was comprised of mathematical and linguistic ability, Gardner (1993, 1999) believed that there are more ways to measure intelligence. For example, Gardner (1999) defined intelligence as a ‘‘bio-psychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture’’ (pp. 33–34). Gardner proposed that the purpose of schooling was to develop intelligences that helped people reach vocational and avocational goals appropriate to their particular range of intelligences. He also believed that teachers who develop the unique intelligences of their students help them to feel more engaged and competent; therefore, more inclined to serve society in constructive ways.

There are many students, such as minority students, who do not fit the traditional mold for displaying intelligence or ability as indicated by IQ tests. Often these students are bright, but they do not excel on tests. Gardner (1993, 1999). Gardner (1983) argued that culture also plays a

large role in the development of the intelligences and all societies value different types of intelligences. The cultural value placed upon the ability to perform certain tasks provides the motivation to become skilled in those areas. Thus, while particular intelligences might be highly evolved in many people of one culture, those same intelligences might not be as developed in the individuals of another. Sternberg (1985) and Gardner (1993) agreed that the results of the rather narrowly crafted tests of vocabulary, verbal and non-verbal reasoning, spatial visualization and the like that make up standard IQ tests are unlikely to reflect all the skills necessary for learning and environmental adaptation. Even the first scientists (Binet, 1905; Terman, 1922; Vialle, 1994) who attempted to devise intelligence tests recognized that they measure only a part of intelligence. Populations in various parts of the world have clearly adapted to their environments in different ways; therefore, the ways in which we assess their talents and gifts must also be different, particularly in rural schools where identification is affected by the dynamics within the community.

Gifted Education in Rural Schools and Communities

Research on gifted education in rural areas suggested the need for a more precise conceptualization of what is meant by "rural" (Colangelo, Assouline, Baldus, & New, 2003). Nearly a third of all public schools are located in rural communities, and nearly a fifth of all public school students attend rural schools (Alliance for Excellent Education; 2010; Eppley, 2009; McClure, Redfield, & Hammer, 2003). Despite their size and location, rural schools and communities are economically, socially, racially, ethnically, and demographically diverse. However, the diversity that exists in rural schools--the commonality that rural communities share--is a scarcity of resources. Whether it is highly qualified teachers or access to technology

or advanced placement courses, rural communities often lack the resources necessary to prepare students for a global society.

According to Sherwood, "rural research is often education research that has been misunderstood, underfunded, unencouraged" (p. 21), and adding the gifted piece follows the struggle of researchers for rural education to be validated. The scarcity of literature on rural education is a testament to the lack of importance the field receives in the national media, and points to the need for more and improved research. Sherwood's work, on behalf of the Rural and School Community Trust, drew attention to education researchers' inability to recognize their own biases, which assessed rural communities in terms of inadequacy, rather than their assets. Rural education researchers (Eppley, 2009; Lewis, 2003; McClure, Redfield, & Hammer, 2003; Sherwood, 2000) acknowledge that it is difficult to establish a universal set of characteristics to describe or define rural schools and communities (Lewis, 2003; Sherwood, 2000), and that this diversity requires research to be conducted in a variety of settings to capture the uniqueness of these settings (Arnold et al., 2005).

Nonetheless, a growing body of research on rural education explains that rural environments provide unique advantages as well as challenges for the youth that reside there (Barley, & Beesley, 2007; DeYoung, 1991; U. S. Department of Education Federal Interagency Committee on Education, 1991; Williams, 2003). The advantages include strong family bonds and community involvement, individual student attention, and school pride. Complementary to these findings, Davalos and Griffin's study (1999) also highlighted the social and emotional support gifted students receive in rural communities. Results demonstrated that students from rural areas reported close rapport with fellow classmates, ease of working and playing together with others, the importance of the support received from family and church members, and an

overwhelming sense of belonging in the classroom and community. Findings from Davalos and Griffin's (1999) study emphasized the positive contribution of rural settings to the educational interactions and development on students educated there.

Furthermore, rural schools, working in partnership with local leaders and residents, can have a positive impact on community viability (Miller, 1995; Nachtigal, Haas, Parker, & Brown, 1989). This is especially true when rural gifted students, working alongside adults, are given meaningful opportunities to engage in community-based learning that serves the needs of the community while concomitantly addressing the learning needs of students. By building the social capital of the school and youth, the community not only helps to develop responsible citizens, but also creates opportunities for tomorrow's leaders to emerge.

Miller's research (1995) further documented findings from school to work practices in rural communities. The results showed the benefits to gifted youth in community based learning and development, including the following outcomes.

- Students can experience and develop many of the competencies required of our future workforce while simultaneously providing valuable service to the community;
- Students participate in activities that not only help transform the local community, but also help them to positively transform their beliefs and attitudes about it;
- Rural youth engage in opportunities to become active, responsible members of a community that works together which encourages them to view rural communities as a potential places to live and work; and
- Students learn and use important life skills.

There are many benefits of living within rural communities and rural gifted programs are poised to create connections for students to their communities and provide them opportunities for participation in the the combined impact of distance and sparse populations on schools' abilities to staff classes according to students' needs (Johnson & Strange, 2005; Ramage & Howley, 2005).nomination and referral procedures in ways that are uniquely meaningful to rural settings.

Challenges

Rural schools suffer disproportionately from inadequate funding and face several challenges that affect academic performance. Challenges include difficulty attracting and retaining highly qualified teachers who have appropriate training and credentials (Arnold et al., 2005; Ford, Grantham, & Harris, 1997; Holloway, 2002), high rates of child poverty (Farmer, Leung, Banks, Schaefer, Andrews, & Murray 2006; Huang & Howley, 1991; Jensen, 2009; Johnson & Strange, 2007), the inability of district and school administrators to provide appropriate staffing to meet students' needs because of distance and sparse populations (Johnson & Strange, 2005; Ramage & Howley, 2005), and limited resources for educational materials and professional development (Hickey & Harris, 2005; Howley & Howley, 2005).

Rural Gifted Education, Teachers and Equity. Rural communities and schools have highly diverse populations and needs. In 2007, the National Center for Education Statistics indicated that in rural areas, 78 percent of public school students were White, 10 percent were Black, 8 percent were Hispanic, 2 percent were Asian/Pacific Islander, and 3 percent were American Indian/Alaskan Native. However, Williams (2003) reported that it is not uncommon to find rural schools where nearly all of the students are from a single racial group. The diversity within rural areas demands the attention of educators to provide for the equitable representation of all students, regardless of ethnicity, in gifted education programs.

According to an Association of Teacher Educators survey of critical issues in teacher education, preparing teachers for multiethnic, multicultural settings was determined to be one of the three most critical issues to be addressed (Buttery, Haberman, & Houston, 1990). Researchers (Mercado, 2001; Nieto, 2004) have shown that schools across the United States serve student populations that are increasing in diversity, while nation's teaching force is becoming less diverse. Cross and Dixon (1998) found that educators in rural environments have done a good job of recognizing the "total" student, whose activities and talents represent a combination of gifted behaviors rather than a single depiction or dimension. Little research has been published on preparing nontraditional teacher candidates for diversity in rural settings (Gibson, 1994; Sherwood, 2000) and less is known about how to prepare them in rural gifted education (Colangelo, Assouline, & New, 1999). It can be exhausting for new rural gifted education teachers to design curriculum with students whose lives are different from their own. Behavior, cognitive style, and learning style should be considered when evaluating students for giftedness because these individual differences often work against a student from a diverse background. In many cases, cultural differences may affect teachers' views of the development of talent in rural African American students.

Current federal regulations surrounding high stakes testing pose additional challenges for teachers and students in rural areas. Rural educators are experiencing increased pressure to achieve 100% student proficiency in core subject areas by the year 2014 as a result of the 2001 No Child Left Behind (NCLB) Act. States establish a definition of "adequate yearly progress" (AYP) used each year to determine the achievement of each school district and school. The definition includes annual measurable objectives (AMOs), which indicate an improvement over the previous year's results per grade level. There are goals for overall student groups, as well as

for subgroups, such as special education, African American students, or English-language learners. These goals, based on federal funding and initiatives, have far reaching implications for students within rural areas and the teachers who instruct them.

Poverty and achievement. Thirty-three percent of the nation's schools are considered rural and nearly 41% of the nation's rural students are living in poverty, with ten states reporting rural student poverty rates of more than 50% (Rural School and Community Trust, 2012). The incidence of poverty in rural areas is correlated with academic achievement and many rural schools struggle with narrowing achievement gaps across racial and economic subgroups within the student population (Williams, 2003). Despite this glaring characteristic, small schools and districts can overcome the adverse effects of poverty on student achievement and narrow the achievement gap between poor students and their more affluent peers (Bickel & Howley, 2000; Johnson, 2004; Johnson, Howley, & Howley, 2002). Despite research that points to advantages of small schools, consolidation has been the result in many rural schools and districts. The researchers added that district consolidation can adversely affect test scores and children from low-income communities.

Rural African Americans typically experience poverty in greater numbers than their urban and suburban counterparts (Williams, 2003). In the Delta areas of the South where there are large concentrations of people of color, child poverty is especially pronounced, (Sherman, 1992), as well as in southern Appalachia, and the Black Belt. Because of the general risk of poverty and low resources, there is an increased need for teachers to engage universal interventions aimed at enhancing the general competence and academic achievement of all students in rural schools that serve high concentrations of impoverished youth. Children raised in poverty rarely choose to behave differently, but they are faced daily with overwhelming

challenges that affluent children never have to confront, and their brains have adapted to suboptimal conditions in ways that undermine good school performance (Jensen, 2009).

The challenges associated with rural schools and communities pose special problems for teacher educators to address the special needs of minority children, particularly those who are African American. Since the beginning of gifted education in America, African American children have not been appropriately represented in gifted education classes (Ford & Moore, 2004; Ford, et al., 2008; Frasier, 1989; Frasier & Passow, 1994; Morris, 2002). Negative stereotypes about academic performance, teacher attitudes, lack of teacher referrals (Frasier, Garcia, & Passow, 1995) of African American students to gifted education programs, and culturally biased tests are to blame (Baldwin, 1987; Ford, et al., 2002; Milner and Ford, 2007).

Many of the characteristics of rural areas create obstacles and disadvantages for its African American student residents (Edington, 1971), and often, the opportunities available to the youth there are limited. In his review of extant literature, Edington indicated that the incidence of "place" alone does not constitute the causes of the disadvantages rural youth experience. He found a relationship between economic status and school achievement of poor, rural students and concluded that the failure of teachers and educational institutions to prepare rural students living in poverty for employment outside their communities and unrealistic expectations of their abilities in light of their limited resources resulted in students' lowered aspirations for their own success.

Decades later, rural research continued to frame the effects of rurality on educational attainment. Howley's (2006) study challenged commonly held assumptions about the experiences of rural youth, highlighting that although rural life may limit students' educational aspirations, it can not be assumed that rural students are radically less ambitious than nonrural

students. The author discussed that rural communities generate important social benefits that tend to be devalued by educators and researchers alike, documenting that rurality engenders students to the rural areas in which they live and creates for them an attachment to those places. To date, little research has been conducted on the intersection of teachers' perceptions of rural students from poverty and trends in gifted program enrollment. While there is limited research on rural gifted students, there is much less on gifted African American students living in poverty (Hébert, 2001). The word *poverty* provokes strong emotions and many questions and involves a complex array of risk factors that adversely affect a population in a multitude of ways (Jensen, 2009), including the physical, socio-emotional, and cognitive wellbeing of students and their families (Frasier, 1987; 1989; Hébert, 2001; 2002). Poverty is as much a serious problem in rural America as it is in urban America (Hébert, 2001), and poverty rates are high in most rural areas of the United States, and higher in nonmetropolitan than metropolitan areas. Hébert added that African American children who live in the rural south have been dealt more than their share of the burdens associated with poverty.

Torrance (1969) insisted that talent is identifiable among rural, disadvantaged African American children if only those searching for the talent would refrain from limiting it to the type found among and based on the dominant, advantaged cultural values. Baldwin (2005) agreed, adding that teachers must understand that talent exists among this population of students to varying degrees such that there is as much difference within groups of culturally different individuals as there is among groups.

Underenrollment of Gifted African American Students in Rural Schools

Few studies have focused on the enrollment disparity, academic performance, and related school adjustment factors of rural African American youth from low-income communities.

Added to this dilemma is the fact that the absence of African American students in gifted education is often pronounced in rural school districts that serve high proportions of minority youth from impoverished backgrounds (Johnson & Strange, 2005). Identification of African American gifted students and the development of culturally relevant gifted programs have been problematic (Baldwin, 1987; Ford et al., 1997; Frasier, 1987, 1997; Morris, 2002). Ford et al. (2008) reported that, "Black students are underrepresented by as much as 55% nationally in gifted education; although Black students compose 17.2% of school districts, they represent only 8.4% of those identified as gifted" (p. 217). Making matters worse is the lack of high quality research conducted in rural settings regarding African American students. Jenkins (1936) wrote one of the earliest articles to address the underidentification of minority students (specifically, African American students) as gifted. He questioned the absence of African American children in studies of the gifted and to highlight their characteristics among a population in Chicago, Illinois.

A primary reason for the lack of adequate representation of Black students is the difficulty in identifying these students using culturally biased IQ and standardized tests (Baldwin, 1987; Frasier, 1987, 1997). African American children do not always score well on tests because of what many see as racial and cultural biases of the tests administered for placement in gifted education programs. Problems with testing cause minority children not only to be under-represented in gifted programs, but also over-represented in special education programs (Ford, 1998; Morris, 2002). Teachers' use of IQ tests and other so-called objective measures has not done much to improve efforts to identify academically gifted African American children. The most widely accepted explanation for the low participation of these students in programs for the gifted is the ineffectiveness and inappropriateness of the identification and

selection procedures that have traditionally and continue to be used (Frasier, 1987, Frasier & Passow, 1994; Ford & Moore; Morris).

Diversity and equity for culturally and linguistically diverse students is an understudied phenomenon. Virtually every school district is wrestling with issues surrounding the under-representation of minority students in gifted education (Ford, 2010). Black students and families face several barriers in gifted education. The underrepresentation of Black students in gifted education programs is not a novel trend, yet it is a tragic one. More attention and respect should be paid to the cultural differences that exist among Black populations in order to reverse the trends of underrepresentation and under enrollment, particularly in rural schools.

The success of gifted African American students depends, in large part, on the attitudes and behaviors of teachers, counselors, and school administrators (Ford & Grantham, 1996; Ford, Harris, et al., 2002; Ford and Trotman, 2001; Frasier, Garcia, and Passow, 1995). Ford, et al., (2008) suggested that school administrators encourage teachers to address low expectations of minority students and any deficit thinking (Ford & Grantham, 2003; Ford, et al.) orientations they may have of them due to the devastating impact these beliefs and practices have on the students. The researchers called for a "proactive shift" (p. 297) in attitude and philosophy to remove existing and potential barriers to gifted education for students from culturally diverse backgrounds. Disapproving mindsets of some teachers, the rapid turnover rate of teaching staff, lack of resources, and decaying physical structures of many schools attended by African American children all contribute to negative learning experiences for them.

Teachers' Role in Identification and Underrepresentation

Frasier et al. (1995a) conducted a national study of educators to identify barriers in the identification of minority students to gifted education programs. Their results showed that of the

750 participants, more than half (62%) believed that a barrier to identification was the teachers' inability to identify academic potential in culturally and economically diverse students. Slightly less than half (42%) believed that teachers' bias was a major hindrance to identification. Ford and Harris (1996) contended that African American students' being different and feelings of not belonging result in poor relationships with peers, stress, and decreased motivation and performance, thereby leading to academic underachievement. It is important for teachers to consider the influence of rural culture and the environment on the manifestation of gifts and talents in different geographic regions, and the effects they have on rural teacher referrals and rural students' test performance (Nachtigal, 1982; Spicker & Aamidor, 1996), and student retention in these programs.

Identifying economically disadvantaged gifted children in rural areas must be considered within the context of rural communities, rural schooling, and the two social classes, "those who have control, and those who are vulnerable to that control, the haves and have-nots" (Duncan & Sweet, 1992, p. xx). Access (Frasier, 1991, 1997) refers to ways in which rural students become considered for gifted program screening and placement. Too often, educators hold low academic expectations for rural students, which means that such teachers will fail to adequately create opportunities in classrooms for rural students to demonstrate their abilities. A rural classroom where students are not challenged prevents students from being prepared to be viable candidates for services beyond the regular curriculum. Easy curricular experiences are compounded when educators do not have the skills to recognize gifted behaviors when expressed by rural students in non-traditional ways. When provided with common characteristics associated with typical and atypical gifted students, many rural school educators still struggle to recognize these characteristics, particularly if rural students are underachievers, from low-income backgrounds,

or speak non-standard English. It is important to consider the influence of rural culture and environment on the manifestation of gifts and talents in different geographic regions, and the effects they have on rural teacher referrals and rural students' test performance (Nachtigal, 1982; Spicker & Aamidor, 1996).

