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CONSIDERING RACE AND GENDER IN THE CLASSROOM: THE ROLE  
OF TEACHER PERCEPTIONS IN REFERRAL FOR SPECIAL  
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CONSIDERING RACE AND GENDER IN THE CLASSROOM: THE ROLE OF  
TEACHER PERCEPTIONS IN REFERRAL FOR SPECIAL EDUCATION

By

Daniele Annette Eiland

A DISSERTATION

Submitted to  
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## **ABSTRACT**

### **CONSIDERING RACE AND GENDER IN THE CLASSROOM: THE ROLE OF TEACHER PERCEPTIONS IN REFERRAL FOR SPECIAL EDUCATION**

By

Daniele Annette Eiland

Referral for assessment or intervention has been cited as one of the most important predictors of future special education eligibility (Artiles & Trent, 1994) because most students referred for consideration of special education are eventually placed in special education programs. There are different interpretations for this phenomenon. While some teachers are accurate judges in the identification of students who are in need of intervention, others have personal beliefs that may interfere with their ability to provide appropriate instruction to certain students. This study focuses on the extent to which teacher efficacy, student gender and student race can predict teacher referral. In this study I will investigate factors which may influence teachers' decisions to refer students for special education services. In order to do so, I developed case studies in which student characteristics (i.e., race and gender) were manipulated. I evaluated how teacher ratings of efficacy predicted teacher decisions to refer students for special education in a case study. I hypothesized that teachers who had high efficacy ratings would be less likely to refer students for special education services regardless of the student's individual characteristics. Results suggest that teachers with high ratings of general teacher efficacy were more likely to refer students. Additionally, the relationship between experience and referral decisions was significant indicating that teachers with experience were more likely to refer students for special education services. Although

not significant, males were referred at slightly higher rates than females and African American males were referred at higher rates than any other students.

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## DEDICATION

I would like to dedicate this dissertation to my children, Carmel and Joseph.

Carmel, thank you for providing perspective for my work. You have sat next to me during this process, first on the bed, then in the high chair and now running around with your own laptop at just 20 months. You have been my inspiration to study for my exams and to persevere when things got difficult. I hope you will read this one day and know that I could not have finished this journey without you.

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## TABLE OF CONTENTS

LIST OF TABLES .....	iv
LIST OF FIGURES .....	v
Chapter One: Introduction.....	1
Chapter Two: Review of the Literature.....	5
Conceptual Framework - Self-Efficacy.....	5
Teacher Efficacy.....	8
Special Education Referral and Teacher Efficacy.....	10
The Impact of Gender on Special Education Referral.....	14
Overrepresentation of African Americans in Special Education.....	18
Research Questions and Hypotheses.....	22
Chapter Three: Methodology.....	24
Participants.....	24
Procedures.....	26
Summary of Methodology.....	32
Chapter Four: Results .....	34
Descriptive Statistics.....	34
Measure Preparation.....	39
Examination of Research Questions and Hypotheses.....	41
Chapter Five: Discussion .....	50
Teacher Efficacy as a Predictor of Special Education Referral.....	50
Impact of Student Characteristics on Teacher Referral for Special Education.....	55
Moderators of teacher Efficacy and Teacher Referral Decisions.....	58
Limitations.....	60
Future Directions.....	61
Appendix One: Teacher Consent Form.....	65
Appendix Two: Teacher Letter.....	67
Appendix Three: Teacher Information Questionnaire.....	68
Appendix Four: Teacher Efficacy Questionnaire.....	69
Appendix Five: Case Study with Caucasian male, Low SES.....	70
Appendix Six: Case Study with Caucasian male, High SES.....	71

Appendix Seven: Case Study with Caucasian female, Low SES.....72  
Appendix Eight: Case Study with Caucasian female, High SES .....73  
Appendix Nine: Case Study with African American male, Low SES.....74  
Appendix Ten: Case Study with African American male, High SES.....75  
Appendix Eleven: Case Study with African American female, Low SES.....76  
Appendix Twelve: Case Study with African American female, Low SES.....77  
Appendix Thirteen: Welcome Letter.....78  
References.....79

## LIST OF TABLES

Table 1 Summary of Respondents Level of Education Obtained.....	34
Table 2 Summary of Respondents with Teaching Experience.....	35
Table 3 Descriptive Data for Preservice Teachers.....	37
Table 4 Descriptive Data for Experienced Teachers.....	38
Table 5 Summary of Reliability of Measures.....	40
Table 6 Descriptive Statistics for Case Studies.....	41
Table 7 Correlations Between Measures.....	42
Table 8 Correlations Between Measures for Preservice Teachers.....	43
Table 9 Correlations Between Measures for Experienced Teachers.....	43
Table 10 ANOVA – Do student characteristics influence teacher referral decisions?.....	45
Table 11 ANOVA – Does the gender of the teacher influence teacher referral decisions?.....	47
Table 12 ANOVA - Does the years of experience reported by participants influence referral decisions.....	47



LIST OF FIGURES

Figure 1: Race and Socio Economic Status Interaction.....46

## **Chapter One: Introduction**

One of the most important decisions a classroom teacher makes is to refer a student for individual special education evaluation. This decision initiates a process where students are identified and tested by a team of individuals to determine eligibility for special education services. Typically, individual students that are referred are usually placed in special education (O'Riley, Northcraft & Sabers, 1989; MacMillan & Reschly, 1998; Hosp & Reschly, 2004).

Many factors influence a teacher's decision to refer a student for a special education evaluation. Some of the reasons teachers refer students are likely similar to those that Shavelson and Borko identified in 1979. They reported that instructional decisions are a function of a complex interaction between student characteristics, and other factors such as resources, school politics, and pressure from staff and administration. More recently, investigations have shifted to teacher and student characteristics that influence the likelihood of referral.

Rate and reason for referral have been investigated in the literature for 40 years. It is important to understand teachers' reasons for referring students for a number of reasons. To start, we know that teacher and student characteristics influence referral (MacMillan & Reschly, 1998; Losen & Orfield, 2002; Hosp & Reschly, 2004). Some of the characteristics have little to do with the student's actual abilities. For instance, reasons stated for referral have been examined relative to the student's gender, source of referral, racial or ethnic background and socio economic status (Gregory, 1977; Hosp & Reschly, 2004). Most studies report sex differences stating that a larger proportion of males than females are referred. Most studies also report racial and ethnic differences

suggesting that African American students are more likely to be referred. This dissertation will examine the impact of the student's race and gender on teacher decisions to refer students for special education evaluations. Information regarding student and teacher's socio economic status will be collected for use in a separate study at a later date.

### *Key Definitions*

It is important to clearly define the variables in the present study to provide a frame of reference for the reader. Referral for special education services is the focus of this study. Special education means specially designed individualized or group instruction or special services or programs to meet the unique needs of students with disabilities. Referral is defined as a teacher suspecting that a student has a disability that warrants a multidisciplinary team's attention to determine eligibility for special education services.

Teacher efficacy is an independent variable in this study. Briefly, teacher efficacy is defined as the extent to which teachers believe they can influence how well students learn (Guskey & Passaro, 1994). Teacher efficacy is often considered as either general teacher efficacy or personal teacher efficacy (Ashton & Webb, 1986; Gibson & Dembo, 1984). Teachers' attributing student struggles to external factors such as family violence, substance abuse in the home, the value placed on education in the home and economic factors is referred to as general teacher efficacy (Tschannen-Moran, Woolfolk-Hoy & Hoy, 1998). Personal teacher efficacy is more specific, it refers to the teacher's beliefs about their own abilities to affect student outcomes. I expect that teacher ratings of both personal and general teacher efficacy will be related to referral decisions. I

expect that teachers with high ratings of GTE will refer because they feel that external factors are more influential than the teacher. I also expect that teachers with high ratings of PTE will not refer students because they will be able to work with the students themselves.

Race and gender are the student characteristics that will be examined. Race will describe an ethnic group, tribe, or other set of individuals descended from a common ancestor. The race of the student is provided in the case study. Gender refers to the sexual distinction between male and female. The gender of the student is also provided in the case study.

Finally overrepresentation is defined as a disproportionate representation of certain groups in a category. For instance, there is a problem if 20% of the special education population in a Michigan elementary school are African American because African American's only make up 14.3% of the population in the state of Michigan (U.S. Census Bureau, 2005). This is an example of the overrepresentation of African Americans in special education at that school.

#### *Issues Surrounding Referral for Special Education*

Special education services are intended to provide academic and behavioral intervention to students with disabilities. Federal laws such as the Individuals with Disabilities Education Improvement Act (IDEA, 2004), include guidelines for referral and placement, unbiased assessment procedures and multidisciplinary teams have been put into place to ensure appropriate placement in special education classes.

Referral to special education has been recognized as an important step of the assessment process because large percentages of referred students are tested, and large

percentages of tested students are determined to be eligible for special education services (Ysseldyke & Algozzine, 1983). One study found that about 92% of students who are referred are evaluated, and about 73% of evaluated students are placed in special education (Algozzine, Christenson, & Ysseldyke 1982). Moreover, these rates were reexamined 13 years later and were found to be consistent with earlier results: 90 to 92% of referred students were tested, and 70 to 74% of tested students were determined to be eligible (Ysseldyke, Vanderwood, & Shriner, 1997). Moreover, most referrals are initiated by teachers (Harris, Gray, Rees-McGee, Carroll, & Zaremba, 1987; Hyde, 1975). Thus, regardless of procedural guidelines and safeguards, a classroom teacher's referral decision is probably most responsible for the eventual placement of students into special education programs.

Given that teacher referral is important in determining eligibility, questions have been raised as to whether bias exists in the referral process. It is well established that African American students (Argulewica & Sanchez, 1983; Shinn, Tindal, & Spira, 1987) and males (Riffle, 1983; Robbins, Mercer, & Meyers, 1967; Shinn, Tindal, & Spira, 1987) are referred and placed into special education classes in disproportionate numbers. Additionally questions have been raised about teacher characteristics that influence referral such as teacher efficacy. In many schools there are key teachers who refer students at higher rates than others. Teacher efficacy is one variable that explains the differences.

## **Chapter Two: Review of the Literature**

### Conceptual Framework

Albert Bandura's theory of perceived self-efficacy (Bandura, 1977, 1993) is a usable conceptual framework for studying the impact of individual student characteristics on teacher referral decisions. Bandura was one of the first to provide empirical support for the idea that people can exercise a level of control over their thoughts, feelings, and actions (Bandura, 1993). Perceived self-efficacy refers to "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p.3).

