Perceptions Of The Emotional/behavioral Disability Label On Educators' Referral And Placement Decisions To Gifted And Talent

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PERCEPTIONS OF THE EMOTIONAL/BEHAVIORAL DISABILITY LABEL ON EDUCATORS’ REFERRAL AND PLACEMENT DECISIONS TO GIFTED AND TALENTED PROGRAMS

by

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B.S. University of South Florida, 2002
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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Exceptional Education in the College of Education at the University of Central Florida Orlando, Florida

Summer Term
2007

Major Professor: Mary Little
ABSTRACT

Socio-culturally diverse students with disabilities are underrepresented in gifted and talented programs. This study investigated the differences in educators’ referral and placement decisions based on a students’ disability label, socio-economic status (SES), and ethnicity. Two hundred and eighty five educators’ (classroom teachers, school counselors, school psychologists, and school social workers) across a Florida school district participated in the study. Educators’ were randomly assigned to treatment and control case vignettes that described a student with emotional/behavioral disabled (EBD) and gifted characteristics. Treatment case vignettes explicitly stated the students’ disability label, socio-economic status, and ethnicity. Control case vignettes described of the student examined and did not mention the disability label, ethnicity, or socio-economic status of the student.

After reading the case vignette, participants responded to a two-item questionnaire that explained their referral and placement decisions of the student described in the vignette. Participants responses to the two item questionnaire were indicated by selecting one of six choices: strongly agree, slightly agree, agree, disagree, slightly disagree, and strongly disagree. Responses were the dependent variables being measured.

A three-way factorial Analysis of Variance (ANOVA) was used to measure the differences in educators’ referral and placement decisions based on a student’s disability label, socio-economic status, and ethnicity. Results indicate educators’ awareness of a students’ disability label, socio-economic status, and ethnicity influence referral decisions. Implications are discussed and recommendations for future research are made.
ACKNOWLEDGEMENTS

Above all, I thank God. It is His light, love, power, and presence that guided me through everything. To my father and mother, Winston and Debra, this accomplishment is built from the dreams and aspirations you carried for me. Ethan and Lezza, thank you for keeping me grounded in who I am and what I do. I also would like to acknowledge the support and encouragement from my auntie and cousin Ryan. Thanks! To my elders, present and past, your unwillingness to exceed than what others expect is the cornerstone of my work. Through this achievement, I carry on the legacy.

To all my Holmes Scholars, especially Wendy and Nicola, your willingness to listen and be open has lifted me to a higher level mentally and spiritually. Dr. Mary Little and my dissertation committee, thank you for your positive words and continued support during this entire process. To my students and friends at Belle Witter Elementary, I dedicate this to all that you taught me. I also would like to thank my family here in Orlando, Pastors Rufus, Ph.D. and Theresa Owens, Ed.D. Thank you for your prayers and yummy food! Last, but not least, Michael. You are my inspiration. You have taught me to embrace what is now and seize the moment. I cannot thank you enough for everything.
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CHAPTER 1: INTRODUCTION

Problem

For high achieving culturally and linguistically diverse students, students with disabilities and students from low socio-economic backgrounds, the lack of referral and placement to gifted and talented programs are critical to their representation rates in special and gifted education (Coleman, 2003; Frasier, 1995b). A rate comparison reported in the 25th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (2005) show the rate of students living in poverty with disabilities (24%) exceed their incidence in the general population (16%). Nationally, 11% of students receiving EBD services are African American; where as, Caucasian, Asian, and Hispanic students each make up less than or equal to 8% (Office of special education and rehabilitative services, 2005). At the state level, African Americans, represent 23% of the total student population; however only make up 9% of total students served in gifted and talented programs (Membership in Florida public schools, 2005). The rate of students from diverse cultural backgrounds, students with disabilities and students from low socio-economic households in emotionally/behaviorally disabled (EBD) and gifted and talented programs (GT) classrooms are disproportionate to their incidence in the general student population.

Based on the special and gifted education literature, disproportionality is the effect of educators’ perceptions of a student’s disability label, socio-economic label, and/or ethnicity label. The categorization and assessment of EBD perpetuate a social and cultural biases that affect how students with EBD are referred and placed in subsequent specialized programs (Coutinho, Oswald, & Forness, 2002; Cullinan & Kauffman, 2005; Frey, 2002; Ysseldyke &
Marston, 1999). In a similar way, the definitions (Patton, Prillaman, VanTassel-Baska, Baldwin, & Reiss, 2004), and assessments (Baldwin, 2002) of GT create a limited socio-cultural views of students with GT. Subsequently, the limitations on what GT is and how it is identified affects educational decisions to GT programs (Frasier, 1995a; Karnes, Shaunessy, & Bisland, 2004; Plata, Masten, & Trusty, 1999).

Additionally, research on educational decisions to exceptional education programs are limited to only a population of teachers (Aaroe & Nelson, 2000; Cullinan & Kauffman, 2005; Elhoweris, Mutua, Alsheikh, & Holloway, 2005; Frey, 2002); demonstrating a paucity in researching the views of other key decision makers, such as school counselors, school psychologists, and school social workers, during the GT referral and placement process. The limited perceptions of EBD and GT and a lack of research on the perceptions of other decision makers during the eligibility process of GT are salient concerns in exceptional education that warrant investigation.

Purpose of Study

Research in gifted and special education addresses the under identification of students labeled EBD who demonstrate gifted and talented behaviors (Bianco, 2005; Karnes et al., 2004). For culturally and linguistically diverse (CLD) students from low socio-economic households, this process is made more complex by the affect of socio-economic status and ethnicity (Aaroe & Nelson, 2000; Elhoweris et al., 2005). In addition, the process is reliant upon the collaborative perspectives and experiences of teachers, school counselors, school psychologists, and school social workers to provide a in-depth view of students abilities (Friend & Cook, 2003). Therefore, the purpose of this study is to examine a variety of educators’ recommendation
decisions to gifted and talented programs based on a students’ disability label, ethnicity, and socio-economic status.

Rationale

The underlying principle of this investigation was based on legislation governing students identified and enrolled in EBD and GT. Federal and state legislation define, characterize, and regulate how students are determined eligible for EBD and GT services. The definitions, characteristics, procedures for eligibility are pertinent to this study as these aspects establish the global perspective of EBD and GT.

The Individual with Disabilities Education Improvement Act of 2004 defines and characterizes all exceptional education categories identified by the federal definition. The definition of EBD is as follows:

…a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance: 1) An inability to learn which cannot be explained by intellectual, sensory, or health factors. 2) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. 3) Inappropriate types of behavior or feelings under normal circumstances. 4) A general pervasive mood of unhappiness or depression. 5) A tendency to develop physical symptoms or fears associated with personal or school problems. (Individuals with Disabilities Education Improvement Act, Title 34, Section 300.7(4)(i))

Detailed in this definition are the learning and behavioral characteristics that describe a student with EBD from its peers. These characteristics include the lack of ability to learn, an absence of appropriate relationships with peers and adults, demonstration of
unsuitable actions or sentiments, demonstration of invasive sadness, and a propensity to develop reservations. In addition, the legislative definition indicates that these characteristics must be demonstrated “over a long period of time and to a marked degree” (Individuals with Disabilities Education Improvement Act, Title 34, Section 300.7(4)(i)(c)). The amount of time and degree to which these characteristics are exhibited is decided upon during the special education eligibility process.

Under Section 614 of IDEIA, the special education eligibility process is described as a series of procedures: 1) screening, 2) pre-referral interventions, 3) referral to special education, assessment of learning and behavioral needs, and 4) eligibility determination. During the implementation of these procedures, it is mandated that educators use reliable and valid assessments as well as scientifically-based interventions and services throughout to ensure an appropriate educational placement. In addition, IDEIA requires that this process is overseen by a collaborating multidisciplinary team of teachers and other professionals in related services (school counselors, school psychologists, and school social workers). Collectively, the mandated procedures during the process is designed to ensure that students with disabilities receive an appropriate education that is designed to meet their needs to further their educational endeavors.

Similar to IDEIA of 2004, the No Child Left Behind Act (NCLB) of 2001 provides the definition and identification guidelines for GT. Under Title IX, section 9101 GT is federally defined as:

…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 or activities not ordinarily provided by the
school in order to fully develop those capabilities. (No Child Left Behind Act, Title IX, Part A, Definitions (22) (2002))

This definition states that a student who is gifted and talented is one who exhibits high achievement ability. It is also stated that the student must demonstrate a need for services that are not normally available by the school. The presence of these characteristics is determined by school based educators during the process of establishing eligibility for GT programs.

Unlike the eligibility process of special education, educational decisions regarding referral and placement into gifted and talented programs are determined by state laws and policies. In the state of Florida, the legislations mandates the identification and service of gifted and talented students (2006). The Florida Administration Code 6A-6.0331 states student’s believed to be gifted need to be:

… identified, evaluated, and provided appropriate specially designed instruction and related services if it is determined that the student meets the eligibility criteria… (Florida Admin. Code Ann. r. 6A-6.0331)

In addition, the gifted education policy in Florida (see Table 1) requires the all students demonstrating exceptional needs follow the procedures of screening, referral, and assessment to determine eligibility for specifically designed services.
Table 1.

State of Florida Gifted Education Policy

(1) Gifted. One who has superior intellectual development and is capable of high performance.

(2) Criteria for eligibility. A student is eligible for special instruction programs for the gifted if the student meets criteria under (2) (a) or (b) of this rule.

   a) The student demonstrates: 1. Need for a special program. 2. A majority of characteristics of gifted students according to a standard scale or checklist, and 3. Superior intellectual development as measured by an intelligence quotient of two standard deviations or more above the mean on an individually administered standardized test of intelligence.

   b) The student is a member of an under-represented group and meets the criteria specific in an approved school district plan for increasing the participation of under-represented groups in programs for gifted students.

   1. For the purpose of this rule, under-represented groups are defined as groups: a. Who are limited English proficient, or b. Who are from low socio-economic status family.

   2. The Department of Education is authorized to approve school district plans for increasing the participation of students from under-represented groups in special instructional programs for the gifted.

(3) Procedures for student evaluation. The minimum evaluations for determining eligibility are the following: (a) Need for a special instruction program, (b) Characteristics of the gifted, (c) Intellectual development, and (d) May include those evaluation procedures specified in an approved district plan to increase the participation of students from under-represented groups in programs for the gifted.
The Individuals with Disabilities Education Improvement Act of 2004 (IDEIA), No Child Left Behind Act, and the educational state laws of Florida detail provisions that are critical to the referral and placement process. Cooperatively, the federal and state legislation stipulates definitions, characteristics, and eligibility process for the EBD and GT categories. These regulations were enacted to ensure students with exceptional needs receive appropriate services in their respective special and gifted categories.

Students served in EBD and GT programs represent the effectiveness of the definitions, set of characteristics, and eligibility processes of each category (Coleman, 2003; Wagner, Kutash, Duchnowski, Epstein, & Carl Sumi, 2005b). National and state analyses collect and report data on student attributes. These statistics will be presented from national, state and local sources for both categories.

Nationally, the 25th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Improvement Act (Office of special education and rehabilitative services, 2005) reports there are approximately 6,000,000 students, ages 6-21, being served in special education. Among the students served in special education, 24% are living in poverty (see Table 2).
Of the 6,000,000 students being served in special education, 8.1% are students receiving services for EBD. For students served aged 6-12, 80% are male and 20% are female where as 77.1% of males and 22.9% of females are students served between the ages of 13 and 17 (see Table 3). The ethnic composition of students being served EBD is as follows: 7.7% are American Indian/Alaska Native, 5.0% are Asian/Pacific Islander, 11.3% are Black (non-Hispanic), 5.0% are Hispanic, and 8.0% are Caucasian (see Table 4).

Table 2.

Income of Families with Students Served in Special Education Nationwide\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>General Population</th>
<th>Students with Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td>16%</td>
<td>24%</td>
</tr>
<tr>
<td>$15,000 or less</td>
<td>13%</td>
<td>20%</td>
</tr>
<tr>
<td>$15,001 – 25,000</td>
<td>16%</td>
<td>11%</td>
</tr>
<tr>
<td>$25,001 – 50,000</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>$50,001- $75,000</td>
<td>23%</td>
<td>19%</td>
</tr>
<tr>
<td>More than $75,000</td>
<td>24%</td>
<td>13%</td>
</tr>
</tbody>
</table>

\(^1\)Distribution reported for students between the ages of 6-12 as described in the report to congress on the implementation of IDEIA (Office of special education and rehabilitative services, 2005)
In Florida, the Bureau of Statistical Information and Accountability Services (Membership in Florida public schools, 2005) reports that 401,834 students are receiving special education services. Nearly 6% of this population are students receiving EBD services. Within this group about 47% are Caucasian, 38% are Black (non-Hispanic), 11% are Hispanic, and less than 4% are American Indian/Alaskan Native and Asian/Pacific Islander. It is also reported in this volume that Orange County, the local school district, serves 34,836 students in special education. Of this population, 3% are students receiving EBD services. Among the students receiving enrolled in EBD, Caucasians comprise nearly 30%. Blacks/African Americans and Hispanics comprise 53% and 16% of the students with EBD, respectively. Less than 5% of the total population of students with EBD are American Indian/Alaskan Native, Asian/Pacific Islander, and Multiethnic 5% (see Table 4).

Table 3.
Students Served in EBD Nationwide

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 6-12</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Age 13-17</td>
<td>77.1%</td>
<td>22.9%</td>
</tr>
</tbody>
</table>
Table 4.

National, State and Local Ethnic Distribution of Students Served in EBD²

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>National</th>
<th>Florida</th>
<th>Local School District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EBD³</td>
<td>General Population</td>
<td>EBD</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>7.7%</td>
<td>—</td>
<td>&lt; 1.0%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>5.0%</td>
<td>4.1%</td>
<td>&lt; 1.0%</td>
</tr>
<tr>
<td>Black (non-Hispanic)</td>
<td>11.3%</td>
<td>16.0%</td>
<td>38%</td>
</tr>
<tr>
<td>Multiethnic</td>
<td>—</td>
<td>—</td>
<td>3.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5.0%</td>
<td>19.3%</td>
<td>12%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>8.0%</td>
<td>57.4%</td>
<td>47%</td>
</tr>
<tr>
<td>Total Enrolled</td>
<td>469,379</td>
<td>5,867,234</td>
<td>28,912</td>
</tr>
</tbody>
</table>

² — indicates Not Available

³ Distribution reported by the percent of the total ethnic group among the disability categories described in the report to congress on the implementation of IDEIA (Office of special education and rehabilitative services, 2005).
Under the GT category, Florida reports 119,423 or approximately 23% of students in exceptional education programs are receiving GT services. Nearly 62% of these students are Caucasian. Hispanics make up 20%, where as Blacks comprise 9% of students enrolled in a GT program. Approximately 8% of students receiving GT in Florida are American Indian/Alaskan Native and Asian/Pacific Islander. In the local school district, 7,907 students are receiving GT services. Within this group, nearly 70% are Caucasian, 12% are Hispanics, 7% are Black, 8% are Asian/Pacific Islander, 1% are American Indian/Alaskan Native, and 2% are Multiethnic (see Table 5).

Table 5.
Statewide and Local District Ethnicity Distribution of Students Served in GT

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Florida</th>
<th>Local School District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GT</td>
<td>General Population</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>&lt; 1.0%</td>
<td>&lt; 1.0%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>4.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Black (non-Hispanic)</td>
<td>9.0%</td>
<td>23%</td>
</tr>
<tr>
<td>Multiethnic</td>
<td>3.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>20%</td>
<td>23%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>63%</td>
<td>48%</td>
</tr>
<tr>
<td>Total Enrolled</td>
<td>119,423</td>
<td>2,673,563</td>
</tr>
</tbody>
</table>
The rates of identification for EBD and GT services are disproportional at the national, state, and local levels. Ysseldyke and Marston (1999) believe a source of disproportionality lies within exceptional education labels’ categorical flaws, such as inexplicit definitions, a restrictive range of characteristics, and limited assessment measures. In addition, the flaws within the EBD and GT categories are factors that perpetuate stereotypes which affect the educational placement and service of students (Gagné, 2004; Morrison, 2001; Ysseldyke & Marston, 1999); particularly CLD students and students from low socio-economic households (Coutinho et al., 2002; Ford, Harris, Tyson, & Trotman, 2002). Other researchers add the classification of EBD and GT limits how students from low socio-economic households (Orfield, Kahlenberg, Gordon, Genesee, Slocumb, & Payne, 2000), students from culturally and linguistically diverse backgrounds (Elhoweris et al., 2005), and students with disabilities (Bianco, 2005; Karnes et al., 2004) are referred for exceptional education services.

Consequently, the educational needs of high achieving CLD students labeled EBD from low socio-economic households are overlooked and underserved (Bianco, 2005; Morrison, 2000; Rizza & Morrison, 2003). Based on students’ ethnicity, socio-economic status, and disability descriptions, the perceptions of decision makers during the eligibility process are affecting how students with gifted abilities are being identified and served (Elhoweris et al., 2005; Karnes et al., 2004; McKenzie, 1986; Prieto & Zucker, 1980; Sisk, 2003). In addition, the presence of GT behaviors among students labeled EBD is viewed as a paradox (Morrison, 2001). Subsequently, students labeled EBD who demonstrate GT abilities are less apt to receive educational placement and service in programs that meet the needs of students with high abilities (Bianco, 2005; Karnes et al., 2004).
As IDEIA mandates appropriate educational services for all students with disabilities, high achieving students who are labeled EBD should be provided educational placement and services that meet and serve the needs of their GT abilities as well as their EBD characteristics. However, the concomitant presence of these needs among CLD students from low socio-economic (SES) households are overlooked and underserved. To investigate the aforementioned, the research will be guided by the following questions and hypotheses:

Research Questions

1. Do educators’ referral decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student?
2. Do educators’ placement decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student?

Hypotheses

1. There is a difference in educators’ referral decisions based on a student’s ethnicity, socio-economic status, and disability label.
2. There is a difference in educators’ placement decisions based on a student’s ethnicity, socio-economic status, and disability label.

Variables

Independent Variables

1. Student’s disability label
2. Student’s Socio-economic status
3. Student’s ethnicity
Dependent Variables

1. Educators’ referral decisions
2. Educators’ placement decisions

Controlled Variables

1. Gifted behavioral and social characteristics of student
2. EBD behavioral and social characteristics of student
3. Educators’ educational characteristics

Research Procedures

The design of this study replicates and expands upon the investigation methods by Elhoweris, Muta, Alsheiksh and Holloway (2005). A proportional stratified sampling was used to select a sample population of classroom teachers, school counselors, school psychologists, and school social workers (Ary, Jacobs, & Rzavieh, 2002). The sample population was derived from 11 elementary schools and a regional learning community in one school district in Florida. This study uses factorial analysis of variance to measure the results (Ary et al., 2002).

This study used case vignettes, questionnaire items, and survey contents produced by Elhoweris, Muta, Alsheiksh and Holloway (2005) to collect data. The case vignettes utilized in this investigation are modified from the original instrument to describe characteristics of a male student classified as EBD who would qualify for placement in a gifted and talented program. The student’s behavioral and character traits in the case vignettes are constant for all forms. In the experimental vignettes the EBD label, student’s socio-economic background, and ethnicity were explicitly stated. Case vignettes that did not mention the EBD label, students’ socio-economic background, and/or ethnicity were the controlled vignettes. After reading the case
vignettes, a Likert-type two item questionnaire was used to collect educators’ referral and placement decisions. The survey was utilized to collect demographic educational background information about the participants and their schools.

Permission to conduct this investigation was obtained from the University of Central Florida Institutional Review Board and the local school district. The researcher began the entitled investigation upon receipt of written consent from the university and school district. At selected sites, the researcher was introduced to all potential participants during a scheduled meeting established by the principals and/or regional director. Teachers, school counselors, school psychologists, and school social workers who elected to participate were asked to read one of eighteen randomly assigned case vignettes. After reading the case vignettes, participants anonymously responded to the questionnaire items about the student described in the vignette and completed the survey.