Traditional methods

The identification of gifted and talented children in rural and isolated communities should include non-traditional methods. The use of untimed, nonverbal intelligence tests, measures of spatial abilities, and greater emphasis on analysis of students' products and anecdotal information has been advocated as alternatives (Spicker, Southern & Davis, 1987). Frasier and Passow (1994) outlined other major assessment practices in gifted education that have relevance for informing a new paradigm of identifying talent potential among rural students.

The procedures used to identify gifted students depend on the definition of gifted and talented adopted by the local school district. The most common methods include an IQ criterion with a cut off conventionally set at 130. Both individual and group tests are used, along with standardized achievement tests, which increase the likelihood of the exclusion of underachieving gifted students. For greater success in identifying students from rural backgrounds, checklists, anecdotal reports from parents, teachers, peers and the child under review, along with evaluations of the student's work or performance are commonly employed, with the emphasis being placed on early identification.

In rural communities, identification can be a delicate issue. Lewis (2000) suggests that program policies and procedures be written and available to the public. It is important to create a process for identifying students that is broad enough to include as many students as possible that would benefit from a gifted education program. Methods used for identification should take

into consideration the differences in background between rural and urban communities and employ more nontraditional assessments (Spicker, Southern, & Davis, 1987). Multidimensional assessment takes account of skills, attitudes and values considered important within the individual's cultural group, as well as those measured by standardized tests. The use of culturally sensitive rating scales and assessment items provides more appropriate assessment of rural students' artistic and creative performance, their attitudes, and values.

Research has shown that serving gifted students in rural environments may require models different from those employed in serving gifted students in larger or more urban environments (Colangelo et al., 1999; Frasier & Passow, 1994). A study by Cross and Burney (2005) suggested that having fewer students can allow the smaller rural school to tailor access to academic opportunities at the individual level. The study, *Project Aspire,* emphasized academics and counseling in improving the lives of impoverished, academically able students in rural schools. The grant-funded project sought to train counselors on the characteristics and needs of low-income students while providing strategies to assist counselors in helping these students adjust to an environment with high academic and career expectations. Implications from the study indicated that counselors must do things differently for high-ability students from poverty, considering the additional barriers these students face, such as family responsibilities, participation in extracurricular activities, lack of parental support with academics, and fewer opportunities for college exposure. *Project Aspire* clearly indicated the need for a nontraditional approach to serving poor, minority students in gifted environments.

Multiple criteria identification

While research concerning alternative assessment is reported in the literature (Frasier, 1987; Maker, 1996; Tonemah, 1987), these are somewhat dated, with only a few studies that

focus on rural, economically disadvantaged, gifted children (Spicker, 1993, 1996). Developing appropriate and varied identification procedures, which are sensitive to the expression of giftedness in rural populations from the different racial, ethnic, or cultural groups, is essential (Ford et al. 2002; Frasier, 1987,1997; Frasier et al., 1995a; Frasier & Passow, 1994). A recurring recommendation for increasing the representation of racially and culturally diverse students in gifted education programs is to use multiple identification criteria and sources (Baldwin, 1987; Ford, 1994, 1996; Frasier, Garcia, & Passow, 1995; Frasier & Passow, 1994). Because African American students have cognitive orientations and preferences that are strikingly different from European American children, these authors agree that traditional instructional and social development practices aimed at the dominant culture and middle class children may be less effective with African American learners. To this end, the demands of conventional approaches may conflict with those inherent in non-school settings, thus creating cultural discontinuities between schools and learners' experiences. Cultural discontinuity (Ford, et al., 2008) refers to the "mismatch" between home culture and school culture. African American students are at a disadvantage because of the mismatch between their own culture and the culture of the school, and in many cases, the culture of the teacher. Educators must remain aware of and address the achievement needs of gifted students from diverse backgrounds without focusing solely on their economic and social living conditions (Ford et al., 2002; Hébert, 2002).

Teacher Self-Efficacy and Gifted Referrals

Teachers' ability to make accurate observations and referrals of students to be considered for gifted programs is critical. The use of teacher recommendations or nominations for referring students for gifted programs has been controversial for decades because teachers tend to focus on skills associated with academic performance and less on creativity, leadership and motor skills

when nominating students to gifted programs (Hunsaker, Finley, & Frank, 1997).

Teachers' self-efficacy affects the effort teachers invest in teaching, the goals they set, and their level of aspiration (Tschannen-Moran & Hoy, 2001). For more than eight decades, scholars have examined the efficacy of teacher judgment when making referrals for gifted education screening, identification and placement (e.g., Borland, 1978; Davis & Rimm, 2004; Gagné, 1994; Gear, 1976; Pegnato & Birch, 1959). Ford (2007) reported that although these studies cited different findings, few have focused on teacher referral and identification of gifted students who are culturally different.

Self-efficacy theory and research

At the turn of the present century, when American psychology began to take its place among the other academic disciplines, there was a great deal of interest both in the self and in the role that beliefs play in human conduct. For example, when William James (1891a, 1891b) wrote the Principles of Psychology, his chapter on "The Consciousness of Self" was the longest in the two volumes. James was one of the first writers to use the term *self-esteem*, which he described as a self-feeling that depends on what one decides to be and to accomplish. James argued self-esteem may be raised, either by succeeding in our endeavors or, in the face of incessant disappointments, by lowering our sights and surrendering certain pretensions. James even provided a mathematical formula for self-esteem that suggests that, in essence, how we feel about ourselves depends on the success with which we accomplish those things we wish to accomplish.

Heavily influenced by James, Bandura (1986) proposed a social cognitive theory of human functioning that emphasized the critical role of self-beliefs in human cognition, motivation, and behavior. Rejecting the behaviorists' indifference to self-processes, Bandura

(1977) argued that individuals possess a self-system that enables them to exercise a measure of control over their thoughts, feelings, and actions. Bandura later added (1986) that individuals create and develop self-perceptions of capability that become instrumental to the goals they pursue and to the control they are able to exercise over their environments. In doing so, he reinvigorated the nearly abandoned focus on the self in the study of human processes that William James had initiated nearly a century earlier. In Bandura's theory, individuals are viewed as proactive and self-regulating rather than as reactive and controlled either by environmental or by biological forces. According to Bandura, how people behave can often be better predicted by the beliefs they hold about their capabilities, which he called self-efficacy beliefs, than by what they are actually capable of accomplishing,

Self-efficacy, the belief in one's abilities to accomplish desired outcomes, powerfully affects people's behavior, motivation, and ultimately, their success or failure (Bandura, 1997). Without it, people are not inclined to expend much effort in endeavors because they perceive their efforts will be futile. Bandura (1977) distinguished between earlier research involving locus of control (Rotter, 1966) and self-efficacy. He identified locus of control as an outcome expectancy or "a person's estimate that a given behavior will lead to certain outcomes". (p. 193). In other words, outcome expectancy reflects the extent to which a teacher believes he or she is capable of implementing a technique at the appropriate level in order to achieve the desired success. Demonstrating a relationship between efficacy and outcome expectancies, Bandura showed that an individual first has efficacy beliefs about the ability to perform a given behavior and from those beliefs derives an outcome expectation. Bandura surmised that those with high self-efficacy expectancies are healthier, more effective, and generally more successful than those with low self-efficacy expectancies.

Teachers' sense of self-efficacy affects their general orientation toward the educational process as well as their specific instructional practices (Woolfolk & Hoy, 1990). Teachers who believe strongly in their instructional efficacy support development of students' intrinsic interests and academic self-directedness. Referral to special education programs and bias in referral decisions have been linked to teacher efficacy (Podell & Soodak, 1993). In their study, Podell and Soodak found that teachers with higher personal efficacy tended to make better teacher based decisions regarding meeting the needs of their students and those who are least likely to refer students are high in both personal and teaching efficacy.

Teacher efficacy is a simple idea with significant implications. A teacher's efficacy belief is a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated (Armor et al., 1976; Bandura, 1977). Teacher efficacy is a dynamic construct that is cyclical in nature. As a motivational construct, efficacy influences teachers' effort and persistence that then affects performance, which in turn, becomes a new source of efficacy information. According to Bandura (1997), over time, the process stabilizes and a relatively enduring set of efficacy beliefs are established which tend to be resistant to change.

Teacher efficacy and teacher knowledge, often considered independently, need to be considered in tandem (Raudenbush, et al., 1992). Teacher efficacy is a mediator between knowledge and action as Bandura (1986) declared; therefore, it is important to know more about what teachers know and how this knowledge affects efficacy. Raudenbush et al. approached self-efficacy research from the perspective that secondary teachers' efficacy changes across situations and is not static because their varying daily schedules of classes contain students with different circumstances and challenges. Although the results of their study warn against

classifying teachers as “low” or “high” in self-efficacy, they indicated that secondary teachers' increased control over their working conditions and increased opportunities for collaboration with other teachers can enhance their perceived self-efficacy.

Personal efficacy focuses specifically on teachers’ belief about their own ability to impact students rather than on the more distant notion of what teaching and teachers can do in general. As such and for the purpose of this study, the perspective of personal efficacy more closely reflects the meaning and understanding of self-efficacy as put forth by Bandura (1977, 1986, 1993, 1997) and avoids confounding teacher efficacy with locus of control.

High teacher efficacy is powerful, and its benefits are powerful, especially for African American students. Pajares (1992), rooted in the works of Bandura (1986), concluded, "beliefs are the best indicators of the decisions individuals make throughout their lives" (p. 307). It follows that teachers’ beliefs about their personal teaching abilities would be a key indicator of teacher behavior, decisions, and organization of their classroom environments. Pajares also showed that while much research has been done on how teachers think, it has been fruitless in determining expectations of teachers’ actions, while knowledge of teacher beliefs (teacher efficacy) has had powerful predictive powers.

The impact that positive teacher efficacy has on the school environment is likewise clear. Ashton and Webb (1986) developed a two-factor model of teacher efficacy, general and personal efficacy scales, which can be used in a variety of settings to assess teachers’ beliefs. The researchers’ study, conducted in middle schools, utilized a 2-item Rand scale, along with their own devised scale, and teacher interviews. They reported that teachers fall into either of two categories, general, in which schools and teachers in general can make a difference, and personal, in which individual teachers believe they can make a difference. According to these

researchers, positive efficacy in teachers--whether general teaching efficacy or personal teaching efficacy--creates positive outcomes for students and an enriched learning environment and has been related to student outcomes such as achievement. Also key to student success is the teacher's effectiveness and ability to refer students regardless of their cultural or social background further demonstrating that high efficacy teachers exhibit greater cultural receptivity and are confident in their abilities to refer students for gifted education programs.

Teachers' gifted referral efficacy

The identification of gifted children based on teacher recommendation is an old practice. Educators and philosophers as early as Plato advocated identifying the gifted and providing specialized education in metaphysics, science, philosophy, and military leadership (Colangelo & Davis, 1997; Davis & Rimm, 2004). In his "Classes for Gifted Children," Whipple (1919) insisted that the common pace of instruction for all children was impossible and recommended the adaptation of methods for classrooms with gifted children, although he believed that selection of the students must not be based solely on teacher recommendation, which are mere "estimates" of pupils' abilities, or the "inferences of school administrators" which are based on students' previous report cards (p. 118).

Teachers have a unique perspective that is valued when considering students for gifted and talented programs (Siegle, Moore, Mann, & Strulson, 2006). In their study, the authors found that given student profiles to indicate if they believed the students in the profiles would qualify for gifted education program, both in-service and pre-service teachers were influenced by students' interests, SES levels and areas of academic strength. With the important role of "gatekeeper" associated with teachers' referral powers, it is imperative that educators be armed with the knowledge of appropriate gifted referral practices. Ford (2007) agreed that the teacher

referral process operates in this manner, often closing doors to opportunities for culturally diverse gifted students.

The widely acclaimed classic study conducted by Pegnato and Birch (1959), formed the basis of the widespread belief that teachers are poor judges of student potential. In their study, teachers performed poorly in the identification of students with IQ scores of over 130 on the Stanford-Binet test. The researchers suggested that teachers most often chose children like themselves as gifted using their own values as the criterion for selection. Often the quiet, well-behaved, well-dressed child who gets good grades is a prime target for teacher selection. In their study, the researchers found that teachers identified only 45% of the students in their classes who were cognitively gifted, actually missing 55%. Moreover, teachers incorrectly identified many average students as gifted. They suggested that systematic bias may exist among teachers when attempting to identify giftedness in students. Similarly, Elhoweris (2008) showed that educators' perceptions of economically disadvantaged students, combined with a lack of cultural understanding, may undermine their ability to identify and channel economically disadvantaged students into gifted education programs.

Podell and Soodak's (1993) efficacy research of more than a decade earlier also showed the inverse correlation between teacher efficacy and referrals, indicating that high efficacy teachers are less likely to refer low socioeconomic status students and students with behavior problems for special services than low efficacy teachers. The authors found that teacher self-efficacy is related to their referral behaviors, and that teachers with higher efficacy tend to question gifted education placement for students who experience any difficulty in school. In other words, students are less likely to be considered gifted if they are not "perfect" or have any challenges with school subjects or "appropriate" behavior. Similar to the current study, teacher

perceptions of student behavior and traits are vital to student placement in gifted education programs. The role of the teacher as the referring agent has important implications for student access to gifted programs, which is limited if teachers demonstrate bias or view students from a culturally deficit perspective and assume that African American or low SES students are incapable of high achievement. Ford (2007) shared that teachers serving as the primary referral source is a by-product of teachers' prior judgment of students and their expectations of student performance.

Teachers' gifted referral efficacy for African American students

Learning styles that do not exemplify those represented by the mainstream population in classrooms add to the perception that students from diverse backgrounds are not candidates for gifted programs. The experiences and behaviors that manifest in African American students in rural settings only exacerbate the issue. For example, Ford and Grantham (2003) described the cultural differences related to learning, communication, and behavioral styles that exist among educators and culturally diverse students, making it difficult to view these students as gifted. The researchers shared that in higher education teacher preparation programs, few future educators are exposed to multicultural experiences, curricula, or internships. As a result, educators misinterpret the cultural differences that exist between them and their students and consider the differences to be student deficits.

Because children from diverse backgrounds exhibit various cultural differences, inconsistencies exist in identifying African American students for gifted programs (Ford, 1996). Ford found that most of the African American students' high test scores met district criteria for identification and placement, yet they were underrepresented in gifted education programs because teachers did not refer them for screening.

Elhoweris, Mutua, Alsheikh, and Holloway (2005) studied the effect of students' ethnicity on teacher referrals to gifted and talented programs. From a sample of 207 teachers representing 16 elementary schools in a large metropolitan midwestern city, Elhoweris et al., used short vignettes of a student exhibiting research-based characteristics of gifted program eligibility. Randomly assigned to three treatment groups with each describing a student from a different ethnic background (European American, African American, and control with no information about ethnicity) respondents to the two-question 6 point Likert –type scale were asked to respond to a question asking if the student should be placed in gifted and talented program or considered for additional comprehensive evaluation for possible placement in the gifted program. The researchers found that regardless of identical student information on ability, the ethnicity of students makes a difference in teachers' referral decisions. In other words, teachers rely on the ethnicity of students when making decisions to refer for gifted education programs, rather than the ability or gifted behaviors of the student. Further, the teachers in the Elhoweris et al., study perceived non-labeled and European American students in the same vein in contrast to African American students of whom teachers had lower expectations. This finding informed the current study regarding African American student behavior by encouraging the use of atypical behaviors associated with giftedness versus traditional 'schoolhouse' gifted behaviors. The perceptions and low expectations teachers have of African American students indicated that the stereotypes teachers have of them bars them from participation in gifted education programs and points to a need for increased knowledge and training for general educators regarding gifted African American students.

An additional problem related to teacher referrals of African American students is the overreliance on, the misuse of, and the use of standardized tests. This practice is further

confounded by inattention to the influence of one's culture and environment on the development and manifestation of giftedness and talent in different racial groups. With teachers as the primary referral source in most cases, researchers have often questioned the low representation of students from diverse backgrounds, especially with regard to socioeconomic status (SES).