In his theory, Bandura argues that "what people think, believe, and feel affects how they behave" (Bandura, 1986, p. 25). This means that people (i.e. teachers) must believe that their actions can produce the outcomes they desire. If they do not, they will have little motive to act or to persevere in the face of difficulties such as working in unfamiliar situations. Some unfamiliar situations that teachers encounter include working with students who are different. The child may be from a different ethnic background or a different gender.

Persistence of effort is a major component of efficacy. A high level of self-efficacy reflects an individual's strong belief in his or her ability to handle task demands and events, whereas low self-efficacy involves weak beliefs about one's ability to succeed. According to the theory (Bandura, 1986), individuals with a high level of self

efficacy will tend to approach challenging tasks with less anxiety than individuals with a low level of self efficacy.

Self-efficacy beliefs are the result of learning processes. Social relationships play an important role in these learning processes, which are based on four different sources of information (Bandura, 1997; Browers & Tomic, 2000):

- (1) Performance accomplishments, through direct personal experience
- (2) Vicarious experiences that alter efficacy beliefs by watching others performing similar tasks
- (3) Verbal persuasion in which others can guide individuals to believe in their own capabilities and
- (4) Physiological arousal that indicate one's vulnerability to dysfunction.

The routes by which self-efficacy expectations are acquired are presented in order of importance; with performance accomplishments being the most powerful means by which a person may develop judgments concerning their capabilities. Perceptions concerning self-efficacy are constantly influenced by new information from the environment; these perceptions then influence human behavior.

Self-efficacy beliefs also vary along three dimensions (Bandura, 1997; Browers & Tomic, 2000; Maddux, 1995):

- (1) Magnitude, which refers to the level a person believes him or herself capable

of performing

(2) Generality, which refers to the extent to which changes in self efficacy beliefs

extend to other situations and behaviors and

(3) Strength, which refers to the resoluteness of people's conviction that he or she

can perform a behavior in question.

Self-efficacy beliefs may have either a positive or negative influence on behavior. That is, a person's expectations concerning their capabilities may either enhance or inhibit performance. In general, persons with high self-efficacy will seek out those situations in which they feel competent and expect success. They are able to work hard and excel at tasks without doubts. On the other hand, person's with low self-efficacy tend to avoid situations that they believe will exceed their capabilities and tend to perceive the task as more difficult than it really is.

Self-efficacy beliefs influence human functioning through four mediating processes (Bandura, 1997; Maddux, 1995):

(1) they influence the goals that people set for themselves and the strategies

people envision for attaining those goals

(2) They influence the motivation for people to persist in the face of obstacles,

(3) They influence how people feel about themselves when they attempt to reach



their goals, and

(4) They influence the situations people select in terms of challenges.

Self efficacy theory has inspired a tremendous body of research that is applicable to teaching and learning.

### *Teacher Efficacy*

The extent to which teachers believe they can influence how well students learn is referred to as teacher efficacy (Guskey & Passaro, 1994). Teacher efficacy is often considered as either general teacher efficacy or personal teacher efficacy (Ashton & Webb, 1986; Gibson & Dembo, 1984). Teachers' attributing student struggles to external factors such as family violence, substance abuse in the home, the value placed on education in the home and economic factors is referred to as general teacher efficacy (Tschannen-Moran, Woolfolk-Hoy & Hoy, 1998). One would expect that this group of teachers would be less likely to work with students on their own. Personal teacher efficacy is more specific, it refers to the teacher's beliefs about their own abilities to affect student outcomes. This is important because teachers may have a high sense of general efficacy but still doubt their personal ability to perform the necessary activities in order to produce the desired outcome (Ghaith & Shaaban, 1999). Schools have increasingly diverse populations of students (Ysseldyke, Dawson, Lehr, Reschly, & Reynolds, 1997) and teachers must develop tools to work with different types of learners and groups of students. As such, it is important to investigate variables influencing the teacher's beliefs about efficacy increasing the likelihood that students of different ethnicities, gender and ability levels will be encouraged to meet their full potential.

Tschannen-Moran, Woolfolk Hoy and Hoy (1998) proposed an integrated model which reflects the cyclical nature of teacher efficacy. A nice example of this model is when a teacher encounters a situation with a student. If the situation is one in which they were previously unsuccessful, they may be more likely to refer the child to external support rather than trying to deal with a new situation [themselves]. An example of a new situation is working in a new setting with a different population. In this situation low levels of efficacy lead to lower levels of effort and persistence when working with that child, which will lead to a deterioration in the teacher's and potentially the student's performance [which in turn may lead to lower efficacy].

Within this model, teachers' efficacy judgments are the result of the interaction between a personal appraisal of the relative importance of factors that make teaching difficult on the one hand and an assessment of self-perceptions of personal teaching capabilities on the other (Tschannen-Moran et al, 1998). To make these assessments, teachers draw information from four sources: enactive mastery experiences, vicarious experiences, verbal persuasion and physiological arousal. The consequences of teacher efficacy – the goals teachers set for themselves, the effort they put into reaching those goals, and their persistence when facing difficulties influence teachers' performance levels, which in turn serve as new sources of efficacy information (Tschannen-Moran et al, 1998). The cyclical nature of teacher efficacy implies that lower levels of efficacy lead to lower levels of effort and persistence, which lead to a deterioration in performance, which in turn lead to lower efficacy.

Teacher efficacy is important to understand because it predicts a number of student variables (Ross, 1998). Teachers with a high sense of efficacy have a positive attitude about teaching and believe they can influence student learning. Highly efficacious teachers also report improved student outcomes including; higher student achievement (Ross, 1992), and school effectiveness (Woolfolk & Hoy, 1993). Highly efficacious teachers report more positive referral data including; a willingness to provide interventions to students (Fuchs, Fuchs & Bishop, 1992), more success when implementing new programs (Guskey, 1988), fewer student referrals for special education (Meijer & Foster, 1988) and more success with effective classroom management strategies (Woolfolk, Rosoff & Hoy, 1990).

#### Special Education Referral and Teacher Efficacy

The process of identification and referral for intervention of students with special needs can vary in schools, from a very informal process to a very formal one. In many schools, teachers complete a referral form indicating the student's problem, strategies attempted to alleviate the problem and which specialist the teacher feels would be helpful. The specialist presents the form at a weekly or monthly meeting and the form is used to allocate services or prioritize student needs.

In recent years, the process whereby children identified at risk are referred for formal evaluation has changed (MacMillan, Grescham, Lopez, & Bocian, 1996). Before a child is referred for formal evaluation, efforts are made to remedy the child's learning or behavior difficulties in the general education setting. This intermediate step has been called "prereferral intervention" and subsumes a variety of modifications designed to

keep the children in general education (MacMillan et al, 1996). A child moves on to the next step – special education – only when they fail to respond to the interventions provided during the pre-referral stage. The child is then formally evaluated for special education services.

All processes of identification in schools rely on teacher identification and subsequent referral of student needs (Campbell, 2003). Teachers are expected to not only understand the complexity of students' problems but are also expected to refer to the correct specialist or program. However, teachers are not often trained in identification of complex student problems. Beattie (1985) indicated that a vast majority of referred children, up to approximately 85%, are eventually found eligible for special education. More recently, Naquin (1999) also found that teachers referred 6% of students who did not warrant referral. These high referral to placement rates are an indication that changes should be made. One place to start is with the classroom teachers. Why are teachers referring students at such high rates? Is it a lack of training or do teacher beliefs play a role?

As many as three out of four students referred for psycho-educational assessment were identified as in need of special education services, with even higher rates occasionally reported (Shepard & Smith, 1983). After 5 years of federally funded research at the University of Minnesota Institute for Research in Learning Disabilities on assessment and the decision-making process, Ysseldyke, Thurlow, Gladen, Wesson, Algozzine & Deno (1983) concluded:

The special education decision making process is one in which a student is referred, often for vague and subjective reasons; automatically tested, often with technically inadequate devices; usually placed by a team meeting; and is the object of decisions made less on data than on subjective teacher or student variables and on inconsistent and indefensible criteria. (p. 87)

Ysseldyke et al (1983) stated their claim over two decades ago and today the problem persists. Still, a relatively small number of researchers have studied the impact of teacher characteristics on decisions to refer students for special education services. Algozzine and Ysseldyke (1986) have suggested that the teacher's role in referral making is central: "Teachers typically refer students who demonstrate bothersome behaviors in the classroom...and the teacher's reason for referral is a good predictor of subsequent class placement" (p.395). Artiles and Trent (1994) agree that referral for assessment is one of the most important predictors of future special education eligibility because most children referred are eventually placed in special education programs. One suggestion for interpretation of the strong relationship between referral and eligibility is the presence of confirmatory bias (O'Reilly, Northcraft, & Sabers, 1989). This term refers to the tendency of an evaluator to confirm or draw conclusions that align with the teacher's referral request (Hosp & Reschly, 2002).

As noted, there are factors that have a greater impact on special education referral decisions than individual student characteristics (O'Reilly et al, 1989; Hosp & Reschly, 2002). This information implies that the same student may be referred for special

education by one teacher and not another because not all teachers are equally troubled by a given behavior; that is, they demonstrate varying tolerability of problem behavior (Meijer & Foster, 1988). This information also implies that a student may qualify for special education services at one school and not another. Identification of teacher characteristics that differentiate relatively tolerant from intolerant teachers would seem to represent an important step in understanding the referral process.

Research suggests that efficacy beliefs influence teachers' decisions about instructional changes including the use of time and choice of classroom management strategy (Gibson & Dembo, 1984; Woolfolk, Rosoff, & Hoy, 1990). Soodak & Podell (1993) indicate that teacher efficacy is a critical belief underlying teachers' decision making. Regular educators with a greater sense of personal efficacy were more likely to perceive the regular education placement as being appropriate for students having difficulties. Teachers must feel confident in their own teaching and confident in the effects of teaching in general to agree to retain students with problems in regular education.

Teacher efficacy can influence a teacher's behavior regarding choices made, effort expended and perseverance under adverse conditions. Teachers' with low feelings of efficacy (low PTE) usually develop feelings of personal helplessness (Ashton & Webb, 1986). Low PTE teachers can be described as those who are unsure about their own ability to teach low achieving students. Low PTE teachers believe that their low achieving students could learn if they had better teachers. Low PTE teachers are most likely to have low professional self esteem and experience a high degree of stress when

their students perform poorly because they internalize low achievement as their inability to teach these students (Ashton & Webb, 1988). Whether the teacher is high or low in teacher efficacy, the importance of the regular education teachers' determining the need and appropriateness of referral for special education services is paramount (Naquin, 1999).