Definition of Terms

Terms used throughout the study are defined as follows:

Culturally/Linguistically Diverse Student: any [student] belonging to one of the following ethnic categories: Black, Not of Hispanic Origin; Hispanic; Asian or Pacific Islander; American Indian or Alaska Native. (Florida Administration Code Ann.r. 6A-19.001, 6(8))

Determination of Eligibility: set of procedures overseen and administered by a multidisciplinary team of professionals by which educational placement and services in exceptional education are determined.

Diagnostic Assessments/Measures: evaluative instruments designed to identify and measure exceptional learning and behavioral abilities.
Disproportionality: the over-representation and/or under-representation of students receiving services in exceptional education that is not commensurate with their frequency in the general population.

Elementary Schools: schools providing regular or other instruction at one or more grade levels from PK through grade 5. This category may include schools serving grade 6 if also serving one or more grades PK through 5.

Exceptional Education: state-approved specialized services provided to meet the unique educational and social needs of gifted students and students with disabilities in PK (pre-kindergarten) through 12 settings.

Emotionally/Behaviorally Disabled: (1) a condition resulting in persistent and consistent maladaptive behavior, which exists to a marked degree, which interferes with the student’s learning process, and which may include but is not limited to any of the following characteristics: (a) an inability to achieve adequate academic progress which cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems. (Florida Administration Code Ann. r. 6A-6.03016)

Gifted and Talented: (1) one who has superior intellectual development and is capable of high performance. (Florida Administration Code Ann. r. 6A-6.03019); this may include students receiving services in honor classes, advanced placement, and/or specialized gifted programs (Lugaila, 2003).
Over-representation: the incidence of students receiving exceptional education services that is greater than their total frequency in the general population.

Poverty: condition by which individuals and/or families household income is below the poverty line set by the United States government.

School Counselors: individuals who are or have been employed as counselors in a pre-k through grade 12 public school setting for one or more years.

School Psychologists: individuals who are or have been employed as psychologists in a pre-k through grade 12 public school setting for one or more years.

School Social Workers: individuals who are or have been employed as social workers in a pre-k through grade 12 public school setting for one or more years.

Special Education: specially designed instruction or related services provided to students with disabilities.

Socioeconomic Status: the interaction effect of financial capital, human capital, and social capital that readily influences well-being. (Ensminger & Fothergill, 2003)

Teachers: individuals who are or have been employed as pre-k through grade 12 educators in a public school for one or more years.

Title I schools: schools with high numbers or high percentages of poor children who are failing, or most at risk of failing, to meet state academic standards

Under-representation: the incidence of students receiving exceptional education services that is less than their total frequency in the general population.

Upper-middle class: a condition by which individuals and/or families household income is at or above seventy five thousand dollars.
Organization of the Study

The purpose of this study is to examine the perceptions of the EBD label on educators’ referral and placement of CLD students from low socio-economic households to gifted and talented programs. A review of the literature will be presented first to provide a synthesized overview of current research addressing the categorization, definitions and characteristics of EBD and GT. Additional research related to issues in exceptional education such as the eligibility process, diagnostics, and educators’ perceptions are also reviewed. Following the review of the literature, the methods and procedures used by this investigation are addressed in detail. This section includes the descriptions of the instruments, data collection, and data analysis methods utilized during the investigation. The context of the study and a comprehensive description of the settings are also provided in this section. The subsequent section will discuss the summary of the findings. It will also present the data gathered from the case vignettes, questionnaire, and surveys. Finally, the research questions will be discussed together with the limitations and recommendations for further research.
CHAPTER 2: LITERATURE REVIEW

Introduction

The under-representation of culturally and linguistically diverse (CLD) students, students from low socio-economic households, and students with disabilities in gifted and talented (GT) programs are critical issues in the special and gifted education literature (Harris, Brown, Ford, & Richardson, 2004; Nielsen, 2002). Many of these students demonstrate gifted and talented characteristics that require specialized enrichment services not normally provided by schools (Baldwin, 2002; Frye-Mason, 2004). However, The National Research Center on Gifted and Talented (NRCGT) indicates African American students, Hispanic students, and students from low socio-economic households are significantly underrepresented in GT programs (Borland, 2004). In addition, a considerably low percentage of students with disabilities, particularly emotionally/behaviorally disabled (EBD), are represented in GT programs (Karnes et al., 2004). As a result, the nature and context of the under-representation of these students in GT programs are researched and addressed in special and gifted education literature (Artiles & Zamora-Duran, 1997; Donovan & Cross, 2002; Ford et al., 2002; Frasier, 1995b; Passow & Frasier, 1996; Patton et al., 2004).

A prominent issue addressed in the literature on populations underrepresented in GT is the eligibility process of exceptional education (Baldwin, 2002; Coleman, 2003; Ford & Trotman, 2000). This process is based on the exceptional education classification system that structures the defining characteristics and resulting instructional services of special and gifted education categories (Ysseldyke & Marston, 1999). However, it is believed that flaws in the classification of special and gifted education categories, such as EBD and GT, affect educators’ perceptions of
CLD students (Elhoweris et al., 2005), students from low socio-economic households (Frasier, 1995a), and students labeled with disabilities (Brody & Mills, 1997; McCoach, Kehle, Bray, & Siegle, 2001; Nielsen, 2002; Sisk, 2003) during the process of determining for eligibility to gifted and talented programs. Therefore, a review of the current research and literature on exceptional education’s categorization system, eligibility process, and the corresponding issues will be examined in this section.

Classification System of Exceptional Education Categories

In the United States, federal and state legislation mandates the fundamental structure for exceptional education referral and placement decisions (Ysseldyke & Marston, 1999). Under the IDEIA, students with exceptionalities are required to receive an appropriate education placement in exceptional education when the multidisciplinary team decides the needs of a student meet criteria for eligibility. The multidisciplinary team of professionals make educational decisions to determine if students: 1) demonstrate learning and behavioral characteristics that meet the measures for being labeled exceptional and 2) have need of modifications to current practices to develop optimal aptitude (Downing & Bailey, 1990; Malloy, Cheney, & Cormier, 1998). However, the exceptional student education classification system and its affect on subsequent services to students with exceptional needs are not effective in providing an appropriate education (Gresham, 2005; Wagner et al., 2005b; Wehby, Lane, & Falk, 2003; Ysseldyke & Marston, 1999), particularly for high achieving CLD students, students with disabilities, students from low socio-economic households who demonstrate behavior disorders (Coutinho et al., 2002; Forness & Kavale, 2000; Wehby, Little, & Cooley, 2005) with gifted and talented behaviors (Ford et al., 2002; Passow & Frasier, 1996).
Ysseldyke and Marston (1999) assert that the classification system is based upon assumptions set by 1) definition and characteristic specificity, 2) quantitatively reliable and valid measures, 3) homogeneity of learning needs, and 4) specialized teaching applications where one and two affects the subsequent perceptions of three and four. These categorical assumptions are validated, specifically for many of the categories in most of the exceptional education categories (Ysseldyke & Marston, 1999). However, the classification of EBD and GT present challenges and concerns addressed in the special and gifted education literature.

**EBD Category**

**Definitions**

A major criticism of the EBD category is the federal definition (Coleman & Webber, 2002; Forness & Kavale, 2000). The federal definition of EBD and its components lacks operational criteria and quantitative language to measure behaviors (Forness & Kavale, 2000; Gresham, 2005; Simmons, Novins, & Allen, 2004; Wodrich, Stobo, & Trca, 1998). It is missing a quantitatively measurable component of academic potential (Cluett, Forness, Ramey, Ramey, Hsu, Kavale, & Gresham, 1998; Forness & Kavale, 2000; Wodrich et al., 1998). Without operational criteria, quantitatively measurable language, and a measurable component of academic potential, it is believe the EBD category is subject to stigmatizations and stereotypes (Gallagher, 1997; Garland & Zigler, 1999; Morrison, 2000; Peterson, 1997) during the referral and placement process in exceptional education.

Additionally, the federal definition is subject to interpretation (Cullinan, Rutherford, Quinn, & Mathur, 2004b; Simmons et al., 2004). Coleman and Webber (2002) believe that this is due to the federal definition use of vague language. For example the definition uses phrases
such as “to a marked degree”, “satisfactory interpersonal relationships”, “inappropriate types of behavior or feelings under normal circumstances”, and “general pervasive mood of unhappiness or depression,” (Individuals with Disabilities Education Improvement Act, Title 34, Section 300.7(4)(i)(d)) that are subjective in nature. The lack of concrete language in the definition leaves the characterization of EBD subject to gender (Cullinan, Osborne, & Hepstein, 2004a; Mooney, Epstein, Reid, & Nelson, 2003), cultural (Artiles & Zamora-Duran, 1997; Patton, 1998; Simmons et al., 2004), and socio-economic biases (Frey, 2002).

The federal definition also lacks an operational component on students’ academic potential (Wodrich et al., 1998). The phrase “an inability to learn which cannot be explained by intellectual, sensory, or health factors” stated by the federal definition is not quantitatively measurable and does not establish components learning ability or inability as a function of behavior (Forness & Kavale, 2000; Gresham, 1999; Ysseldyke & Marston, 1999). Students demonstrating severe emotional/behaviors exhibit a range of cognitive abilities that include intellectual giftedness (Cullinan & Epstein, 2001; Garland & Zigler, 1999; Gath & Tennent, 1972; Morrison, 2000, 2001; Peterson, 1997; Reid & McGuire, 1995; Webb, 1994). Nevertheless, the absence of an academic component in the federal definition discounts the academic needs of students with behavior problems (Forness & Kavale, 2000; Gresham, 1999).

Another problem with the EBD label definition is the use of the clinical description stated in the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV TR). Used often, the DSM-IV-TR conceptualizes behavior from a medical model (Ysseldyke & Marston, 1999). It portrays EBD as a disease or disorder of the psychological or physiological processes that needs medicinal treatment (Hallfors, Fallon, & Watson, 1998; Hodapp & Fidler, 1999) rather than a function or dysfunction of external variables (Gresham, 1999). The clinical
description of EBD also demonstrates an insignificant relationship between how students with behavior disorders are classified and scholastically served (Gresham, 1999) producing inconsistencies between how behaviors are identified and how they are remedied in a school setting (Ysseldyke & Marston, 1999).

**Characteristics**

Another major issue regarding the EBD category is its characteristics. The definition of EBD establishes specific behaviors as characteristics of students with EBD. However, the characteristics of students with EBD resemble socio-cultural characteristics of culturally diverse males from lower socio-economic households (Coutinho et al., 2002; Wagner et al., 2005b). In addition, the range of characteristics does not include traits of high academic potential (Morrison, 2001; Sisk, 2003). Failure to recognize and acknowledge these factors have affected how students are referred and placed in special services.

Research by Coutinho, Oswald, and Forness, 2002, show the characteristics of students with EBD are similar to the socio-cultural traits of culturally diverse boys. The evidence presented in the findings indicates the behaviors of young boys are highly associated with characteristics of students with EBD. Cullinan, Osborn, and Hepstien, 2004, add the overt nature of these behaviors in boys are associated with general frequency and intensity identified by the EBD federal definition (Cullinan et al., 2004a). Consequently, males are more often referred and placed in EBD services because they demonstrate the characteristics of a student with EBD than young girls (Wagner et al., 2005b).

The characteristics of students with EBD are also believed to resemble the socio-cultural rooted behaviors of culturally and linguistically diverse students (Granello, 2000; Trout,
Nordness, Pierce, & Epstein, 2003). It has been shown that students living in poverty more frequently demonstrate some of the characteristics of EBD such as disobedience, aggression, anxiety, passivity, and poor coping skills than their peers (Coutinho et al., 2002; Cullinan, Evans, Epstein, & Ryser, 2003; Cullinan & Kauffman, 2005; Cullinan et al., 2004a). The prevalence of these behaviors among this population is often due to the cultural socialization of their homes and neighborhoods (Bowen, Bowen, & Ware, 2002; Hilliard, 1992; Nieto, 2000; Ogbu, Spencer, Brookins, & Allen, 1985). Similarly, African American and Hispanic students exhibit culturally-related behaviors that have been described as aggressive, disruptive, impulsive, and disobedient (Artiles, Harry, Reschly, & Chinn, 2002; Donovan & Cross, 2002; Gay, 2002). Consequently, African American and Hispanic students living in poverty are described more frequently as demonstrating behaviors associated with characteristics of students with EBD than the dominate culture (Artiles et al., 2002; Nieto, 2000; Ogbu, 1981).

Another issue with the characteristics of students with EBD is the lack of a component that addresses a broader range of academic ability. IDEIA, 2004, states a student with EBD is one who demonstrates the incapacity to learn over a period time and to a marked degree. The literature adds the characteristics of poor academic achievement and below average IQ to describe the academic capacity of students with EBD (Anderson, Kutash, & Duchnowski, 2001; Cluett et al., 1998; Lane, Wehby, Little, & Cooley, 2005; Mooney et al., 2003; Reid, Gonzalez, Nordness, Trout, & Epstein, 2004; Trout et al., 2003; Wehby et al., 2003). However, several authors present evidence of students with severe emotional/behavior problems demonstrating a range of cognitive abilities that includes gifted and talented capabilities (Cullinan & Epstein, 2001; Garland & Zigler, 1999; Morrison, 2000, 2001; Peterson, 1997; Reid & McGuire, 1995; Webb, 1994).
The presence of gifted and talented capabilities among students with severe emotional/behavior problems is evident in the literature. This subpopulation of students is documented to demonstrate characteristics of both students with EBD and gifted students (Morrison, 2001). Characteristics highlighted in the literature include high IQ, ingenuity, verbal adeptness, a keen sense of social awareness, as well as disruptiveness, aggression, oversensitivity, and several other emotional/behavioral deficits (Garland & Zigler, 1999; Morrison, 2000, 2001; Peterson, 2002; Webb, 2000). Individual studies have identified additional characteristics unique to this population.

W. F. Morrison (2000) gives a qualitative account of a gifted student with EBD whose needs went underserved. This study examines the experiences and needs of the student, the interview and collection of artifacts demonstrated the co-existence of gifted abilities and severe emotional/behavioral problems. The results list the characteristics unique to a gifted student with EBD, such as academic underachievement, poor self-concept, oversensitivity, heightened social awareness, and resilience.

In the text on dual exceptionalities edited D. Montgomery (2003), Sisk characterizes this population as gifted contributors to classroom discussions. However, it was apparent that their emotional/behavioral problems were inhibitive to their overall achievement. The research suggests the dual presence of giftedness with emotional/behavioral deficits in students that she observed procures a manifestation of “negative behaviors towards themselves that were disruptive in the regular classroom” (pg. 134). It is also mentioned that teachers identified these students as being “critical, confrontational, argumentative, and overly sensitive” (pg. 135) as the students with behavior problems and gifted abilities were referred and placed in EBD classes.
A synopsis of the literature presented illustrates several issues with the EBD category. Its definition is vague (Forness & Kavale, 2000) and is subject to bias (Cullinan et al., 2003; Frey, 2002). Many of its characteristics are behaviors that are innately prevalent among African Americans, Hispanics, and students from low socio-economic households (Artiles et al., 2002; Nieto, 2000). Furthermore, its definition and characteristics overlook academic capacity and GT behaviors among students who demonstrate severe emotional/behavioral problems (Morrison, 2001; Wodrich et al., 1998). In light of the limitations, the EBD category is believed to be an invalid categorization for students with exceptional needs (Ysseldyke & Marston, 1999).

**GT Category**

*Definitions*

Criticisms regarding the definitions of GT include its overreliance on standardized intellectual assessments to identify gifted and talented abilities. For example, a part of Florida’s definition of GT states that a student must demonstrate:

Superior intellectual development as measured by an intelligence quotient of two standard deviations or more above the mean on an individually administered standardized test of intelligence. (Florida Admin. Code Ann. r. 6A-6.03019)

These measures show differences in means that are negatively influenced by socio-cultural rooted contexts of behavior and abilities of CLD students and students from low socio-economic households (Coleman, 2003; Edwards, 2006; Ford, 1998; Frasier, 1995b; Orfield et al., 2000). In addition, the test items of these measures convey social and economic experiences more commonly associated with the dominate culture (Kamin, 1975; Ogbu & Fish, 2002; Patton, 1992; Shade, 1978). Slocumb & Payne (2000) add...
that the experiences embedded in these tests are unfamiliar to students from low socio-economic households and can adversely impact test performance.

Another concern with the GT definition is the absence of identifiers that provide greater accessibility for socio-culturally diverse gifted students. Davis and Rimm (2004) state culturally diverse students and students from low income households demonstrate a range of gifted and talented behaviors that manifest differently from the gifted and talented behaviors of students from the dominant culture. The difference in how these behaviors are displayed in students from socio-culturally diverse backgrounds challenges how their abilities are identified and served (Ford et al., 2002; Frasier, 1991; Slocumb & Payne, 2000).

Although research by Gardner (1999) and Gagne′ (Gagné, 2005) indicate there are a range of intelligences and/or superior abilities demonstrated by gifted and talented individuals, only a few are explicitly identified in state definitions (Karnes & Stephens, 2000). For example, the Florida definition only uses the terms “superior intellect” and “high performance” as identifiers for gifted and talented students. These terms do not take into account the range of intelligences and/or superior abilities demonstrated by diverse student populations. Consequently, a limited range of identifiers in the state definition limits the identification of gifted abilities among socio-cultural diverse students (Ford, 1999; Karnes & Stephens, 2000).

**Characteristics**

Other concerns with GT category are the characteristics of GT. The behaviors and abilities used to characterize students with GT are often associated with the socio-cultural
experiences of the dominant culture (Jenkins, 1936; Patton, 1998). For students from low socio-economic households and diverse cultural backgrounds, gifted and talented behaviors and abilities are expressed in a manner that is different from the dominant culture (Davis & Rimm, 2004; Ford et al., 2002). The manner in which GT characteristics are expressed by students from socio-culturally diverse backgrounds presents challenges to the identification and placement of students underrepresented in GT.

In a frequently cited study, Jenkins (1936) traced the origins of GT back to the historical constructs of education and intelligence assessments. Evidence in this volume indicates today’s characteristics of students with GT were derived from the limited behaviors and abilities associated to the opportunities and experiences afforded by the status, culture, and gender of educated Caucasian males. In addition, the intelligence tests that were developed at the time were designed to measure the presence and degree of these narrowed characteristics. Consequently, today’s characteristics of gifted and talented students and intelligence assessments are more commonly associated with the opportunities and socio-cultural experiences of the dominant culture (Jenkins, 1936; Slocumb & Payne, 2000). Current research adds that standardized intelligence tests and other unilateral achievement assessments measure characteristics of academic opportunity rather than academic potential (Slocumb & Payne, 2000). These assessments are also noted to use language and circumstances that are associated with the experiences of middle and upper-middle class Americans by which affects the measurement of GT in students from diverse socio-economic households (Slocumb & Payne, 2000).

In addition to socio-economic limitations, it has been believed that the characteristics of GT lack traits distinguishable among culturally diverse populations (Frasier, Hunsaker, Lee, Mitchell, Cramond, Krisel, Garcia, Martin, Frank, & Finley, 1995). Shade (1978) found that high
achieving African Americans expressed GT differently. He notes that these students exhibited superior intelligence as they picked up on bigoted attitudes and customs more quickly (keen observation), invented games (originality/creativity), used large vocabulary of cultural dialect (verbal proficiency), and preferred to work independently (strong sense of independence).

The research indicates there are flaws in the definition and characteristics of students with GT. The combination of limited definitions and narrowed characteristics has been a challenge in the referral and placement process of culturally diverse students and students from low socio-economic households. The evidence also shows these obstacles affect recognizing and measuring GT among students from socio-culturally diverse backgrounds (Baldwin, 2002; Ford et al., 2002; Passow & Frasier, 1996; Pegnato & Birch, 1959; Plata et al., 1999). These issues have been a source of poor rates of eligibility for GT for CLD students (Ford et al., 2002), students from low socio-economic households (Frasier, 1995a) and students with disabilities (Karnes et al., 2004).