In his study of the effects of race and socioeconomic status on gifted identification, McBee (2006) concluded that there may be two plausible interpretations of the variation in nomination procedures of low SES and high SES students from different cultures. The descriptive study analyzed data from the Georgia Department of Education in 2004 for elementary students (*N = 705,074)*. McBee indicated that despite several sources of referrals including automatic referrals resulting from student performance in the 90th percentile or above on standardized tests, referrals from teachers, parents, the student, peers, or other school sources, automatic and teacher referrals were valued much more than the other sources of referrals. In line with the current study, McBee's study revealed that although identification of ability may not be precisely evenly distributed across backgrounds, current methods for identifying gifted students may be overlooking students hailing from traditionally underrepresented backgrounds. In other words, as suggested in the study's findings, McBee believed that educators perceived whites to have higher ability than African American students. This finding supports the teacher efficacy literature that reported inequalities in gifted education (Elhoweris, 2008; Elhoweris et al., 2005; Pajares, 1992; Pegnato & Birch, 1959), which may be based more on nominating procedures than assessment for low SES student referrals to gifted programs. This practice limits gifted program access to such students and supports the need to clearly define equitable identification procedures for all educators. Additionally, it points to the need to describe the

gifted characteristics of low SES students, particularly African American, and train educators to recognize these traits when making gifted program referrals.

The poorest rural schools are located in places with some of the most entrenched patterns of racial and economic discrimination and oppression in the country and in states where resources tend to be most limited and policy harshest toward poor people (Edington, 1971; Rural School and Community Trust, 2009). Many of these school districts are in rural areas with large numbers of African American students. In a study to investigate how well alternative strategies work within school districts that serve a large number of culturally diverse students, Hunsaker (1994) found that it is necessary for educators to deal with their personal beliefs regarding the presence of giftedness among diverse populations and that the underrepresentation of this group of students may be the result of the nontraditional manner in which their gifts manifest.

Minority children of culturally diverse backgrounds are often undetected in the conventional definitions used for recruitment to gifted programs and a blanket generalization should not be made about all of the gifted students from culturally diverse backgrounds (Baldwin, 2002). Baldwin added that it is important for teachers to understand that there is as much difference within groups of culturally diverse individuals as there is between groups. Therefore, a blanket generalization should not be made about all of the gifted students from culturally diverse backgrounds. In addition to the low referral rates of African American students, the identification instruments employed are not helpful to this population of students because the items fail to capture their true abilities.

African American students often feel inferior, hide themselves from other students and their teachers and tend to withdraw from classroom activities (Ford et al., 2002). As a result, teachers who are unfamiliar with the characteristics of gifted children will often pick out the

students who are well behaved, motivated, and earn good grades. Gifted children often don't fit that image. And if African American children learn that it is not acceptable for them to be motivated and excel in school because that is "acting white," then they will certainly not fit the image many teachers have of the traditional gifted student.

As gatekeepers, teachers must recognize and accept that gifted African American students are global rather than analytical learners, and strive to understand the manner in which these students gifts and talents manifest (Ford & Webb, 1994). Otherwise, a lack of knowledge among educators regarding the cultural backgrounds and learning styles of gifted African American students will reduce their chances of being identified or referred for gifted program participation and continue the cycle of underrepresentation in gifted education programs. Underrepresentation sends a message of exclusion that can lead to perceptions of racism or elitism. The potential underdevelopment or loss of talent among culturally diverse students as a result of inappropriate educational experiences is troubling.

Educators' Professional Background in Rural Gifted Education

Rural schools struggle to reach acceptable levels of success in educating and closing the achievement gap across the racial and economic subgroups of their diverse student populations (Williams, 2003). Williams contended that in some rural environments, cultural knowledge and expectations help to shape teacher training, instructional practice, and the assessment of what children gain from the K-12 learning experience. In order for this special population of students to receive the attention it deserves and to develop the talent present within, more information and training opportunities must be available to educators. Students without access to educators who nurture their potential are at a disadvantage for gifted identification. Educators who believe that

their professional background in rural gifted education is inadequate may be less likely to refer students for gifted programs.

Counselors are also key figures in the success of gifted minority students. As indicated in Project Aspire (Cross & Burney, 2005), counselors play a vital role in supporting the academic and career aspirations of rural gifted minority students. The counselor could provide the key to encouraging the vision that it is possible for high ability students from rural backgrounds to succeed. Counselors often serve as the advocate for these students when other faculty members are intolerant of the behavioral aspects of the culture of poverty or rural giftedness. In related research, the authors suggested that educators must garner training and expertise in assisting students with finding ways out of the bonds of their rural circumstances (Burney & Cross, 2006).

In a survey of gifted program directors in higher education who prepare teachers of the gifted, Bull and Fishkin (1987) found that rural gifted educators require special training to serve rural, gifted students. Respondents indicated that conventional identification, although ineffective, typically favored high SES urban students over lower SES gifted disadvantaged, rural students. This limitation in training can cause educators to feel less capable of making valid referrals.

Experience teaching gifted students

Teacher training is actually one of the biggest problem areas in gifted education. Classroom teachers play an important role in the identification of gifted students through teacher recommendations and referrals. Because most gifted children remain in regular classrooms, all teachers need training on how to best teach gifted children, yet very few teacher preparation programs require any courses on gifted learners. Lack of preparation in serving gifted students hinders teachers' abilities to make fair referrals (Ford & Grantham, 2003; Frasier et al., 1995b).

In a survey of minority teachers regarding their decisions to enter any aspect of education, teachers reported having little exposure to gifted education during their teacher preparation programs, even those with degrees in special education (Ford, 1999).

Traditionally, classroom teachers are responsible for the initial nomination of students to gifted education programs although they have little to no training. Typically, these referrals are based on "teacher pleasing behaviors" which are not necessarily indicative of potential or observed intellectual talent or ability (Ford, 1996). In general, elementary school classroom teachers tend to focus on characteristics of giftedness that indicate a more traditional conception of giftedness (Frasier et al., 1995 a, 1995b, 1995c; Hunsaker, 1994; Hunsaker et al., 1997). The teachers' theories and beliefs reflect a view of giftedness as exemplary performance in school and superior abstract reasoning skills that are shown in a traditional school-oriented manner, rather than a culturally based, inclusive view of giftedness. It is important that classroom teachers receive alternative educational experiences and training in working with culturally diverse students (Ford & Moore, 2004; Ford & Grantham, 2003; Frasier et al., 1995a). Educators who don't receive these experiences may not see the characteristics of African American students as gifted, therefore, missing opportunities to refer potentially gifted students for gifted services.

Training in gifted identification

Although gifted and talented students are in every school and classroom, few districts require that all classroom teachers receive training to address the educational needs of advanced learners. In the United States, there are twenty-four states that do not require gifted and talented credentials for professionals working in specialized gifted and talented programs and in many states, gifted and talented education preparation and credentialing have been diminished to

elective coursework. Unfortunately, most gifted and talented children spend the majority of their time in the regular education classroom, and are taught by teachers who are not trained to meet their needs. Does this help or hinder educators' sense of efficacy to make referrals?

In its 2010 State of the Nation in Gifted Education Report, NAGC reported that only six states require all teachers to receive pre-service training in gifted and talented education. General education teachers in 36 states are not required to have any training on the nature and needs of gifted and talented students at any point in their careers. There are only five states require annual professional development for teachers in specialized gifted and talented programs, 26 states do not require it, and 12 leave it to the local school district. In many states, gifted and talented education preparation and credentialing have been diminished to elective coursework.

Teachers' expectations of gifted students are often influenced by their values and beliefs, thereby significantly influencing their decisions, including referrals for gifted programs. Teachers play an important role in the identification of students for gifted education programs and their ability to make accurate observations is critical in creating a group of students to be considered for gifted program participation. Davis and Rimm (2004) shared that although teacher nominations are widely utilized, they are among the least reliable and least valid measures used to identify gifted students.

Utilizing teachers as primary identifiers of gifted learners carries numerous implications for the recruitment and retention of minority students, particularly because many teachers are not substantively prepared in gifted and multi-cultural education. This lack of preparation and experience creates nominations based on previous training and/or stereotypes educators have developed (Siegle et al., 2006) which might result in inherent biases and decreases the probability that gifted minority students will be identified and placed in a gifted program (Ford

& Harris, 1996). Additionally, educators must be trained to recognize specific criteria that match the area of talent that a gifted program is designed to provide services for (Borland, 1978; Siegle et al., 2006). Frasier (1990) recommended that staff development be provided to raters, because many teachers hold stereotypes about gifted students as only well-behaved and academically successful students. Often these teachers are unlikely to refer gifted underachieving students and those students who are currently misbehaving. Training in gifted education can increase teachers' understanding, awareness, and competence in recognizing gifted behaviors. Such training will go a long way toward improving educators' gifted referral efficacy and the number of referrals of African American students for gifted programs.

The lack of training that states require for educators in gifted education in disturbing. In a national study (Archambault et. al, 1993) where over 3,800 teachers were surveyed from several regions of the United States (Northeast, South, West, North Central, rural, urban, and suburban) with varying school (public and private) and student demographics (African American, Native American, White, Asian American, and Hispanic American), researchers found that 61% of teachers had not received any formal training in gifted education. This finding symbolized the importance of training for educators, especially teachers of African American gifted students. Frasier et al., (1995) suggested using the ten core attributes of giftedness as a training model to (a) to facilitate educators' recognition of gifted abilities in student populations from minority or economically disadvantaged families and areas, and (b) to guide educators in the selection of measures for identification of minority or economically disadvantaged families and areas.

Promising Practices To Increase Gifted Referral Efficacy of Educators

The barriers culturally and linguistically diverse students face can be eliminated with the support and commitment of educators and administrative district personnel. A proactive movement must include all education stakeholders in reexamining the school climate, context, and curriculum practices in order to recruit and retain students from diverse backgrounds in gifted education programs. Culturally and linguistically diverse students will experience success in school when they are given access to gifted education programs.

Diversity training for rural educators

Teacher efficacy provides a powerful and unique tool for those convinced that one of the strongest routes to improving the education of individuals is through the improvement and development of teachers and teaching. Professional development on issues of diversity has added benefits for improving the state of education for gifted minority students. There is a need to develop and evaluate professional development programs that prepare in-service teachers to address the behavioral and social factors that may contribute to the achievement problems of African American gifted students.

Research suggests that teachers are less likely to embrace cultural deficit views when they participate in diversity training and preparation (Ford, et al., 2002; Irvine, 2003). As few teachers have received extensive and continuous diversity training, it is impossible for teachers to understand the myriad ways in which culturally diverse students' talents develop (Ford & Webb, 1994). Furthering this perspective, Ford and Moore (2004) recommended continued professional development in terms of cultural competence for teachers and counselors who work with children of color or in socially or economically challenged communities. Because teachers and counselors play a major role in identifying students for academically gifted programs and

assisting these students in succeeding in such programs, Ford and Moore suggested that educators develop research to ascertain the specific needs and interests of the students and limit their focus on outcomes such as objective tests. Additionally, training in issues of diversity will help teachers and counselors move beyond the deficit orientations they may have of Black potentially gifted students to recognize the potential these students possess, which holds promise for recruiting and retaining them in gifted education programs. Therefore, administrators must provide educators opportunities to participate in workshops, coursework, and conferences to focus on developing and maintaining cultural competence. Hébert's (2002) case study research involving three students from impoverished environments showed that teachers must be trained to recognize, challenge, and celebrate the ability levels of students in rural settings and not set limitations for their potential levels of achievement. Hébert stressed the importance of having high expectations for gifted students from low socioeconomic backgrounds.

Multicultural education preparation must begin early in a teacher's professional career. In teacher education programs and staff development initiatives, future and current teachers must be prepared to work with culturally diverse students. Kitano, Lewis, Lynch, and Graves (1996) suggested that teacher preparation programs should develop the cultural knowledge and sensitivity of the prospective teacher and ensure competencies to develop strong subject matter and multicultural content. Irvine (2003) indicated that teachers should be responsive to their students by incorporating elements of students' culture into their teaching. A responsive teacher is sensitive to the needs, interests, and abilities of students, their parents, and their communities. Irvine suggested that caring and competent educators must include subject matter that emphasizes multiple representations of knowledge and participate in field based experiences within the school community to understand the students and their lived experiences as well as

their families, community values, and support systems. Ford and Harris (1999) suggest that educators become culturally competent to increase the recruitment and retention of diverse students in gifted education programs. To do so, educators must:

1) engage in critical self-examination that explores their attitudes and perceptions concerning cultural diversity and the influence of these attitudes and perceptions on diverse students' achievement and educational opportunities;
2) acquire and use accurate information about culturally diverse groups (e.g., histories, cultural styles, norms, values, traditions, customs) to inform teaching and learning;
3) learn how to infuse multicultural perspectives and materials into curriculum and instruction so as to maximize the academic, cognitive, social-emotional, and cultural development of all students; and
4) build partnerships with diverse families, communities, and organizations.

Educators and researchers have begun to use multiple measure assessments (Aamidor, 2007; Frasier, 1987; Frasier & Passow, 1994) to identify culturally diverse children who demonstrate talent potential rather than the narrower approach traditionally used for academically gifted programs, such as IQ or standardized achievement test scores. Use of the latter typically results in the underrepresentation of African American students in gifted education programs, especially in rural school settings where gifted behaviors do not match traditional measures of the construct. One impetus for this change is the concern that many groups of children are under-identified and therefore underrepresented in gifted programs. Included in the underrepresented population are children from specific racial, ethnic, and cultural groups, e.g., African Americans (Ford, Grantham, & Harris, 1996; Frasier, Frasier et al., 1995c);

children who exhibit language differences or limitations; children from low socioeconomic status families (Frasier et al., 1995c; Frasier & Passow, 1994) and children who live in certain geographic areas (e.g., rural or inner-city areas, border communities, and reservations).

Frasier, et al., (1995c) described the need for educator training and outlined specific staff development recommendations for teachers to avoid adopting stereotypical views of diverse populations and to understand that intelligence differs individually through experiences and environments rather than through ethnicity or socioeconomic level. Teacher educators must address the beliefs, attitudes, expectations and perceptions that pre-service teachers bring with them prior to the teacher education program and how they develop during their training years (Siegle et al., 2006; Irvine, 2003; Hunsaker, Finley, & Frank, 1997; Podell and Soodak, 1993; Pajares, 1992). Pajares noted teachers' classroom practices and behaviors are influenced by their perceptions and judgments, therefore, it is imperative that teachers understand their belief structures to improve their professional preparation and teaching practices when working with students. He added that teachers' beliefs are a vital construct in educational research, and can and should become an important focus of educational inquiry. To do so will require educators' to clearly conceptualize their beliefs, examine their key assumptions examined to appropriately address them within the context of education and schooling. Developing appropriate and varied identification procedures, which are sensitive to the expression of giftedness in rural populations from the different racial, ethnic, or cultural groups, is essential (Ford et al., 2002; Frasier, 1987,1997; Frasier et al., 1995b; Frasier & Passow, 1994). Because African American students have cognitive orientations and preferences that are strikingly different from European American children, traditional instructional and social development practices aimed at the dominant culture and middle class children may be less effective with African American learners (Ford et al.,

2002; Ford & Moore, 2004; Frasier, 1987,1997; Frasier et al., 1995; Frasier & Passow, 1994). To this end, the demands of conventional approaches may conflict with those inherent in non-school settings, thus creating cultural discontinuities between schools and learners' experiences. Cultural discontinuity (Ford, et al., 2008) refers to the "mismatch" between home culture and school culture. African American students are at a disadvantage because of the mismatch between their own culture and the culture of the school, and in many cases, the culture of the teacher. Educators must remain aware and address the achievement needs of gifted students from diverse backgrounds without focusing solely on their economic and social living conditions (Ford et al., 2002; Hébert, 2002).

The ability of teachers to work effectively with racially and culturally diverse gifted students depends heavily on district and school staff development efforts and teacher education preparation. Ford, et al., (2008) suggested that educators' competency at making fair and equitable referrals and decisions will be difficult until there is an increase in the preparation for and sensitivity to the characteristics of culturally and linguistically diverse students, the understanding of the needs and development of gifted CLD students, and attention to multicultural preparation. To this end, the authors made the following recommendations to school administrators:

- address lower expectations of African American students through professional learning and teacher preparations grounded in multicultural and culturally responsive pedagogy and practice;
- adopt culturally responsive definitions of giftedness, explicitly acknowledging occurs across gender and cultural, linguistic, and income groups;

- work with district administrators, school psychologists, and classroom teachers to examine the current definitions of giftedness and work to ensure these definitions convey that giftedness is found in students of all backgrounds and life experiences;
- broaden definitions of giftedness to include those students who underachieve as well as those who achieve at or above comparison groups;
- build systemic evaluation of underrepresentation of culturally diverse students into evaluation of all gifted education programs and services; and
- continuously assess, on a yearly basis, the racial, ethnic, gender, and linguistic demographics of students accessing gifted instructional programming as compared with the demographics of all students.