### The Impact of Gender on Special Education Referral

Males and females comprise equal proportions of the school-aged population but almost two-thirds of children ages 6 through 17 who are served under the Individuals with Disabilities Education Act are male (Office of Special Education Programs, 2001). It is unclear if females are under-identified for special education, if males are over-identified, or if real differences exist in the prevalence of disability between males and females (Office of Special Education Programs, 1998). There is research indicating that commonalities exist among individuals with disabilities, however little recent research has addressed differences based on gender alone.

Further, whereas substantial attention focused on the disproportionate number of African Americans in special education, the even more egregious overrepresentation of male students was overlooked, although a few (Lambert, 1981; Richardson, Katz, & Koller, 1986) have periodically commented on gender differences in identification rates (MacMillan et al., 1996). Lambert, in fact, observed that at the time of the initial Larry P. v. Riles (1971, 1979, 1984) hearing, the enrollment data for the Educably Mentally Retarded category suggested greater sexism than racism. The higher identification rates for males in special education for students who have mild disabilities has been attributed by some to arise from differences in the department of males and females (MacMillan et

al., 1996). In other words, male and female students exhibiting similar low achievement are not equally at risk for referral by their teacher. Rather, the male student who is more inclined to exhibit externalizing behaviors is more likely to be referred by the regular classroom teacher. In the 1960s and early 1970s, such referral almost inevitably led to formal psychological evaluation for special education eligibility (MacMillan et al., 1996).

Wehmeyer & Schwartz (2001) studied the influence of gender in referral for special education through a review of 695 student files. They also suggest that males are not necessarily overrepresented in the special education population but, instead, females who could benefit from special education services are underrepresented, possibly due to gender bias.

A three part theory has been developed to explain the disproportionate representation of males in special education (Wehmeyer & Schwartz, 2001; Office of Special Education Programs, 1998). First, overrepresentation of males is attributable to biological factors suggesting that boys are more vulnerable to disorders that are genetically determined and predisposed to have a specific learning disability. This dissertation will not focus on biology. Second, boys have higher levels of activity overall which makes them more likely to act out or misbehave in classroom settings. Additionally, some suggest that the disproportionate numbers of males in special education is a function of behavioral problems (Wehmeyer & Schwartz, 2001). Third, researchers in gender equity propose that the disproportionate number of males is due to influences of gender bias on the referral, classification, and placement process where bias refers to an inclination toward taking a position or teaching conclusions about a person based on their sex or gender (Wehmeyer & Schwartz, 2001; Office of Special Education



Programs, 1998). It is important to take a closer look by explaining the three parts to this theory to understand the issues involved when attempting to understand why so many male students have been qualified for special education services.

*Behavior.* The role of behavior-both student behavior and teacher perception of behavior in the referral process is the focus of most research addressing male overrepresentation in special education (Andrews, Wisniewski & Mulick, 1997).

Researchers have consistently noted for some time that boys have a more difficult time conforming to school-based expectations for behavior, independent of disability status or disability category. Wehmeyer and Schwartz (2001) suggest that boys are more likely to have higher activity levels and exhibit behaviors that do not conform with classroom regimens. This inability to conform to classroom regimens results in an increased likelihood that teachers will refer boys to special education.

*Bias.* Biases based on stereotypes about gender and gender roles in our society can take many forms, including referral biases (Andrews et al, 1997; Wemeyer & Schwartz, 2001). Gender bias in the classroom comes in many forms including teacher decisions to call on boys more than girls in classroom discussions (Andrews et al, 1997), encouraging more assertive behavior in boys (Andrews et al, 1997), evaluating papers differently based on gender by evaluating boys papers for creativity and girls for neatness (Andrews et al, 1997), and giving boys the time and help to solve problems on their own while helping girls along by simply telling them the correct answers (Andrews et al, 1997). At first glance it is easy to blame individual teachers for their biases. But when critically examined, it appears that teachers tend to hold the same gender biases, expectations and sex role stereotypes that are held by society. Teachers bring these

biases and ideas to the school setting in the same way that others bring them to their workplace.

An additional idea that further compounds the problem of sex role stereotyping is the fact that most teachers are women, especially at the elementary level when most children are initially referred for special education services (Cook & Boe, 1995). Male students may be referred and found eligible for special education at higher rates than female students due to gender differences between male students and female teachers or differences between the dominant school culture and male behavior (Cook & Boe, 1995).

Gender bias in school referral is not a new phenomenon. Gregory (1977) conducted a study where teachers were given identical descriptions of individual children. They found that teachers were more likely to refer boys for evaluation than girls. Similarly, the Office of Special Education Programs (1998) suggest that as long ago as 1976, evidence suggested a bias in teachers' evaluation of students' need for special education based on student's gender.

Although questions still remain concerning the reasons why males are disproportionately represented in special education, it appears that the disproportion is greatest among students with learning disabilities and emotional disturbances (Office of Special Education Programs, 2001). Some argue that assessment tools do not capture internalizing problems such as depression, suicidal ideation or attempts and that female students have higher rates of depression (Oswald, Best, Coutinho & Nagle, 2003). Proponents of this view argue that teachers' have a higher tolerance for withdrawal or depression reducing females' referral for evaluation and eligibility. Female students who

do receive services under the emotionally impaired category usually exhibit externalizing behaviors typically associated with boys (Oswald, Coutinho, Best & Singh, 2003).

One line of inquiry has investigated whether referral decisions by regular classroom teachers are gender biased. Findings from this research are somewhat mixed. Zucker and colleagues (Prieto & Zucker, 1981; Zucker & Prieto, 1977; Zicker, Prieto, & Rutherford, 1979) used vignettes describing hypothetical children and then manipulated their ethnicity and gender when presenting the cases to teachers. Gender was not found to influence teachers' ratings. In a study by Shinn, Tindal, and Spira (1987), however gender biases were presented as plausible explanations for referral behavior of elementary school students with severe reading deficiencies.

#### Overrepresentation of African Americans in Special Education

Despite nearly thirty years of litigation, debate and initiatives (Artiles, Aguirre-Munoz & Abedi, 1998) concern about the overrepresentation of African Americans in special education continues to exist. In 2003, the Individuals with Disabilities Education Act (IDEA) served 9 percent of all U.S. children between the ages of 3 and 21 who were enrolled in public elementary and secondary schools. American Indian/Alaska Native and African American children were more likely than other racial/ethnic groups to receive services under the IDEA. About 12 percent of American Indian/Alaska Native children and 11 percent of African American children received IDEA services in 2003, compared to 8 percent of Caucasian children, 8 percent of Hispanic children, and 4 percent of Asian/Pacific Islander children (NCES, 2005).

The largest portion of students in special education continues to be those identified as having learning disabilities (Office of Special Education Programs, 2001). Robertson, Kushner, Starks, & Drescher (1994) examined the percentage of students with learning disabilities by ethnic group and found that a higher percentage of African American students were identified as having learning disabilities in 10 of the 15 cities that they studied (Robertson et al, 1994). Significant predictors of learning disability identification for African American students were smaller families, a higher perception of social status, and a lower level of family structure or rules (Robertson et al, 1994). Interestingly, factors that did not predict placement within any ethnic group were student perception of school risk and protective factors, parent expectations and behavioral history (Robertson et al, 1994). This information is especially interesting because much of the literature points to behavioral factors when attempting to understand the disproportionate representation of minority students in special education, specifically African Americans.

Artiles and colleagues (1998) described the persistence of disproportionate representation along a continuum ranging from discriminatory professional practices to perceived innate deficits of minority children. They recognized that both problematic eligibility practices and sociopolitical factors such as school violence and school disciplinary practices, may influence disproportionate representation of African American students in special education. Coutinho and Oswald (2000) offered two hypotheses regarding the causes of overrepresentation of minority students in special education helping to explain the idea of problematic eligibility practices mentioned by Artiles and colleagues (1998). The two hypotheses are (1) the processes that are used to

measure and interpret the ability, achievement and behavior of students (i.e. referral, assessment, eligibility) may work differently across ethnic groups, leading to disproportionate representation of African American students (Coutinho & Oswald, 2000); (2) the underlying distribution of educational disability may vary across ethnic groups as a result of social and demographic influences that represent risk factors for disabilities (Coutinho & Oswald, 2000).

The first hypothesis conceptualizes disproportionate representation as a sociopolitical historical problem where public education systems have a cultural bias that incorrectly and disproportionately targets minority students during referral (Artiles & Trent, 1995). This idea suggests that there is a disconnection between home and school that leads to inappropriate teacher referral of African American students.

The second hypothesis is that minority groups may be differentially susceptible to educational disability due to social and demographic factors (Coutinho & Oswald, 2000). Some of the social and demographic factors to consider include poverty, school and community factors, and access to appropriate general education instruction. Oswald et al. (1999) conducted a study and reported that a set of community, and school-related variables accounted for a significant portion of the variability in school districts' identification rates of African American students as having disabilities.

The statistics and literature confirm that overrepresentation of males and African American students in special education is a pervasive problem in our schools. Although it is important to consider the commonalities in the literature it is also important to consider future directions and to make changes to current practices.

The literature suggests that teachers are unwilling to spend excessive amounts of time providing interventions for students (Gutkin, Singer, & Brown, 1980). There is also research demonstrating that teachers are more willing to implement interventions when they are personally involved in the interventions themselves (vs. referring for outside support; Gutkin, 1980; Gutkin, Singer & Brown, 1980). In 2001, 5,775,722 students were eligible for special education services. This represents almost 10% of the total population. (Office of Special Education Programs, 2002). Although these numbers reflect *eligible* students, referral for assessment has been cited as one of the most important predictors of future special education eligibility (Artiles & Trent, 1994) because most children referred are eventually placed in special education programs. One suggestion for interpretation of the strong relationship between referral and eligibility is the presence of confirmatory bias (O'Reilly et al., 1989). This term refers to the tendency of an evaluator to confirm or draw conclusions that align with the referral teams request (Hosp & Reschly, 2002). Although confirmatory bias is a separate line of research, it is important to understand teachers' reasons for referring students prior to the evaluation phase.

One reason that students are referred for evaluation is the teacher's feelings of efficacy for working with that particular student. When teachers' do not feel efficacious, they will make arrangements to avoid that particular student (Guskey, 1988). This can be done by referring the student to special education or by removing the student from the classroom. However it is important to note that teachers may not even be aware of the motivation for their decisions to refer. Teachers' feelings of efficacy can be addressed

with changes in training. It is important that teachers are armed with the knowledge and skills to work with diverse groups of students.

### *Summary*

In theory, special education was conceived to provide much needed educational support that was not being provided in general education for students with disabilities. In its original and subsequent conceptualization, special education was not a place or location but rather a service delivery structure (Blanchett, Mumford, & Beachum, 2005). For many African Americans and males, special education has become a place that looks like a form of segregation from the mainstream. These children are educated in classrooms that are separate from their peers and often do not interact with the general population of students.