Determination of Eligibility

Another area in exceptional education that presents challenges and concerns is the determination of eligibility. The determination of eligibility is the identification process for all exceptional education categories. During this process (see APPENDIX A: IDENTIFICATION PROCESS FOR SPECIAL EDUCATION), educators examine and measure factors affecting educational performance of students. Pre-referral interventions and diagnostic measures are used to identify and measure the potential presence of exceptional needs that may warrant specialized services. However, it is argued that there are pertinent factors excluded during the eligibility process (Ford & Trotman, 2000). In addition, the use of some interventions and assessments when determining eligibility for EBD and GT are scrutinized (Baldwin, 2002; Burnette, 2000;
Therefore, related literature and research asserting these arguments will be presented.

**Eligibility Process to Identify Students for EBD Services**

The determination of eligibility of EBD begins with pre-referral interventions. Pre-referral interventions are strategies teachers, school counselors, and other related service professional use to modify learning conditions in order to improve behavior. All pre-referral interventions are rendered before a student can be referred for a determination of a disability or exceptionality. The documentation of interventions is a practice mandated by the Individuals with Disabilities Education Improvement Act.

Another problem cited among behavioral interventions are the absence of evaluations to measure the implementation reliability and validity (Kern & Dunlap, 1999; Reschly & Tilly, 1999). Although several pre-referral interventions often provide research-based guidelines and criteria to follow, Reschly and Tilly (1999) states “these interventions typically are not evaluated using individualized, treatment sensitive measures” (pg. 31). Kern and Dunlap (1999) adds that this is partly due to an unilateral approach adopted by behavioral interventions that does not incorporate a triangulation of behavioral, ecological, and biophysical frames of behaviors.

**Assessments/Instruments used to Determination Eligibility for EBD**

Another major concern in the eligibility process for EBD is the use of behavioral checklists, scales, and projective assessments. Past research identifies several weaknesses among these measures (Carlson & Stephens, 1986; Cervantes & Baca, 1979; Fogel & Nelson, 1983; Harrop, 1979). They found these measures to be highly subjective, ineffective, and inefficient in identifying deficient behaviors, particularly in students from diverse socio-cultural backgrounds.
(Carlson & Stephens, 1986; Cervantes & Baca, 1979). In addition, checklists, scales, and projective assessments show poor reliability and validity (Javorsky, 1999; McConaughy & Achenbach, 1996; Overton, 2006b).

Similarly, the Likert Scale format, adopted by many checklists and rating scales, also report low psychometric quality when used to rate behaviors (Elliot, Brusse, & Gresham, 1993; Lee, Elliot, & Barbour, 1994; Overton, 2006b). It allows for interpretation to be influenced by the extremes of perceptions (Overton, 2006b) in behaviors and academics. In the highly referenced work by Ellots, Busse, and Gresham (1993), rating scales are summative measures that are impartial to judgment of the rater. It is also affirmed in this work that rating scales are also affected by students’ socializations and gender.

Other significant problems with checklists and scales are the lack of inclusion of diverse populations during the norming process (Javorsky, 1999; Overton, 2006b; Reid, 1995). For example, a review of The Behavior Assessment System for Children (BASC) shows an underrepresentation of culturally and linguistically diverse students in its normative sample (Overton, 2006b). In Javorsky’s (1999) review of the Behavior Rating Profile, Second Edition, it shows that the norming group excluded students labeled EBD and young children.

Aside from checklist and rating scales, projective assessments (drawing tests and appreciation tests) also pose concerns for identifying behaviors. Projective assessments are subjective in nature as they request for students to interpret their feelings and relationships (Overton, 2006b). Traditionally used by school psychologists and school counselors to measure the projection of students’ feelings and attitudes, additional studies show that these types of assessments demonstrate poor overall psychometric quality, small sample populations, and poor
reliability and validity across culturally diverse populations (Dana, 1998; Hojnoski, Morrison, Brown, & Matthews, 2006; Overton, 2006b).

**Eligibility Process to Identify Students for GT Services**

The eligibility process for student categorization as GT demonstrates is flawed and can affect the educational decision process. During the determination of eligibility, quality of education and teacher quality are variables overlooked by the educational decision making team (Ford et al., 2002). In addition, the process’ reliance on standardized tests to determine academic gifts and talents is a debatable concern in the literature (Borland, 2004; Ford et al., 2002). These areas are key concerns that affect referral and placement of students from low socio-economic households and students with disabilities to GT programs.

A critical issue in determining students’ eligibility for GT is the quality of education the student receives. Gagne’ (2004) describes the education quality as a summation of the quality of educational resources (learning experiences and materials) and school conditions. The level of students’ learning experiences and school conditions are major components in the knowledge base evaluated during the eligibility process for GT (Gagné, 2004); yet, it is overlooked during the referral and placement process of GT (Ford et al., 2002).

The account of education quality is a salient concern in the eligibility process for students with disabilities from low socio-economic households. The National Center for Educational Statistics (Livingston & Wirt, 2005) reports that schools in low socio-economic areas are performing at lower levels than the national average. In addition, research shows that the quality of the learning materials and experiences provided to students with emotional disabilities (Lane, Wehby, & Barton-Arwood, 2005; Wagner, Kutash, Duchnowski, & Epstein, 2005a; Wagner et
al., 2005b; Wehby et al., 2005) from culturally diverse and low socioeconomic households (Anyon, 2005; Kozol, 2005) does not meet standard expectations. The summation of these components adversely affects the educational attainment of culturally diverse students with disabilities from low socio-economic households and adversely affects determination of eligibility to GT programs (Ford et al., 2002; Webb, 2000).

Another key aspect to educational quality is teacher quality. The IDEIA describes a highly qualified teacher as the attainment of an accredited certificate and credentials to teach in the subject area and academic setting specified by the certificate. However, the Study of Personal Needs in Special Education (SPeNSE) show that teachers who teach in schools in low socio-economic areas are more likely to lack the certification and credentials to be classified as highly qualified teacher (A high-quality teacher for every classroom: SPeNSE summary sheet, 2000).

In addition to lacking adequate certification to be considered a highly qualified teacher, Carlson, Chen, Schroll, and Klein (2002) illustrates that special education classrooms within these schools demonstrate a significant number of teachers that are uncertified and untrained to teach students with disabilities, particularly teachers of students labeled EBD (Wagner et al., 2005b). Furthermore, teachers lacking highly qualified teaching credentials also demonstrate a lack of adequate knowledge base to execute culturally responsive pedagogy to culturally diverse student populations (Gay, 2002; Townsend, 2002). Consequently, the lack of qualified teachers to teach culturally diverse students with disabilities from low socio-economic households along with substandard educational resources and school conditions creates a disadvantage that has been recorded to negatively impact the standard quality of education measured during the eligibility process for GT (Ford & Trotman, 2001; Karnes et al., 2004).
Assessments/Instruments used to Determination Eligibility for GT

The assessments used to determine eligibility for GT relies upon standardized intelligence assessment scores. Research shows that these assessments are socio-culturally inexplicit and overlook the impact of culture on intelligence (Baldwin, 2002; Coleman, 2003; Ford et al., 2002; Slocumb & Payne, 2000). These assessments are used to measure cognitive ability and academic potential (Borland, 2004). However, they are unilaterally designed to identify only one frame of superior characteristics and behaviors (Frasier, 1995b; Hilliard, 1992) despite the fact that GT characteristics and behaviors are demonstrated in a variety of areas: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic (Gagné, 2004). Standardized assessments also do not identify characteristics and behaviors that are demonstrated in environments that are more familiar to the student, such as the student’s home and/or community (Borland, 2004). Portfolio and dynamic assessments have been developed to provide a multidimensional assessment of the students GT abilities (Frasier et al., 1995; Hilliard, 1992); however, the state of Florida, like most states, Gifted and Talented Policy is contingent upon standardized assessment scores to determine eligibility for GT (Karnes & Stephens, 2000).

Disproportionality

Throughout the special and gifted literature, disproportionality is a critical concern. Over-representation is a prominent subject in special education where as under-representation is the more salient issue in the gifted and talented literature (Artiles et al., 2002; Coleman, 2003; Ford et al., 2002; Harris et al., 2004). Students being served in EBD and GT categories are not excluded from this phenomenon. Therefore the representation rates of students being served in EBD and GT are presented.
The most significant numbers of students disproportionately represented in gifted and special education are African Americans and Hispanics. The US Census reports that African Americans and Hispanics represented about 16 and 17 percent of students enrolled in school, respectively (Shin, 2005). However, the Office of Special Education and Rehabilitative Services (OSERS) 25th Annual Report to Congress on the Implementation of the Individuals with Disabilities Act, 2005, reports approximately 21 percent of African Americans and 15 percent of Hispanics are being served special education service. The percent difference of African Americans students served in special education is nearly 5% above national incidence where as Hispanic students are nearly 2% below national incidence. As Hispanics are underrepresented African Americans are overrepresented in special education.

Students from low socio-economic households are also overrepresented in special education. OSERS reports that students from household incomes of $75,000 or more represent 24% of the general population; however, they only make up 13% of students receiving special education services (Office of special education and rehabilitative services, 2005). Moreover, students from household incomes of $15,000 or less comprise 13% of the general population yet; make up 20% of students in special education. For students living in poverty, they make up 16% of the general population and 24% of students with disabilities.

In addition, African Americans are nationally overrepresented in EBD programs (Office of special education and rehabilitative services, 2005). It is reported that 8.1% of the national general population of students receiving services in exceptional education is identified as EBD. However, African Americans comprise 11.3 % of students receiving services in EBD. Caucasians, Asian/Pacific Islander, and American Indian/Alaska Native students make up less than 9 % each (Office of special education and rehabilitative services, 2005). Throughout the
state of Florida, the Bureau of Education Information and Accountability Services, 2005, reports about 48% of the general student population is Caucasian and 23% is Black. However, 47% of students in EBD services are Caucasian and 38% are Black (non-Hispanic). The 15% difference between Blacks (non-Hispanic) represented in the general population and in EBD classrooms is significant (Membership in Florida public schools, 2005). In the local school district, 36% of the student population is Caucasian and 27% are Black (non-Hispanic). Yet, Caucasian students and black students receiving EBD services comprise 30% and 53% of the EBD population, respectively.

As African Americans are overrepresented in EBD services, they are underrepresented in gifted programs. Sixteen percent of Blacks (non-Hispanic) are enrolled in school (Borland, 2004). However, only 3.4% of African Americans are represented in gifted programs nationally (Harris et al., 2004). It is also reported that nearly a 13% difference in how Blacks (non-Hispanic) are represented in the general population and GT programs.

Among the general student population in Florida, Caucasian and Black (non-Hispanic) students make up 48% and 23%, respectively. However, nearly 62% of students in GT programs are Caucasian whereas Blacks (non-Hispanic) comprise 9%. Caucasian students receiving GT services are 14% above their frequency in the general population.

In the local school district nearly 70% of students receiving GT services are Caucasian where as Blacks only represent 8%. In the general population Caucasian students comprise 36% and Black (non-Hispanic) students make up 28%. There is a 34% increase of Caucasian students in GT programs from their frequency in the general population where the percentage of Black (non-Hispanic) students in GT programs show a 20% decrease from their percent representation in the general population.
Perceptions/Beliefs

Researchers believe the disproportionate rates of students in EBD and GT programs are affected by the challenges that categorization, eligibility and assessment yield upon the perceptions of students with EBD and GT (Artiles et al., 2002; Ford, 1998; Gallagher, 1997; Harris et al., 2004; Harris & Ford, 1999; Morrison, 2000; Ysseldyke & Marston, 1999). Educators’ perceptions of students during the eligibility for exceptional education services are a prominent issue across the EBD and GT literature. Therefore, current literature on perceptions of students with EBD and GT are presented.

Perceptions of Students Labeled EBD

Decision makers’ perceptions regarding students’ demographic labels are commonly addressed in the literature on students with EBD. Research shows that demographic labels associated with students’ ethnicity, socio-economic status, and disability affect educational decisions. Therefore, this section addresses research on educators’ perceptions of students labeled with severe to moderate behavior problems.

In the research by Miller, Hampe, Barrett and Nobel (1971) teacher perceptions of problematic behaviors among the general population were examined. The academic tasks and behaviors of 950 students in grades 2-7 were assessed using the Louisville Behavior Checklist. This assessment measured several academic tasks and behaviors under the broad categories of aggression, inhibition, learning disability and total disability. This study found deviant behaviors commonly occurred among students with IQ at or below 90 and students from low income households. It is also reported in the study that across SES, students from an upper-class
household demonstrate an increased tendency for deviant behavior. Current literature on upper-
class deviant behavior by Metz (1993) supports the finding.

In the frequently cited work by Presto and Stanley (1981), the research examined the effect of ethnicity on teachers placement decisions for EBD services. One hundred and nineteen special education graduate students responded to a case vignette of a young child demonstrating slightly below average academic performance with behavior problems. The ethnicity of the child described in the vignette was the only variable examined in the research. Results show the responding teachers believed EBD placement as a more appropriate setting for students from diverse cultural backgrounds with behavior problems than Caucasian students with behavior problems.

Another major issue related to the perceptions of students labeled EBD is how the needs and services of students labeled EBD are viewed by teachers. The frequently cited work by Center (1993) examined teachers perceptions on the needs and services of students labeled EBD. Using the Revised Behavior Problem Checklist (RBPC), the degree and level of the students’ needs and services were surveyed. One hundred and fifty general educators from elementary, middle, and high school were randomly selected to identify the needs and services of five student profiles. Respondents indicated that students exhibiting more overt behaviors (aggressive and disruptive) are best served in more restrictive placement where as less restrictive and more inclusive settings were reserved for students demonstrating covert behaviors (anxious and withdrawn). More importantly, the results also indicate academic performance is viewed as a secondary need when considering placement of students with EBD.

More recently, Frey (2002) investigated the affect of ethnicity and SES on teacher’s referral and placement to EBD services. There were 350 participating elementary education
teachers in 10 school districts. Teachers read a vignette and responded to the Expanded Teacher Efficacy Scale (Frey, 2002). The scale measured teachers’ interaction with external influences, their own teaching efficacy, and classroom discipline. The results show that ethnicity and socio-economic status were influential factors; however, socio-economic status demonstrates a greater effect than ethnicity.

Educators’ perceptions based on students’ ethnicity during the eligibility process of students subsequently labeled as EBD was investigated by Cullinan and Kauffman (2005). Using the Scale for Assessing Emotional Disturbance (SAED), teachers rated 769 students labeled EBD on five characteristics outlined in the federal definition of EBD. Teacher did not rate African American students as being more problematic than Caucasian students. The results also showed that Caucasian students were rated higher overall on the five subscales of the assessment. The difference in teachers’ ratings of Caucasian students and black students was not significant.

Related research investigates the perceptions of teachers regarding CLD students’ behaviors when considering students for EBD services. A study by Aaroe and Nelson (2005) investigated the views of students behaviors in the classroom and in the home. This research examined the perceptions of 117 teachers (95 general education teachers and 22 special education teachers) and 113 Hispanic parents. Respondents were provided case vignettes of a student who displayed a selected list of behaviors. Respondents were also given a Likert-type scale to measure the propensity of a behavior becoming problematic. The results indicate the responding teachers rated the propensity of problematic behaviors among CLD students higher than their Caucasian students.
A study by Bianco (2005) investigated how the EBD label affects teachers’ referral to gifted and talented programs. Special educators (n= 52) and general educators (n= 195) in a south Florida school district were assigned to a case study which described a student who demonstrated one of three conditions (non-disabled, learning disabled, or emotional/behavioral disabled) with GT abilities. They responded to a six question survey related to the case study. Teachers were less likely to refer students with a disability label to a gifted and talented program. More specifically, responses indicated that teachers referred student’s labeled EBD less often to a GT program than the non-labeled group. These results also indicate that special education teachers are less likely to refer students labeled EBD than general educators.

The research reported shows that ethnicity, socio-economic status, behaviors, and perceptions of the needs of students labeled EBD affect how students are identified and served in exceptional education. The behaviors of CLD students are perceived by teachers as more problematic than Caucasian students who demonstrate the same behaviors. Students from low socio-economic households are perceived by teachers to potentially demonstrate EBD characteristics more than their peers from middle to upper-middle class households (Frey, 2002). Although behaviors of CLD students and students from low socio-economic households are seen as more problematic and characteristic of a disability, the presence of EBD characteristics of Caucasian students labeled EBD are rated higher by teachers than African American students labeled EBD (Cullinan & Kauffman, 2005). In addition, the label perpetuates a stigma that overshadows high academic ability and affects how they are served academically, particularly students labeled EBD who demonstrate GT abilities (Bianco, 2005). For high performing CLD students from low socio-economic households who are labeled EBD, these perceptions are made more complex by the views of GT.
Perceptions of Students Labeled GT

A common problem highlighted in the GT literature is the perceptions of students labeled GT. Based on students’ demographic labels, perceptions of GT students have affected how students from diverse socio-cultural backgrounds are referred and placed in GT programs. Therefore, research on the perceptions of students labeled GT is described.

With only 13% of elementary students from CLD backgrounds enrolled in North Carolina’s Academically Gifted Program (AGP), Woods and Achy (1992) investigated the referral and evaluation procedures in the identification process of North Carolina gifted programs. A key factor investigated in this study was teacher’s knowledge of gifted characteristics among CLD students. The targeted population of this study included 705 students of which 688 were African American. This study used group meetings, evaluation sequence, and traditional achievement tests to identify students with gifted abilities. Through the implementation of systematically referring students based on existing test scores, their findings indicate the cultural backgrounds of the students impacted teacher nominations.

Perceptions are also affected by language barriers as screenings and assessments used to identify GT eligibility do not take into account students native and or socio-cultural language differences (Hilliard & Amankwata, 2003). In a study by Hadaway and Marek-Schroder (1992) the traditional screening for exceptional education services was examined. Through an overview of the research to date, this study notes limitations of teacher nominations of students with different linguistic backgrounds for GT programs presented in the literature. The findings of this study indicate screening for GT does not account for linguistic differences and negatively impacts eligibility for students with language differences.
In a more recent study, Elhoweris, Muta, Alsheiksh and Holloway (2005) investigated the impact of ethnicity on teacher recommendations to gifted programs. Participants included 207 elementary teachers which 83% were Caucasian and 11.1% were African American. Participants were given case vignettes of students’ social and behavioral traits and a two question Likert-type questions. The results of this study suggest teachers relied on demographic information, such as ethnicity, to make placement decisions. It was also established that teachers perceived non-labeled students similarly to Caucasian students, which negatively affected how teachers recommended African-American students to a GT program.

Another study by McBee (2006) examined nominations to gifted and talented programs. Using a data set of 1,820,635 students, the author selected students in grades 1-5 (n =705, 074) as the examined population. The method of descriptive analysis was used to compare the source of referral to gifted and talented programs. Findings of this investigation show African American students, Hispanic students, and receiving free and reduced lunch were less likely to be nominated to gifted and talented program.

In addition to ethnicity, linguistics, and social class, the presence of a disability affects the referral and placement of students in GT programs (Bianco, 2005; Montgomery, 2003; Reid & McGuire, 1995). Karnes, Shaunessy, and Bisland (2004) examined teachers’ willingness to refer students with disabilities to GT programs. This investigation concluded that teachers were less likely to refer students with disabilities to GT programs. Assumptions about the special education labels impacts the referral and placement of students with disabilities in GT programs (Montgomery, 2003; Peterson, 1997; Rizza & Morrison, 2003; Saunders, 1998).

Research regarding the how educators view students with GT is limited. Most of the studies used teachers as the participants. There is a lack of documentation on the perceptions of
related service professionals (school counselors, school psychologists, and school social workers) who are key contributors to the eligibility process of students to GT programs.

Nevertheless, the summation of these investigations shows teacher nominations to gifted and talented programming are affected by different psychosocial, cultural and linguistic variables. It is affirmed that stereotypes and narrowed views hinder teachers’ abilities to impartially identify gifted and talented characteristics among CLD students from low socio-economic households. The evidence presented illustrates that the referral and placement of students in GT programs is subject to perceptions regarding gender, ethnicity, socio-economic status, and disability labels.