Additionally, it is important for district administrators to be involved in the process for district and school alignment with staff development and accountability and equity of gifted services for all students. In general, teachers and other school personnel will need training to avoid adopting culturally deficit and pathological models, and to understand that intelligence and educability are matters of individual differences rather than racial differences (Jenkins, 1936).

Gifted rural African American students are affected by their experiences with teachers, curricula, and peers in school. Teachers are one of the most important influences on the educational outcomes of students. Administrators and educators are encouraged to think seriously about their own racial experiences, and to think about the racial experiences of their students in developing and implementing curricula (Ford, Harris, Tyson, & Trotman, 2002; Ford & Moore, 2004), and to encourage the recruitment and retention of teachers from diverse backgrounds (Ford et. al, 1997; Ford, Harris, Tyson, & Trotman, 2002).

Dynamic thinking

To move from deficit to dynamic thinking, there is a need for teachers to broaden their views of cultures other than their own and become aware of how their own personal values can affect their evaluation of economically disadvantaged gifted children (Elhoweris, 2008; Elhoweris et al., 2005; Ford & Grantham, 2003; Ford, et al., 2002). Gay (2000, p. 63) indicated that "teacher expectations significantly influence the quality of learning opportunities provided to students". Frasier's research (1989) highlighted that students in impoverished communities can achieve. Her work emphasized the importance of viewing students from impoverished backgrounds as capable of intellectual development and encouraging them to view themselves in light of their potential within their own cultural and environmental contexts. For example, Frasier encouraged educators to view students' use of language rather than focusing solely on appraising language within testing situations. Further, she advocated for the adaptation of gifted rating scales to more accurately reveal how giftedness manifests in African American students and for educators to share success stories of African American students from poverty to help colleagues recognize potential in their students.

TABs training for educators

The Frasier Talent Assessment Profile (F-TAP, Frasier 1994) is a multidimensional talent identification guide and educational development system. The F-TAP supports teachers' search for gifts and talents in young people. It helps to facilitate the collection and display of data from multiple test and non- test sources of information. From this collection of data educators, counselors, and administrators have the information accessible to make recommendations about a student's particular needs for gifted education services (Grantham & Ford, 2007). The F-TAP provided methods that enabled educators to identify gifted children from diverse cultural,

economic and linguistic backgrounds without high expenditures of time in collecting and analyzing data. Data collection for the F-TAP occurred in three phases. Screening involved seeking nominations from persons both in and out of school most knowledgeable about the student's behavior both. Assessment included collecting data and plotting the information on the student's profile. During the placement phase, data are interpreted and not until all data have been reviewed and evaluated, the decision is made, according to the prescribed guidelines, regarding a student's placement in the gifted education program. The ultimate goal of the F-TAP was to display all information that teachers, school counselors, and administrators could find on a child in order that appropriate educational placement and programming decisions could be made.

The use of traits in the identification of gifted African American students dates back three quarters of a century (Jenkins, 1936). Jenkins described the use of teacher rating scales in the area of student leadership and interests that were included among the criteria for nominating and identifying African American students with superior intelligence.

The foundation of the F-TAP (Frasier, 1994) is in the ten core attributes of giftedness, or Traits, Aptitudes, and Behaviors (TABs) from which referrals are made. This instrument was designed to aid in the identification of minority and/or economically disadvantaged gifted students by documenting behavioral observations of students. Definitions and descriptions of the TABs are shown in Table 2. Frasier et al., (1995c) proposed that identifying the core attributes associated with the giftedness construct would provide educators a better basis for establishing procedures to recognize, identify, and plan educational experiences for gifted students from minority or economically disadvantaged families and environments. Use of the constructs to define gifted behaviors provides consensus for educators across language, cultural, and

environmental barriers. According to Frasier, a *trait* is a relatively persistent and consistent behavior pattern, an *aptitude* represents the capacity to perform in the future or some future ability, and *behavior* is any response made by a person. In the state of Alabama, Dr. Frasier granted permission for this instrument to be adopted for use as the principal instrument in the identification of gifted students at the second grade level. Frasier maintained these attributes should be used to guide teacher and parent nominations or referrals for gifted education screening. Students screened for gifted education in second grade are placed in the program in third grade if they are deemed eligible based on the nomination and referral procedure criteria.

The TABs is a 10- item instrument that uses a Likert scale of 1 to 5 (1=weak, 5= strong) focusing on specific student behaviors. The rater is asked to rate the student being referred for gifted assessment in each of the following items believed to infer giftedness (Bernal, 1978; Frasier, 1990; Gardner, 1983; Renzulli, 1973; Torrance, 1969): motivation, interests, communication skills, problem-solving ability, memory, inquiry, insight, reasoning, imagination/creativity, and humor. The indicator of efficacy in this research includes educators' confidence in their ability to recognize the traits, aptitudes, and behaviors of African American students to refer them to the gifted education program.

Teachers' expectations of gifted students are often influenced by their values and beliefs, thereby influencing their decisions, including referrals for gifted programs. Few teachers are substantively prepared in gifted and multicultural education, which decreases the probability that gifted minority students will be identified and placed in gifted programs (Ford, Grantham, & Harris, 1996; Ford & Harris, 1999; Ford, & Trotman, 2001; Frasier, 1997). To increase the ability of teachers to accurately identify giftedness in students, thereby increasing their performance in the role of rater, teachers must be provided with the information that guides their

participation. The TABs provide such a guide to assist educators with recognizing giftedness in African American students and a common framework from which to make interpretations of student performance on gifted identification measures. Frasier (1990) stated that the TABs meet the requirements of best practices through its focus on diversity in the gifted population and involvement of people inside and outside the school. Additionally, Frasier reported that TABs should only be utilized after raters are provided training to recognize gifted characteristics. Findings from the Frasier et al., (1995) study suggested that gifted individuals are most consistently recognized by their motivation, interests, problem-solving ability, imagination/creativity, memory abilities, inquiry skills, insight, reasoning capacities, and sense of humor. The researchers suggested that these core attributes be the basis for referring, observing, and identifying children for gifted program services and for designing programs to address their needs.

Summary

This chapter provided an overview of gifted education, a review of rural gifted education and review of research related to teacher efficacy and referrals for gifted identification. One goal was to provide evidence of the underrepresentation and under enrollment of African American students in gifted education programs and the factors that relate to their low participation. Contributing factors include teacher bias, teacher efficacy low teacher referrals, lack of teacher training in diversity, low teacher expectations lack of gifted education training and the use of multiple criteria for gifted identification. Another goal of the chapter was to demonstrate the need for research on gifted identification and referral practices and to explain research associated with teacher gifted referral efficacy and the representation of African American students in gifted programs.

CHAPTER 3

METHODS

The rationale for the research design and methodology is presented in this section. This chapter is divided into the following subsections: (a) overview and rationale for the study, (b) research questions (c) alternative hypotheses (d) research design (d) description of setting and participants, (e) data instrument creation and collection methods, and (g) data analysis.

Overview and Rationale for the Study

An outcome of this study is to better understand how African American students are being identified in a rural, predominately African American school district in Alabama. Given the issue of underidentification of African American students in gifted education programs in Alabama schools, it is important to understand the impact of changes to the *Alabama Administrative Code* (Alabama Department of Education, 2008) on the representation of African American students in gifted education programs in a rural Alabama school district. Additionally, as a result of the changes to the Code, Alabama schools have been required to provide professional development training for second grade teachers for over a decade. The purpose of this study to examine educators' gifted referral efficacy and its relationship to referral of students for the gifted education program within a rural, predominately African American Alabama public school district.

Research Questions

The following questions will guide this research study:

1. What is the gifted referral efficacy (i.e., perception of referral knowledge (PRK), and perception of referral ability (PRA)) of educators using TABs?
2. What is the relationship between educators' gifted referral efficacy (PRK and PRA) and gifted program referrals?
3. What is the relationship between educators' gifted training and gifted program referrals using TABs?

Alternative Hypotheses

The study tested the following hypotheses:

H_1: Educators will have a low gifted referral efficacy using TABs.

H_2: There will be a positive relationship between educators' Gifted Referral Efficacy (GRES) score and frequency of TABs referrals.

H_3: Educators who have received gifted education training will have statistically significantly higher mean gifted referral efficacy scores that those who have had no gifted education training.

Research Design

Gall, Gall and Borg (2003) state that education research should fulfill one of four purposes: to describe, predict, improve, or explain a natural or socially occurring phenomena. In this study, the phenomenon being examined is the practice of rural educators' identification and placement of rural African American students in gifted and talented programs. Using descriptive, or inferential data, this study was designed to examine teacher perceptions of their knowledge and abilities regarding the traits, attitudes, and behaviors of gifted and talented

students. The descriptive method of research is a discovery, an introduction of viewpoints that continue to emphasize the necessity for exploration and solidified learning that provides an extension for professional interests, beliefs, and values (Gay & Airasian, 2003). The current study explores the viewpoints of educators when considering African American students for gifted education programs while providing insight into their beliefs about the population under study. Further, the study is an attempt to shed light on the training needs of educators within the rural school setting with implications for future practice relative to gifted identification of African American students using TABs. Gall, Gall, and Borg (2003) define descriptive statistics as mathematical techniques for organizing and summarizing a set of numerical data. Additionally, descriptive research provided an excellent design for recognizing the needs of teachers within the school district in addition to understanding where district leadership may need to focus in order to achieve an exemplary school environment and equitable education for all students.

Description of Setting and Participants

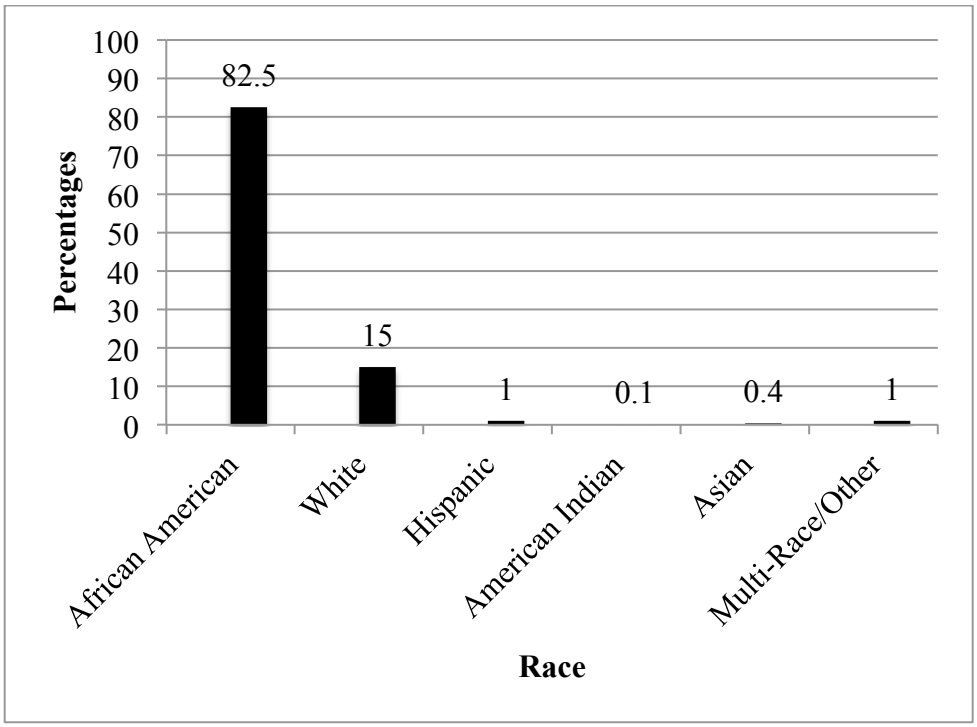
Alabama is comprised of urban and rural school systems of private to public composition. Alabama is only second to Mississippi as a high rural priority state with a graduation rate of only 88%, although the national and state goal is 100% (Rural School and Community Trust, 2012). The Rural Community Trust report ranks each state on a "rural education priority" scale; the higher the ranking, the more important and challenging rural education is to a state's overall education system. Alabama's gifted population makes up 7.10 % of the total percent of students enrolled. Of the total population of gifted students in the state of Alabama, the percentages are: 76.0% White, 17.8 % Black, 2.4 % Hispanic, 2.2 % Asian, 1.1 % Indian, 0.02 % Pacific, and .5% Multi-Race (Alabama State Department of Education, 2012).

The site for the study was the Macon County Public School District, a predominately African American school district in rural, Southeast Alabama. The district is located in Tuskegee, Alabama, the birthplace of civil rights activist Rosa Parks (Rosa Parks Biography, 2012). The historical implications of the civil rights era and its ties to Macon County place great significance upon the social, educational, and civil rights of African Americans in general, but especially to those living within the county whose great grandparents and other relatives have shared their personal experiences of events surrounding the movement with the students currently in school. Surrounding city and county resources include Tuskegee University, (formerly Tuskegee Institute and home institution to Dr. George Washington Carver and Booker T. Washington), the Tuskegee Institute National Historic Site, the Tuskegee Airmen National Historic Site and Museum at the Historic Moton Field, the Tuskegee Institute National Forest, and the Tuskegee Human & Civil Rights Multicultural Center. There is great pride among the residents of the county due in great part, to the significant roles African Americans from the area have held throughout history. Successes in aviation, sports, civil rights, the arts, education, and natural and applied sciences, have solidified for citizens a natural sense of self-worth and accomplishments in the face of adversity. Applicable to this study is the resilience that African American student residents inherited from their foremothers and forefathers. Without access and opportunity to demonstrate their gifts and talents, these students' potential stories may never be realized and their stories never shared.

The Macon County Public School District includes six schools, which serve approximately 2,500 students in grades pre-kindergarten (PK) through 12, and is governed by the Superintendent of Schools and five board members. As shown in Figure 1, according to the 2010 Census, the population of Macon County was 21, 452, of which is 82.5% African American,

15% White, 1.0% Hispanic, .1 % American Indian, .4% Asian, and the remaining 1.0% Multi-Race or Other.

Figure 1. Racial Demographic Makeup of Macon County, Alabama



The public school student population in Macon County is comprised of 99.5 percent African American students, with 100 percent (100%) of students qualifying for free- or reduced-price lunch (ACES, 2012). Although the majority of the population consists of African Americans, there are other ethnicities represented. Table 1 extends the demographic breakdown of students within the school district in grades kindergarten through sixth by gender, race, and grade level.