The overuse of special education for African Americans and males constitute a serious problem demanding remediation. Race and gender are characteristics of students that cannot and will not change. The literature on teacher efficacy however suggests a strong relation between teacher efficacy and teachers' decisions to refer students to special education (Soodak & Podell, 1993; Soodak & Podell, 1994; Lehman, Soodak, & Podell, 1998) and this is a trait that can change. If teachers are provided with experiences where they interact with culturally, ethnically, linguistically and academically diverse groups of children during their early years of teaching, they will have positive experiences as sources of efficacy information for the future.

### **Research Questions and Hypotheses**

*Question One: Is teacher efficacy related to teacher decisions to refer?*

I hypothesize that teacher feelings of efficacy is related to teacher decisions to refer students for special education services.

*Question Two: Are student characteristics such as student race and gender related to teachers' decisions to refer students?*

First, I hypothesize that teachers will refer African American students at higher rates than Caucasian students.

Second, I hypothesize that teachers will refer male students at higher rates than female students. I expect that African American males will be referred at higher rates than all other students.

*Question Three: Are years of experience related to their decision to refer students for special education services?*

I expect that teachers with more experience will refer students at higher rates when compared to teachers with less experience.

*Question Four: Do student characteristics such as race and gender moderate the relationship between teacher efficacy and teacher's decisions to refer?*

I expect that teacher ratings of efficacy will be related to their decisions to refer students for special education services. I hypothesize that teachers' with high ratings of efficacy will be less likely to refer students based on the race and gender of the student when compared to teachers' with low ratings of efficacy.



### **Chapter Three: Methodology**

This dissertation examines how referral for special education has an influence on non-academic factors. Specifically, the study examines the influence of student and teacher characteristics. The student characteristics that were examined included race and gender. I also examined the influence of teacher beliefs on teacher decisions to refer students for special education services.

Data were collected using an experimental case study methodology where conditions of student demographic characteristics were manipulated. The case study method was selected for a variety of reasons. First, case study methodology had been used in the previous teacher efficacy literature (Gregory, 1977; Soodak & Podell, 1993). Soodak and Podell (1993) investigated regular and special educators who were assigned a case study describing a 3<sup>rd</sup> grade student. The case studies were identical except for changes in the suggested etiology of the student's academic difficulties and socio economic status (Soodak & Podell, 1993). After reading the case study, teachers were asked the degree to which they agreed with the student's current placement in a regular class and the decision to refer the student to special education. The second reason that case study methodology was chosen is because it enabled the researcher to manipulate a single variable while leaving everything else in the case study untouched.

#### *Participants*

Participants were recruited by contacting faculty administrators in two programs in the College of Education at a Midwestern university. After an email contact was made, the investigator sent a description of the study to each administrator. The information was presented at a staff meeting for approval. Approval was received.

Sample size was calculated using Tabachnick and Fidell's formula (1996). The formula is:  $N > 50 + 8m$  ( $m$  = number of independent variables). Thus, I needed at least  $50 + 8(5)$  or 90 participants. However once data collection was initially collected the 90 participants did not provide enough power for the analysis. As such, additional participants were recruited. There were 248 participants in the total sample providing additional power to the analyses. Demographic information regarding participants is located in the results section of this dissertation.

*Preservice Teachers.* Preservice teachers were recruited for this study because I was interested in understanding how student characteristics impacted teachers' referral decisions. Since the majority of the teacher efficacy literature utilizes preservice teachers I decided to include preservice teachers as participants. In addition, I hypothesized that the teachers' level of experience would impact their perceptions.

All of the participants in the study were students who attended the large university in the Midwest. All of the students were enrolled in courses in the College of Education. Some of the preservice teachers were full time students majoring in Education and others were taking the course as an elective. This sample included 179 teachers (72% of the entire sample).

*Experienced Teachers.* This group of teachers included teacher education students in the Master of Arts in Education program at the same university. This group was included because I expected that they would view students differently compared to the preservice teachers' who did not have experience working in a school. There sample included 64 teachers with experience (26% of the entire sample).

## Procedures

Data collection included a number of steps and procedures. Steps included pilot testing and revising the case study. Further steps included gaining the dissertation committee and the University Committee on Research Involving Human Subjects (UCRIHS) approval. Then, data collection commenced followed by data entry into an SPSS data set.

First, the study included a case study that was pilot tested with expert readers in the School Psychology program at Michigan State University. These readers were selected because they were accessible to the researcher and because they are familiar with research and case study methodology. The readers were asked to read each case study and to provide feedback regarding its clarity and the socio economic status (SES) of the student in the case study. Although the present investigation did not focus on SES, the data were intended to be considered in post-hoc analyses. The readers were asked “Is the case study clear? What is the SES of the student in the case study?” The experts were in 100 percent agreement about the clarity and the socio economic status of the students in the case studies.

*Information Distribution.* After final UCRIHS approval, two sets of packets were developed, one packet for the students attending classes on campus and one set for students attending classes in an online classroom. Two separate sets of packets were needed because the students in the online programs did not have direct access to the investigator. These students had additional directions added to their packets.

*Teacher Procedures*

Instructors of the preservice teacher education courses were contacted during the summer and fall months. They were asked to respond if they were willing to have the investigator come to their classroom at the end of the class period. The investigator presented information to students about the purpose of the dissertation and the need for their participation. The students were assured that the dissertation was completely separate from their course grade and that their participation was voluntary. The students who agreed signed consent and completed all measures. Most participants were recruited through this method. There was only one participant that participated from the online program.

The set of packets were taken to classrooms for distribution. Included in each packet were the Teacher Consent Letter (Appendix One), the Teacher Letter (Appendix Two), Teacher Information Questionnaire (Appendix Three), and one of the eight Case Studies (Appendix Four through Appendix Twelve). These forms were placed in a manila envelope. The envelopes were passed out to participants in random order to control for order effects. The investigator waited in each classroom until each participant completed and returned the packets. On average, the investigator spent 20 minutes collecting data in each classroom.

### *Online Participants*

A second set materials were developed for participants who participated in an online format. The materials were similar to the ones for preservice teachers with the exception of a welcome letter (Appendix 13). Instructors for each course were contacted and a brief description was placed on the course website. Six online packets were sent through the university email system as a Word attachment to the identified students. A

follow up email was sent to the five participants who did not respond 3 days after the packets were sent. The follow up email served as the first reminder to turn in all materials in a timely fashion. A second reminder email was sent to the same five participants 1 week after the packets were emailed. None of the participants responded to the second reminder. As a result they were not included in the study. The one online participant responded to the study within one week.

### *Measures*

*Teacher Decisions to Refer to Special Education.* The predictor variable was measured by four questions. The participants were asked to respond on a 4 point Likert type scale. They circled a one for “definitely not” and four for “definitely would”. The questions were: (a) How likely would you be to continue to work with this student in the regular education classroom? (b) How likely would you be to refer this student for assistance outside of the classroom for special education services? (c) In your opinion (as the regular classroom teacher), is this student a candidate for special education? (d) Would this student receive a better education in a special education classroom with a special education teacher? The questions were summed for the analysis of the research questions. After examining the psychometric properties of the scale, the first question (a) was dropped. Dropping the first question increased the alpha level of the scale. Each of the remaining three questions were summed to make the scale. As such, there were a total of 12 possible for each participant. This method is slightly different from the current literature in that the previous literature examining teacher referral decisions utilized a one item question to determine teacher decisions (Soodak & Podell, 1993).

*Case Study.* Teachers read a case study of 196 words describing a 3<sup>rd</sup> grade student who, although generally well behaved, was having significant academic difficulty in reading and was unable to concentrate. The case study included a brief description of the special education process. The description was: “There is a continuum of help available for students with problems. Teachers can do everything from working with the student themselves to referring them to specialists including special education”. The purpose of the description was to give all participants a similar definition on which to draw conclusions about the students in the case studies.

The case studies were identical except for variations in the race, gender and socio economic status (low or high) of the child. In the low socio economic status (SES) condition, subjects read that the student’s father and mother were unemployed and that the student lived in a housing development. In the high SES condition, the student’s father and mother were described as an executive at a local firm and a doctor, respectively.

*Teacher Efficacy Scale.* Teachers’ sense of efficacy was measured through the shortened version of the Gibson and Dembo short form Teacher Efficacy Scale (Gibson & Dembo, 1984) adapted by Woolfolk and Hoy (1993). This scale consisted of personal teacher efficacy (PTE) and general teacher efficacy (GTE) items as well as the two original Rand items. The original RAND items come from the first measure of teacher efficacy. At that time teachers’ efficacy scores were based on their answers to the two items only. For the present study, the PTE and GTE items were selected because they had the highest factor loadings in the earlier research. Example GTE items are: “If students aren’t disciplined at home, they aren’t likely to accept any discipline” and “If

parents would do more for their children, I could do more.” Example PTE items are: “If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson” and “When I really try, I can get through to most difficult students.” Participants responded to 16 six-point agree/disagree statements on a Likert-type scale. Nine statements dealt with personal teaching efficacy and the remaining seven dealt with general teaching efficacy. For both of the dimensions, the higher the score (the closer to 6), the more efficacious. Factorial validity of the scale has been established by two factors that are linked to Bandura’s two-factor model of self-efficacy (Bandura, 1986). Internal consistencies (coefficient alpha reliabilities) were 0.80 for the personal teaching efficacy factor, and 0.68 for the general teaching efficacy factor.

*Teacher information questionnaire.* Teachers in the study completed an 8-item questionnaire that was used for this study. The questions on this measure assessed the teacher’s education, experience, attitude toward inclusion, and general demographic information. Demographic information pertaining to participants’ current educational status (undergraduate or graduate student), intended major and year (for preservice teachers), grade level taught (for graduate students), teacher race or ethnicity, teacher gender, teacher education level and school location were also collected from the participants.

### *Data Analyses Plan*

*Question One: Is teacher efficacy related to teacher decisions to refer?*

The relationship between teacher efficacy and teacher referral decisions was analyzed by running a correlation between teacher efficacy and the question at the end of

the case study. I expected to find that personal teacher efficacy was negatively related to the teacher's decision to refer, and general teaching efficacy was positively related to teacher's decision to refer students for special education services.

*Question Two: Are student characteristics such as student race and gender related to teachers' decisions to refer students?*

The analysis for the second research question required an analysis of variance (ANOVA). First, I hypothesized that teachers would refer African American students at higher rates. Second, I hypothesize that teachers will refer male students at higher rates.