Summary

The classification system of exceptional education is based on four assumptions 1) definition specificity, 2) quantitatively reliable and valid measures, 3) homogeneity of learning needs, and 4) specialized teaching applications where one and two affects the subsequent perceptions of three and four (Ysseldyke & Marston, 1999). For decades, the EBD label has been criticized for lacking of definition specificity and minimal use of quantitative diagnostic measures (Cullinan et al., 2004b; Epstein, Cullinan, & Sabatino, 1977; Forness & Kavale, 2000; Merrell & Walker, 2004). It is asserted further that these flaws perpetuate misconceptions of the learning needs and teaching methods of students labeled EBD (Center, 1993; Kelly, 1977; Tisdale & Fowler, 1983; Trent, Artiles, Kauffman, Lloyd, Hallahan, & Astuto, 1995). Given an inexplicit definition, lack of quantitative measures, and misleading notions, the faults in these categorical assumptions suggest that the current system for labeling students EBD label is flawed.
The review of the literature shows teacher nominations to gifted and talented programming are influenced by demographic labels such as socio-economic status, gender, ethnicity, and disability. Researchers believe this is the result of the definition and quantitative diagnostic measures of GT being culturally inexplicit (Borland, 2004; Ford et al., 2002; Frasier, 1991; Patton et al., 2004). Nevertheless, research indicates that stereotypes embedded in the definition and diagnostic measures hinder teachers’ abilities to impartially identify gifted and talented characteristics among high achieving CLD students with disabilities from low socio-economic households (Aaroe & Nelson, 2000; Bianco, 2005; Elhoweris et al., 2005; Karnes et al., 2004). Collectively, this body of research presents evidence to indicate that the gifted and talented referral and placement process is subject to the biases based on demographic labels.

Review of the gifted and EBD literature shows a lack of research on the referral and placement decisions of school counselors and school psychologists. Educational decision making collaboration with related service professionals such as school counselors and school psychologists is a pertinent mandate of IDEIA to ensure appropriate educational decisions. However, the expertise and experiences of each contributing professional differs during the collaboration of the eligibility process (Friend & Cook, 2003). Consensus regarding students’ educational needs is affected by the various professional expertise and experience and adversely affects educational decision regarding eligibility for exceptional education programs (Ysseldyke & Marston, 1999).

The trend in the research and literature suggest the EBD label fosters perceptions that affect the referral and placement process for culturally diverse students. Perceptions of GT hinder the referral and placement of CLD students with disabilities from low socio-economic households. In addition, the research lacks the perspectives of school counselors, school
psychologists, and school social workers during the referral and placement process to GT programs. Therefore, the research warrants an examination of perceptions of the EBD label on teachers, school counselors, and school psychologists, and school social workers referral and placement of CLD students, students with EBD and students from low socio-economic households to gifted and talented programs.
CHAPTER 3: METHODOLOGY

Introduction

Educators’ decisions may impact educational decisions leading to placement of students in GT programs. This is a critical concern for underrepresented populations, such as CLD students, students living in poverty, and students with disabilities. Elementary teachers are a valuable source for referral and placement decisions to GT programs (McBee, 2006). However, educational decision making is not based on the sole perspective of an elementary teacher. IDEIA mandates a multidisciplinary team of educators (e.g., classroom teachers, school counselors, school psychologists, and school social workers) who work together to make educational decisions for specialized services. The literature overlooks the multiple sources of classroom teachers, school counselors, school psychologists, and school social workers when making educational decisions for GT. Therefore, the present investigation examines the referral and placement decision to a GT program on the basis of a student’s ethnicity, SES, and disability label from the perspectives of classroom teachers, school counselors, school psychologists, and school social workers.

This chapter discusses the methods and procedures used to conduct the study. The first three sections state the research questions, hypotheses, and variables guiding this study. Next, the research design, instruments, and procedures of the study are discussed. The subsequent four sections describe how the data were collected, analyzed, and verified for study rigor. A summary of the methods and procedures are discussed in the final section of this chapter.
Research Questions

The following research questions were investigated in this study:

1. Do educators’ referral decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student?

2. Do educators’ placement decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student?

Hypotheses

This study assessed the following hypotheses:

1. There is a difference in educators’ referral decisions to gifted and talented programs based upon the ethnicity, socio-economic status, and disability label of a student.

2. There is a difference in educators’ placement decisions to gifted and talented programs based upon the ethnicity, socio-economic status, and disability label of a student.

Variables

This study investigated the differences of between three independent variables upon two dependent measures from the perspectives collected from different educators who comprise members of multidisciplinary team during the educational decision making process. The independent variables were the demographic label of the student; the disability label (2 levels), socio-economic status (3 levels), and ethnicity of a student (3 levels). Each independent variable includes a control level which was put in place to establish the independent variable as the sole cause of the effect on the dependent variable. For the disability label, the control level is also referred to as “non-labeled” throughout the study.
The dependent variables measured were: 1) educators’ referral decisions and 2) educators’ placement decisions. Based upon the independent variables, the dependent variables describes educators assent towards a student receiving further assessment and/or placement in a gifted and talented program. Variables that were controlled in this study included the gifted behavioral and social characteristics of the student, the EBD behavioral and social characteristics of the student and educators’ educational characteristics. The control variables were held constant during analyses. Further descriptions of the variables are detailed below:

**Independent Variables**

1. Student’s disability label
   a. EBD label
   b. control

2. Student’s socio-economic status
   a. Upper-middle class
   b. Poverty level
   c. Control

3. Student’s CLD background
   a. Caucasian
   b. African-American
   c. Control

**Dependent Variables**

1. Educators’ referral decisions
a. educators’ assent towards the student receiving a comprehensive evaluation for possible placement in a gifted and talented student program.

2. Educators’ placement decisions
   a. educators’ assent towards the student being placed in a gifted and talented student program.

*Controlled Variables*

1. Gifted behavioral and social characteristics of student
2. EBD behavioral and social characteristics of student
3. Educators’ educational characteristics

*Research Design*

This investigation expanded upon the original research methods in a study by Elhoweris, Muta, Alsheiksh and Holloway (2005) of the effect of ethnicity on the gifted and talented referral and placement process. The original study was limited to the perceptions of elementary teachers based upon a student’s ethnicity. For this reason, the present investigation extended the original study methods by examining the effect of the disability label, SES, and ethnicity on referral and placement decisions for gifted and talented programs made by teachers, school counselors, school psychologists and school social workers. Upon permission by the lead author (see APPENDIX B: PERMISSION TO REPLICATE RESEARCH), the original study’s research methods were modified to include the variables examined by the present investigation.

This study used a three way independent (2 x 3 x 3) ANOVA design (Ary et al., 2002) to examine the main effects and interactions of three independent variables upon two dependent measures. Educators’ referral and placement decisions were compared based on a student’s
demographic labels: 1) disability label (two levels), 2) socio-economic status (three levels), and 3) ethnicity (three levels). The disability label (EBD label, control), socio-economic status (upper-middle class, poverty level, control), and ethnicity (Caucasian, African-American, and control) were described in a case study of a student who demonstrates the common characteristics of EBD and GT. A survey was used to collect participant educational characteristics. Educators’ recommendations (referral and placement decisions) were measured using a six point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). The main effects and interactions are examined and analyzed in Chapter 4.

**Instruments**

Three instruments were used to gather information: case vignettes, a questionnaire, and a survey. The instruments were organized and arranged with a consent form (see APPENDIX C: INFORMED CONSENT) to create a three page investigation packet that was distributed to participants. In this section, the characteristics and use of each instrument are discussed.

*Case Vignettes*

The case vignettes used in this investigation were designated to capture the independent variables. Each case vignette is a modified version of the vignettes used in the original study by Elhoweris, Muta, Alsheiksh and Holloway (2005). Modifications made reflected the social and behavioral characteristics of a student labeled EBD that were verified by an expert in the field. The modified case vignettes described a male student who demonstrates the social and behavioral characteristics of a student labeled EBD and would qualify for placement in a gifted and talented program. The social and behavioral characteristics of the student were held constant.
Variance in the case vignette focused on the demographic labels of the student: 1) disability label (EBD label, control), 2) ethnicity (control, Caucasian, and African-American), and 3) socio-economic status (control, upper-middle class, and poverty level). A total of 18 vignettes were produced. (see APPENDIX D: CASE VIGNETTES). The case vignettes explicitly stated whether the male student was labeled EBD, Caucasian or African American, from a poverty or upper-middle class household. In cases where the demographic labels were controlled, the case vignette did not mention the student’s disability label, ethnicity, and/or socio-economic status to establish a sole cause of educators’ referral and placement decisions. In addition, for the purposes of this study no further information was provided in the case vignettes related to the interpretation of the labels.

Two-Item Questionnaire

Based on the student characteristics described in the case vignette, a two-item questionnaire was used to address the educators’ referral and placement decisions to a GT program. Both items of the questionnaire were designed by the authors of the original study. Each item on the questionnaire was rated using a six point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree) (see APPENDIX E: QUESTIONNAIRE ITEMS). Participants’ rating for each questionnaire item was used to indicate and analyze educators’ referral and placement decisions.

Survey

Descriptive information about the participants and the schools where they are employed and/or assigned was collected using a sample survey of tangibles (Ary et al., 2002). The survey contained information about the each participant including gender, ethnicity, age, area of
specialization, degree earned in area of specialization, and professional experience. Information disclosing the identity of the participant was not requested anywhere on the survey to ensure the anonymity of the participant (see APPENDIX F: SURVEY ITEMS). Data gathered from this instrument were used to obtain a description of the sample population.

Description of Procedures

*Timeline of Procedures*

This study took place during the semesters for the Fall and Spring academic year of 2006-2007. The academic year for public schools were taken into careful consideration when preparing the research schedule. Table 6 presents the timeline used to conduct this research.
Table 6.

Timeline of Procedures

<table>
<thead>
<tr>
<th>Date Completed</th>
<th>Procedure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2006</td>
<td>Randomization of sites</td>
<td>Schools where the investigation would take place was numbered and randomly selected prior to contacting sites.</td>
</tr>
<tr>
<td>December 2006</td>
<td>Random assignment of participants to case vignettes</td>
<td>A randomization plan was prepared prior to conducting the study by which 1 of 18 case vignettes were randomly assigned to 54 participants. Fifty-four randomized case vignettes constituted a set. Sixteen sets were prepared to accommodate 54 potential participants at 16 school sites.</td>
</tr>
<tr>
<td>January 2007</td>
<td>Administer field test</td>
<td>A pilot study was used to establish psychometric quality of research instruments and procedures prior to conducting the full investigation.</td>
</tr>
<tr>
<td>January 2007</td>
<td>Permission to conduct research</td>
<td>Approval to perform investigation that meets University requirements in the local school district.</td>
</tr>
<tr>
<td>December – March</td>
<td>Selection of sites</td>
<td>In the random order of previously prepared, principals of Title I schools and non-Title I schools were contacted to voluntarily host a large group meeting of potential participants employed at the school site.</td>
</tr>
<tr>
<td>January – March</td>
<td>Selection of Participants</td>
<td>One set of case vignettes were distributed in the random assignment order to participants at each site.</td>
</tr>
<tr>
<td>January – March</td>
<td>Data Collection</td>
<td>Case vignettes, a questionnaire, and survey were used to collect information on the variables being examined. Data were entered into SPSS 14 on a continuous basis throughout the data collection period to conduct statistical analysis.</td>
</tr>
<tr>
<td>January – March</td>
<td>Data Analysis</td>
<td>A three-way independent ANOVA was used to measure the differences between the independent variables upon the dependent measures.</td>
</tr>
</tbody>
</table>
Randomization Procedures

Prior to conducting the study, the researcher used randomization procedures. Two forms used were: 1) a randomization plan and 2) random assignment. These procedures were implemented to avoid bias in the selection of locations and participants so that the groups assembled are comparable. They were also used to minimize the differences among groups and minimize risk for non-normal distribution during statistical analyses. The functions of the randomization procedures in this study are discussed in this section.

A randomization plan was used to select schools where the investigation would take place. The 114 elementary schools in the local public school district were classified by socio-economic status and divided into two groups: 1) Title I and 2) non-Title I. Using the Florida Department of Education 2006-2006 list of Title I schools (2007) 42 schools were categorized as Title I and 72 were categorized as non-Title I. The Title I schools were assigned a number 1 through 42, randomized (www.randomization.com), and selected based on the order of their random assignment. The schools that were classified as non-Title I were similarly numbered (1-72) and selected in the randomized order. Sixteen schools were selected as investigation sites; however, only 12 sites participated.

To randomly assign participants to cases, a random assignment plan was prepared. The modified case vignettes were numbered 1 through 18. The numbered case vignettes were attached to questionnaire and survey to make 18 investigation packets. Using randomly permuted blocks (www.randomization.com), 54 participants were randomly assigned to 1 of 18 blocks, by which the blocks represented the numbered investigation packets. A set of 54 randomized investigation packets constituted one school set. Sixteen school sets were prepared for later distribution among participants employed at the investigation sites. Only 13 sets were
used. Each site was limited to one school set of investigation packets. Incomplete packets from each site were collected and remained unused throughout the study.

Field Test

After the randomization plan was prepared, a field test was administered at one of the randomly selected public elementary school in the local school district. At a large group meeting of potential participants, the investigator shared the general purpose of the study. The randomized investigation packets were distributed. Teachers (n = 42) and school counselors (n = 2) at the site elected to anonymously participate. They were requested to read the case vignette, respond to the two item questionnaire regarding the student described in the vignette, and complete the survey of their educational characteristics. Participants were also encouraged to provide feedback about the research instruments and procedures. Participants found minor inadequacies. Modifications were made to the procedures and instruments prior to conducting the full investigation.

As part of the field test, responses to the questionnaire items for the modified vignettes were analyzed for psychometric quality. The results of the modified vignettes with the questionnaire items yielded a .85 reliability score. Individually, in the original study by Elhoweris, Muta, Alsheiksh and Holloway (2005) a test-retest reliability coefficient of the questionnaire item A and questionnaire item B for the original vignettes produced adequate reliability coefficients (r = .75, p < .05; r = .76, p < .05, respectively).

Settings

Local Public School District
The school district where this study took place serves a large student population. During the 2005-2006 academic year, the school district served 175,307 students (Membership in Florida public schools, 2005). About 49% of the total student population received free and reduced lunch and 16% receive instruction for limited English proficiency (Profiles of Florida school districts, 2006). Twenty percent of the students in this population were provided exceptional student education services (ESE). Of the students served in ESE, 7,327 students are receiving services for GT and 1,272 students are receiving EBD services (Profiles of Florida school districts, 2006).

At the time the study was conducted, there were 114 public elementary schools of which 42 are Title I schools. A total of 81,171 students were served in Pre-Kindergarten through 6th grade (Profiles of Florida school districts, 2006). More than two thirds of the students in primary grades are from culturally and linguistically diverse backgrounds (see Table 7.)
The schools of the local school district are divided into six areas called Learning Communities: North, East, West, Southeast, Southwest, and Central. A team of school psychologists, school social workers and other instructional staff (i.e., behavior analysts, teachers of visually impaired students, and teachers of hearing impaired students) are staffed at each Learning Community. The educators staffed at each community works with school administrators, teachers, and parents to provide ESE resource services to students attending primary and secondary schools within their geographic region.

Schools Characteristics.

To generate a pool of classroom teachers and school counselors a mix of title one and non-title one schools were used to obtain perspectives across the socio-economic levels of

Table 7.

Ethnicity of Students in the Local School District

<table>
<thead>
<tr>
<th>Grade</th>
<th>Caucasian</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian</th>
<th>American Indian/ Alaska Native</th>
<th>Multi-ethnic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK</td>
<td>612</td>
<td>862</td>
<td>670</td>
<td>57</td>
<td>7</td>
<td>71</td>
<td>2,279</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>4,798</td>
<td>3,684</td>
<td>3,902</td>
<td>474</td>
<td>31</td>
<td>422</td>
<td>13,311</td>
</tr>
<tr>
<td>First</td>
<td>4,885</td>
<td>3,774</td>
<td>4,025</td>
<td>467</td>
<td>63</td>
<td>443</td>
<td>13,657</td>
</tr>
<tr>
<td>Second</td>
<td>4,721</td>
<td>3,599</td>
<td>3,806</td>
<td>502</td>
<td>39</td>
<td>367</td>
<td>13,034</td>
</tr>
<tr>
<td>Third</td>
<td>4,977</td>
<td>3,974</td>
<td>4,011</td>
<td>511</td>
<td>65</td>
<td>332</td>
<td>13,870</td>
</tr>
<tr>
<td>Fourth</td>
<td>4,712</td>
<td>3,610</td>
<td>3,851</td>
<td>520</td>
<td>44</td>
<td>275</td>
<td>13,012</td>
</tr>
<tr>
<td>Fifth</td>
<td>4,737</td>
<td>3,072</td>
<td>3,423</td>
<td>477</td>
<td>68</td>
<td>231</td>
<td>12,008</td>
</tr>
<tr>
<td>Total</td>
<td>29,442</td>
<td>22,575</td>
<td>23,688</td>
<td>3,008</td>
<td>317</td>
<td>2,141</td>
<td>81,171</td>
</tr>
</tbody>
</table>
schools. Eleven elementary schools were randomly selected among the six learning communities to create a diverse group of potential participants. For each school, the composition of the student population and degree level of the instructional staff are displayed in the Table 8.

One Learning Community was used to acquire a pool of school psychologists and school social workers. The learning community selected to participate in this study currently serves a total of 26 schools: 17 elementary, 6 middle schools, and 3 high schools. Four of the 17 elementary schools served by the learning community were schools included in the study.
### Table 8.

#### School Characteristics for the 2005-2006 Academic Year

<table>
<thead>
<tr>
<th>School</th>
<th>Title I</th>
<th>Student Ethnicity</th>
<th>Instructional Staff Degree Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Cauc Asian</td>
</tr>
<tr>
<td>A</td>
<td>No</td>
<td>664</td>
<td>487</td>
</tr>
<tr>
<td>B</td>
<td>No</td>
<td>850</td>
<td>220</td>
</tr>
<tr>
<td>C</td>
<td>Yes</td>
<td>399</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>No</td>
<td>492</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Yes</td>
<td>1076</td>
<td>242</td>
</tr>
<tr>
<td>F</td>
<td>Yes</td>
<td>580</td>
<td>38</td>
</tr>
<tr>
<td>G</td>
<td>Yes</td>
<td>715</td>
<td>11</td>
</tr>
<tr>
<td>H</td>
<td>No</td>
<td>648</td>
<td>332</td>
</tr>
<tr>
<td>I</td>
<td>Yes</td>
<td>303</td>
<td>67</td>
</tr>
<tr>
<td>J</td>
<td>No</td>
<td>568</td>
<td>328</td>
</tr>
<tr>
<td>K</td>
<td>No</td>
<td>969</td>
<td>709</td>
</tr>
</tbody>
</table>
Participants

This study used proportional stratified sampling (Ary et al., 2002) by which participants in the sample represented the proportionate frequency in the general population. Using this sampling approach to selecting a sample population permits the research to focus on the educational decisions and characteristics of classroom teachers, school counselors, school psychologists, and school social workers as a team of educators. A limitation to using this approach is that the number of participants by educator type will be unequal, which is addressed in chapter 5.

The proportional sample of educators is presented in Table 9. In the local school district, the sum population of classroom teachers, school counselors, school psychologists and school social workers makes up 4,532 educators. From this total, 90 % are elementary teachers, 7 % are school counselors, 2 % are school psychologists, and 1 % is school social workers. In the 286 members of the sample population, 88% percent are classroom teachers, 5% school are counselors, 5% are school psychologists, and 3% are school social workers. These figures are similar to the frequencies reported by the Bureau of Education Information and Accountability Services for the local school district (Staff in Florida public schools, 2005).
Participants’ educational background and demographic characteristics are presented in Table 10. Participants’ years of experience in the respective areas of specialization ranged from 0-2 to 7 or more years. Fifty percent reported having 7 or more years of experience in their respective fields (n = 143). One hundred and seventy five had minimally completed a bachelor’s degree in their area of specialization. Most of the educators’ ages ranged from 26 and 35 (n = 98). Fewer than 20% were between the ages of 36 and 45 years (n =56). Sixty percent of the study population was Caucasian. Twenty-two percent and 16 % of educators were Black (non-Hispanic) and Hispanic, respectively. Males represented less than 10% of the sample

<table>
<thead>
<tr>
<th>Educator Type</th>
<th>School District Population</th>
<th>School District Proportion</th>
<th>Study Proportion</th>
<th>Study Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Teachers</td>
<td>4080</td>
<td>90%</td>
<td>88%</td>
<td>251</td>
</tr>
<tr>
<td>School Counselors</td>
<td>320</td>
<td>7%</td>
<td>5%</td>
<td>14</td>
</tr>
<tr>
<td>School Psychologists</td>
<td>74</td>
<td>2%</td>
<td>5%</td>
<td>13</td>
</tr>
<tr>
<td>School Social Workers</td>
<td>58</td>
<td>1%</td>
<td>3%</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4532</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>286</strong></td>
</tr>
</tbody>
</table>
Table 10.