Table 1

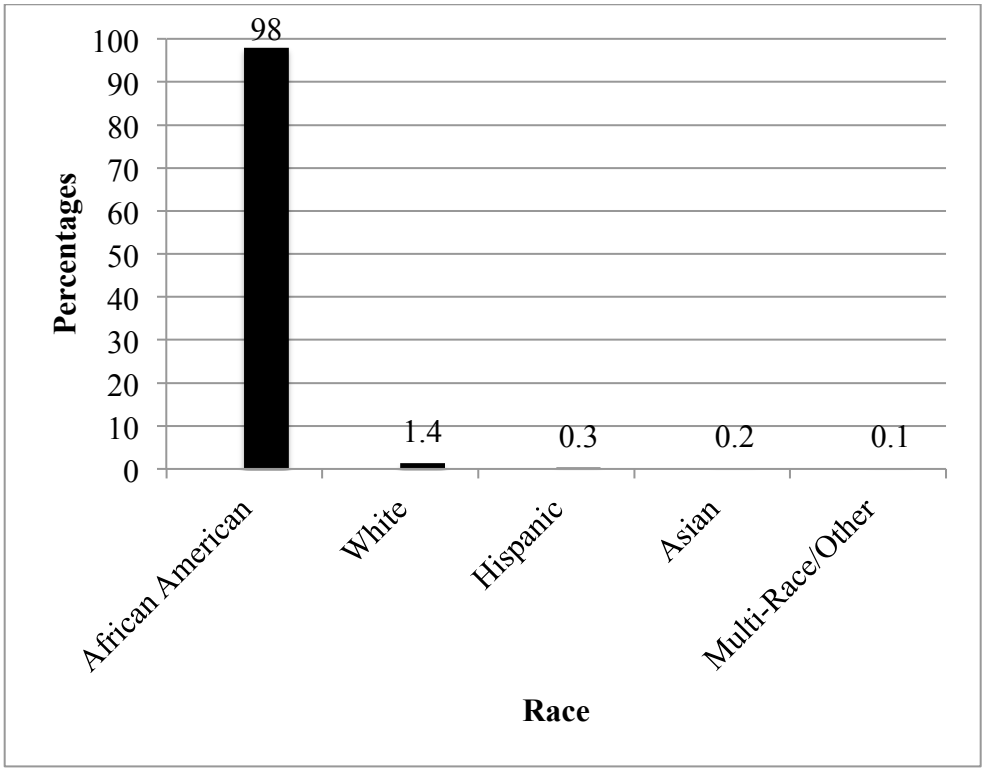
Macon County Public School District's Enrollment of K-6 Students by Gender, Race, and Grade Level

Race	K		1st Grade		2nd Grade		3rd Grade		4th Grade		5th Grade		6th Grade		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Af-Am	84	90	90	88	71	71	95	84	84	90	76	70	88	88	588	581
White	1	0	1	0	2	2	3	4	1	1	1	1	0	1	9	9
Hispanic	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
Asian	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Multi-Race	1	1	0	0	0	0	1	0	0	0	1	0	0	0	3	1
Other	0	1	1	0	0	0	1	1	0	0	0	0	0	0	2	2
Total	86	92	92	88	74	74	100	89	85	91	78	72	88	89	603	595

Note. Af-Am= African American; K= Kindergarten; M= Male; F= Female

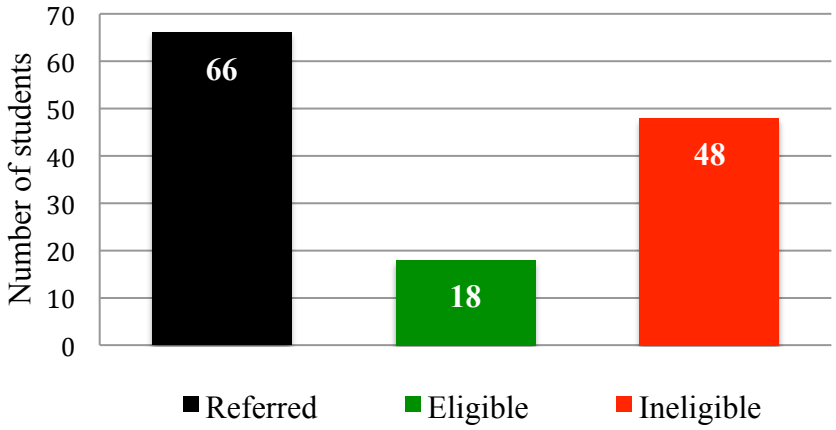
Figure 2 shows the demographic distribution of all students by race within Macon County Public School District is 98% African American, 1.4% White, .3 % Hispanic, .2% Asian, and .1% Multi-Race. The predominant student demographic in the district is African American; therefore, there should be a significant number of African American students represented within the gifted education program.

Figure 2. Racial Demographic Makeup of Macon County Public School District



As Figure 3 displays, of the four schools included in the study, there are 1,198 students enrolled in the grade levels eligible for participation in direct services provided through the gifted education program (K-6). Of the 1,198 students, 59 students were referred for gifted education services through the Second Gifted Grade Child Find Procedure, and 7 were standard referrals (from grades other than 2nd) during the 2011-2012 academic school year. Of the 66 students referred, 18 qualified for gifted services.

Figure 3. Macon County Gifted Program Student Referrals and Eligibility



Note. Data based on the 2011-2012 academic year.

In a school district of this size, it is typical that 4% or greater of the total enrollment would be expected with gifted student enrollment (S. Farrell, personal communication, July 19, 2012). Table 2 shows the gifted program enrollment by race in the Macon County Public School District.

Table 2

Distribution of Gifted Program Enrollment by Race

Race	Eligibility		
	Referred	Eligible	Ineligible
African American	65	17	48
White	1	1	0
Hispanic	0	0	0
Asian	0	0	0
Multi-Race/ Other	0	0	0
Total	**66**	**18**	**48**

At first glance with the enrollment broken down by race, it appears that educators in Macon County have high gifted referral efficacy and that there is not an issue of under enrollment. However, the customary conditions for gifted underrepresentation are not present

since African American representation in the school district is greater than or equal to the gifted student enrollment, yet there is an issue with the total number of students in the gifted program based on the district's total enrollment. In other words, there should be more students enrolled in the gifted education program.

The population for the study were educators that work in the Macon County Public School District with students in grades kindergarten through sixth (N=114). Selection of participants was based on the Alabama State Department of Education guidelines, which indicate that this span of grades is required in the delivery of gifted education services within the district. A total of 94 participants completed the Gifted Referral Efficacy Scale (See instrumentation discussed below). As Table 3 notes, the participants represented educators with a wide range of teaching experience. Nearly all of the participants were African American (*n*=91) and the majority was female *(n*=79). 91 African American educators (96.8%) and 3 White educators (3.2%) completed the survey. The average age range of the subjects was between 31 and 40 years of age (*n*=37). Of the survey takers, 15 were men (16%), and 79 were females (84%). The majority of the educators had between 11 and 20 years of teaching experience.

Table 3

Demographics of Participants

Variable	*N*	%	Variable	*N*	%
Ethnicity			**Gender**		
African American	91	96.8	Male	15	16.0
White	3	3.2	Female	79	84.0
Total	**94**	**100.0**	**Total**	**94**	**100.0**
Years of Experience			**Age**		
1-10	32	34.0	20-30	6	6.4
11-20	36	38.0	31-40	37	39.4
21-30	11	12.0	41-50	19	20.2
31-40	14	15.0	51-60	25	26.6
41-50	1	1.0	61-above	7	7.4
Total	**94**	**100.0**	**Total**	**94**	**100.0**

Data Instrument Creation and Collection Methods

Instrument Development

The GRES was constructed for the purpose of conducting this study to capture the perceptions that educators have of their referral ability and referral knowledge to refer students in a predominately African American school district for gifted education programs using Traits, Aptitudes, and Behaviors (TABs). The GRES is heavily based upon the groundbreaking work of Dr. Mary Frasier and her colleagues' (1995 a, 1995b, 1995c, 1995d) creation and application of the TABs for the identification of gifted students from diverse backgrounds. The researcher

chose to apply a similar framework by using the TABs to identify African American students for gifted programs in a rural environment.

Frasier et al., (1995a) derived the TABs from two major sources: (1) a content analysis of checklists specifically designed to recognize gifted potential in children from various minority groups, e.g. Blacks, Hispanics, and Native Americans, and in children from economically disadvantaged backgrounds, regardless of culture and ethnicity, and (2) an extensive search of the gifted literature dating back to 1950 wherein the typical traits, aptitudes, and behaviors were identified (Frasier, et al.). The authors used Chaplin's *Dictionary of Psychological Terms* (1985) to create concise definitions of the ten core attributes of giftedness and referred to them as the TABs.

The GRES is based on Frasier's et. al,, (1995), identified ten unique core attributes, or TABs, (see Table 4) that are associated with giftedness, combined with gifted referral efficacy constructs (perception of referral knowledge and perception of referral ability) based on self-efficacy theory (Bandura, 1977, 1993, 1997) (See Appendix A). A self-reporting instrument, The Gifted Referral Efficacy Scale asked educators to indicate their belief in their ability to recognize student behaviors associated with giftedness and gifted training experiences based on the TABs. The survey consisted of 27 questions (18 Likert-type, 10-point scale, 6 open ended, 1 demographic, and 8 multiple choice). Participants were asked to respond to a series of statements by circling the responses that best described their personal feelings regarding gifted referrals. Responses were categorized on a Likert-type scale, which ranged from 1 (*strongly disagree*) to 10 (*strongly agree*).

Table 4

Definitions and General Descriptions of the 10 Core Attributes of Giftedness (Traits, Aptitudes, and Behaviors-TABs)

Core Attribute	Definition	General Description
Motivation	Evidence of desire to learn	Forces that initiate, direct, and sustain individual or group behavior in order to satisfy a need or attained goal
Interest	Intense (sometimes unusual) interests	Activities, avocations, objects, etc. that have special worth or significance and are given special attention
Communication skills	Highly expressive and effective use of words, numbers, symbols, etc.	Transmission and reception of signals or meanings through a system of symbols (codes, gestures, language, numbers)
Problem-solving ability	Effective (often inventive) strategies for recognizing and solving problems	Process of determining a correct sequence of alternatives leading to a desired goal or to successful completion or performance of a task
Memory	Large storehouse of information on school or non-school topics	Exceptional ability to retain or retrieve information
Inquiry	Questions, experiments, explores	Method or process of seeking knowledge, understanding, or information
Insight	Quickly grasps new concepts and makes connections; senses deeper meanings	Sudden discovery of the correct solution following incorrect attempts based primarily on trial and error
Reasoning	Logical approaches to figuring our solutions	Highly conscious, directed, controlled, active, intentional, forward-looking, goal-oriented thought
Imagination/Creativity	Produces many ideas; highly original	Process of forming mental images of objects, qualities, situations, or relationships, which are not immediately apparent to the senses; solve problems by pursuing nontraditional patterns of thinking
Humor	Conveys and picks up humor well	Ability to synthesize key ideas or problems in complex situations in a humorous way; Exceptional sense of timing in words and gestures

Note. Adapted from "*Core Attributes of Giftedness: A Foundation for Recognizing the Gifted Potential of Minority and Economically Disadvantaged Students,"* by M. M. Frasier, S. L. Hunsaker, J. Lee, S. Mitchell B. Cramond, S. Krisel J. H. García, D. Martin, E. Frank and V. S. Finley, 1995, Storrs, CT: University of Connecticut, National Research Center on the Gifted and Talented.

Instrument revision, round 1. Following the initial construction of the instrument, the researcher sought the input of professional educators with elementary, middle, and secondary experience. The primary goal was to gain insight into their evaluation of the quality of the instrument in developing and building validity and high reliability into the GRES. A pilot study was conducted to test and refine the survey instrument and administration procedures. Additionally, the piloting of the instrument helped to determine if the proposed data collection method worked and if the survey instrument was technically adequate. A panel of experts, including 4 elementary educators, 3 secondary educators, 2 university professors, 1 retired educator, 3 elementary school administrators and 2 school district administrators with an average of 20 years of experience, was administered the survey and invited to make suggestions for rewording or rephrasing the statements. Suggestions for revisions were emailed to the researcher or written on the instrument. Feedback was collected by the researcher and used to revise the items to identify patterns among the data. The most significant revision to Version 1 was to question structure.

Most of the revisions consisted of rephrasing the items to better represent the gifted referral efficacy construct using TABs, as well as Bandura's (1977, 1993, 1997) definition of self-efficacy. The researcher reviewed items to ensure relatively equal distribution between the number of items representing educators' efficacy using questions about perception of referral knowledge and perception of referral ability. Revisions also included establishing consistency among word choice for items ("strong motivation", "strong interests"), adding open-ended items (ranking the top 5 TABs, training received, final thoughts, etc.). As a result of these activities, items from Version 1 were revised, which provided a basis for final item preparation for the next phases of the instrument development process.

Instrument revision, round 2. Round 2 of revisions was conducted by the same panel of educators using the newly revised version of the instrument. Items were checked for clarity and comprehension. To reduce the total number of questions and organize the instrument, questions were clustered according to TABs ("motivation, "interests", etc.) and the Likert-type response scales were changed according to the question asked. For example, all of the items relative to "Motivation" were grouped according to include questions regarding PRK and PRA. Additionally, the selection of choices on the Likert-type scales was edited (scales changed from ranging from "strongly agree", "moderately agree", and "slightly agree" to "strongly disagree", "moderately disagree", and "slightly disagree" for 85 items each to a 5 part subscale for each TABs construct with 1-10 "strongly agree", thereby reducing the number of items for the actual TABs Referral Efficacy section to 10 items with 5 parts each. The TABs Gifted Referral Efficacy constructs and respective definitions were placed in the subscale cluster for each statement (see Table 5).

Table 5

Gifted Referral Efficacy Subscale Measures by TABs

Gifted Referral Efficacy Subscale Definition		Example Motivation Subscale Items
Perception of Referral Knowledge	An awareness of the characteristics that constitute one ‘s knowledge about what the TABs are and using them to refer students to the gifted education program.	• “I can recognize ways in which my students show “strong (insert TAB)” in the classroom.” • “I am confident that I can recognize strong (insert TAB) traits, aptitudes, and behaviors in students from minority or low-income backgrounds.” • “I believe that I have the ability to develop learning experiences that enhance (insert TAB) in my potentially gifted students.”
Perception of Referral Ability	An awareness of the characteristics that constitute one ‘s ability to recognize gifted characteristics in students upon observation and interaction.	• “I have a pretty good understanding of what “strong (insert TAB)” means. • “(insert TAB definition)” is a good indicator of motivation in students.

Note. PRK and PRA items were created for each TAB based on its definition and terms.

Gifted Referral Efficacy by TAB items were reevaluated for TABs and self-efficacy construct validity. Each Gifted Referral Efficacy Subscale construct contained five items, which were summed and computed into a grand mean. There were three statements designed to assess educators’ perception of referral knowledge and two statements that elicited educators’ perception of referral ability The TABs constructs were included in the statements within each subscale cluster.

The most significant revision to Version 2 informed by the panel was the reduction of survey items. The initial instrument was composed of 85 items and following the second round of content validity, the instrument was reduced to 27 items. The reduction was to eliminate

repetition of survey items in isolation and to condense them into subscale item categories according to the respective TABs referral efficacy construct. The revision resulted in a more streamlined instrument. The Macon County Public School District administrator requested that the participant information be restored once it was analyzed by the researcher, without the identifiers, for the purposes of planning and implementing professional development based on the research study results. Removing the identifiers resulted in a final instrument consisting of 20 items. The strongest combination of gifted referral efficacy construct items for validity and reliability that had balanced representation within the essential features of PRK and PRA were identified using a combination of these procedures. Version 2 of the GRES was administered to 94 educators. This group represented the intended population for the final instrument.

Instrument reliability. Cronbach's coefficient alpha is a statistic used to test reliability in questionnaire development across various fields (Nunnally, 1978). In order to determine the reliability of the Gifted Referral Efficacy Scale (GRES), Cronbach's alpha reliability coefficients were calculated for each TABs referral efficacy construct to report the internal consistency of global gifted referral efficacy by TABs (questions 3-12, items a-e) and subscales (perception of referral knowledge (PRK) and perception of referral ability (PRA) of the constructs (Hair, Anderson, Tatham, & Black, 1998).

All of the TABs construct alphas were high, ranging from .913 to .960, exceeding the requirements set forth by Nunnally (1978) pertaining to first generation instrument construction. Specifically, coefficient alphas ran in ascending order as follows: .913 for "Motivation", .921 for "Humor", .932 for "Interests" and "Memory", .942 for "Communication, .946 for "Imagination/Creativity", .955 for "Problem-Solving Ability" and "Reasoning", and .960 for "Inquiry" and "Insight". A summary of the construct reliabilities is depicted in Table 6.

Table 6

Gifted Referral Efficacy Reliability Statistics x TABs

TABs Construct	Cronbach's ∝	Cronbach's ∝ Based on Standardized Items	Number of Items
Motivation	.913	.917	5
Interests	.932	.936	5
Communication	.942	.945	5
Problem-Solving Ability	.955	.956	5
Memory	.932	.937	5
Inquiry	.960	.961	5
Insight	.960	.961	5
Reasoning	.955	.957	5
Imagination/Creativity	.946	.949	5
Humor	.921	.926	5

A high rating (e.g., "10") is indicative of a positive belief or high efficacy, while a low rating (e.g., "1") indicates a negative belief or low efficacy. Specifically, educators with a high rating would indicate a high degree of efficacy and positive perception of referral knowledge and positive perception of referral ability using the TABs and a high rate of referrals of students to the gifted education program using the TABs. On the other hand, educators with a low score would indicate a low degree of efficacy and negative perception of referral knowledge and negative perception of referral ability using the TABs and a low rate of referrals of students to the gifted education program using the TABs. Table 7 shows the PRK and PRA subscale reliability of the key sub-measures of gifted referral efficacy.