*Research Question #3: Are years of experience related to their decision to refer students for special education services?*

The third research question was analyzed with an ANOVA to determine the difference between the level of experience reported by teachers and their decisions to refer students for special education services.

Two groups were created for this analysis (1) preservice teachers with no teaching experience and (2) experienced teachers with working experience in the teaching profession. I expected to find that teachers with experience would refer students at higher rates when compared to teachers without experience.

*Question Four: Do student characteristics moderate the relationship between teacher efficacy and teacher's decisions to refer?*

A t-test between groups was utilized for analyzing the present hypothesis. For this question I was trying to determine the relationship between general and personal teaching efficacy and the teacher's decisions to refer students. This was accomplished in two steps. First, the teacher efficacy questionnaire was divided into two including (1) a



recoded variable for personal teacher efficacy to include teachers' with ratings both above and below the mean and (2) recoded variables for general teacher efficacy to include teachers' with ratings both above and below the mean. The purpose of this step was to separate teachers' with high and/or low ratings of both personal and general teacher efficacy and to analyze the influence of the teacher ratings of students in each case study based on the race and gender of each student.

The second step included running independent t tests on each variable. There were two variables for each of the four groups (1) high personal teacher efficacy and race (2) low personal teacher efficacy and race (3) high personal teacher efficacy and gender (4) low personal teacher efficacy and gender (5) high general teacher efficacy and race (2) low general teacher efficacy and race (3) high general teacher efficacy and gender (4) low general teacher efficacy and gender. I hypothesized that teachers' with high ratings of personal teaching efficacy would be less likely to refer students based on their race and gender.

### *Summary of the Methods*

Case study methodology was used to examine how the characteristics of the student and the teacher influence referral decisions. First, UCRIHS approval was sought. Following scale development and UCRIHS approval, pre service teachers' were recruited from Michigan State University. The independent variables were written into the case study. The student characteristics including race, gender and socio economic status were supplied in the case study. Again, I expected that student characteristics would be related to teacher decisions to refer.

Participants were recruited by contacting faculty in two teacher preparation program courses in the College of Education. After an email contact was made, the investigator sent a description of the study to each administrator. The administrator then presented the information at a staff meeting for approval.

Following pilot testing and program assent, University Committee on Research Involving Human Subjects (UCRIHS) approval was obtained.

## Chapter Four: Results

This chapter includes two sections. First the descriptive statistics are presented and then the psychometric properties of the measures are detailed. In the second section, the four hypothesis are examined using correlations, t-tests, and Analysis of Variance (ANOVA).

### *Descriptive Statistics*

Descriptive statistics were computed for the entire sample. The participants were representative of the population at the university. The sample was 82.8% Caucasian (N=217), 3.1% African American (N=8), 1.9% Hispanic (N=5), 2.3% Asian (N=6), .8% Middle Eastern (N=2) and .4% Native American (N=1) and .4% of the sample reported being of mixed race or bi-racial (N=1). Some participants did not report their race.

The total sample was 74.4% female (N=195) and 16.8% male (N=44). Some participants chose not to report their gender.

The participants reported the highest degree obtained. The majority of the sample reported that they were college undergraduate students (N=171). A summary of these data is available in Table 1.

Table 1

Summary of Respondents Level of Education Obtained

Education Level Obtained	Number	Percentage of Sample
High School	171	69
B.A.	33	13.3

Table 1 Continued

B.S.	24	9.7
M.A.	14	5.6
Ph.D.	3	1.2
Lifelong Learner	2	.8
Missing	1	.04
Total	248	100

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Students at the university were classified as Lifelong Learners if they attended the University but were not pursuing a University degree.

The sample included students who were not currently teaching (71.7%) There was 1 substitute teacher in the sample. This participant's data was included in the analysis of experienced teachers. Experienced was defined as any participant with 1 year or more of teaching experience. Preservice was defined as a participant with an undergraduate classification in the College of Education. None of the preservice participants reported ever teaching in a school.

Respondents provided information about the number of years of teaching experience. A large percentage of the teachers' reported teaching from 1 to 3 years (20%). Fifty participants reported having 4 to 6 years of teaching experience. Six participants reported having 7 to 18 years of teaching experience. A summary of these data are presented in Table 2.

Table 2

Summary of Respondents with Teaching Experience

Education Level Obtained	Number	Percentage of Sample
1 to 3 years	46	18.5%
Table 2 Continued		
4 to 6 years	13	5.2%
7 to 18 years	6	2.4%
No Experience	183	73.8%
Total	248	100%

*Preservice Teachers*

Preservice teachers were recruited from an introductory teacher education course. None of the teachers had experience in the teaching profession. The sample included 179 preservice teachers (72% of the total sample). Most of the preservice teachers were Caucasian (86%) although teachers from a range of racial and ethnic groups participated. In particular, 3.9% of the sample was African American (N=7), 1.7% of the preservice teachers were Asian (N=3), 1.1% of the sample was Middle Eastern (N=2) and .6% of the preservice teachers reported “other” (N=1). Eight of the preservice participants chose not to report their race.

The preservice sample included mostly female students (N=135, 75.4%). There were 37 male students in this portion of the sample (20.7%). The gender makeup of the sample was reflective of the university teacher education program. Two participants chose not to report their gender. The gender makeup was also representative of the previous research on teacher efficacy.

The preservice teachers reported information about their class level and majors. There were eight participants that reported their class as “undergraduate” rather than detailing their specific class level. Some of the students reported that they were unsure of their major, especially the students who were freshman. Six preservice teachers reported Special Education as their major (3%). All of these data are detailed in Table 3.

Table 3

Descriptive Data for Preservice Teachers

	Number (N)	Percentage of Pre Service Teachers	Percentage of Entire Sample
School Yr.	59 Freshman	33% Freshman	23.8% Freshman
	60 Sophomore	33.5% Sophomore	24.2% Sophomore
	27 Junior	15.1% Junior	10.9% Junior
	33 Senior	18.5% Senior	13.3% Senior
Race	153 Caucasian	85.5% Caucasian	61.7% Caucasian
	7 African American	3.9% African American	.2% African American
	3 Asian	1.7% Asian	.1% Asian
	5 Hispanic	2.8% Hispanic	.2% Hispanic
	1 Middle Eastern	.6% Middle Eastern	<.1% Middle Eastern
	1 Other	.6% Other	<.1% Other
Gender	135 Female	75.4% Female	54.4% Female
	37 Male	20.7% Male	14.9% Male
SE Major	6	3%	.2%

### *Experienced Teachers*

The experienced teachers were recruited from Masters level courses. A majority of the experienced sample was Caucasian (92.2%; N=59) although teachers from a range of racial and ethnic groups participated. In particular, 1.6% of the experienced teachers were African American (N=1), 1.6% of the experienced teachers were mixed with African American and Caucasian ancestry (N=1), 2.8% of the sample was Hispanic and 4.7% of the experienced teachers were Asian (N=3). Most participants reported their race.

The sample of experienced teachers included mostly female students (87.5%; N=56). There were six male students in this portion of the sample (9.4%). Some experienced teachers chose not to report their race.

The experienced teachers reported information about the classes that were teaching currently. The majority of the sample taught students in General Education classrooms. Others reported that they were Special Education teachers (N=7). All of these data are detailed in Table 4.

Table 4

Descriptive Data for Experienced Teachers

	Number (N)	Percentage of Experienced Teachers	Percentage of Entire Sample
School Yr.	27 B.A.	42.2%	
	20 B.S.	31.3%	
	14 Masters	21.9%	23%
	3 Doctoral	4.7%	24%
Race	59 Caucasian	92.2%	72.4%

Table 4 Continued

	1 African American	1.6%	.04%
	3 Asian	4.7%	.01%
	1 Mixed Race	1.6%	.01%
Gender	56 Female	87.5% Female	23% Female
	6 Male	9.4% Male	.02% Male
SE Major	7	11%	.03%

#### Measure Preparation

The first aim of this study was the creation and validation of the Teacher Efficacy Measure. Pearson correlation coefficients were calculated for the scale items. This procedure determined the strength and direction of linear relationships between the two variables. The two variables are General Teacher Efficacy and Personal Teacher Efficacy (Gibson & Dembo, 1984; Woolfolk & Hoy, 1993).

The Teacher Efficacy scale was used for this study. Two dimensions in this scale emerge, Personal Teacher Efficacy (PTE) and General Teacher Efficacy (GTE). Factorial validity of the scale has been established by two factors that are linked to Bandura's two-factor model of self-efficacy (Bandura, 1986). Internal consistencies (coefficient alpha reliabilities) were 0.80 for the personal teaching efficacy factor, and 0.68 for the general teaching efficacy factor. Please refer to table 5.



Table 5

Summary of Reliability of Measures

	Scale Title	Number Of Items	Published Reliability	Study Reliability
Existing Measures				
Teacher Efficacy	PTE	5	.80	.80
Teacher Efficacy	GTE	5	.68	.68
Teacher Referral	Referral	3	N/A	.71

(Not a published scale)

The second aim of this study was the creation and validation of questions at the end of each case study. After an analysis of each question, I decided to drop the first question, “How likely would you be to continue to work with this student in the regular education classroom”. The purpose of the measure was to assess the likelihood of the student being referred to special education. This question appeared to be redundant. The psychometric properties of the scale were measured with Cronbach’s alpha. Cronbach's alpha measures how well a set of items (or variables) measures a single unidimensional latent construct. When data have a multidimensional structure, Cronbach's alpha will usually be low. Cronbach’s alpha for the three case study questions (a,b, and c) was .71. The widely-accepted social science cut-off is that alpha should be .70 or higher for a set of items to be considered a scale.

Originally there were 8 case studies describing a (1) poor Caucasian male (2) wealthy Caucasian male (3) poor Caucasian female (4) wealthy Caucasian female (5) poor African American male (6) wealthy African American male (7) poor African American female and (8) wealthy African American female. Because socio economic

status was not a variable examined by this dissertation the case studies were combined. I combined case (1) and (2) to reflect a Caucasian male; case (3) and (4) to reflect a Caucasian female, case (5) and (6) to reflect an African American male and cases (7) and (8) to reflect an African American female. Please refer to Table 6 for descriptives detailing the number of participants that completed each case study.

Table 6

**Descriptive Statistics for Case Studies**

Case	Frequency	Percent
Caucasian male	63	25.4
Caucasian female	64	25.8
African American male	59	23.8
African American female	62	25
Totals	248	100

**Analysis of Research Questions and Hypotheses**

*Question One: Is teacher efficacy related to teacher decisions to refer?*

The relationship between teacher efficacy and teacher referral decisions was analyzed by running a correlation between teacher efficacy and the question at the end of the case study regarding special education referral choices. The analysis was run with the two separate dimensions of teacher efficacy, general teacher efficacy and personal teacher efficacy.