Descriptive Profile of Participants

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19</td>
<td>7%</td>
</tr>
<tr>
<td>Female</td>
<td>267</td>
<td>93%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>N</th>
<th>Percent</th>
<th>Age</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 2 years</td>
<td>58</td>
<td>20%</td>
<td>25 or less</td>
<td>39</td>
<td>14%</td>
</tr>
<tr>
<td>3 – 4 years</td>
<td>46</td>
<td>16%</td>
<td>26-35</td>
<td>98</td>
<td>34%</td>
</tr>
<tr>
<td>5 – 6 years</td>
<td>38</td>
<td>13%</td>
<td>36-45</td>
<td>56</td>
<td>19%</td>
</tr>
<tr>
<td>7 or more</td>
<td>143</td>
<td>50%</td>
<td>46 or more</td>
<td>91</td>
<td>32%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree Held</th>
<th>N</th>
<th>Percent</th>
<th>Ethnicity</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s</td>
<td>175</td>
<td>61%</td>
<td>American Indian or Alaska Native</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Master’s</td>
<td>94</td>
<td>33%</td>
<td>Asian</td>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>Ed. D.</td>
<td>4</td>
<td>1%</td>
<td>Black (non-Hispanic)</td>
<td>61</td>
<td>22%</td>
</tr>
<tr>
<td>Ph. D.</td>
<td>3</td>
<td>1%</td>
<td>Hispanic</td>
<td>45</td>
<td>16%</td>
</tr>
<tr>
<td>Not available</td>
<td>10</td>
<td>3%</td>
<td>Caucasian</td>
<td>168</td>
<td>60%</td>
</tr>
</tbody>
</table>
Research Procedures

To expand on the research by Elhoweris, Mutua, Alsheikh, and Holloway (2005) permission was obtained from the authors for use of the original instruments. The procedures and provisions set by the University of Central Florida Institutional Review Board (UCF IRB) and local school district were adhered to by the researcher to obtain permission to conduct research in the public school district. Upon written permission from the local school district (see APPENDIX G: SCHOOL DISTRICT PERMISSION TO CONDUCT RESERACH) and the university (see APPENDIX H: UNIVERSITY PERMISSION TO CONDUCT RESEARCH), the researcher proceeded in carrying out the entitled investigation.

Eleven randomly selected elementary schools and a Learning Community participated in the study by hosting a group meeting of potential participants. Principals and a regional director agreed to have their site participate at a set date and time for the researcher to meet with potential participants in a group setting. Each hosting site was provided the opportunity to schedule an appointment date, time and location convenient for the group of potential participants if the initial meeting did not coincide with the times available to the participants. During the set group meeting, the researcher was introduced to potential participants by an administrative staff member.

At each site meeting, a brief overview of the study and the researcher’s interest in educators’ referral and placement decisions to specialized programs was shared with participants. Investigation packets containing the consent form, vignette, questionnaire, and survey were distributed in the pre-arranged randomized order and returned during the time allotted for the meeting. Prospective respondents were requested to read the consent form in the investigation
packets prior to deciding to participate. Potential participants were requested respond anonymously with no risk involved.

Participants completed the distributed investigation packets which contained randomly assigned vignettes that described a student who demonstrated common EBD and GT characteristics with a combination of three socio-cultural conditions (socio-economic status, CLD background, and disability label). A participant who completed and returned the investigation packet assured the participant was 18 years of age or older and consented to have their responses anonymously reported in the final manuscript and presentation of this study. Those who elected not to participate were asked to return the incomplete investigation packet to the researcher at the end of the meeting without consequence.

Data Collection

The case vignettes, two-item questionnaire, and survey were the instruments used to collect the raw data on the independent variables and dependent variables of this study. Data on the students’ socio-economic status, CLD background, and disability is derived from the vignettes descriptions of the student. Educators’ referral and placement decisions are gathered from the two-item questionnaire. The survey collected data on the educational characteristics of the participants. Upon receipt of the data collected, the data were organized and stored in a locked cabinet separate from all other materials without any personal identifiers for a minimum of three years.

To ensure trustworthiness of the data gathered, this study used an audit trail of the raw data collected from the completed investigation packets and worked with a team of peers and experts in the field. The audit trail was maintained in a chart by the researcher to document when, where, and how the data were collected. A third-party inspector worked with the
researcher to review the audit trail and confirm when the data were collected, where it was collected, and how it was collected. Analyses were scheduled with an expert in the field at different times throughout the data collection process to review and verify the analyses of the data collected.

Data Analysis

The statistical procedures used to analyze the data are presented in Table 11. Data collected from the case vignettes and two-item questionnaire for each dependent variable were concurrently entered into SPSS 14 for the personal computer by trained personnel for ongoing analysis. A three-way independent analysis of variance (ANOVA) was conducted in SPSS to examine the main effects and interactions between the independent variables upon the dependent measures. Analyses and interpretations of the data were reviewed by an expert for clarity, cohesiveness, and statistical significance. The results of the analyses are reported in Chapter 4. The findings are discussed for research implications in Chapter 5.
<table>
<thead>
<tr>
<th>Research Question</th>
<th>Dependent Variable</th>
<th>Independent Variables</th>
<th>Collection Procedures</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do educators’ referral decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student?</td>
<td>Educators’ referral decisions</td>
<td>Student’s disability label</td>
<td>Case Vignette</td>
<td>Three-way independent ANOVA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student’s socio-economic status</td>
<td>Two-item Questionnaire</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student’s CLD background</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do educators’ placement decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student?</td>
<td>Educators’ placement decisions</td>
<td>Student’s disability label</td>
<td>Case Vignette</td>
<td>Three-way independent ANOVA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student’s socio-economic status</td>
<td>Two-item Questionnaire</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student’s CLD background</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Psychometric Quality

A variety of methods and procedures were used throughout the study to obtain optimal psychometric quality and study rigor. As mentioned earlier, a field test was implemented to establish instrument reliability. In addition, the researcher used a combination of methods to ensure validity. The results of these methods are discussed in further detail.

To ensure internal validity, two methods were used: 1) selection of a statistically based research design and 2) use of randomization. The statistically based research design selected was a factorial design. This research design embeds controls for internal validity threats such as history, maturation, pre-testing, instrumentation, statistical regression, differential selection, experimental mortality, interaction of selection (Ary et al., 2002). Randomization was used to select the schools and distribute the vignettes. The use of a randomization to select the schools sites and assign vignettes to participants was used to minimize threats to subject effects, experimenter effect, and diffusion (Ary et al., 2002). Therefore, internal validity of the study is assured.

In addition to the use of a factorial research design and randomization plans, the researcher also adhered to verification strategies to ensure the data represented the study’s findings (Morse, Barrett, Mayan, Olson, & Spiers, 2002). Throughout the data collection process, the researcher analyzed the data at different times. A third-party investigator was used to confirm the analysis procedures and results.

Summary

Evidence presented in the gifted literature suggests the gifted and talented referral and placement process is subject to perceptions of students’ cultural and linguistics background,
socio-economic status, and disability. Research also suggests that the EBD label perpetuates a socio-culturally irresponsible perception that influences the identification of high academic achievement potential among students labeled EBD. Collectively, the presented research demonstrates a concern in the gifted and special education literature that needs to be investigated.

This study replicated and expanded upon an original investigation by Elhoweris, Muta, Alsheiksh and Holloway (2005) to examine the effect of the EBD label on teachers’, school counselors’, and school psychologists’, and school social workers referral and placement decisions to gifted and talented programs. A three-way independent ANOVA was used to investigate the main effects and interactions of the independent variables upon the dependent measures.

Participants were recruited from eleven randomly selected schools throughout the local school district and a regional Learning Community. At each school site the investigator distributed pre-arranged randomly assigned vignettes to teachers, school counselors, school psychologists, and school counselors. Participants were asked to read the short vignette about a student who demonstrates gifted and talented behaviors, respond to the two-item questionnaire addressing their referral and placement decisions, and complete the profile survey. The GT and EBD social and behavioral characteristics of the student in the vignettes were held constant.

Throughout the data collection and analysis period, several methods were used to assure the psychometric quality of the investigation. A field test was administered to identify overlooked ambiguities and/or inadequacies in the instruments and data collection procedures. Threats to validity were controlled through the research design and randomization procedures.
The results of the investigation’s methods and data collection procedures are discussed in chapter 4.
CHAPTER 4: RESULTS

Introduction

This chapter presents the analyses and results for the following questions: 1) Do educators’ referral decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student? 2) Do educators’ placement decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student? The differences in educators’ referral decisions and placement decisions based upon a students’ disability label, socio-economic status (SES), and ethnicity were assessed using SPSS 14 for the personal computer. In a field test, a .85 reliability score was produced for educators’ referral and placement as the dependent measures. Analysis of the validity of the data did not report invalid cases.

The results and analyses are organized into four sections. First, the assumptions of the statistical test used in this study are described. Next the null hypotheses being tested for this investigation are stated. In the following two sections, each research question is addressed by discussing the main effects and interactions between the variables upon the dependent measures. The summaries for each question are discussed in the final section of this chapter.

Assumptions

Selections of the statistical tests were based on data assumptions. For this study, a three-way independent (2 x 3 x 3) ANOVA was selected to measure the main effect and interactions of a student’s disability label (two levels), socio-economic status (three levels), and ethnicity (three levels) on educators’ referral and placement decisions to GT programs. The following assumptions were considered and tested to assure sound measurement.
I. Normality of data: the source population for each combination of independent variables has a normal distribution

II. Homogeneity of variance: the assumption that the variance of one variable is stable (i.e. relatively similar) at all levels of another variable.

III. Independence of cases: data collection is performed once for each participant and is independent of data collected from all other participants so the resulting data that are gathered are independent by design

**Normality of Data**

To assess for significance using a three-way independent ANOVA the dependent measures were tested for normality. The Kolmogorov-Smirnov D Test was applied to test for a normal distribution. Educators’ referral decisions ($D (275) = .30, p<.001$) and educators’ placement decisions ($D (275) = .25, p<.001$) were both significantly non-normal (see Table 12). However, the Q-Q plots show very little indication of non-normality for educators’ referral decisions (see Figure 1) and educators’ placement decisions (see Figure 2). With little indication of non-normality, normality of data is assured.
Figure 1: Q-Q Plot of Educators' Referral Decisions
Figure 2: Q-Q plot of Educators' Placement Decisions
Table 12.

The Kolmogorov-Smirnov D Test

<table>
<thead>
<tr>
<th>Dependent Measure</th>
<th>Statistic</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educators’ Referral Decisions</td>
<td>.30</td>
<td>275</td>
<td>.000</td>
</tr>
<tr>
<td>Educators’ Placement Decisions</td>
<td>.25</td>
<td>275</td>
<td>.000</td>
</tr>
</tbody>
</table>

Homogeneity of Equal Variances

Levene’s test of error of equal variances assessed the homogeneity of educators’ referral and placement decisions. The assessment of the disability label, socio-economic status, and ethnicity on educators’ placement decisions as the dependent measure did not produce any distinguishable differences. However, the group sizes varied significantly for educators’ referral decisions (see Table 13).

To assess the homogeneity of educators’ referral decisions, the Welch’ variance weighted analysis of variance (Welch’ variance weighted ANOVA) was conducted. This test measured the homogeneity of the variances between the unequal sized groups for educators’ referral decisions. Although a non-normal distribution was present, no distinguishable differences among the independent variables (see Table 14) were produced. Therefore, homogeneity of equal variances for both dependent measures is assured.
Table 13.
Levene’s test of Equality of Error Variances

<table>
<thead>
<tr>
<th>Variables</th>
<th>$F$</th>
<th>df1</th>
<th>df2</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educators’ Referral Decision</td>
<td>1.69</td>
<td>17</td>
<td>267</td>
<td>.04</td>
</tr>
<tr>
<td>Educators’ Placement Decisions</td>
<td>.98</td>
<td>7</td>
<td>303</td>
<td>.45</td>
</tr>
</tbody>
</table>

Table 14.
Welch’s variance weighted ANOVA for Educators’ Referral Decisions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statistic $^a$</th>
<th>df1</th>
<th>df2</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>.07</td>
<td>1</td>
<td>278.61</td>
<td>.79</td>
</tr>
<tr>
<td>Socio-economic status</td>
<td>.08</td>
<td>2</td>
<td>186.47</td>
<td>.92</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.27</td>
<td>2</td>
<td>182.06</td>
<td>.76</td>
</tr>
</tbody>
</table>

$^a$ Asymptotically F distributed.

**Independence of Cases**

To assure the independence of the cases being observed by the statistical tests for a factorial design, a randomization plan with an equal number of cases was used. The number of cases for the disability group, socio-economic status group, and ethnicity group has approximately equal number of cases (see Table 15). With no association in the design matrix table, independence of cases is assured.
Table 15.

Number of Cases

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability Label</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>144</td>
</tr>
<tr>
<td>EBD</td>
<td>142</td>
</tr>
<tr>
<td>Socio-Economic Status</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>95</td>
</tr>
<tr>
<td>Upper-middle class</td>
<td>97</td>
</tr>
<tr>
<td>Poverty level</td>
<td>94</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>91</td>
</tr>
<tr>
<td>African-American</td>
<td>97</td>
</tr>
<tr>
<td>Caucasian</td>
<td>98</td>
</tr>
</tbody>
</table>

Null Hypotheses

The symbol $H_0$ is used to indicate the null hypothesis. The following null hypotheses were tested to assess the main effects and interactions of the independent variables on educators’ referral and placement decisions.

1. Educators’ referral decisions
• H₀: There is no difference in educators’ referral decisions to gifted and talented programs based upon the ethnicity, socio-economic status, and disability label of a student

2. Educators’ placement decisions

• H₀: There is no difference in educators’ placement decisions to gifted and talented programs based upon the ethnicity, socio-economic status, and disability label of a student

Educators Referral and Placement Decisions

To answer test the null hypotheses, the main effects and interactions of the independent variables upon educators’ referral decisions and placement decisions were assessed. Based on the three independent variables, the analyses and results of the statistical assessment for educators’ referral decisions as the dependent measure are presented in this section. The Bonferroni adjustment was used for the pairwise comparison between the groups to control for Type I error for both dependent measures. An alpha level of .05 was used for all statistical assessments.

Main Effects upon Educators Referral Decision.

To assess the differences between educators’ referral decision mean scores, a three-way independent ANOVA was used. The mean (M), standard deviation (SD), and number of participants (N) for each independent variable are displayed in Table 16. The mean scores ranged from 5.03 and 5.13. The main effect of the disability label (R = .001), ethnicity (R = .001), and socio-economic status (R = .004) accounted for only .1%, .1%, and .4% of the variability in educators’ referral decisions, respectively.
Educators’ referral means for the EBD group (M = 5.06, SD = .82) was similar to the referral mean score for the control group (M = 5.08, SD = .93). The control group (M = 5.13, SD = .95) had the highest mean score among the three groups for socio-economic status. Although the control group for ethnicity produced the highest mean (M = 5.10, SD = .90) among three groups, the Caucasian group (M = 5.06, SD = .82) and African-American group (M = 5.05, SD = .91) means were similar.

Table 16.
Descriptive Statistics for Educators’ Referral Decisions

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability Label</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBD Label</td>
<td>5.06</td>
<td>.82</td>
<td>142</td>
</tr>
<tr>
<td>Control</td>
<td>5.08</td>
<td>.93</td>
<td>143</td>
</tr>
<tr>
<td>Socio-economic Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-middle class</td>
<td>5.03</td>
<td>.98</td>
<td>96</td>
</tr>
<tr>
<td>Poverty level</td>
<td>5.05</td>
<td>.66</td>
<td>94</td>
</tr>
<tr>
<td>Control</td>
<td>5.13</td>
<td>.95</td>
<td>95</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>5.06</td>
<td>.82</td>
<td>98</td>
</tr>
<tr>
<td>African American</td>
<td>5.05</td>
<td>.91</td>
<td>97</td>
</tr>
<tr>
<td>Control</td>
<td>5.10</td>
<td>.90</td>
<td>90</td>
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</tbody>
</table>
The three-way independent ANOVA is presented in Table 17. The results revealed no significant difference in educators’ referral decision based on the disability label, $F(1, 285) = .353, p = .55$, socio-economic status, $F(2, 285) = .54, p = .54$ and ethnicity, $F(2, 285) = .62, p > .54$. Educators’ referral decisions for the group labeled EBD ($M = 5.06, SD = .82$) did not differ significantly from the non-labeled group ($M = 5.08, SD = .93$). The upper-middle class group placement means ($M = 5.03, SD = .98$) did not produce a notable difference from the group believed to be living in poverty ($M = 5.05, SD = .66$). Referral decisions of Caucasian group ($M = 5.06, SD = .82$) did not differ considerably from the African-American group ($M = 5.05, SD = .91$). Therefore, there is no statistically significant main effect between the independent variables upon educators’ referral decisions.

Table 17.

Educators’ Referral Decisions ANOVA

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>df</th>
<th>$F$</th>
<th>$p$-value</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability Label</td>
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<td>.39</td>
<td>.54</td>
<td>.001</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>2</td>
<td>.12</td>
<td>.89</td>
<td>.001</td>
</tr>
<tr>
<td>Socio-economic status</td>
<td>2</td>
<td>.57</td>
<td>.57</td>
<td>.004</td>
</tr>
<tr>
<td>Disability x Ethnicity</td>
<td>2</td>
<td>3.29</td>
<td>.04</td>
<td>.024</td>
</tr>
<tr>
<td>Disability x Socio-economic status</td>
<td>2</td>
<td>3.12</td>
<td>.05</td>
<td>.023</td>
</tr>
<tr>
<td>Ethnicity x Socio-economic status</td>
<td>4</td>
<td>.78</td>
<td>.54</td>
<td>.012</td>
</tr>
<tr>
<td>Disability x Ethnicity x Socio-economic status</td>
<td>4</td>
<td>1.62</td>
<td>.17</td>
<td>.024</td>
</tr>
</tbody>
</table>
Interactions upon Educators Referral Decisions

A three-way independent ANOVA was used to assess interaction effect of a student’s disability label, socio-economic status, and ethnicity on the mean scores of educators referral ratings to gifted and talented programs based on a student’s disability. In the analysis of the interactions upon educators’ referral decisions there were a total of four interactions: three two-way interactions and three three-way interactions. The results of these interactions are discussed in the following subsections.

A linear regression was used to predict educators’ referral decisions upon the groups within the disability label, SES, and ethnicity (see Table 18). The regression equation for predicting educators referral decisions based on the disability label is: Educators’ Referral Decision = 5 - .029 (non-labeled) - .005(Caucasian) - .042 (ethnicity control) - .022 (poverty) – .093 (SES control). The labeled EBD, African American, and upper middle class groups were not predictors for educators’ referral decisions.
Table 18.

Linear Regression for Educators’ Referral Decisions

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>B</td>
</tr>
<tr>
<td>Constant</td>
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<td>.123</td>
<td></td>
</tr>
<tr>
<td>Non-labeled</td>
<td>.029</td>
<td></td>
<td>.104</td>
<td>.02</td>
</tr>
<tr>
<td>Caucasian</td>
<td>.005</td>
<td></td>
<td>.127</td>
<td>.00</td>
</tr>
<tr>
<td>Ethnicity control</td>
<td>.045</td>
<td></td>
<td>.129</td>
<td>.02</td>
</tr>
<tr>
<td>Living in Poverty</td>
<td>.022</td>
<td></td>
<td>.128</td>
<td>.01</td>
</tr>
<tr>
<td>SES control</td>
<td>.093</td>
<td></td>
<td>.128</td>
<td>.05</td>
</tr>
</tbody>
</table>

_Disability Label and Ethnicity Two-way Interaction_

A significant interaction effect is evident in educators’ referral decisions based on disability by ethnicity, $F(2, 285) = 3.29, p = .04$. About 2% ($R = .024$) of the variance in educators’ referral decisions can accounted by the disability label by ethnicity interaction. The means (M) and standard deviations (SD) and number of participants (N) for the interactions between the levels among disability label and ethnicity is exhibited in Table 19. Figure 3 illustrates the interaction effect between disability and ethnicity on educators’ referral decisions.