Table 7

Gifted Referral Efficacy Subscale Reliability Statistics x TABs

TABs Construct	Cronbach's ∝	Cronbach's ∝ Based on Standardized Items	Number of Items
Subscale-Perception of Referral Knowledge (PRK)			
Communication	.892	.894	3
Interests	.904	.906	3
Imagination/Creativity	.919	.921	3
Motivation	.930	.931	3
Humor	.932	.933	3
Problem-solving Ability	.941	.942	3
Memory	.945	.946	3
Inquiry	.930	.932	3
Reasoning	.921	.927	3
Insight	.889	.897	3
Subscale-Perception of Referral Ability (PRA)			
Interests	.706	.717	2
Motivation	.860	.868	2
Imagination/Creativity	.862	.868	2
Communication	.927	.927	2
Reasoning	.769	.781	2
Problem Solving	.914	.915	2
Humor	.924	.925	2
Insight	.878	.879	2
Inquiry	.913	.913	2
Memory	.744	.750	2

The GRES is composed of questions for each of the 10 TABs constructs with five subscale categories. Cronbach's alpha of .91 or greater was obtained for the Gifted Referral Efficacy Scale (see Table 9). The TABs constructs with the highest alpha reliability coefficients for the GRES were "Inquiry"($\propto$ = .960, *M* = 8.31, *SD* =1.45) and "Insight," ($\propto$ = .960, *M* = 8.17, *SD* =1.48). Although the "Motivation" construct had the lowest reliability coefficient of ($\propto$ = .913, *M* = 8.69, *SD* =1.41), each of the TABs constructs exhibits high internal consistency. The results of the analysis indicated that the Cronbach's alpha measure varied from .913 to .960, indicating that each subscale category presented a statistically significant correlation within each TABs construct. Based on the instrument development processes used and the associated data analysis results, the GRES is a content and construct valid instrument with high internal reliability for use with elementary educators to assess gifted referral efficacy using TABs.

Data Analysis

Prior to conducting the data analysis to examine each of the research questions, several data cleaning procedures, including checking for missing data, were performed. All data were included and usable. In order to determine how rural educator gifted referral efficacy relates to their referral of rural African American students for gifted and talented programs, several statistical analyses were performed.

The data from the survey were analyzed using the Statistical Package for the Social Sciences (SPSS Version 20) purchased by the researcher from IBM. The University of Georgia's Office of Information Technology (OIT) Survey Management Administrator transferred the survey to its private area and managed the survey management, access, and data retrieval until access was closed and the compiled data was returned to the researcher without various identifiers for the data analysis phase of the study. Since identifying information was initially

collected simultaneously with participant responses, encryption was used as a means to separate content from identifying information during transfer (Nosek et al., 2002). Internet research is inherently no more risky than traditional observational, survey or experimental methods, but due to the rapidly changing nature of technology and online behavior, it is necessary to consider the risks and safeguards that differ from those characterizing traditional research (Kraut et al., 2004). Participants responded via a link to the online survey as presented on the Survey Monkey website. A total of ninety-four (94) educators responded to the survey, with each of the completed surveys containing data that was complete and usable for this study, indicating a response rate of 82%.

Table 8 shows the research analysis framework of the study. Data obtained from the final version of the instrument and administration of the GRES to perform the analyses to determine educators gifted referral efficacy using TABs.

Table 8

Research Analysis Framework

Research Question	Hypothesis	Analyses Performed
1. What is the gifted referral efficacy (i.e., perception of referral knowledge (PRK), perception of referral ability (PRA)) of educators using TABs?	• Educators will have a low gifted referral efficacy (PRK and PRA) using TABs. • Educators will have a low perception of referral knowledge. • Educators will have a low perception of referral ability.	Descriptive statistics including frequency counts, mean, ranges, and standard deviation.
2. What is the relationship between teachers' gifted referral efficacy (PRK, and PRA) and gifted program referrals?	There will be a positive relationship between educators' Gifted Referral Efficacy (GRES) scores and frequency of TABs referrals.	Correlation, Factor Analysis
3. What is the relationship between teachers' gifted training and gifted program referrals using TABs?	Educators who have received gifted education training will have statistically significantly higher mean gifted referral efficacy scores than those who have had no gifted education training.	One-Way ANOVA

Appropriate statistical analyses were selected to answer the three research questions as suggested by Gall, Gall, and Borg (2003) who wrote "The mean and standard deviation, taken together, usually provide a good description of how members of a sample scored on a particular measure" (p. 133). In addition to descriptive statistics, the analysis relied on a variety of statistical procedures including factor analysis, Pearson's correlation coefficients (two-tailed), and analysis of variance (ANOVA) to determine variable relationships.

Research question 1 (What is the gifted referral efficacy (i.e., PRK and PRA) of educators using TABs?) was addressed using descriptive statistics by calculating the means of

the subscale items of each TABs construct for educators' PRK and PRA. The mean of each subscale item for perception of referral knowledge and perception of referral ability were ranked from highest to lowest.

Research question 2 (What is the relationship between educators' gifted referral efficacy (PRK, PRA) and gifted program referrals?) was designed to determine if higher gifted referral efficacy resulted in greater gifted referrals of rural students in a predominately African American school. To answer research question 2, a series of bivariate analyses were employed to determine the relationship between the identified variables and educators' gifted program referrals.

Research question 3 (What is the relationship between educators' gifted training and gifted program referrals using TABs?) was designed to determine if gifted education training influences gifted program referrals using TABs. Educators were asked to indicate if they had received training in gifted education. Training could include college coursework, a gifted conference or workshop, a school district in-service or certification in gifted and talented education. Responses to this question were coded into a new variable and analyzed using a one-way ANOVA.

Summary

This chapter detailed the methodology that was implemented in the study in order to determine the gifted referral efficacy (PRK, PRA) of educators and whether there were significant relationships between educators' gifted referral efficacy and gifted program referrals and between gifted training and gifted program referrals using TABs. The chapter presented the research design, research questions and hypotheses, target population and sampling plan, the instrumentation, data collection procedures, and statistical analysis for this study. The following

chapter presents the results and findings of the research based on the statistical analysis procedures and methodology discussed in this chapter.

CHAPTER 4

RESULTS

The purpose of this study to examine educators' gifted referral efficacy and its relationship to referral of students for the gifted education program within a rural, predominately African American Alabama public school district. The expected outcome of the study is to make a valuable contribution to improving the quality of gifted education services provided to students living in rural Macon County, Alabama. This chapter presents the results of the statistical analysis described in the preceding chapter. The findings will be presented separately in relation to the three research questions:

1. What is the gifted referral efficacy (i.e., PRK and PRA) of educators using TABs?
2. What is the relationship between educators' gifted referral efficacy (PRK and PRA) and gifted program referrals?
3. What is the relationship between educators' gifted training and gifted program referrals using TABs?

Findings Related to Research Question 1

Hypothesis 1: (a) Educators will have a low gifted referral efficacy (PRK and PRA) using TABs, (b) educators will have a low perception of referral knowledge, (PRK), and (c) educators will have a low perception of referral ability (PRA).

Survey item numbers 3-12 on the GRES assessed educators' PRK and PRA to use the TABs to refer students to gifted education programs. The Gifted Referral Efficacy construct means ranged from 8.16 to 8.61. The descriptive statistics are reported in Table 9.

Table 9

Means for Gifted Referral Efficacy x TABs

Gifted Referral Efficacy for:	N	Minimum	Maximum	Mean	Std. Deviation
Interests TABs	94	5	10	8.61	1.330
Motivation TABs	94	4	10	8.58	1.378
Communication TABs	94	3	10	8.57	1.371
Imagination/Creativity TABs	94	5	10	8.57	1.291
Problem-Solving TABs	94	4	10	8.34	1.352
Humor TABs	94	4	10	8.30	1.407
Reasoning TABs	94	5	10	8.29	1.334
Inquiry TABs	94	3	10	8.24	1.508
Memory TABs	94	4	10	8.23	1.450
Insight TABs	94	3	10	8.16	1.447
Valid N (listwise)	94				

According to the results of the analyses run for research question 1, there was high internal consistency among the TABS constructs and gifted referral subscale items of the Gifted Referral Efficacy Scale. The Scale is a reliable instrument for measuring educators' PRK and PRA for using the TABs gifted identification system. Table 10 shows the results of educators' gifted referral efficacy subscale means by TABS. In general, results indicated that educators' had high PRK and high PRA. Of the Gifted Referral Subscale means for perception of referral knowledge, "Communication" was highest (8.53), followed by "Interests" and "Motivation" (8.51). For perception of referral ability, the top subscale mean was "Interests" (8.78). "Motivation" and "Imagination/Creativity" were second and third highest subscales with means of 8.74 and 8.67, respectively. As a result of the analyses conducted for research question 1, the alternative hypothesis is rejected.

Table 10

Gifted Referral Efficacy Subscale Means x TABs

Gifted Referral Efficacy Subscale for:	Number of Items	M	SD
Perception of Referral Knowledge (PRK)			
Communication	3	8.53	1.42
Interests	3	8.51	1.42
Imagination/Creativity	3	8.51	1.36
Motivation	3	8.47	1.47
Humor	3	8.28	1.46
Problem-Solving Ability	3	8.28	1.42
Memory	3	8.24	1.48
Inquiry	3	8.21	1.53
Reasoning	3	8.19	1.40
Insight	3	8.05	1.51
Perception of Referral Ability (PRA)			
Interests	2	8.78	1.32
Motivation	2	8.74	1.38
Imagination/Creativity	2	8.67	1.28
Communication	2	8.63	1.42
Reasoning	2	8.45	1.32
Problem-Solving Ability	2	8.42	1.35
Humor	2	8.33	1.45
Insight	2	8.32	1.46
Inquiry	2	8.23	1.57
Memory	2	8.23	1.55

Findings Related to Research Question 2

Hypothesis 2: There will be a positive relationship between educators' Gifted Referral Efficacy Scale (GRES) scores and frequency of TABs referrals. This analysis is based on Pearson's correlation coefficients (two-tailed), which were calculated between each pair of gifted referral efficacy and number of gifted referrals using TABs research variables.

Factor analysis is helpful in reducing the number of variables measured to a few factors by combining variables that correlated to one another (Gall, Borg & Gall, 2003). Principal components analysis was used because the primary purpose was to identify and compute composite scores for the factors underlying educators' gifted referral efficacy using TABs. For the purpose of this study, factor analysis was helpful in establishing how various subscale measures of gifted referral efficacy may be influenced by one or more underlying factors.

Through factor analysis, the Total Variance Explained and the Initial Eigenvalues of the GRES using question 1 of each subscale item were reported. The first subscale item of each survey question 3-12 **(**"I can recognize ways in which my students show "strong (insert TAB)" in the classroom.") accounted for the majority of the variance among each TABs construct regarding educators' ability to recognize the gifted TABs in their students. For example, "Inquiry" and "Insight" were each accounted for with nearly 87% of the total variance, while the lower percentages were found with "Motivation" (75%) and "Humor" (77%). The Initial Eigenvalues as tabulated for the first factor of each of the gifted referral efficacy subscales are reported in Table 11.

Table 11

Factor Analysis of TABs Constructs

Construct	Component	Initial Eigenvalues		Cronbach's
		Total	% of Variance	∝
Motivation	1	3.766	75.328	.917
Interests	1	3.982	79.643	.936
Communication	1	4.104	82.090	.945
Problem Solving Ability	1	4.261	85.215	.956
Memory	1	4.008	80.153	.937
Inquiry	1	4.333	86.653	.961
Insight	1	4.327	86.541	.961
Reasoning	1	4.266	85.322	.957
Imagination/Creativity	1	4.165	83.300	.949
Humor	1	3.870	77.396	.926

Note. Extraction Method: Principal Component Analysis.

Pearson's correlation is a statistical procedure that was used in order to determine whether there was a statistically significant relationship between two continuous variables (Bakeman & Robinson, 2005). In this study, Pearson's correlation coefficients were useful in determining the relationship between the variables of gifted referral efficacy and gifted program referrals using TABs were significantly related to one another.

The possible range on the gifted referral efficacy measures was 0-10, where higher scores indicated higher gifted referral efficacy. The obtained ranges for "Communication", Inquiry", and "Insight" were 3-10. The obtained ranges were 4-10 for "Motivation", "Problem-Solving Ability", "Memory", and "Humor". Ranges obtained for "Interests", "Reasoning", and "Imagination/Creativity" were 5-10. The possible range on the number of gifted referrals was 0-41+. As shown in Table 12, there was a marginally significant positive correlation between three scores on the gifted referral efficacy measure and the scores on the number of gifted referrals

($p < .005$), with "Motivation" (r = .209, $p = .044$), "Communication" (r = .203, $p = .049$), and "Problem-Solving Ability" (r = .222, $p = .031$).

Table 12

Pearson Product Moment Correlations for Gifted Referral Efficacy and Gifted Program Referrals

	Gifted Program Referrals using:		
Gifted Referral Efficacy for:		*r*	*p*
Motivation	Motivation	.209*	.044
Interests	Interests	.159	.126
Communication	Communication	.203*	.049
Problem-Solving Ability	Problem-Solving Ability	.222*	.031
Memory	Memory	.163	.116
Inquiry	Inquiry	.077	.462
Insight	Insight	.069	.512
Reasoning	Reasoning	.155	.136
Imagination/Creativity	Imagination/Creativity	.041	.691
Humor	Humor	.045	.664

Note. *p < .05.

Pearson product-moment correlations revealed moderate positive correlations were found between gifted referral efficacy and gifted program referrals for "Motivation" (0.044), "Communication" (0.49), and "Problem-Solving Ability" (0.31). Therefore, as gifted referral efficacy scores increased, gifted program referrals moderately increased. Results of statistical analyses indicated a marginal relationship between the scores of educators and the TABs constructs they use to make gifted referrals. Based on the GRES, educators' most often selected "Inquiry" and "Insight" when making gifted referrals using TABs, indicating they are most knowledgeable about these two constructs as core attributes of giftedness. The remaining constructs are represented with a cumulative variance of greater than 75% of the first component that indicates overall knowledge and ability using the TABs as a gifted program referral instrument. As a result of the analyses conducted for research question 2, the alternative

hypothesis is rejected.

Findings Related to Research Question 3

Hypothesis 3: Educators who have received gifted education training will have statistically significantly higher mean gifted referral efficacy scores than those who have had no gifted education training.

To test the hypothesis that educators who have received gifted education training will have statistically significantly higher mean gifted referral efficacy scores than those who have had no gifted education training, a one-way ANOVA was conducted. The construct with the highest mean was "Interests" (8.61), followed very closely by "Motivation" (8.58), "Imagination/Creativity" (8.57), and "Communication" (8.57), indicating that most of the participants are comfortable with these constructs when making gifted referrals. Although the mean scores of "Inquiry" (8.24) and "Memory" (8.23) were not the highest, their higher standard deviation scores of 1.508 and 1.450, respectively, indicated that there was more variation among the scores of the participants with these constructs.

Table 13 shows the descriptive statistics for the two groups of educators, the "trained" and "untrained". It is notable that the means of both groups were associated with relatively high ratings for each of the TABs. Of the trained educators, there is higher efficacy with "Motivation" and "Interests". The lower efficacy scores are with the constructs "Reasoning" and "Insight".

Table 13

Gifted Referral Efficacy Means for "Trained" and "Untrained" Educators x TABs

		N	Mean	Std. Deviation
Motivation	trained	32	8.89	1.252
	untrained	62	8.42	1.422
	Total	94	8.58	1.378
Interests	trained	32	8.86	1.117
	untrained	62	8.49	1.420
	Total	94	8.61	1.330
Communication	trained	32	8.72	1.255
	untrained	62	8.49	1.432
	Total	94	8.57	1.371
Problem-solving	trained	32	8.51	1.257
	untrained	62	8.25	1.401
	Total	94	8.34	1.352
Memory	trained	32	8.51	1.371
	untrained	62	8.09	1.481
	Total	94	8.23	1.450
Inquiry	trained	32	8.38	1.361
	untrained	62	8.17	1.584
	Total	94	8.24	1.508
Insight	trained	32	8.20	1.411
	untrained	62	8.14	1.477
	Total	94	8.16	1.447
Reasoning	trained	32	8.31	1.280
	untrained	62	8.28	1.371
	Total	94	8.29	1.334
Imagination/Creativity	trained	32	8.72	1.267
	untrained	62	8.49	1.306
	Total	94	8.57	1.291
Humor	trained	32	8.56	1.324
	untrained	62	8.16	1.439
	Total	94	8.30	1.407

Included in the analysis was an ANOVA examining "trained" versus "untrained" educators. Of the 94 educators surveyed, 32 reported having received gifted education training, while 62 reported having received no gifted education training. Using the TABs construct means, the results of the ANOVA are shown in Table 14. The ANOVA did not indicate significant differences between gifted referral efficacy scores across the two groups of educators for any of the TABs constructs. For example, although educators referred using the "Problem-Solving Ability" TABs most often, it was not found to be significant in the analysis, $F\ (1,92) = .765$, $MSE = 1.403$, $p = .384$).