General teaching efficacy was significantly correlated with teacher referral decisions ( $r=-.149, p<.05$ ). General teaching efficacy refers to the teachers attributing student difficulties to external factors, outside of the teacher’s control. The negative

correlation suggests that teachers with high ratings of general teaching efficacy were less likely to refer students for special education assistance and more likely to work with the student in the general education classroom setting.

Personal teaching efficacy was significantly correlated with teacher referral decisions ( $r=.292, p<.001$ ). The positive correlation suggests that teachers with high ratings of personal teaching efficacy were more likely to refer students for special education services. Personal teaching efficacy refers to the teacher's beliefs about their own abilities to affect student outcomes. The details of this analysis are provided in Table 7.

Table 7: Correlations Between Measures for the entire sample

Measure	1	2	3
1. General Teacher Efficacy	-----	-.014*	-.023*
2. Personal Teacher Efficacy		-----	.000**
3. SE Referral			-----

\* significant at the .05 level

\*\* significant at the .01 level

An additional analysis was used to determine the relationship between the two Teacher Efficacy factors, special education referral decisions and the two groups of teachers (preservice and experienced). The additional analysis required some variable recoding. A variable was recoded to separate the preservice from the experienced teachers. Participants who were recruited from the undergraduate, preservice teaching class were classified as inexperienced teachers. The participants who were recruited from the graduate courses were classified as experienced teachers.

Significant correlations were noted for preservice teachers. Personal Teacher Efficacy was significantly correlated with preservice teacher referral decisions ( $r=.250$ ,  $p<.001$ ). The positive correlation suggests that preservice teachers with high ratings of personal teaching efficacy were more likely to refer students for special education services. Significant correlations were also noted between general teacher efficacy and personal teacher efficacy ( $r=-.158$ ,  $p<.05$ ). Table 8 is provided to display the results of the correlations between the three variables.

Table 8: Correlations Between Measures for Preservice Teachers

Measure	1	2	3
1. General Teacher Efficacy	-----	-.158*	-.131
2. Personal Teacher Efficacy		-----	.250**
3. SE Referral			-----

\* significant at the .05 level

\*\* significant at the .01 level

No significant correlations were noted between the three variables when the analysis was run with experienced teachers only. The results are displayed in Table 9.

Table 9: Correlations Between Measures for Experienced Teachers

Measure	1	2	3
1. General Teacher Efficacy	-----	-.084	-.173
2. Personal Teacher Efficacy		-----	.228
3. SE Referral			-----

## Table 9 Continued

\* significant at the .05 level

\*\* significant at the .01 level

To gain additional information, I examined the means and standard deviations of all three variables. Results suggest that the experienced teachers rated themselves higher in general teaching efficacy ( $M=18.4$ ,  $SD=4.6$ ) compared to the preservice teachers ( $M=17.6$ ,  $SD=4.1$ ). The preservice teachers rated themselves higher in personal teaching efficacy ( $M=12.7$ ,  $SD=3.8$ ) compared to the experienced teachers ( $M=10.1$ ,  $SD=3.3$ ). Overall, the preservice teachers were slightly more likely to refer students for special education services ( $M=6.9$ ,  $SD=2$ ) compared to the experienced teachers ( $M=6$ ,  $SD=1.4$ ). A high score on the referral scale means that teachers were more likely to refer the student in the case study for special education services.

*Question Two: Are student characteristics such as student race and gender related to teachers' decisions to refer students?*

The analysis for the second research question required a two way Analysis of Variance (ANOVA). I analyzed racial differences by utilizing 'decision to refer' as an outcome variable and race as the grouping variable.

The race of the student in the case study was not related to teacher referral decisions ( $F(1,241) = .266$ ,  $p = .606$ ). An examination of the means shows that teachers rated the African American students ( $M=6.69$ ,  $SD=1.71$ ) similarly when compared to the Caucasian students ( $M=6.56$ ,  $SD=2.08$ ). The African American students had a slightly higher referral rate but not high enough to gain significance.

The gender of the student in the case study was not related to teacher referral decisions ( $F(1,241) = .526, p = .469$ ). The mean referral rating for the male students ( $M = 6.7179, SD = 1.91$ ) was slightly higher than the mean referral rating for female students ( $M = 6.54, SD = 1.89$ ).

Due to the lack of significance, a three way ANOVA was utilized to gain more information. Interestingly, the race of the student in the case study had an impact on referral decisions when socio economic status was included in the formula. The interaction is provided below in Table 10.

Table 10: ANOVA – Do student characteristics influence teacher referral decisions?

	SS	df	Mean Square	F	Sig
Corrected Model	2.871 a	7	.410	1.289	.256
Intercept	1049.723	1	1049.723	3299.302	.000
Student race	.112	1	.112	.352	.553
Student gender	.074	1	.074	.233	.630
Student SES	1.036	1	1.036	3.257	.072
Student race+	.050	1	.050	.156	.693
Student gender					
Student race+	1.502	1	1.502	4.719	.031
Student SES					
Student gender +	.016	1	.016	.052	.820
Student SES					
Student race+	.051	1	.051	.162	.688
Gender+SES					
Error	76.041	239	.318		

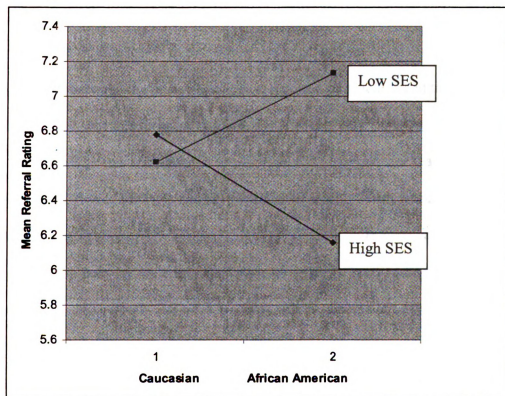
Table 10 Continued

Total	1128.682	247
Corrected Total	78.913	246

---

The African American students who were described as having a low socio economic status were referred at higher rates. Please refer to Figure 1.

Figure 1: Interaction between student race and student socio economic status



Lastly, the gender of the teacher had a slight influence on the teachers decision to refer students for special education services ( $F=2.337$ ,  $p=.074$ ). Male teachers were more likely to refer students for special education services ( $M=6.91$ ,  $SD=2.03$ ) compared to female teachers ( $M=6.52$ ,  $SD=1.86$ ), with  $p < .10$ . Please refer to Table 9.

Table 11: ANOVA – Does the gender of the teacher influence teacher referral decisions?

	SS	df	Mean Square	F	Sig
Between Groups	25.105	3	8.368	2.337	.074
Within Groups	823.580	230	3.581		
Total	848.685	233			

*Research Question #3: Are years of experience related to decisions to refer students for special education services?*

The third research question was analyzed with an ANOVA to determine the difference between the level of education reported by teachers and their decisions to refer students for special education services.

Two groups were created for this analysis (1) preservice teachers with no teaching experience (M=6, SD=1.4) and (2) experienced teachers with working experience in the teaching profession (M=6.8, SD=2). Results of the ANOVA reveal a significant relationship between the current teaching status of the participant and the teacher's referral decision (F (1, 238)=8.5, p=.004). The teachers with experience in the profession were more likely to refer students for special education services. See Table 12 for results of the analysis.

Table 12: ANOVA – Does the years of experience reported by the participant influence referral decisions?

	SS	df	Mean Square	F	Sig
Between Groups	29.395	1	29.395	8.509	.004*
Within Groups	822.204	238	3.455		



Table 12 Continued

Total	851.599	239
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*Question Four: Do student characteristics moderate the relationship between teacher efficacy and teacher's decisions to refer?*

A t-test between groups was utilized for analyzing my hypothesis that teachers with high efficacy would be less likely to be affected by gender and racial characteristics when determining whether or not to refer a child for potential special education services. For this question I attempted to determine the relationship between general and personal teaching efficacy and the teachers' decisions to refer students of different genders and races. This was accomplished in two steps. First, teachers were coded as being either high or low in terms of general teaching efficacy, and either high or low in terms of personal teaching efficacy. The mean rating for general teacher efficacy was (M=17.7836, SD=4.25) and the mean rating for personal teacher efficacy was (M=11.9811, SD=3.83). These means were the cut-points used to define a teacher as either high or low in terms of general and personal efficacy. The purpose of this step was to separate teachers with high and/or low ratings of both personal and general teacher efficacy so that I could then examine whether there were differences in referral by race and gender within the high and low efficacy groups.

The second step included running independent t tests to examine differences by race and gender within each efficacy group. The analyses run are highlighted below:

- (1) differences in referral by race within the high personal teaching efficacy group
- (2) differences in referral by race within the low personal teacher efficacy group
- (3) differences in referral by gender within the high personal teacher efficacy group
- (4)

differences in referral by gender within the low personal teacher efficacy group (5) differences by race within the high general teacher efficacy group (6) differences by race within the low general teacher efficacy group (7) difference by gender within the high general teacher efficacy group (8) differences by gender within the low general teacher efficacy group.

Significant results were found between teachers who rated themselves high in general teacher efficacy and student race ( $t=1.7(113)$ ,  $p=.05$ ). Teachers who felt that external factors had a larger impact than their own teaching were more likely to refer African American students for special education services. Differences in means were noted between teachers with low ratings of general teacher efficacy and referral decisions based on student race. However the differences were not significant. Teachers with low ratings of general teacher efficacy were slightly more likely to refer Caucasian students for special education services ( $M=7.1$ ,  $SD=2.2$ ) compared to African American students ( $M=6.8$ ,  $SD=1.7$ ).

Teacher with high ratings of personal teacher efficacy were slightly more likely to refer African American students ( $M=6.3$ ,  $SD=1.5$ ) compared to Caucasian students ( $M=6.0$ ,  $SD=2.1$ ). Teachers with low ratings of personal teaching efficacy were equally likely to refer African American students ( $M=7.1$ ,  $SD=1.9$ ) and Caucasian students ( $M=7.1$ ,  $SD=1.6$ ).

Slight differences in means were noted when analyzing the impact of student gender and teacher efficacy ratings on decisions to refer students for special education services. Teachers with low ratings of personal teacher efficacy were slightly less likely to refer male students ( $M=6$ ,  $SD=1.9$ ) compared to female students ( $M=6.3$ ,  $SD=1.7$ ).