Based on the two-way interaction between the disability group and ethnicity group, educators’ referral decision means ranged from 4.87 and 5.22. Referral decisions means were
greater for the Caucasian non-labeled group (M = 5.20, SD = .83) than the Caucasian group labeled EBD (M = 4.91, SD = .80). The African American group labeled EBD (M = 5.22, SD = .68) received a higher mean than when the non-labeled African American group (M = 4.87, SD = 1.08). Educators’ referral means for the African American group labeled EBD was higher than the Caucasian group labeled EBD. Cases where the EBD label was unknown, the referral decisions for the Caucasian group were higher than the African American group. When controlling for ethnicity, the EBD group (M = 5.02, SD = .94) had a lower referral decision mean than the non-labeled group (M = 5.18, SD = .86). These findings indicate the presence of a statistical interaction effect upon educators’ referral decisions based on disability label, SES, and ethnicity of a student.
Figure 3: Educators’ Referral Decisions by Disability by Ethnicity
Disability Label and SES Two-way Interaction

A significant $p$-value was produced for the interaction effect between disability label and socio-economic status, $F(2, 285) = 3.12, p = .05$. The means, standard deviations, and number of participants for the two-way interactions between the disability label and socio-economic status on educators’ referral decisions are presented in Table 20. Based on this interaction, educators’ referral decision means ranged from 4.92 and 5.00. There is about a 2% ($R = .023$) variance in educators referral decisions that can be accounted by the disability label by SES interaction.

In cases where a student’s SES was controlled, The EBD label group ($M = 4.92$, $SD = 1.03$) received a lower referral decision mean than the non-labeled group ($M = 5.34$, $SD = .82$). Educators’ referral decision scores for the upper-middle class group labeled EBD ($M = 5.16$, $SD = .77$) was higher than the non-labeled upper-middle class group ($M = 4.92$, $SD = 1.13$). These results also show that upper-middle class group labeled EBD received a higher referral decision mean than the poverty group labeled EBD. When controlling for the EBD label, the upper-

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD label</td>
<td>Caucasian</td>
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<td>.80</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>5.22</td>
<td>.68</td>
<td>50</td>
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<td></td>
<td>Control</td>
<td>5.02</td>
<td>.94</td>
<td>45</td>
</tr>
<tr>
<td>Control</td>
<td>Caucasian</td>
<td>5.20</td>
<td>.83</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>4.87</td>
<td>1.08</td>
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<tr>
<td></td>
<td>Control</td>
<td>5.18</td>
<td>.86</td>
<td>45</td>
</tr>
</tbody>
</table>

Disability Label and SES Two-way Interaction

A significant $p$-value was produced for the interaction effect between disability label and socio-economic status, $F(2, 285) = 3.12, p = .05$. The means, standard deviations, and number of participants for the two-way interactions between the disability label and socio-economic status on educators’ referral decisions are presented in Table 20. Based on this interaction, educators’ referral decision means ranged from 4.92 and 5.00. There is about a 2% ($R = .023$) variance in educators referral decisions that can be accounted by the disability label by SES interaction.

In cases where a student’s SES was controlled, The EBD label group ($M = 4.92$, $SD = 1.03$) received a lower referral decision mean than the non-labeled group ($M = 5.34$, $SD = .82$). Educators’ referral decision scores for the upper-middle class group labeled EBD ($M = 5.16$, $SD = .77$) was higher than the non-labeled upper-middle class group ($M = 4.92$, $SD = 1.13$). These results also show that upper-middle class group labeled EBD received a higher referral decision mean than the poverty group labeled EBD. When controlling for the EBD label, the upper-
middle class group received a lower referral decision mean than the poverty group. An illustration of the interaction between disability and SES upon educators’ referral decisions is displayed in Figure 4. These findings show the interaction between the three independent variables affect educators’ referral decision ratings.
Figure 4: Educators’ Referral Decisions by Disability by SES
Table 20.

Descriptive Statistics for Referral Decisions by Disability x SES

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
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<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD label</td>
<td>Upper-middle</td>
<td>5.16</td>
<td>.77</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poverty</td>
<td>5.10</td>
<td>.59</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.92</td>
<td>1.03</td>
<td>48</td>
</tr>
<tr>
<td>Control</td>
<td>Upper-middle</td>
<td>4.92</td>
<td>1.13</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poverty</td>
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<td>.74</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>5.34</td>
<td>.82</td>
<td>47</td>
</tr>
</tbody>
</table>

*Ethnicity and SES Two-way Interaction*

The demographic statistics of the mean scores between ethnicity and SES is shown in Table 21. The means for this two-way interaction ranged from 4.86 and 5.20. About 1% (R = .012) variance in educators’ referral decisions can be accounted by the ethnicity by SES interaction. The graphic representation of interaction effect between ethnicity and SES upon the dependent measure is displayed in Figure 5. It illustrates that that an interaction is present between the independent variables.

The interaction between ethnicity and SES is non-significant, $F(4, 285) = .78$, $p = .54$. Cases where the SES was controlled, the African American group ($M = 5.17$, $SD = .75$) and Caucasian group ($M = 5.16$, $SD = .88$) referral decision means were similar. In addition, educators referral decisions mean for the upper-middle class group ($M = 5.04$, $SD = .76$) was lower than the poverty group ($M = 5.20$, $SD = .66$) when the ethnicity group was controlled. The referral mean for the Caucasian group from an upper-middle class household was higher than the
African American group living in poverty. These results show the differences and similarities in educators’ referral decisions to GT programs are not affected by the interaction between a student’s ethnicity and SES.
Figure 5: Educators' Referral Decisions by Ethnicity by SES
The means, standard deviations and number of participants for the three-way interaction between the disability label, SES, and ethnicity is are exhibited in Table 22. Based on this interaction, educators’ referral decisions ranged from 4.67 and 5.47. This interaction accounts for about 2% (R = .024) of the variance in educators’ referral decisions. The interaction effect between the three independent variables upon the dependent measure is non significant, $F(4, 285) = 1.61, p = .17$.

Among the cases within the EBD labeled group there were similarities and differences between the means. Educators’ referral decision mean for the Caucasian upper-middle class
group labeled EBD (M = 4.92, SD = 1.00) was higher than the Caucasian group labeled EBD and living in poverty (M = 5.11, SD = .47). The African American group labeled EBD and living in poverty (M = 5.00, SD = .68) reported a lower mean than the African American group labeled EBD and from an upper-middle class household (M = 5.48, SD = .68). For each ethnicity group labeled EBD, educators’ referred the poverty group lower than the upper-middle class group.

In the non-labeled group, differences of educators’ referral decisions were also made evident. The African American group living in upper-middle class mean (M = 4.67, SD = 1.41) was lower than the African American group living in poverty (M = 4.71, SD = .73). The referral decisions mean for the Caucasian upper-middle class group (M = 4.94, SD = 1.00) was lower than the Caucasian group living in poverty (M = 5.06, SD = .73). Educators’ referral mean for the Caucasian group living in poverty was higher than the African American group living in poverty.

Across the three variables indicates the group believed to be labeled EBD, African American and living in poverty (M = 5.00, SD = .60) had a higher referral mean than the group believed to be non-labeled, Caucasian, and from an upper-middle class household (M = 4.91, SD = 1.00). Plots of educators’ referral mean scores across the three variables show that there is an interaction between he disability label, socio-economic status, and ethnicity (see Figure 6, 7, and 8). However, the non-significant results indicate that educators’ referral decisions are not affected by the interaction effect between a student’s disability label, SES, and ethnicity.
Figure 6: Educators' Referral Decisions by Disability by Ethnicity by Control SES

<table>
<thead>
<tr>
<th>Disability Condition</th>
<th>control</th>
<th>EBD label</th>
<th>African American</th>
<th>white</th>
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</thead>
<tbody>
<tr>
<td>Mean Scores</td>
<td>5.75</td>
<td>5.5</td>
<td>5.25</td>
<td>5.0</td>
</tr>
</tbody>
</table>
Figure 7: Educators' Referral Decisions by Disability by Ethnicity by Upper-middle class
Figure 8: Educators' Referral Decisions by Disability by Ethnicity by Poverty
<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>Variable 3</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD Label</td>
<td>Caucasian</td>
<td>Upper-middle class</td>
<td>4.92</td>
<td>1.00</td>
<td>12</td>
</tr>
<tr>
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<td></td>
<td>Poverty</td>
<td>5.11</td>
<td>.47</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>4.71</td>
<td>.92</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>Upper-middle class</td>
<td>5.48</td>
<td>.60</td>
<td>21</td>
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<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>5.00</td>
<td>.68</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>5.07</td>
<td>.70</td>
<td>15</td>
</tr>
<tr>
<td>Control</td>
<td>Upper-middle class</td>
<td>4.83</td>
<td>.58</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>5.18</td>
<td>.64</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>5.00</td>
<td>1.37</td>
<td>16</td>
</tr>
<tr>
<td>Control</td>
<td>Caucasian</td>
<td>Upper-middle class</td>
<td>4.94</td>
<td>1.00</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>5.06</td>
<td>.73</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>5.67</td>
<td>.49</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>Upper-middle class</td>
<td>4.67</td>
<td>1.41</td>
<td>18</td>
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<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>4.71</td>
<td>.73</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>5.27</td>
<td>.80</td>
<td>15</td>
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<tr>
<td></td>
<td>Control</td>
<td>Upper-middle class</td>
<td>5.20</td>
<td>.86</td>
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<td></td>
<td></td>
<td>Poverty</td>
<td>5.23</td>
<td>.73</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>5.12</td>
<td>1.00</td>
<td>17</td>
</tr>
</tbody>
</table>
Collectively, analysis of the interactions among the three independent variables presents evidence of differences in referral decisions. However, only two of the total four interactions produced significant p-values: 1) the interaction between a student’s disability label and ethnicity and 2) the interaction between a student’s disability label and socio-economic status were significant. These significant interaction effects indicate there are differences in educators’ referral decisions based on a student’s disability label, SES, and ethnicity.

**Summary**

The analyses and results of the statistical procedures for educators’ referral decisions as the dependent measure were measured by a three-way independent ANOVA. Educators’ referral mean scores ranged from 5.03 and 5.13 based on the main effects. Effect sizes for each main effect upon educators’ referral decisions were less than 1%. The main effects of the disability label, SES, and ethnicity upon educators’ referral decisions did not produce significant p-values.

For the total four interactions, the means ranged from 4.67 and 5.67. The variance in the dependent measure accounted by the all of the interactions was less than 5%. Two of the four interactions were significant: 1) disability by socio-economic status and 2) disability by ethnicity. These interactions indicate educators’ referral decision ratings are influenced by the interactions between a student’s disability label, socio-economic status, and ethnicity. Therefore, the study rejects the null hypothesis for research question 1.

**Main Effects upon Educators’ Placement Decisions**

A three-way independent ANOVA was used to assess the main effect of a student’s disability label, socio-economic status, and ethnicity on the mean difference of educators placement ratings to gifted and talented programs based on a students disability. The means (M)
and standard deviations (SD) and number of participants (N) of the disability label, socio-economic status, and ethnicity and the interactions are presented in Table 23. The mean scores ranged from 4.35 and 4.54. The control group (M = 4.54, SD = 1.14) for the disability label produced a slightly greater mean than the EBD labeled group (M = 4.35, SD = 1.11). Educators’ referral decision mean score for the poverty group was the lowest (M = 4.37, SD = 1.06) among the three levels of socio-economic status. Of the three levels of the ethnicity variable, the Caucasian group referral decision mean score (M = 4.42, SD = 1.09) was the highest.

Table 23.
Descriptive Statistics for Educators’ Placement Decisions

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>4.54</td>
<td>1.14</td>
<td>139</td>
</tr>
<tr>
<td>EBD Label</td>
<td>4.35</td>
<td>1.11</td>
<td>136</td>
</tr>
</tbody>
</table>

| Socio-economic Status         |
|-------------------------------|-----|-----|-----|
| Control                       | 4.43| 1.27| 89  |
| Upper-middle class            | 4.54| 1.06| 94  |
| Poverty level                 | 4.37| 1.06| 92  |

| Ethnicity                     |
|-------------------------------|-----|-----|-----|
| Control                       | 4.46| 1.08| 87  |
| Caucasian                     | 4.52| 1.09| 96  |
| African American              | 4.36| 1.23| 92  |
Displayed in Table 24 are the main effects and interaction of the student’s demographic labels upon educators’ placement measures as the dependent measure. Less than 1% of the variance in educators’ placement can be accounted by each of the variables. The three way independent ANOVA revealed no significant difference in educators’ placement decisions based on the disability label, $F(1, 275) = 2.21, p = .14$, socio-economic status, $F(2, 275) = .40, p = .67$ and ethnicity, $F(2, 275) = .63, p = .54$.

Educators’ placement decisions for the group labeled EBD ($M = 4.35, SD = 1.11$) did not differ significantly from the non-labeled group ($M = 4.54, SD = 1.14$). There was no significant variance between educators’ placement decisions for the upper-middle class group ($M = 4.54, SD = 1.06$) and group believed to be living in poverty ($M = 4.37, SD = 1.06$). Placement decisions of Caucasian group ($M = 4.52, SD = 1.08$) did not differ considerably from the African-American group ($M = 4.36, SD = 1.23$). Therefore, there is no statistically significant mean difference in educators’ placement decisions based on the disability label, SES or ethnicity of a student.
Interaction Effects upon Educators’ Placement Decisions

The interactions between the three independent variables produced four interactions: three two-way interactions and one three-way interaction. Descriptive statistics for the interactions between the disability label by SES, disability by ethnicity, and ethnicity by SES are presented. There is less than 5% variance in educators’ placement decisions based on each of the four interactions. Figures of the educators placement decision means present evidence of an interaction effect between the three independent variables. However, no statistically significant p-value was produced for any of the four interactions.

To predict educators’ referral decisions upon the groups within the disability label, SES, and ethnicity a linear regression was used (see Table 25). The regression equation for predicting educators’ placement decisions based on the disability label is:

Educators’ Placement Decision =
The means, standard deviations, and number of participants for the two-way interaction between the disability label and ethnicity on educators’ placement decisions are displayed in Table 26. Educators’ placement decision means were between 4.25 and 4.76. The interaction effect upon the dependent measure was non significant, $F(2, 285) = 2.51, p = .08$.  

Disability and Ethnicity Two-way Interaction

The means, standard deviations, and number of participants for the two-way interaction between the disability label and ethnicity on educators’ placement decisions are displayed in Table 26. Educators’ placement decision means were between 4.25 and 4.76. The interaction effect upon the dependent measure was non significant, $F(2, 285) = 2.51, p = .08$.  

Table 25.
Linear Regression for Educators’ Placement Decisions

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.36</td>
<td>.16</td>
<td>27.00</td>
<td>.00</td>
</tr>
<tr>
<td>Non-labeled</td>
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<td>.14</td>
<td>.08</td>
<td>1.26</td>
</tr>
<tr>
<td>Caucasian</td>
<td>.17</td>
<td>.17</td>
<td>.07</td>
<td>1.04</td>
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<td>Ethnicity control</td>
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<td>.64</td>
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<tr>
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<td>.17</td>
<td>-.08</td>
<td>-1.07</td>
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<td>SES control</td>
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<td>-.05</td>
<td>-.72</td>
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</table>

4.26 - .17 (non-labeled) - .17 (Caucasian) - .11 (ethnicity control) + .18 (poverty) + .12 (SES control). The labeled EBD, African American, and upper middle class groups were not predictors for educators’ placement decisions.
The placement means for the Caucasian group labeled EBD (M = 4.26, SD = 1.14) were similar to the African American group labeled EBD (M = 4.25, SD = 1.25). Placement means for the non-labeled Caucasian group (M = 4.76, SD = .89) was higher than the mean for the non-labeled African American group (M = 4.48, SD = 1.21). The Caucasian and African American cases of the non-labeled group received lower placement means than the Caucasian and African American cases of the EBD labeled group. A graph of the interaction between disability and ethnicity upon educators’ referral decisions is presented in Figure 9. The results indicate there is no difference in educators’ placement decisions based on the interaction between a student's disability label and ethnicity.
Figure 9: Disability by Ethnicity Upon Educators' Placement Decisions
Table 27 shows the demographic statistics for the two-way interaction between the disability group and SES group upon placement decisions. Placement means for this interaction ranged from 4.20 and 4.66. No significant interaction was found based on this interaction, $F(2, 285) = 1.17, p = .31$.

Educators’ placement means for the group labeled EBD and living in poverty ($M = 4.35, SD = 1.10$) was similar to the non labeled poverty group ($M = 4.39, SD = 1.02$). Similar results were also found between the upper-middle class group labeled EBD ($M = 4.51, SD = .91$) and the non labeled upper-middle class group ($M = 4.57, SD = 1.19$). However, educators’ placement mean for the upper-middle class group labeled EBD was higher than the mean for the non-labeled group living in poverty. The interaction (Figure 10) signifies no difference in educators’ placement decisions based on the effect between a students’ disability label and SES.

### Table 26.
Descriptive Statistics for Placement Decisions by Disability x Ethnicity

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD label</td>
<td>Caucasian</td>
<td>4.26</td>
<td>1.14</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>4.25</td>
<td>1.25</td>
<td>48</td>
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<tr>
<td></td>
<td>Control</td>
<td>4.57</td>
<td>.89</td>
<td>42</td>
</tr>
<tr>
<td>Control</td>
<td>Caucasian</td>
<td>4.76</td>
<td>.98</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>4.48</td>
<td>1.21</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.36</td>
<td>1.23</td>
<td>45</td>
</tr>
</tbody>
</table>
Figure 10: Disability by Socio-economic status Upon Educators' Placement Decisions
Ethnicity and SES Two-way Interaction

The descriptive statistics of the two-way interaction between the ethnicity group and SES group is presented in Table 28. Placement decision means ranged from 4.15 and 4.71. There was no significant p-value found for this interaction upon educators’ placement decisions, $F(4, 285) = .82, p = .52$.

Educators’ placement decision means were higher for the upper-middle class African American group ($M = 4.55, SD = 1.18$) than the Caucasian group living in poverty ($M = 4.33, SD = 1.22$). The Caucasian upper-middle class group placement decision mean ($M = 4.55, SD = 1.02$) was equal to the upper-middle class African American group ($M = 4.55, SD = 1.18$). The means for the Caucasian group living in poverty ($M = 4.33, SD = 1.22$) and African American group living in poverty ($M = 4.30, SD = .95$) were similar. Figure 12 indicates there is an interaction affect occurring when educators’ make placement decisions; however, the affect in does not produce a significant difference in educators’ placement decision means.

Table 27.
Descriptive Statistics for Placement Decisions by Disability x SES

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD label</td>
<td>Upper-middle class</td>
<td>4.51</td>
<td>.91</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Poverty</td>
<td>4.35</td>
<td>1.10</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.20</td>
<td>1.29</td>
<td>45</td>
</tr>
<tr>
<td>Control</td>
<td>Upper-middle class</td>
<td>4.57</td>
<td>1.19</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Poverty</td>
<td>4.39</td>
<td>1.02</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.66</td>
<td>1.23</td>
<td>44</td>
</tr>
</tbody>
</table>

*Ethnicity and SES Two-way Interaction*

The descriptive statistics of the two-way interaction between the ethnicity group and SES group is presented in Table 28. Placement decision means ranged from 4.15 and 4.71. There was no significant p-value found for this interaction upon educators’ placement decisions, $F(4, 285) = .82, p = .52$.