Table 14

One-Way ANOVA Results for TABs Constructs on Gifted Referrals

		Sum of Squares	df	Mean Square	F	Sig.
Motivation	Between Groups	4.686	1	4.686	2.507	.117
	Within Groups	171.927	92	1.869		
	Total	176.613	93			
Interests	Between Groups	2.876	1	2.876	1.637	.204
	Within Groups	161.668	92	1.757		
	Total	164.545	93			
Communication	Between Groups	1.070	1	1.070	.567	.454
	Within Groups	173.806	92	1.889		
	Total	174.877	93			
Problem Solving	Between Groups	1.403	1	1.403	.765	.384
	Within Groups	168.694	92	1.834		
	Total	170.097	93			
Memory	Between Groups	3.595	1	3.595	1.722	.193
	Within Groups	192.056	92	2.088		
	Total	195.651	93			
Inquiry	Between Groups	.933	1	.933	.408	.525
	Within Groups	210.416	92	2.287		
	Total	211.350	93			
Insight	Between Groups	.071	1	.071	.034	.855
	Within Groups	194.751	92	2.117		
	Total	194.822	93			
Reasoning	Between Groups	.021	1	.021	.012	.913
	Within Groups	165.392	92	1.798		
	Total	165.413	93			
Imagination/Creativity	Between Groups	1.131	1	1.131	.676	.413
	Within Groups	153.797	92	1.672		
	Total	154.928	93			
Humor	Between Groups	3.397	1	3.397	1.729	.192
	Within Groups	180.742	92	1.965		
	Total	184.140	93			

$p<.05$

Seemingly, the training received by educators did not impact their rate of referrals using TABs, especially in comparison to the untrained educators. Therefore, as a result of the analyses conducted for research question 3, the alternative hypothesis is accepted.

Summary

The results from the data analyses for this study are summarized in Table 15. In general, it was found that for research hypothesis 1, educators were found to have high gifted referral efficacy. All of the TABs gifted referral efficacy scores ranged between 8.16 and 8.61, with Interests, Motivation, Communication, and Imagination/Creativity reporting the highest means. For educators' perception of gifted referral knowledge results indicated that educators' means for PRK were high, ranging from 8.05 to 8.53, with the highest means for Communication, Interests, and Imagination/Creativity.

Regarding research hypothesis 2, the only statistically moderately significant correlations of the educators' gifted referral efficacy and gifted program referrals were for Motivation, Communication, and Problem-Solving Ability. Results indicated that there was no statistically significant difference between educators' gifted referral efficacy and gifted program referrals for the remaining TABs constructs. For the third research hypothesis, results indicated that educators with gifted education training did not indicate significantly different gifted referral efficacy than educators without gifted education training for any of the TABs constructs. In fact, it was found that mean scores of trained educators were relatively equal to those of untrained educators.

Table 15

Summary of Research Findings

Research Question	Findings
1. (a):Gifted referral efficacy (i.e., perception of referral knowledge (PRK), perception of referral ability (PRA)) of educators using TABs	• There was high internal consistency among the TABS constructs and subscale items of the GRES.
1. (b): Perception of referral knowledge	• Educators' had high perception of referral knowledge and high perception of referral ability. Of the Gifted Referral Subscale means for perception of referral knowledge, "Communication" was highest (8.53), followed by "Interests" and "Motivation" (8.51).
1. (c): Perception of referral ability	• For perception of referral ability, the top subscale mean was "Interests" (8.78), "Motivation" and "Imagination/Creativity" were second and third highest subscales with means of 8.74 and 8.67, respectively.
2. Correlation between teachers' gifted referral efficacy (PRK, and PRA) and gifted program referrals?	There were marginally significant positive correlations between three scores on the gifted referral efficacy measure and the scores on the number of gifted referrals ($p < .005$), with "Motivation" ($r = .209$, $p = .044$), "Communication" ($r = .203$, $p = .049$), and "Problem-Solving Ability" ($r = .222$, $p = .031$).
3. Correlation between teachers' gifted training and gifted program referrals using TABs?	Gifted education training did not indicate a statistically significantly effect on gifted referral efficacy scores using TABs. Comparisons between groups were not significant at $p < .05$. "Motivation", $F\ (1,92) = 2.507$, $MSE = 4.686$, $p = .117$), "Interests", $F\ (1,92) = 1.637$, $MSE = 2.876$, $p = .204$), "Communication", $F\ (1,92) = .567$, $MSE = 1.070$, $p = .454$), "Problem Solving Ability", $F\ (1,92) = .765$, $MSE = 1.403$, $p = .384$), "Memory", $F\ (1,92) = 1.722$, $MSE = 3.595$, $p = .193$); "Inquiry", $F\ (1,92) = .408$, $MSE = .933$, $p = .525$), "Insight", $F\ (1,92) = .034$, $MSE = .071$, $p = .855$), "Reasoning", $F\ (1,92) = .012$, $MSE = .021$, $p = .913$), "Imagination/Creativity" $F\ (1,92) = .676$, $MSE = 1.131$, $p = .413$), and "Humor", $F\ (1,92) = 1.729$, $MSE = 3.397$, $p = .192$).

This chapter presented the findings and results of the statistical analyses implemented in the study in order to determine the gifted referral efficacy of rural educators using TABs, whether there were significant relationships between educators gifted referral efficacy and gifted program referrals, and between gifted education training and gifted program referrals. Findings revealed that the Gifted Referral Efficacy Scale was a reliable measure to determine educators' gifted referral efficacy using TABs and that educators' high gifted referral efficacy was associated with gifted program referrals. Moderately positive correlations were found between gifted referral efficacy and gifted program referrals. Higher gifted referral efficacy was not significantly associated with gifted education training.

Chapter 5 presents the principal findings of this study and will discuss how they reflect the current literature on gifted education referrals and educator efficacy. Chapter 5 also presents recommendations for school district administrators, educational leaders, and teachers, as well as limitations and implications for further research and practice.

CHAPTER 5

DISCUSSION

This study focused on how educators perceive their gifted referral knowledge and gifted referral ability using TABs to refer students to gifted education programs in a rural, predominately African American school district in the state of Alabama. The Gifted Referral Efficacy Scale (GRES) was created by the researcher and major advising professor to capture the perceptions educators have of their referral ability and referral knowledge to refer students in a predominately African American school district for gifted education programs using Traits, Aptitudes, and Behaviors (TABs). An overarching outcome of the research study was to be able to inform the focus of professional development related to gifted education services provided to students. Specifically, this study examined the following questions in order to address the stated purpose of and need for the research:

1. What is the gifted referral efficacy (i.e., PRK and PRA) of educators using TABs?
2. What is the relationship between educators' gifted referral efficacy (PRK, PRA) and gifted program referrals?
3. What is the relationship between educators' gifted training and gifted program referrals using TABs?

This chapter offers a discussion of the research findings and draws conclusions related to each guiding research question. Limitations of the research will be discussed as well as the implications for future research and practice at the program (Macon County Public School District) and discipline (gifted education) level.

Findings

The literature review revealed that educators' efficacy for referring rural, African American students to gifted programs may be the result of several factors. Defining giftedness and its indicators (Frasier, 1994; Frasier et al., 1995 a, 1995b, 1995c, 1995d), sources of nomination (Davis & Rimm, 2004; McBee, 2006), screening and assessment practices (Frasier & Passow, 1994; Frasier, 1987, inadequate teacher training to identify giftedness in diverse cultures (Archambault et al., 1993; Ford & Grantham, 2003; Ford, Grantham, & Harris, 1999; Ford & Moore, 2004; Frasier, 1987; 1997), teacher efficacy for gifted referrals (Elhoweris, 2008; Pajares, 1992; Pegnato & Birch, 1959; Podell & Soodak, 1993), educators' professional background in rural gifted education (Bull & Fishkin, 1987; Burney & Cross, 2006; Cross & Burney, 2005; Williams, 2003), and practices for retaining minority students once identified (Ford et al., 2002; Irvine, 2003), may be factors that contribute to the small number of rural, minority students in gifted education programs.

The following findings were reached from the literature review and data analysis. All of the information pertains to educator gifted referral efficacy for referring African American students to gifted education programs in rural schools through the use of a self-reporting instrument, the Gifted Referral Efficacy Scale (GRES).

Finding 1: Use of the GRES to assess educator efficacy using TABs

With instrument reliability established using statistical analysis, the GRES accurately measured educators' use of the TABs as a gifted identification system. Although there are some teachers who refer students to the gifted education program, the majority are teachers of 2nd grade students, and mandated to do so through the state mandated Gifted Child Find Procedure. Greater use of the TABs by teachers of students in all gifted service delivery grades (K-6) would

result in greater numbers of African American students referred and eligible for gifted program services in this rural school system. For the purpose of this study, the Gifted Referral Efficacy Scale reliably assessed educator knowledge, abilities, and perception of gifted referral efficacy using the TABs constructs. Used appropriately, it may benefit this and other rural school districts as a measure to increase educator referrals of rural, gifted students.

Finding 2: Frequency of TABs referrals

Pearson's correlation coefficients (two-tailed) were calculated between each pair of gifted referral efficacy and number of gifted referrals using TABs research variables. Results indicated that there were only three marginally statistically significant correlations between gifted referral efficacy and educators' referrals using TABs for this data ($p < .05$). This correlation was between gifted referral efficacy scores for "Motivation" ($r = .209$, $p = .044$), "Communication" ($r = .203$, $p = .049$), and "Problem-Solving Ability ($r = .222$, $p = .031$), indicating a moderately statistically significant positive relationship for the three constructs.

Through factor analysis, the factors underlying educators' efficacy for using TABs for gifted referrals were examined. Based upon the responses of the participants, educators' expressed confidence in their ability to refer students using TABs. Of the five subscale items related to each gifted referral efficacy TABs construct, educators were most confident in the first statement regarding recognizing gifted traits, aptitudes, and behaviors in their students.

Based on the results of the factor analysis, the TABs constructs with the greatest variance explained by the first factor (knowledge) were "Inquiry" and "Insight". The TABs constructs with the least variance explained by the first factor were "Motivation" and "Humor". Seemingly, educators associate "Motivation" with general characteristics of students and as a trait that all students should have for school success. Additionally, the responses of educators indicated that

they are not as confident recognizing "Humor" as a gifted trait of rural African American students or associating it with making referrals of students to gifted programs. Educators were comfortable using the TABs as a gifted referral instrument based on the subscale questions, which assessed their perception of referral knowledge and perception of referral ability of the TABs. In other words, educators expressed their ability to use the TABs constructs, with higher comfort levels using "Inquiry" and "Insight" to refer students for gifted services.

The implications of these findings suggest that there remains some uncertainty among educators regarding the TABs, their respective meanings and application for gifted identification and referrals, although educators report high efficacy using the TABs. Therefore, additional, in-depth training of the TABs constructs, paired with concrete identification practice is necessary.

Finding 3: Educator efficacy based on gifted education training

The results of the analyses conducted on the impact of training in gifted education on educator gifted referral efficacy imply that educators without training felt as knowledgeable about the TABs as did educators with training. This suggests that the quality of training, which is unknown, did not significantly impact trained educators' efficacy for making gifted referrals using the TABs. Research has shown that educator training in gifted education that also addresses culturally different populations (Ford & Grantham, 2003; Ford, Harris, Tyson, & Trotman, 2002; Frasier et al., 1995a,c) significantly impacts educator referrals of African American students for gifted education programs. Therefore, improving the quality, depth, and breadth of the 2nd Grade Gifted Child Find Procedures as well as general gifted training for all educators will in the Macon County Public School District will improve educators' gifted referral efficacy using the TABs.

One of the major criticisms of alternative identification programs is that minority students are identified and selected on one set of criteria and then expected to perform in settings that are based on a different set of criteria (Baldwin, 2002). In support of the efficacy research conducted by Hunsaker, Finley, & Frank (1997), Pajares (1992), and Podell & Soodak (1993), the gifted referral efficacy of educators is impacted by their tendency to refer students based on preconceived notions and behaviors associated with academic ability rather than on creativity or leadership which may manifest in other ways (Frasier et al., 1995 a, c). These findings indicate that educators who receive appropriate, systemic training in gifted education will develop the skills that are necessary to recognize how the talents of African American students will manifest, albeit in nontraditional ways.

In the context of the constraints facing rural schools such as small size (Colangelo et al., 1999; Frasier and Passow, 1994) and lack of trained personnel (Burney & Cross, 2006; Cross & Burney, 2005; Cross & Dixon, 1998), this study further highlights the need to conduct gifted training for the limited personnel serving in rural communities. This practice will significantly impact the educational opportunities afforded to the culturally diverse gifted students living there.

Limitations

The study following had the following limitations:

1. This study was conducted within the framework of a single school system in rural Alabama.
2. The data collected were based on the self-report of employees of the school system.

3. The study provided results of a single year (2011) of documented accuracy rate of referrals, which followed a period of decline in the gifted education program's referrals and enrollment. This is not representative of past results.
4. There is minimal data on the success of the TABs instrument for identifying African American students in rural school districts in Alabama.
5. The educators in this study did not receive adequate, consistent training as mandated by the Alabama Department of Education.

The gifted criteria referred to in this study were limited to regulations from the Alabama Department of Education. Despite limitations, the study provides insight into educator efficacy for making gifted referrals of rural African American students and the need for professional development with regard to use of the TABs for gifted referrals and the impact of the TABs on future gifted studies.

Implications for Research and Practice

This study adds to the limited research conducted in rural environments regarding gifted and diverse students (Luhman and Fundis, 1989; Sherwood, 2000). Additionally, it adds to the limited body of research on the use of TABs for gifted referrals.

The implications of the study include the need for targeted professional development on the TABs for general education teachers to inform educators' effective use and application of the TABs for making referrals of African American students to gifted education programs, targeted professional development in the areas educators are experiencing some success with use of the TABs for practical application of the TABs to daily instruction, and continued research on the use of TABs to refer rural African American students to gifted programs. To this end, district and school leaders should design professional development opportunities that focus on identifying

the potential for giftedness within all cultural groups that make up the demographics of the district and respective school. School leaders are responsible for selecting professional development that addresses the needs of teachers and the students they are charged to instruct.

The need to further examine the efficacy of educators in referring African American students to gifted education programs is vital to their success and the sustainability of gifted education services to all students, given the growing demographic changes that will occur in public schools across the country, notably in rural school systems, in the coming years. To better understand the impact of educators' ability to recognize potentially gifted student behaviors and how their perceptions of rural African American students and gifted referral efficacy impact the future of gifted education, additional studies are necessary that delve into this area of rural gifted research. Suggestions for additional research are listed below:

1. Perform a mixed methods study to assess educators' referrals of African American students to gifted education programs.
2. Conduct an empirical study of rural educators' referral efficacy on a larger scale to include other rural areas of the country for generalizability.
3. Assess pre and post TABs training for educators across multi-rural Alabama school districts.
4. Conduct an empirical study on the influence of targeted, specific gifted training on educator gifted referral efficacy.
5. Examine the longitudinal impact of the *Lee v Macon Consent Decree* in Alabama using TABs with 2nd Grade Gifted Child Find Procedures to determine if changes to Alabama law regarding gifted identification procedures have resulted in greater numbers of African American gifted students.

This study revealed the under-referral and underenrollment of students in the gifted education program in a rural Alabama school district despite educators' high gifted referral efficacy. From self-efficacy (Bandura, 1977, 1986; Pajares, 1992) and gifted referral efficacy (Elhoweris, 2008; Elhoweris et al., 2005; Pegnato & Birch, 1959) research, educators' high gifted referral efficacy should be a precursor to high gifted program enrollment. It is evident from this study that there is disconnect between what educators know and what they practice. In order to increase gifted referrals, thereby increasing student enrollment in the gifted program the results of this study will be shared with the District Superintendent and her designee(s) and remain at the district level for the purposes of local professional development needs and district initiatives.

The results of this research study further suggest that educators' appropriate knowledge and use of the TABs as a referral instrument can result in greater numbers of students being identified as gifted, especially in rural (Johnson & Strange, 2005; Williams, 2003), high-poverty areas (Elhoweris, 2008) where there is a lack of educator referrals of students (Ford, 2007; Frasier, et al., 1995a, 1995b, 1995c, 1995d; Frasier, Garcia, & Passow, 1995; Spicker & Aamidor, 1996) for gifted education program participation.