Teachers with high ratings of personal teacher efficacy referred boys ( $M=7$ ,  $SD=1.6$ ) and girls ( $M=7.1$ ,  $SD=1.9$ ) at similar rates. Teachers' with high ratings of general teacher efficacy were less likely to refer male students ( $M=6.1$ ,  $SD=1.7$ ) than female students ( $M=6.5$ ,  $SD=1.6$ ). Teachers with low ratings of general teacher efficacy were more likely to refer female students ( $M=7.0$ ,  $SD=2.1$ ) than male students ( $M=6.8$ ,  $SD=1.9$ ).

## **Chapter Five: Discussion**

This study is an important addition to the current literature on teacher efficacy and special education referral practices. This study is unique for two reasons. First, this study compares two different groups of teachers, those with experience and those without experience. The students without teaching experience were labeled preservice teachers. The majority of the literature in this area has been conducted with preservice teachers who have never taught in their own classrooms (Shavelson & Borki, 1979; Soodak & Podell, 1993; 1997). Second, this study investigates the impact of a student's race and gender on teacher referral decisions through case study methodology. Case study methodology has been utilized previously (Gregory, 1977; Soodak & Podell, 1993) but no studies were identified that have manipulated race and gender variables to understand special education referral decisions.

### Teacher Efficacy as a Predictor of Special Education Referral

The results support previous studies suggesting that teacher efficacy is a significant predictor of referral (Gibson & Dembo, 1984; Woolfolk et al, 1990; Soodak & Podell, 1993; Soodak & Podell, 1997). Interestingly, when utilizing the two dimensions of teacher efficacy as suggested by Tschannen-Moran, Woolfolk Hoy & Hoy (1998), the present study provides results that are startling at first glance.

As noted, there are two dimensions of teacher efficacy, general teacher efficacy and personal teacher efficacy (Ashton & Webb, 1986; Gibson & Dembo, 1984). General teacher efficacy refers to the teachers' beliefs about the power of external factors compared to the influence of teachers and schools (Tschannen-Moran, Woolfolk-Hoy &

Hoy, 1998). External factors are those that the teacher has no control over. External factors noted in the case studies used include student race, gender and socio economic status.

It was expected that teachers with high ratings of general teacher efficacy would refer students to special education at higher rates than teachers with high ratings of personal teacher efficacy. In other words it was hypothesized that teachers attributing student struggles to external factors would be less willing to work with the student in the case study in the general education classroom (Tschannen-Moran, 1998). These [high general teacher efficacy] teachers were expected to refer the student in the case study for special education services. Similarly, teachers with high ratings of personal teacher efficacy were expected to continue working with the student in the case study. It was expected that teachers with high ratings of personal teacher efficacy would assume personal responsibility for the students and retain students with problems in their classrooms. Interestingly, the opposite result was found. For the present sample, teachers with high ratings of general teacher efficacy were less likely to refer students for special education services. Initially, this result appears strange. However when noting the differences between the present sample and the existing literature, the result gains clarity.

The present sample contains both teachers with experience and teachers without experience. An analysis of the data revealed that the teacher's level of experience had an impact on their decision making. The participants with high ratings of general teacher efficacy in the present sample are different from the participants with high ratings of

general teacher efficacy in the previous literature based on demographics alone. Most of the teachers with high general teaching efficacy ratings were experienced teachers. The experienced teachers may have felt that external factors were more powerful than the school overall, but their education and level of experience suggest that they also know that these factors do not necessarily make a student a good candidate for special education referral. This may be why experienced teachers in the present sample were less likely to refer students for special education services. As the general education teacher they may have known that it was still their responsibility to work with the student in the general education setting causing them to retain the student and work with them personally.

Similarly, teachers reporting high ratings of personal teacher efficacy behaved differently than hypothesized. Personal teacher efficacy refers to the teacher's beliefs about their own abilities to affect student outcomes. Teachers in the sample who reported high ratings of personal teacher efficacy referred students for special education at higher rates when compared to those with high ratings of general teacher efficacy. Again, this may be a function of the sample. The majority of teachers in the sample were preservice teachers. When analyzed separately, the preservice teachers provided higher ratings of personal teacher efficacy. This was expected. Preservice teachers have fewer mastery experiences to draw from when working with students. As a result, they are more likely to take personal responsibility for their students.

The sample was not only unique in their level of experience but it is also important to note that five percent of the participants were students majoring in special

education. These students have specialized knowledge regarding the referral process and when it *is* and is *not* appropriate to refer students for special education services. Most notably, the present study provided a description of the referral process prior to asking the participants to make a decision. This was not done in previous studies. The description explained the special education referral process as a continuum of help available for students with problems. It goes on to state that teachers can do everything from working with the student themselves to referring them to specialists including special education. It is possible that some teachers read the description and understood that referring a student for special education referral does not necessarily mean that they will not work with the student personally. The inclusion of this description was vital and provided a guarantee that teachers were answering referral questions based on the same definition of referral. However the description also makes it difficult to speculate on the teachers true beliefs about special education.

A final explanation for the differences in the present results and the previous literature may be attributed to Tschannen-Moran et al's (1998) model suggesting that teacher efficacy is cyclical in nature. To review, this model of teacher efficacy suggests that higher levels of efficacy lead to higher levels of effort and persistence, which lead to better performance [which in turn lead to higher levels of efficacy] (Brouwers & Tomic, 2000). Perhaps the experienced participants encountered similar situations with students in the past. If so, they may have had negative experiences after referring the students for special education services. An experienced teacher or a special education major would have experience with the referral process and understand that a special education referral did not necessarily mean that a student would receive an evaluation. There is an

intermediate step required by law called “prereferral intervention”. This step subsumes a variety of modifications designed to keep the children in general education (MacMillan et al, 1996). A child moves on to the next step – special education – only when they fail to respond to the interventions provided during the pre-referral stage. The child is then formally evaluated for special education services. It is plausible that the participants did not want to engage in the time consuming process.

Perhaps this is an area that preservice teacher education programs have improved upon in recent years. One explanation for the results may be that the university used for data collection is among the top in the United States for teacher education programs. The rigorous program may focus on encouraging preservice teachers to take personal responsibilities for their students. A second explanation may be that teachers with experience have encountered a larger number of unsuccessful results with students, lowering their feelings of efficacy, specifically personal teaching efficacy. This explanation supports the cyclical nature of teacher efficacy as described previously by Tschannen-Moran et al (1998). This explanation is also supported by a new study conducted by Tschannen-Moran and Hoy (2007) suggesting that preservice teachers report different feelings of efficacy because they have fewer mastery experiences to draw from.

#### The Impact of Student Characteristics on Teacher Referral for Special Education

The second major outcome of this research is the strong support that it provides to previous research showing that student characteristics influence teacher referral decisions. The two student characteristics studied were student race and gender. Although the race and the gender of the students did not significantly impact teacher



referral decisions, they did have a slight impact. Most notably, the socio economic status and the race of the student together have a significant influence on referral decisions. Socio economic status is addressed in the final section of this dissertation.

The direction of the findings seemed to support my hypothesis indicating that African American students were referred at a slightly higher rate compared to Caucasian students. This result is in line with previous studies (Artiles et al, 1998; Coutinho & Oswald, 2000). In considering the two hypothesis presented by Coutinho and Oswald (2000), it is plausible that the African American students were referred at higher rates due to cultural biases. This explanation is plausible because the results are also in the same direction suggesting that Caucasian teachers refer African American students for special education at higher rates than African American teachers (Coutinho & Oswald, 2000; OSEP, 2001; Artiles et al., 1998; Robertson et al., 1994). They propose that referral for special education is a biased process, working differently across different ethnic groups. Their conclusion suggests that our public education system has a cultural bias that incorrectly and disproportionately targets African American students during referral (Artiles & Trent, 1995). It is difficult to confirm the exact reason for the findings of the present study. Although there may appear to be a lack of racial diversity in the sample, this sample is representative of our public education system (Elhoweris, Motus, Alsheiky, & Holloway, 2005). The majority of U.S. teachers are European American. Indeed 80% to 90% of the teachers are European American and middle class (Elhoweris et al., 2005). However the population of students is quite diverse. In fact, by the year 2040, children from different cultural backgrounds are expected to be the majority of classrooms (Cushner, McClelland & Safford, 2003). Perhaps schools of education and our public

education system in the U.S. will begin to focus on the considerable discrepancy between the makeup of the student population and that of the teaching force. The results of the present study appear to provide a positive light to this picture.

The gender of the student did not have a significant impact on teacher referral decisions. However differences in means were noted. Boys were referred at higher rates than girls. This result is in the same direction as findings in previous studies (Prieto & Zucker, 1981; Oswald et al, 2003; Delgado & Scott, 2006).

MacMillen et al (1996) suggest that the higher identification rates for males than females arises from differences in the department of males and females. Suggesting differences in the department of the two genders implies that males and females display differences in behavior and mannerisms that cause teachers to take note more than female students. Males display more externalizing behaviors. This may have been a plausible explanation for the present study if the students were viewed on video or through an actual classroom observation. However, the students in the case studies were identical. Race, gender and socio economic status were the only variables that were manipulated. The sample may have *expected* that the male students were more disruptive but again, this is difficult to say based on the information obtained. The students exhibited the same behaviors and the results suggest that males and females were not equally at risk for referral by their teacher. The male students were more at risk for referral.

Wehmeyer and Schwartz (2001) proposed a three part theory mentioned previously. The first two parts of the theory do not fit the present study because case study methodology was chosen. The third part proposes that the disproportionate number of males in special education is due to influences of gender bias on the referral process.

The biases are based in stereotypes about gender and gender roles in our society. Teachers appear to hold the same gender biases (and racial biases) and expectations that are held by society as a whole. Compounding this problem is again the fact that most teachers are women especially at the elementary level which was the focus of the case studies (Cook & Boe, 1995). Qualitative data from the teachers after completing the study may have shed light on this phenomenon.

#### Moderators of Teacher Efficacy and Teacher Referral Decisions

Significant results were found between teachers with high ratings of general teacher efficacy and African American students. Teachers' who felt that external factors had a larger impact than their own teacher were more likely to refer African American students for special education services. The most intriguing finding is that the socio economic status and the race of the student together have a significant influence on teacher decisions to refer students. The African American students with low socio economic status were referred at higher rates when compared to the other students according to the present sample.