Educators’ placement decision means were higher for the upper-middle class African American group ($M = 4.55, SD = 1.18$) than the Caucasian group living in poverty ($M = 4.33, SD = 1.22$). The Caucasian upper-middle class group placement decision mean ($M = 4.55, SD = 1.02$) was equal to the upper-middle class African American group ($M = 4.55, SD = 1.18$). The means for the Caucasian group living in poverty ($M = 4.33, SD = 1.22$) and African American group living in poverty ($M = 4.30, SD = .95$) were similar. Figure 12 indicates there is an interaction affect occurring when educators’ make placement decisions; however, the affect in does not produce a significant difference in educators’ placement decision means.
Figure 11: Educators’ Placement Decisions by Ethnicity by SES
Disability, SES, and Ethnicity Three-Way Interaction

The means, standard deviations, and number of participants for the three-way interaction between the disability label, ethnicity, and SES upon educators’ placement decisions is shown in Table 29. Based on this interaction, the placement decisions means scaled between 3.64 and 5.14. No statistically significant interaction effect was produced for the three-way interaction, $F(4, 285) = 1.02, p = .40$

There were similarities and differences in educators’ placement decisions among the groups within the EBD labeled group. The placement decision mean for the Caucasian group labeled EBD from an upper-middle class household ($M = 4.18, SD = .87$) was similar to the Caucasian group labeled EBD living in poverty ($M = 4.22, SD = 1.40$). For the African
American group labeled EBD, the placement mean for the upper-middle class group (M = 4.65, SD = 1.04) was higher than the poverty group (M = 4.29, SD = .91). Educators’ placement decision means were higher for the upper-middle class and poverty cases of the African American group were higher than the upper-middle class and poverty cases of the Caucasian group.

In the non-labeled group, placement decision means showed differences and similarities. The African American group living in upper-middle class mean (M = 4.44, SD = 1.34) was lower than the African American group living in poverty (M = 4.31, SD = 1.03). Educators’ placement decisions mean for the Caucasian upper-middle class group (M = 4.78, SD = 1.06) was higher than the Caucasian group living in poverty (M = 4.44, SD = 1.04). The means of the Caucasian group living in poverty was the same for the African American group from an upper-middle class household.

The results across the three variables indicate the group characterized as being labeled EBD, African American and living in poverty (M = 4.29, SD = .91) had a lower placement mean than the group believed to be non-labeled, Caucasian, and from an upper-middle class household (M = 4.78, SD = 1.06). The mean scores of educators’ placement decisions based on the interaction between ethnicity and SES is displayed in Figures 13, 14, and 15. The evidence exhibited in the tables and figures shows there is no significant difference in educators’ placement decisions based on the interaction between a student’s disability label, SES and ethnicity.
Figure 12: Educators' Placement Decisions by Disability by Ethnicity by Control SES
Figure 13: Educators’ Placement Decisions by Disability by Ethnicity by Upper-middle class
Figure 14: Educators' Placement Decisions by Disability by Ethnicity by Poverty
Table 29.
Descriptive Statistics for Placement Decisions by Three-Way Interaction

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
<th>Variable 3</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBD Label</td>
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<td>Upper-middle class</td>
<td>4.18</td>
<td>.87</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>4.22</td>
<td>1.40</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>4.35</td>
<td>1.06</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>Upper-middle class</td>
<td>4.65</td>
<td>1.04</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>4.29</td>
<td>.91</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
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<td>14</td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td>Upper-middle class</td>
<td>4.58</td>
<td>.67</td>
<td>12</td>
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<tr>
<td></td>
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<td>Poverty</td>
<td>4.56</td>
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<td>16</td>
</tr>
<tr>
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<td></td>
<td>Control</td>
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<td>14</td>
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<tr>
<td>Control</td>
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<td>Upper-middle class</td>
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<td>1.06</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>4.44</td>
<td>1.04</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>5.14</td>
<td>.66</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>Upper-middle class</td>
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<td>1.34</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poverty</td>
<td>4.31</td>
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<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
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<td>13</td>
</tr>
<tr>
<td>Control</td>
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<td>Upper-middle class</td>
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<td>15</td>
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<td></td>
<td>Poverty</td>
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<td>1.04</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control</td>
<td>4.24</td>
<td>1.44</td>
<td>17</td>
</tr>
</tbody>
</table>
Summary

To analyze educators’ placement decisions based on a students’ disability label, SES and ethnicity, a three-ANOVA was used. Educators’ placement decision mean scores based on the main effects of the three independent variables ranged from 4.35 and 4.54. The variance in educators’ placement decisions that can be accounted by the disability label, ethnicity, and SES was less than 1%. The main effects of the disability label, SES and ethnicity upon placement decisions were non-significant.

There were four interactions effects among the independent variables. Based on the interactions, educators’ placement decision means ranged from 3.64 and 5.14. Less than 5% of the variance in educators’ placement decisions can be accounted by each of the interactions between the independent variables. The interactions of the three independent variables upon educators’ placement decisions did not produce significant $p$-values. Therefore, the study fails to reject the null hypotheses for research question 2.

Summary

This study sought to answer two questions, 1) do educators’ referral decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student 2) do educators’ placement decisions to gifted and talented programs differ based upon ethnicity, socio-economic status, and disability label of a student. Educators’ referral and placement decisions were scaled between 1 indicating “strongly disagree” to 6 “strongly agree”. The main effects and interactions among the three independent variables upon educators’ referral and placement decisions were assessed to measure differences in scores. Assumptions of normality, homogeneity of variance, and independent cases were described for each dependent
variable to assure credible statistical results. A three-way independent ANOVA was used to assess differences in educators’ referral and placement decisions based on a students’ disability label, SES, and ethnicity.

**Educators’ Referral Decisions**

The first research question was answered by examining the main effects and interactions between the independent variables upon educators’ referral decisions. As indicated by the range of the means for the main effects, educators’ “agreed” to refer the student to a GT program. The main effects of the disability label, SES, and ethnicity groups were non-significant. These results signify that educators’ referral decisions did not differ based on the independent effects of the disability label, SES, and ethnicity groups. In other words, educators’ referral decisions are not influenced by awareness of the student’s disability label, SES, or ethnicity as independent factors.

Although the main effects were non-significant, two of the four interactions upon educators’ referral decisions were significant: 1) disability by socio-economic status and 2) disability by ethnicity interactions. Based on the means among the interactions, educators’ referral means indicate they “agree” or “strongly agree” to refer the student to a GT program. The interaction between the disability label and socio-economic status groups suggest that when educators are aware of both the disability label and SES of a student, educators’ referral decisions differed from the decisions of educators who were not aware of the student’s demographic labels. Similarly, interaction effects between the disability label and ethnicity groups indicate the explicit awareness of both the disability label and ethnicity influences differences in educators’ referral decisions. Based on these findings, differences in educators’
referral decisions are attributable to the interactions among the three independent measures. These findings are discussed further in chapter 5.

**Educators’ Placement Decisions**

Research question number two was answered through an analysis of the differences in educators’ placement decisions, the main effects and interactions of the disability label, SES, and ethnicity was examined. The means of the main effects indicate educators’ “slightly agree” the student should be placed in a GT program. The results of the three-way ANOVA for educators’ placement decisions revealed no significant main effects among the independent variables. As indicated by these results, educators’ awareness of the student’s disability label, SES, and ethnicity did not affect their decisions that the student should be placed in a GT program.

Analysis of the interactions also produced non-significant values. Although the placement decision means were between “slightly agree” and “agree,” the interactions between the disability label, SES, and ethnicity were not the basis for the differences in the placement decisions. Educators’ awareness of the two or three of the demographic labels did not influence their decisions to place a student in a GT program. From these findings, a student’s disability label, SES, and ethnicity in are not attributable to the differences in educators’ placement decisions. Further discussion of the findings is addressed in chapter 5.
CHAPTER 5: DISCUSSION

Introduction

This chapter presents the summation of this study. In the first three sections, the purpose, research methods, and results of this investigation are reviewed. Next, the conclusions of this study are addressed. The third section reports the limitations and implications of the research. In the final section, recommendations for further research are discussed.

Purpose

The purpose of this investigation was to examine educators’ perceptions of the EBD label on their referral and placement decisions of CLD students from low socio-economic households to gifted and talented programs. This study was guided by two questions: 1) do educators’ referral decisions to gifted and talented programs differ based upon students’ ethnicity, socio-economic status, and disability label of a student 2) do educators’ placement decisions to gifted and talented programs differ based upon students’ ethnicity, socio-economic status, and disability label of a student. These questions were answered using quantitative methods and analyses.

Research Methods

This study was conducted in a local public school district. Eleven schools and one Learning Center were randomly selected to create a pool of participants. There were 286 educators who consented to participate. The sample consisted of 251 classroom teachers, 14 school counselors, 13 school psychologists, and 8 school social workers.

Subsequent to signing consent participants read a case vignette about a male student who demonstrated EBD and GT characteristics. In the treatment case vignettes, the disability label (EBD, control), SES (upper-middle class, poverty, and control), and ethnicity (Caucasian,
African American, and control) were explicitly mentioned. Case vignettes that did not mention the one or more of the variables were used as the control level of each independent variable. After reading the vignette, educators responded to two items on a questionnaire that addressed their referral and placement decisions. For each questionnaire item educators’ responses were indicated by their selection of one of six choices: strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. Participants also completed a demographic survey on their background and educational experience.

Results

To answer the research questions, this study examines the main effects and interactions between a student’s disability label (two levels), socio-economic status (three levels), and ethnicity (three levels) upon the differences in educators’ referral as the dependent measures. A three-way independent (2 x 3 x 3) ANOVA statistical test was used. Bonferroni adjustments were used for the multiple comparisons. The results of the analyses are reviewed in this section.

Educators’ Referral Decisions

Based on the main effects, most educators’ “agree” the student with EBD and GT characteristics should be referred to a GT program. However, the main effects of the student’s disability label, \( F(1, 285) = .353, p = .55 \), socio-economic status, \( F(2, 285) = .54, p = .54 \), and ethnicity, \( F(2, 285) = .62, p > .54 \), were non-significant upon educators’ referral decisions. Educators’ referral decisions of a student with EBD and GT characteristics did not differ based on the main effects of a student’s disability label, SES, and ethnicity. The non-significant results indicate educators’ referral decisions based on their perceptions of the three variables are similar across the groups.
The analysis of the means by a student’s disability, socio-economic status, and ethnicity yielded evidence of interaction effects upon the educators’ referral decisions. The three-way ANOVA test showed two of the four interactions of the independent variables upon referral decisions were significant. Differences in educators’ referral decisions to GT programs were influenced by the disability by socio-economic status interaction, $F(2, 285) = 3.29, p = .04$ and disability by ethnicity interaction, $F(2, 285) = 3.12, p = .05$. Based on the linear regression, the non-label of the disability group, the Caucasian label and the control of the ethnicity group, the poverty label and SES control were predictors of educators’ referral decisions. However, the effect sizes for each variable were very small. The outcomes of this analysis indicate differences in referral decisions affected by the interaction effects between educators’ perception of a students’ disability label, SES, and ethnicity.

The main effects and interactions among the three independent variables upon educators’ referral decision produced different results. Analysis of the main effects was non-significant; however, two of the four interactions were significant. Although the main effects were not significant, the two significant interactions present evidence that educators’ referral decision do differ based upon their perceptions of disability label, SES, and ethnicity of a student. Therefore, the null hypothesis for research question 1 is rejected.

*Educators’ Placement Decisions*

Educators’ placement decision means based on the main effects of the demographic labels indicate classroom teachers, school counselors, school psychologists, and school social workers “slightly agree” the student with EBD and GT characteristics should be placed in a GT program. However, the main effects of the student’s disability label, $F(1, 275) = 2.21, p = 0.14,$
socio-economic status, $F(2, 275) = 0.40, p = .67$ and ethnicity, $F(2, 275) = 0.63, p = .54$ were non-significant upon educators’ placement decisions. The non-significant outcome of this analysis suggests most educators’ in this study slightly agree that a student with EBD and GT characteristics should be placed in a GT program despite their perceptions towards disability label, SES, and ethnicity of the student.

Analysis of educators’ placement decision means presents evidence of interaction effects between the three independent variables. Although there were interactions present, the disability by ethnicity interaction ($F(2, 285) = 2.51, p = .08$), disability by SES interaction ($F(2, 285) = 1.17, p = .31$), ethnicity by SES interaction ($F(2, 285) = 0.82, p = 0.52.$), and disability by ethnicity by SES ($F(4, 285) = 1.02, p = 0.40$) interaction were non-significant. The results of the analysis suggests the interaction effect among educators’ perceptions of a student’s demographic labels does not influence educators’ decisions to place a student in a GT program.

In the examination of educators’ placement decisions, the main effects and interactions effects produced similar outcomes. The main effects of the disability label, SES and ethnicity were not significant. Likewise, the four interaction effects produce non-significant p-values. The non-significant outcomes for both the main effects and interaction effects indicate differences in educators’ placement decisions are not based upon their views about a student’s disability label, SES, or ethnicity of a student. In addition, the effect of each variable upon educators’ decision to place the student in GT was small. The linear regression of educators’ placement decisions show the non-label of the disability group, the Caucasian label and the control of the ethnicity group, the poverty label and SES control were predictors of educators’ referral decisions. Therefore, the study failed to reject the null hypotheses for research question 2.
Conclusions

Previous research on the referral and placement of CLD students from low socio-economic households to gifted and talented programs emphasizes the sole perspective of the classroom teacher (Bianco, 2005; Elhoweris et al., 2005; Frasier, 1995a). Evidence in the literature indicates that as primary sources of referral and placement decisions to GT programs, classroom teachers’ educational decisions are influenced by the socio-cultural effects of a student’s disability label (Karnes et al., 2004), socio-economic status and ethnicity (Baldwin, 2002; Borland, 2004). Although classroom teachers are the primary source of referrals to GT programs (Frasier, 1995a), IDEIA mandates a multidisciplinary team of professionals (school counselors, school psychologists, and school social workers) to make educational decisions to specialized services. The literature overlooks educational decisions from multiple sources when making referral and placement decisions to GT programs; particularly for CLD students with disabilities from low socio-economic households. Therefore, this study presents educators’ referral and placement decisions to GT programs from the perceptions of classroom teachers, school counselors, school psychologists, and school social workers based on the disability label, socio-economic status, and ethnicity of a student.

Educators’ Referral Decisions

The first research question addressed the differences in educators’ referral decisions to gifted and talented based upon ethnicity, socio-economic status, and disability label of a student. This question was examined by assessing the main effect and interaction between the educators’ referral decisions based on the impendent variables. The conclusions and analyses of these tests are addressed in the following subsections.
**Affects of the Independent Variables**

Based on a student’s disability label, SES, and ethnicity, little difference was found between the means of educators’ referral decisions. The effect size of each variable upon the dependent measure was very small. Educators’ referral decisions means ranged from 5.03 and 5.13. This signifies educators “agree” to refer a student described as having EBD and GT characteristics to gifted and talented programs.

The main effect of the independent variables did not affect differences in educators’ referral decisions. Classroom teachers, school counselors, school psychologists, and school social workers referred the groups in the same way when making referral decisions. Whether the student was described as labeled EBD or non-labeled, African-American or Caucasian, from an upper-middle class household or living in poverty, educators’ referral decisions were the similar across all groups. The independent effects of a educators’ perceptions of a student’s disability label, SES, and ethnicity did not produce differences in referral decisions that influence how educators’ refer a male student with EBD and GT characteristics to a GT program. These findings differ from previous research on educators’ decisions to gifted and talented programs based on students’ disability label by Karnes, Shaunessy, and Bisland (2004), students’ SES by Guskin (1992), and students’ ethnicity by Plata, Masten, and Trusty (Plata et al., 1999).

**Interactions of the Independent Variables**

In the analysis of the interactions upon educators’ referral decisions there were a total of four interactions: three two-way interactions and one three-way interaction. Of the four interactions two interactions yielded significant results: 1) the disability and ethnicity interaction and 2) the disability and SES interaction. The effect size of the disability by ethnicity interaction
upon educators’ referral decisions was .024. Educators’ perceptions towards the disability by SES interaction produced an effect size of .023. Referral decision means range from 4.67 and 5.67. This signifies educators in this study “agreed” and/or “strongly agreed” to refer a male student with EBD and GT characteristics to a GT program.

Educators’ awareness of the student’s disability and ethnicity at one time influenced statistically significant mean differences that affect the referral of a student with EBD and GT characteristics to a GT program. When the student’s EBD label was not mentioned, educators less likely agreed to refer the African American student (M = 4.87, SD = 1.08) than the Caucasian student (M = 5.20, SD = .83). In cases where educators’ were aware the student was Caucasian and labeled EBD (M = 4.91, SD = .80), they less often agreed to refer the student to a GT program than the Caucasian non labeled student (M = 5.20, SD = .83). It also made evident when the ethnicity of the student was unknown, educators less often agreed to refer the student labeled EBD (M = 5.02, SD = .94) than the non-labeled EBD student (M = 5.18, SD = .86) to a GT program. In addition, the student that was explicitly stated as being Caucasian and labeled EBD (M = 4.91, SD = .80) received more agreeable decisions to be referred to a GT program than the non-labeled African American student (M = 4.87, SD = 1.08). These findings are consistent with research on referral decisions based on ethnicity (Elhoweris et al., 2005) and disability label (Bianco, 2005).

Also indicated in the statistically significant interaction between the disability label and ethnicity was the differences between educators referral decisions for students believed to be Caucasian. Educators’ agreed to refer the Caucasian student labeled EBD (M = 4.91, SD = .80) less often than the African-American student labeled EBD (M = 5.22, SD = .68). This result is congruent with research on perceptions of Caucasian students with moderate to severe behavior.
problems (Cullinan & Kauffman, 2005) and how students with moderate to severe behavior problems, such as students labeled EBD, are referred to GT programs (Bianco, 2005).

In the interaction between the disability label and SES, awareness of the labels significantly affected educators’ referral decisions to a GT program. Cases by which the disability label and SES of a student was explicitly stated, educators agreed to refer a student labeled EBD living in poverty (M = 5.10, SD = .59) less often than the student labeled EBD from an upper-middle class household (M = 5.16, SD = .77). When educators were not aware of the student’s SES, they were less likely to agree to refer the student labeled EBD (M = 4.92, SD = 1.03) than the non-labeled student (M = 5.34, SD = .82). These findings are consistent with research on educators’ GT referral decisions based on the EBD label by Bianco (2005) and socio-economic status by McBee (2006).

The disability label and SES also indicated significant mean differences in educators’ referral decisions for the upper-class group. Educators who were not aware the student was labeled EBD less often agreed to refer the student from upper-middle class household (M = 4.92, SD = 1.13) than the student living in poverty (M= 5.00, SD = .74). Therefore, this study finds that the differences in educators’ referral decisions are attributable to the interaction affect between a student’s SES and disability label. Research on educators’ perceptions of upper-middle class male students who demonstrate moderate to severe behavior problems by Miller (1971) and Metz (1993) supports this finding. Morrison (2000) and Rizza research on educators’ perceptions of students with EBD and GT characteristics also adds support of these conclusions.

Additional interactions were present among the independent variables. There was a two-way interaction effects between the ethnicity and SES of a student and a three-way interaction effect was present between the three variables. However, these interactions were non-significant.
In other words, these interactions were not a cause for the differences in educators’ referral decisions when the interaction affects were present.

Summary

To answer research question one, differences in educators’ referral decisions were assessed based on main effects and interactions of the disability label, SES, and ethnicity of a student. The team of classroom teachers, school counselors, school psychologists and school social workers generally agreed to refer a student with behavior problems and GT characteristics to a GT program. Educators’ referral decisions to GT programs based on their perceptions of the disability label, SES, and ethnicity of a student were not affected by the main effects of the three independent variables.

However, differences in educators’ referral decisions did occur when their decisions were measured upon the interactions between the independent variables. Educators’ perceptions of the two-way interaction between ethnicity and SES and the three-way interaction of the disability label, SES, and ethnicity did not have a significant influence on educators’ referral decisions. But, the interaction effects of the disability label by SES and the interaction effect of the disability label by ethnicity did influence how educators’ referred a student to a GT program. However, the effect size of the significant interaction upon educators’ referral decisions was very small.