Finally, the quantitative data showed that educators have overall high perceptions regarding their perception of referral knowledge and perception of referral ability of the TABS as a referral instrument for African American students to gifted education programs. Furthermore, educators had overall high efficacy for making gifted referrals of rural students using TABs. Because educators demonstrated a positive referral efficacy could explain why there is not underrepresentation in the "typical" sense relative to school and gifted enrollment figures. With an equal percentage of African American students in the gifted program and the total school

enrollment, there does not appear to be an issue of underrepresentation of students. However, the problem is the low numbers of students referred for gifted services in light of the high referral efficacy demonstrated by educators in the study who overwhelmingly tended to "*strongly agree*" with the efficacy statements regarding perception of referral knowledge and perception of referral ability using the TABs, yet made relatively few gifted referrals.

With regard to the role of gifted training on educator gifted referral efficacy, there was no significant difference between "trained" and "untrained" educators for making gifted referrals using the TABs. This finding suggests that educators in this district may not be adequately trained to recognize gifted behaviors in students or encouraged to refer students to the gifted program.

Conclusion

Teachers in rural communities must consider how students' characteristics and the rural nature of the community can be taken into account when making gifted program referrals. Thinking about how the rural community affects students' readiness, interests, and preferred method of learning, as well as what is taught, how it is taught, and what students are required to produce as evidence of their learning are key. By considering these factors, teachers can help African American students achieve to their full capacity and participate in programs for the gifted to which they are entitled. In spite of the tendency to continue to observe teacher-pleasing behaviors, the TABs help teachers look at students through different lenses. Educators are encouraged to focus on their own attitudes toward what constitutes giftedness and how they viewed children in their classes who they considered gifted.

Because the current gifted program enrollment remains low, ongoing professional development in gifted education for educators is essential to increasing their gifted referral

efficacy of students. The latter has become a priority in Macon County Public School District in light of the current researcher being the only certified specialist in the district for over 10 years. While general education teachers have been encouraged to obtain the gifted endorsement as an add-on to their current credentials, several have mentioned that, although they wish to remain general education teachers, they believe gifted identification training will be helpful in understanding the challenges involved in recognizing gifted behaviors in students and successfully teaching them. Consideration must be given for the extent of orientation and training offered for teachers for both the gifted education program services and procedures for nominating students.

As Jenkins (1936) concluded nearly 80 years ago, the African American of superior intelligence is not an anomaly in the elementary school setting. Jenkins' studies were revolutionary at the time providing irrefutable evidence that African American students during the era were just as intelligent if not more intelligent than their white peers, albeit contrary to popular belief. His studies were a major breakthrough in the field of education and psychology.

Rural, African American gifted students are sitting in classrooms across the country where they are considered less intelligent than their different race peers and not capable of performing in higher level instructional settings, much less scoring the perceived 'gifted range' on traditional tests. The early research findings of gifted pioneers Witty and Jenkins to those of present day scholars Frasier, Ford, and Grantham highlight promising practices and programs to serve diverse populations of gifted students.

There really are no excuses for the continuing state of under-representation of students in gifted programs in rural areas. Bias, discrimination, stereotypical behaviors of educators, lack of training should not be accepted and allowed to limit students' chances for a better future. In

spite of our knowledge that giftedness occurs in all socioeconomic and ethnic groups, the identification of children from rural areas continues to be challenging.

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Gifted Referral Efficacy Scale (Dissertation Version)

This survey is designed to help us understand your views related to gifted referrals. We ask that you share your understanding of traits, aptitudes, and behaviors (TABs) associated with giftedness. A series of items (5) is presented related to each TAB (10), followed by general questions about your experience with making gifted referrals, training in gifted education and educational background.

1. Please enter your contact information below.

Gender:

Ethnicity:

First Year as Educator in Macon County

*2. Age

	21-25 range.	26-30 range.	31-35 range.	36-40 range.	41-45 range.	46-50 range.	51-55 range.	56-60 range.	61-65 range.	above 65 range.
My age falls within the:	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

*3. SECTION I: MOTIVATION:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree
I can recognize ways in which my students show "strong motivation" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong motivation" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Evidence of desire to learn" is a good indicator of motivation in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong motivation traits, aptitudes and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance motivation in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

*4. SECTION II: INTERESTS:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong interests" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what it means for a student to have "strong interests".	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"A feeling of intentness, passion, concern, or curiosity about something" is a good indicator of interests in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong interests reflected by traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe I have the ability to develop learning experiences that enhance my potentially gifted students' interests.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Gifted Referral Efficacy Scale (Dissertation Version)

*5. SECTION III: COMMUNICATION:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong communication" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong communication skills" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Highly expressive and effective use of words, numbers, and symbols" is a good indicator of communication skills.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong communication traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance communication skills in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

*6. SECTION IV: PROBLEM-SOLVING ABILITY:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong problem-solving ability" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong problem-solving ability" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Demonstrates effective, often inventive, strategies for recognizing and solving problems" is a good indicator of problem-solving ability in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize problem-solving traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance problem-solving ability in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

*7. SECTION V: MEMORY:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong memory" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong memory" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Having a large storehouse of information on school or non-school topics" is a good indicator of memory in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong memory traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance memory in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Gifted Referral Efficacy Scale (Dissertation Version)

*8. SECTION VI: INQUIRY:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong inquiry" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong inquiry" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Demonstrating a method or process of seeking knowledge, or understanding of information" is a good indicator of inquiry in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong inquiry traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance inquiry in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

*9. SECTION VII: INSIGHT:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong insight" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong insight" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Quickly grasping new concepts and making connections and sensing deeper meanings" is a good indicator of insight in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong insight traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance insight in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

*10. SECTION VIII: REASONING:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong reasoning" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong reasoning" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Logical approaches to figuring out solutions" is a good indicator of reasoning in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong reasoning traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance reasoning in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Gifted Referral Efficacy Scale (Dissertation Version)

*11. SECTION IX: IMAGINATION AND CREATIVITY:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong imagination and creativity" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong imagination and creativity" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Producing many ideas that are highly original" is a good indicator of strong imagination and creativity in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong imagination and creativity traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance imagination and creativity in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

*12. SECTION X: HUMOR:

	1 (Strongly Disagree)	2	3	4	5	6	7	8	9	10 (Strongly Agree)
I can recognize ways in which my students show "strong humor" in the classroom.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I have a pretty good understanding of what "strong humor" means.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
"Bringing two unrelated ideas or planes of thought together in a recognized relationship" is a good indicator of strong humor in students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I am confident that I can recognize strong strong humor traits, aptitudes, and behaviors in students from minority or low-income backgrounds.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
I believe that I have the ability to develop learning experiences that enhance humor in my potentially gifted students.	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Gifted Referral Efficacy Scale (Dissertation Version)

***13. MY REFERRALS.**

Based on their strengths in the _____ TABs, I estimate that I have referred _____ number of students for gifted program screening during my career as an education professional.

	none	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
Motivation TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Interest TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Communication TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Problem Solving TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Memory TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Inquiry TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Insight TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Reasoning TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Creativity/Imagination TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯
Humor TABs	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

***14. Of the following ten traits, aptitudes, and behaviors associated with giftedness (MOTIVATION, INTERESTS, COMMUNICATION SKILLS, PROBLEM-SOLVING ABILITY, MEMORY, INQUIRY, INSIGHT, REASONING, IMAGINATION/CREATIVITY, AND HUMOR), I believe the top five that teachers use to make referrals are: (list your top five in order of use by teachers)**

15. The highest educational level that I have attained is:

- ◯ Bachelor's Degree
- ◯ Master's Degree
- ◯ Educational Specialist
- ◯ Doctoral Degree
- ◯ Post Doctoral Education/Training

Gifted Referral Efficacy Scale (Dissertation Version)

***16. I have the following number of years of teaching service.**

- ◯ 0-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16-20
- ◯ 21-25
- ◯ 26+

***17. I have been a teacher of gifted students for the following number of years.**

- ◯ 0-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16-20
- ◯ 21-25
- ◯ 26+

***18. I have earned certification/endorsement in gifted education.**

- ◯ yes
- ◯ no

***19. I have received specialized professional training from the following non-degree granting institutions or organizations (e.g., pre-convention workshops, conference attendance).**

***20. I have received training in identifying and teaching gifted and talented students.**

- ◯ none
- ◯ disrict inservice
- ◯ workshop(s)
- ◯ college course(s)
- ◯ certification/endorsement in gifted and talented education

MACON COUNTY BOARD OF EDUCATION

Jacqueline A. Brooks, Ed.D.
Superintendent of Education

November 3, 2011

Institutional Review Board
Human Subjects Office (HSO)
612 Boyd Graduate Studies Research Center
University of Georgia
Athens, GA 30602-7411

Dear UGA IRB,

The purpose of this letter is to grant Dr. Tarek C. Grantham and Erinn F. Floyd (an employee of Macon County Public Schools) at the University of Georgia permission to conduct research at Macon County Public Schools. The project titled, "A Descriptive Study of Teacher Self-Efficacy and Referral of Rural African American Students for Gifted Programs Using the TABs," is essential to the district's efforts to reform the Gifted Education Program's identification procedures and service delivery. Our objective is to meet state and national compliance mandates as part of our normal practice to improve the services rendered to this population of students. The study proposed by the researchers will support and empower our initiative.

Per the needs of our school district, the researchers will be provided existing archival data without identifying information to conduct the research study. They are granted permission to use the information retrieved with my technical assistance and/or my designee for their research and professional educational purposes.

If additional information is required, I may be reached at (334) 727-1600.

Sincerely,

Jacqueline A. Brooks

Jacqueline A. Brooks, Ed.D.
Superintendent of Education

501 South School Street • Post Office Box 830090 • Tuskegee, Alabama 36083-0090 • (334) 727-1600 • Fax: (334) 724-9990

Benilda P Pooser

From: Benilda P Pooser
Sent: Friday, December 16, 2011 3:01 PM
To: Tarek C Grantham; Erinn F. Floyd
Subject: Project Review - Grantham/Floyd

PROJECT NUMBER: 2012-10461-0
TITLE OF STUDY: A Descriptive Study of Teacher Self-Efficacy and Referral of Rural African American Students for Gifted Programs using the TABs
PRINCIPAL INVESTIGATOR: Dr. Tarek C. Grantham
CO-PRINCIPAL INVESTIGATOR: Ms. Erinn Floyd

Dear Tarek and Erinn,

The University of Georgia (UGA) Human Subjects Office has reviewed the project identified above. It has determined that this proposed analysis of data/information that is not individually-identifiable does not meet the definition of *human subjects* under Title 45 CFR 46.102 (i.e., *a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information*). This project, therefore, does not require review and approval by the UGA Institutional Review Board (IRB); you may now begin this activity.

This opinion covers only this request and does not include any other future research or activity that may involve human participants. Please notify our office of any changes to the project that might affect the original determination. You should be receiving your signed *Request for Determination of Not Human Subject Research Form* by mail. Please keep it for your records.

Good luck with the study, and please feel free to contact our office for any research endeavors involving human subjects that you may be conducting in the future.

Best regards,

Benil
--
Benilda P. Pooser, Ph.D., CIM
Director, Human Subjects Office
629 Boyd Graduate Studies Research Center
University of Georgia
Athens, GA 30602-7411
Telephone 706.542.3199; Fax 706.542.3360
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State of Alabama

Department of Education

6 Year Racial Representation in the Gifted Program - State Totals

From 2007 to 2012

	Total	Asian	Black	Hispanic	Indian	Multi	Pacific	White	Unknown	Gifted % of Total
Year : 2007										
Total Enrolled	739,760	7,875	263,998	23,219	5,917	0	0	436,576	2175	
Enrollment %		1.06%	35.69%	3.14%	0.80%	0.00%	0.00%	59.02%	0.29%	
Gifted Enrollment	35,317	642	6,479	575	346	0	0	27,186	89	
Gifted %		1.82%	18.35%	1.63%	0.98%	0.00%	0.00%	76.98%	0.25%	4.77%
Year : 2008										
Total Enrolled	739,327	8,405	261,546	25,944	5,996	0	0	435,058	2378	
Enrollment %		1.14%	35.38%	3.51%	0.81%	0.00%	0.00%	58.85%	0.32%	
Gifted Enrollment	35,516	678	6,436	650	363	0	0	27,289	100	
Gifted %		1.91%	18.12%	1.83%	1.02%	0.00%	0.00%	76.84%	0.28%	4.80%
Year : 2009										
Total Enrolled	739,196	8,833	259,184	28,819	6,131	0	0	433,617	2612	
Enrollment %		1.19%	35.06%	3.90%	0.83%	0.00%	0.00%	58.66%	0.35%	
Gifted Enrollment	36,372	711	6,475	689	364	0	0	28,011	122	
Gifted %		1.95%	17.80%	1.89%	1.00%	0.00%	0.00%	77.01%	0.34%	4.92%
Year : 2010										
Total Enrolled	741,115	9,301	257,754	31,366	6,063	0	0	433,604	3027	
Enrollment %		1.26%	34.78%	4.23%	0.82%	0.00%	0.00%	58.51%	0.41%	
Gifted Enrollment	39,223	817	7,006	818	381	0	0	30,039	162	
Gifted %		2.08%	17.86%	2.09%	0.97%	0.00%	0.00%	76.59%	0.41%	5.29%
Year : 2011										
Total Enrolled	741,043	9,421	254,989	33,260	6,029	2363	130	432,728	2123	
Enrollment %		1.27%	34.41%	4.49%	0.81%	0.32%	0.02%	58.39%	0.29%	
Gifted Enrollment	49,536	1,048	9,042	1,120	491	126	6	37,703	0	
Gifted %		2.12%	18.25%	2.26%	0.99%	0.25%	0.01%	76.11%	0.00%	6.68%
Year : 2012										
Total Enrolled	736,339	9,846	250,967	34,220	6,131	6104	323	428,748	0	
Enrollment %		1.34%	34.08%	4.65%	0.83%	0.83%	0.04%	58.23%	0.00%	
Gifted Enrollment	52,857	1,161	9,412	1,241	593	263	12	40,175	0	
Gifted %		2.20%	17.81%	2.35%	1.12%	0.50%	0.02%	76.01%	0.00%	7.18%

Data Source: ACES.Datacollection
Prepared By: IS/ET & AW

3/19/2012 8:17:03 AM

State of Alabama

Department of Education

6 Year Racial Representation in the Gifted Program

From 2007 to 2012

	Total	Asian	Black	Hispanic	Indian	Multi	Pacific	White	Unknown	Gifted % of Total
044 Macon County										
Year : 2007										
Total Enrolled	3,187	1	3,135	3	0	0	0	48	0	
Enrollment %		0.03%	98.37%	0.09%	0.00%	0.00%	0.00%	1.51%	0.00%	
Gifted Enrollment	74	0	73	0	0	0	0	1	0	
Gifted %		0.00%	98.65%	0.00%	0.00%	0.00%	0.00%	1.35%	0.00%	2.32%
Year : 2008										
Total Enrolled	3,007	1	2,953	4	0	0	0	48	1	
Enrollment %		0.03%	98.20%	0.13%	0.00%	0.00%	0.00%	1.60%	0.03%	
Gifted Enrollment	57	0	57	0	0	0	0	0	0	
Gifted %		0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.90%
Year : 2009										
Total Enrolled	2,888	1	2,841	3	0	0	0	42	1	
Enrollment %		0.03%	98.37%	0.10%	0.00%	0.00%	0.00%	1.45%	0.03%	
Gifted Enrollment	43	0	43	0	0	0	0	0	0	
Gifted %		0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.49%
Year : 2010										
Total Enrolled	2,695	1	2,649	9	0	0	0	35	1	
Enrollment %		0.04%	98.29%	0.33%	0.00%	0.00%	0.00%	1.30%	0.04%	
Gifted Enrollment	39	0	39	0	0	0	0	0	0	
Gifted %		0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.45%
Year : 2011										
Total Enrolled	2,598	5	2,561	1	0	1	0	28	2	
Enrollment %		0.19%	98.58%	0.04%	0.00%	0.04%	0.00%	1.08%	0.08%	
Gifted Enrollment	46	0	46	0	0	0	0	0	0	
Gifted %		0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.77%
Year : 2012										
Total Enrolled	2,523	5	2,473	8	0	2	0	35	0	
Enrollment %		0.20%	98.02%	0.32%	0.00%	0.08%	0.00%	1.39%	0.00%	
Gifted Enrollment	28	0	28	0	0	0	0	0	0	
Gifted %		0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.11%

Data Source: ACES.Datacollection
Prepared By: IS/ET & AW

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