Educators’ Placement Decisions

Research question number two addressed the differences in educators’ placement decisions to gifted and talented based upon ethnicity, socio-economic status, and disability label of a student. Differences in placement ratings were assessed by analyzing the main effects and
interactions between the three independent variables. The following three subsections discuss the conclusions of test results.

*Effects of the Independent Variables*

Educators’ placement decision means based on the main effects of the disability label, SES, and ethnicity of a student ranged from 4.35 and 4.54. This signifies that educators “somewhat agree” to refer a student described as having behavior problems and GT abilities to gifted and talented programs. There was a very small effect size for each of the independent variables upon educators’ placement decisions. The analysis of the differences in educators’ placement decisions for each variable showed no statistically significant affect based on the main effects of the disability label, SES, and ethnicity of a student. The non-significant results indicate classroom teachers, school counselors, school psychologists, and school social workers referred the groups among the independent variables in a similar manner. Therefore, differences in educators’ placement decisions are not attributable to educators’ perceptions of the student’s disability label, SES, and ethnicity.

*Interactions of the Independent Variables*

In the examination of the interactions among the disability label, SES, and ethnicity, four interactions were produced: three two-way interactions and one three-way interaction. Based on the interactions effects, the range of educators’ placement decision means signify that educators “slightly agree” and/or “agree” to place the student in a GT program. Although educators’ placement decision means varied, analysis of the interaction effects of the disability label, SES, and ethnicity upon placement decisions was non-significant. In other words, the groups among
the independent variables are not a source of variability in educators’ placement decisions based on their perceptions of a male student with EBD and GT characteristics.

Summary

The second research question was assessed by examining the differences in educators’ placement decisions based on main effects and interactions of the disability label, SES, and ethnicity of a student. From the perceptions of classroom teachers, school counselors, school psychologists, and school social workers, educators’ slightly agreed and/or agreed that a student with EBD and GT characteristics should be placed in a GT program. Educators’ placement decisions were not influenced by the main effects or interactions between the three independent variables. Therefore, these findings show educators’ perceptions towards a student’s disability label, SES, and ethnicity does not influence differences in educators’ placement decisions.

Limitations

The investigator practiced procedures and methods to minimize research limitations; however, there were limitations that should be considered when interpreting the results. Factors that limited this investigation were the setting of the study, respondent population, and sampling methods. Each of these aspects is discussed below.

Educators’ referral and placement decisions were based on the modifications of the case vignettes originally used in a study by Elhoweris, Muta, Alsheiksh and Holloway (2005). A contrived situation of a student with EBD and GT characteristics were described in the case vignettes. Although the student description used characteristics were verified by experts in the field, it does not take into account the environmental and personal influences upon educators’ judgments in a real life situation (Poulou, 2001). Examination of educators’ referral and
placement decisions based on an actual situation may produce results different from the findings in this study.

The population of this study was limited to educators who serve PK-5 students in a public school setting. Although the majority of students’ referrals take place in PK-5 settings, the limited population can affect generalization to teachers, school counselors, school psychologists, and school social workers working with students in a secondary or alternative education setting. Investigating educators who work with students in other settings could produce conclusions unlike those discussed in this study.

Most educators participants were Caucasian and female, which cannot allow for variability that educators’ ethnicity and gender that could be present. Research shows that ethnicity (Frey, 2002; Tobias, Cole, Zibrin, & Bodlakova, 1982) and gender (O'Connor, 2005) differences of educators affects the decisions of educators during the eligibility process. As a result, the use of an ethnic and gender proportional heterogeneous sample of participants may result in different findings.

Next, a proportional stratified sampling was used. Differences that may exist between the types of educators could not be analyzed due to the unequal numbers of participants by educator type. An analysis of the affect and interaction between the types of educators upon educational decisions to GT programs based on a student’s disability, ethnicity, and SES may indicate different results.

During the data collection at the sites, many of the principals and/or department heads were present to introduce the researcher to the large group. Although participants’ responses were anonymous, the presence of an authority figure during the administration of the survey may have influenced educators’ responses on the questionnaire items. In addition, the style of
leadership during the meetings set expectations that may have also affected how educators’
responded. Research on the use of questionnaires and surveys shows that participants may
respond in a manner that reflect expectations rather an actual account of their beliefs or
judgments. Therefore, an investigation in the absence of an authority figure may have different
results (Ary et al., 2002).

Implications of the Data

The findings from this investigation suggest educators’ perceptions of the disability label,
SES and ethnicity of a student has an influence on how educators’ make educational decisions.
However, the effects of these three variables upon educators’ referral and placement decisions in
were very small, which could be the reason for the non-significant main effects of the variables.
Nevertheless, there were significant results that indicate educators’ perceptions of the EBD label,
SES, and ethnicity of a student are influences on their educational decisions to gifted and
talented programs.

Based on the significant results of the analysis in this investigation, awareness of a
student’s disability label, SES, and ethnicity hinder educators’ ability to make an objective
referral decision to GT. Studies show the disability label (Bianco, 2005), ethnicity (Elhoweris et
al., 2005) and SES (McBee, 2006) of a student are influential factors during the eligibility
process. In addition, literature regarding students with disabilities (Karnes et al., 2004), culturally
diverse students (Frasier, 1991) and students living in poverty (Frasier, 1995a) indicate that these
students are overlooked and underserved for their gifted and talented abilities. The limited
referral and placement of a culturally diverse student with EBD and GT characteristics to a GT
program based on their abilities rather their demographic characteristics adds to the problem of
disproportionality. Therefore, the following suggestions are made to improve the referral rates of culturally diverse students with EBD and GT characteristics.

From the findings of this study suggest educators may benefit from training that allows exploration and familiarization of the varying academic abilities of students with EBD. From the perspectives of multiple educators, it appears there may be stereotypes and biases of the EBD label that influences educators’ referral of a student to a GT program. Literature on the EBD label suggests the characterization of the category creates a socio-cultural stigma that negatively impacts how high achieving students labeled EBD are perceived (Gallagher, 1997; Gay, 2002). In addition, these students are usually described as demonstrating characteristics that are contradictory to being gifted and talented (Morrison, 2001). Yet, studies show students labeled EBD demonstrate gifted and talented abilities (Garland & Zigler, 1999; Morrison, 2000; Peterson, 1997; Reid & McGuire, 1995). Therefore, professional development and training for educators may need to focus on extending educators knowledge about the spectrum of academic abilities and characteristics of a student with EBD.

This research also suggests the definition of EBD include specific language that addresses the academic potential among students with EBD. Students with EBD have been reported to demonstrate high academic talents and abilities; however, the definition does not address this characteristic. Consequently, educators perceive the presence of high academic abilities among students with EBD as paradoxical to their disability label (Morrison, 2001) and these abilities are being overlooked by educators due to stereotypes associated with the EBD label (Rizza and Morrison, 2002). Therefore, the addition of language addressing high academic potential to the definition of EBD would be helpful identifying and making educational decisions for students with EBD and GT.
With a broader understanding of the abilities and characteristics of students with EBD, it is important to use assessments that objectively measure and identify the characteristics. Research shows that use of scales, checklists, and projective assessments to identify students with EBD are subjective in nature (Elliot et al., 1993; Javorsky, 1999; Overton, 2006b). The use of assessments that are comprised of a collection of standardized measures to evaluate the daily tasks and abilities of a student, such as the Achenbach System of Empirically Based Assessment (Achenbach, Rescorla, McConaughey, Pecora, Wetherbee, & Ruffle, 2004), may be more objective in identifying the behaviors and abilities of a student with EBD.

Another suggestion based on the findings of this study is to broaden the characterization of gifted and talented students to include the presence of behavior problems. The results of this study suggest educators’ referral decisions to a GT program of students with disabilities from diverse economic and cultural backgrounds are hindered by limited perceptions of GT. Similar research on gifted and talented show that ethnicity (Elhoweris et al., 2005), socio-economic status (McKenzie, 1986), and the disability label (Bianco, 2005) are influential factors when making referral decisions to gifted and talented programs. Furthermore, economically and culturally diverse students with disabilities are underrepresented in GT programs (Donovan & Cross, 2002; Ford, 1998; Karnes et al., 2004). For these reasons, educator training and professional development should broaden the knowledge based of giftedness among economically and culturally diverse students with disabilities.

Along with broadening the characteristics of students with GT, there is a need to use assessments that measure a broader range of GT characteristics. The reliance on assessments that measure IQ as a primary indicator of gifted abilities limits access to gifted and talented programs culturally diverse students (Ford et al., 2002) and students with disabilities (Karnes et
al., 2004; Nielsen, 2002). Educators’ use of culturally responsive global assessments (i.e. portfolio assessments, dynamic assessments, and multidimensional assessments) that measure various types of superior abilities and intelligences, such as the Frasier-Talent Assessment Profile (Hunsaker, Frasier, Frank, Finley, & Klkeotka, 1995), would improve access to GT programs. In addition, states need to include explicit language that would support the use of such assessments during the eligibility process. Collectively, these suggestions will increase student populations traditionally underrepresented in gifted and talented programs.

Recommendations for Future Research

As a result of this study, the following recommendations are made:

I. The present investigation used a sample of classroom teachers, school counselors, school psychologist, and school social workers. Future studies may want to include other persons and/or professionals whose perspectives are important to the decision making process to gifted and talented programs.

II. The present investigation used proportional sampling. Researchers may wish to have an equal number of participants by educator type for comparisons across areas of specializations.

III. The sample population was homogenous. Therefore, it may be interesting to compare educators’ decisions by ethnicity, age group, or years of experience.

IV. There is no information specified about how a training program may impact educators’ referral of economically and culturally diverse students with disabilities. It is possible that professional courses or workshops with a focus on interdisciplinary collaboration and cultural responsiveness during the eligibility process may have an impact on how culturally diverse students with disabilities are referred for subsequent exceptional education
programs. Therefore, researchers may wish to investigate how specific professional development programs affect perceptions of economically and culturally diverse students with disabilities.

V. This investigation examined the perspectives of educators across Title I and non-title I schools settings. An investigation on educators’ referral decisions based on the socio-economic status of the school would be an interesting study.

VI. This study found that educators’ referral decisions are affected by the interaction between disability label by SES and the interaction between disability by ethnicity. It would be interesting to investigate the impact of a blind review process of a CLD student with a disability upon educators’ referral decisions to gifted and talented programs.
APPENDIX A: IDENTIFICATION PROCESS FOR SPECIAL EDUCATION

\(^4\) (Overton, 2006a)
Student demonstrates learning and/or behavioral differences from same age peers

1. Pre-Referral
   General education teacher implements classroom strategies and interventions

2. Screening
   Health screenings are administered to examine the physical condition of the

3. Referral
   General education teacher, school counselor, or parent refers student to a team of

4. Consent for Evaluation
   Notice of action to evaluate student is distributed to student’s guardian

5. Evaluation
   Assessments measure student’s academic and social abilities

6. Eligibility
   A meeting is held to determine student’s eligibility for services in
APPENDIX B: PERMISSION TO REPLICATE RESEARCH
From: <halae@uae.ac.ae>
To: Charissa Marrah <cmarrah@mail.ucf.edu>
Date: 8/28/2006 3:44:16 AM
Subject: Re: Gifted and Talented Research

The vignettes and the questions that I used are attached. Sorry for the delay. Good Luck.

-----Original Message-----
From: Charissa Marrah <cmarrah@mail.ucf.edu>
Date: Tuesday, August 22, 2006 11:29 pm
Subject: Re: Gifted and Talented Research

> Thank you for your encouragement and support to use your vignettes;
> however they were not included in the article. Could you email
> them to
> me? I would really appreciate it. When I complete my study I will
> inform you of its results. Thanks.
>
> Charissa Marrah
> University of Central Florida
> College of Education
> Exceptional Education
>
> >>> <halae@uae.ac.ae> 8/22/2006 3:44 PM >>>
>
> I am so happy to hear about your research and I would love to know
> your results as well. Go head and use the vignettes, Are the vignettes
> included in the article or do you want me to email them to you?
> Thanks.
>
> ----- Original Message ----- 
> From: Charissa Marrah <cmarrah@mail.ucf.edu> 
> Date: Wednesday, August 16, 2006 9:56 pm
> Subject: Gifted and Talented Research
> > Dr. Alheweris,
> > My name is Charissa Marrah. I am a doctoral candidate at the
> > University of Central Florida, Orlando, FL. My research interests
> > in
> > special and gifted education lead me examine variables that affect
> > educators referral and placement decisions.
> > I came across your article in the Jan/Feb, 2005, Remedial and
> > Special
> > Education Journal and would like to use the study's vignettes to
> > extend upon that research. I intend to study the effects of
> > special
> > education labels on educators referrals and placement decisions
> > for
> > gifted and
> > talented programs.
> >
> > I look forward to hearing from you soon.
> >
APPENDIX C: INFORMED CONSENT
INFORMED CONSENT

January 8, 2007

Dear Educator:

I am a Ph.D. candidate at the University of Central Florida. As part of my coursework, I am conducting a research study, the purpose of which is to examine referral and placement decisions in exceptional education programs.

You will be asked to read a short vignette about a student and respond to a two-item questionnaire, which should take approximately fifteen minutes. Your participation is voluntary. If you do not wish to participate, simply return the vignette, questionnaire, and consent form to the researcher without consequence. Responses will be completely anonymous. Completing and returning the questionnaire and survey constitutes you are 18 years of age or older and consent to report your responses anonymously in the final manuscript and presentation to be submitted as part of my course work.

If you have any questions about this research project, please contact me at (407) 823-0421 or by email at cmarnah@mail.ucf.edu. My faculty supervisor, Dr. Little, may be contacted at (407) 823-3275 or by email at mlittle@mail.ucf.edu. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to the Institutional Review Board Office, IRB Coordinator, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The telephone number is (407) 823-2901.

Sincerely,

Charissa Marnah
APPENDIX D: CASE VIGNETTES
John is 9 years old and in the fourth grade. John is a Caucasian American male who lives with his natural mother and father in a poverty-stricken neighborhood.

John is a healthy boy and rarely misses school. His teachers feel that John is emotionally healthy. He has the normal problems all boys experience, but he typically handles them quite well. John has a keen sense of humor and high level of self-confidence. John is sensitive to others’ needs. He is very popular with his peers and is well liked by teachers. On the last achievement test, John scored two deviations above his grade level in all participants and scored significantly high in reading and math compared to his peers. He is regarded by teachers as bright, inquisitive, and highly verbal. He has demonstrated leadership abilities in school and in the community.
John is 9 years old and in the fourth grade. John is an African American male who lives with his natural mother and father in a poverty-stricken neighborhood.

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John is 9 years old and in the fourth grade. He is a student labeled emotionally/behaviorally disabled. John is a Caucasian American male who lives with his natural mother and father in a poverty-stricken neighborhood.

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A. This student should be referred for a comprehensive evaluation for possible placement in a gifted and talented student program.

1. Strongly Disagree
2. Disagree
3. Slightly disagree
4. Slightly agree
5. Agree
6. Strongly Agree

B. I feel this student should be placed in a gifted and talented student program.

1. Strongly Disagree
2. Disagree
3. Slightly disagree
4. Slightly agree
5. Agree
6. Strongly Agree
APPENDIX F: SURVEY ITEMS
1. What is the socio-economic status of your school?
   a. Low
   b. Medium
   c. High

2. What is your area of specialization?
   a. General educator
   b. Special educator
   c. School counselor/Guidance Counselor
   d. School psychologist

3. How many years of experience do you have in your area of specialization?
   a. 0-2 years
   b. 3-4 years
   c. 5-6 years
   d. 7 or more

4. What is the highest degree you hold in your area of specialization?
   a. Bachelor of Arts/Science degree
   b. Master of Arts/Science degree
   c. Doctor of Education (Ed.D) degree
   d. Doctor of Philosophy (Ph.D.) degree
   e. N/A

5. What is your age?
   a. 25 or less
   b. 26-35
c. 36-45

d. 46 or more

6. What is your ethnicity?
   a. American Indian or Alaska Native
   b. Asian
   c. Black (non-Hispanic)
   d. Native Hawaiian or Other Pacific Islander
   e. Caucasian
   f. Hispanic

7. What is your gender
   a. Male
   b. Female
APPENDIX G: SCHOOL DISTRICT PERMISSION TO CONDUCT RESEARCH
### Orange County Public Schools

**RESEARCH REQUEST FORM**

Submit this form and a copy of your proposal to Accountability, Research, and Assessment.

P.O. Box 271
Orlando, FL 32802-0271

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**Requester's Name:** Chapman Marrah  
**Address:** Home: 1050 S. 12th Dr. Apt 108, 32825  
**Business:** 11400 Orlando, FL 32816  
**Project Director or Advisor:** Mary Little, Ph.D.  
**Address:** College of Education, PO Box 142250, Orlando, FL, 32816

**Date:** 11-9-2006

---

**Degree Sought:**  
- [ ] Associate  
- [ ] Bachelor's  
- [ ] Master's  
- [ ] Specialist

- [ ] Doctorate

**Project Title:** Perceptions of the ECD Label on Educators' Referral and Placement Decisions to Gifted and Talented Programs

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**ESTIMATED INVOLVEMENT**

<table>
<thead>
<tr>
<th>PERSONNEL/CENTERS</th>
<th>NUMBER</th>
<th>AMOUNT OF TIME (DAYS, HOURS, ETC.)</th>
<th>SPECIFY/DESCRIBE GRADES, SCHOOLS, SPECIAL NEEDS, ETC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>100</td>
<td>15 minutes elementary schools only</td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td></td>
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<tr>
<td>Schools/Centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (specify)</td>
<td></td>
<td></td>
<td>Specify possible benefits to students/school system.</td>
</tr>
</tbody>
</table>

School counselors = 50  
15 minutes elementary schools only

Provide insight on how teachers are referring students to gifted programs who are under-represented in the Gifted and Talented classrooms.

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**ASSURANCE**

Using the proposed procedures and instrument, I hereby agree to conduct research in accordance with the policies of the Orange County Public Schools. Deviations from the approved procedures shall be cleared through the Senior Director of Accountability, Research, and Assessment. Reports and materials shall be supplied as specified.

Requester's Signature: [Signature]

---

Approval Granted:  
- [X] Yes  
- [ ] No  
**Date:** 11-9-06

Signature of the Senior Director for Accountability, Research, and Assessment: [Signature]

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JTE TO REQUESTER: When seeking approval at the school level, a copy of this form, signed by the Senior Director, Accountability, Research, and Assessment, should be shown to the school principal.

Reference School Board Policy OCS, p. 249

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FORM ID: #G601303:23-11/0FY  REV 1/04

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THE UNIVERSITY OF CENTRAL FLORIDA
INSTITUTIONAL REVIEW BOARD (IRB)

IRB Committee Approval Form

#06-4042

PRINCIPAL INVESTIGATOR(S): Charissa Marrah & Mary Little, Ph.D.

PROJECT TITLE: Perceptions of the Emotional/Behavioral Disability Label on Educators' Referral and Placement Decisions to Gifted and Talented Programs

[ X ] New project submission
[ ] Continuing review of lapsed project #
[ ] Resubmission of lapsed project #
[ ] Continuing review of #
[ ] Study expires
[ ] Initial submission was approved by expedited review but continuing review can be expedited
[ ] Suspension of enrollment email sent to PI, entered on spreadsheet, administration notified

Chair
[ ] Expedited Approval

Dated:____________________
Cite how qualifies for expedited review: minimal risk and ______________

Exempt

Dated: 1/29/07
Cite how qualifies for exempt status: minimal risk and ______________

[ ] Expiration
Date:____________________

IRB Reviewers:

Signed: ____________________________
Dr. Tracy Dietz, Chair

Signed: ____________________________
Dr. Craig Van Slyke, Vice-Chair

Signed: ____________________________
Dr. Sophia Dziegielewski, Vice-Chair

Complete reverse side of expedited or exempt form

[ ] Waiver of documentation of consent approved
[ ] Waiver of consent approved
[ ] Waiver of HIPAA Authorization approved

NOTES FROM IRB CHAIR (IF APPLICABLE):
REFERENCES


Frye-Mason, J. (2004). *Smart students struggling in school: Survey of national programs for gifted students with special education exceptionalities*. The University of New Mexico, United States -- New Mexico.


*Focus on Exceptional Children, 29*(9), 1.