The results somewhat support the idea that teachers with high ratings of general teacher efficacy are more likely to refer students to special education for external reasons. Although I did not find significant differences in referral ratings based on gender, significant results were noted between general teacher efficacy and race and the students socio economic status and the likelihood of teacher referral. The purpose of investigating race and gender as a moderating factors of teacher efficacy and teacher referral decisions was to add to the gap in the literature examining the overrepresentation of African American students in special education. As noted, there is a wealth of literature

confirming this phenomenon. Again, the result of the previous investigations reveal a number of reasons for the overrepresentation of African Americans in special education including a low tolerance for misbehavior (Hetzner, 2007; Skiba, Simmons, Ritter, Kohler, Henderson & Wu, 2006), a lack of preparation for teachers and schools or cultural gaps (Skiba et al, 2006), a racial bias, and a discrepancy between teacher and student demographic characteristics (Elhoweris et al, 2005). All of the studies noted focus on the problem of overrepresentation *after* students are already placed in special education classes. However very few studies address the impact of teacher perceptions on the problem of overrepresentation of African Americans on teacher referral decisions. We now understand that teacher beliefs have a larger influence on referral decisions than individual student characteristics.

Previous studies have shown that teachers and the general public have negative stereotypes and inaccurate perceptions of the abilities of children from different cultural backgrounds (Delpit, 1995; Grossman, 1995; Jensen & Rosenfeld, 1974; Ogbu, 1992). Various studies have attempted to explain factors associated with teachers' negative attitudes toward children from culturally diverse backgrounds. They demonstrated that educators hold different attitudes toward children as a function of their ethnicity (Ford & Webb, 1994; Prieto & Zucker, 1981; Zucker & Prieto, 1977), gender (Gangne, 1993) and socio economic status (Frey, 2002; Guskin, Peng, & Simon, 1992; Mutua, 2001). Additionally, a number of researchers have investigated the role of teachers in the referral process in an attempt to explain the effect of children's characteristics on teachers' decision making in special education programs. The results of these studies have indicated that teachers tend to evaluate African American and poor students' academic

performance and behavior in a biased manner (Frey, 2002; Prieto & Zucker, 1981; Zucker & Prieto, 1977). Similarly, in studies where teachers were watching, hearing or watching and hearing videotapes of middle and lower class Caucasian and African American students, teachers rated the middle class Caucasian students more favorably than the lower class Caucasian children or African American children regardless of social class (Jensen & Rosenfeld, 1974).

### Limitations

The first limitation pertains to the sample. All of the participants were students attending a large University in the Midwest. This particular university is known for the College of Education and emphasis on internship experience. Most of the experienced teachers completed at least one full year of internship and an additional year of teaching. This is not the normal course of scholarship for teachers. Most colleges and universities require a semester (half year) of internship for preservice teachers. As such, this sample was more experienced than the samples presented in the literature.

The second limitation pertains to the case study methodology. To start, some teachers may have had difficulty identifying with the students in the case studies because of the method of presentation. One previous study used videos to gather data which resulted in rich information provided by the teachers. Secondly, the case studies provided a detailed description of the referral process. There are benefits and drawbacks to this inclusion. The benefit is that each teacher has a similar frame of references on which to draw conclusions. The drawback is that we do not know how the additional information impacted teacher perceptions of the referral process. It is possible that teacher decisions would have been different without the inclusion of the description.

An additional limitation relates to the statistical procedures utilized in the fourth research question. A t-test between groups was utilized for analyzing the hypothesis. In an attempt to determine the relationship between general and personal teaching efficacy and the teachers' decisions to refer students of different genders and races, multiple independent t tests were conducted. The limitation to this method of analysis is as the number of independent tests increases, the probability of at least one wrong test result or false positive result also increases and becomes much larger than .05. In statistics, this is known as a Type 1 error.

A final limitation may have been the sample. The sample was both a stratified sample and a volunteer sample. A stratified sample implies that each group represents a subgroup of interest. The present sample was selected from the College of Education. All of the students were enrolled in Teacher Education courses. In addition, all of the participants were given a choice regarding participation in the study. Most students in each class chose to participate. However there is a possibility that the other students hold different beliefs and would have made different decisions. The likelihood of the results changing is slim. There were approximately four students total who chose not to participate in the study.

### Future Directions

Initial referral is often considered the most important step in the special education eligibility process because it (1) identifies which children will be considered for services and (2) is an important predictor of future eligibility for special education (Artiles & Trent, 1994; Ysseldyke & Algozzine, 1983). My goal is to complete this dissertation and bring light to the sheer complexity of the process and perceptions that contribute to the

overrepresentation of certain students in special education classrooms. Reducing inappropriate special education referrals requires a focus on teachers, teacher education programs, and updating the process of referral with research based alternatives.

Given the evident deleterious effect of low teacher efficacy, and the demonstrated pattern of the decline of personal teacher efficacy in the initial years of teaching, teacher education programs should provide students with the experience and support that they need to prepare them to work successfully with racially and academically diverse groups of students. Research has demonstrated that, once teacher education students become teachers themselves, there is a sharp decline in their belief in their own effectiveness (Soodak & Podell, 1997). Therefore, new teachers should have ample opportunity to engage in self-study and to benefit from the wisdom of more experienced colleagues in both general and special education through mentoring, consultation and co-teaching (Tournaki & Podell, 2005). Preservice teachers should also be provided with experiences to work in a diverse array of school settings including urban, rural and suburban school districts prior to their final internship experience (Knoblauch & Hoy, 2008). In fact, there has been an almost universal call for more field experiences in diverse settings (Ladson-Billings, 2000; Zeichner & Hoeft, 1996). Haberman (1995) has advocated training teachers in the most challenging environments so that they will be better prepared to teach in all settings. It is also important that student teachers are provided with opportunities to work with a variety of supervisors. Knoblauch and Hoy (2008) found that the cooperating teacher's efficacy beliefs had a direct impact on the efficacy beliefs reported by the preservice teacher.

A first major theme in the literature addressing disproportionality is the impact of cultural differences on teacher perceptions and practices related to minority students (Gravois & Rosenfield, 2006). In an effort to address the disproportionate placement of minority students in special education, many policymakers have looked to preservice and in-service professional development of teachers and alternative identification process including an alternative identification process for special education referral.

The methodology utilized in schools is known by many school psychologists as the traditional model of service delivery (Merrell, 2006; Reschly & Ysseldyke, 2002). This model requires students to take standardized intelligence and achievement tests. If the psychologist notes a large discrepancy between the two measures, the student is typically found eligible for special education services. This model of practice lacks treatment validity because there is little to no assessment to treatment link. It also lacks treatment validity because it does not distinguish between “slow learners and LD discrepant students. The outcomes for these two groups is the same. The traditional model also lacks reliability because students may be eligible in one district and not another (Merrell, 2006; Reschly & Ysseldyke, 2002). One of the final criticisms of the traditional model is that standardized tests are culturally biased and harmful (Merrell, 2000). Standardized tests require knowledge that is at times culturally specific. If students are not from the mainstream culture, they may not be able to showcase their true abilities with these measures.

In an attempt to move toward a more scientific model or a problem solving model, recent federal regulations for the identification of children with special needs include procedures that may be used by education agencies to identify students with



learning and behavioral difficulties. The new model is Response to Intervention. This model is especially relevant to the present dissertation because the benefit of this model is the method of identifying children. Although the model can be implemented in various ways (Fuchs, Mock, Morgan, & Young, 2003; Klingner & Edwards, 2006)

Response to Intervention is a preventative approach that includes the use of students' learning rate and level of performance to make instructional decisions. We know that teacher identification is not always accurate and appropriate (Beattie, 1985; Nanquin, 1999; Campbell, 2003). With the new Response to Intervention Model, students are identified through universal screening procedures. Response to Intervention offers a promising alternative for reducing disproportionate representation of culturally diverse students in special education (Linan-Thompson & Vaughn, 2007) and for reducing teacher variables in the decision making process by identifying students at risk early and providing preventative instruction to accelerate progress.

Overall, this study suggests that special education referral decisions are often based on a combination of variables including student characteristics and teacher beliefs. Thus, school districts should make every effort to provide supportive environments for teachers to collaborate with each other and engage in professional development for continued growth. Further, schools should be cognizant of the characteristics of referred students as well as the characteristics of teachers requesting the referrals.

## Appendix One: Consent Form for Participation in the Study

Name \_\_\_\_\_  
Envelope # \_\_\_\_\_

### TEACHER CONSENT FORM

You are invited to participate in this study, “Teacher as Expert”. This is a research study focused on understanding teacher perceptions.

- 1) The reason for this research is to help understand some of the ways faith-based community organizations support the educational missions of schools. It is hoped that this information will help community-based organizations be more effective in supporting schools.
- 2) If you choose to participate in this study, you will be asked to complete two short questionnaires and to read a case study. Your participation may take 15 minutes at the most.
- 3) Your participation is completely voluntary. You may choose not to participate at all, or you may refuse to answer certain questions, or you may discontinue your participation at any time without penalty. No discomforts or stresses are foreseen.
- 5) The results of this participation will be confidential, and will not be released in any individually identifiable form without your prior consent, unless otherwise required by law. No one will be able to identify your results from this study. Refusal to participate or withdrawal from participation will not in any way penalize you. You may have the results of the participation, to the extent that they can be identified as yours, returned to you, removed from the research records, or destroyed at any time prior to the end of the study.

**The investigator will answer any further questions about the research, now or during the course of the project. You are encouraged to ask questions. You may talk with anyone on the research team during the study, or you may contact the researcher: Daniele Eiland, phone: 517-394-5457, email: [eilandd@msu.edu](mailto:eilandd@msu.edu).**

Research at Michigan State University which involves human participants is overseen by the University Committee on Research Involving Human Subjects (UCRIHS). If you have questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact – anonymously, if you wish – Peter Vasilenko, Ph.D., Chair of the University Committee on Research Involving Human Subjects (UCRIHS) by phone: (517) 355-2180, fax: (517) 432-4503, e-mail: [ucrihs@msu.edu](mailto:ucrihs@msu.edu), or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Appendix One Continued: Consent Form for Participation in the Study

If you agree to participate in the research, please sign below and return this form, with your questionnaire, in the attached envelope to the box in the office

\_\_\_\_\_  
Signature of Participating Teacher      Date

\_\_\_\_\_  
Signatures of Investigator      Date

**Please sign the consent form and the investigator will collect it from you**

## Appendix Two: Teacher Letter

Dear Teachers,

You are invited to participate in a research study with the School Psychology Program at MSU.

### What is the purpose of the research?

This research is designed to help us understand teacher perspectives about students.

Thank you so much for your participation! Please email or call Daniele Eiland ([eilandd@msu.edu](mailto:eilandd@msu.edu) or 394-5457) or Jean Baker ([jbaker@msu.edu](mailto:jbaker@msu.edu) or 432-0843) if you have any questions about your participation or the study.

Sincerely,  
Daniele Eiland

Appendix Three: Teacher Information Questionnaire

TEACHER INFORMATION QUESTIONNAIRE

Date: \_\_\_\_\_ Age: \_\_\_\_\_ Race: \_\_\_\_\_

Circle your gender: Male Female

1. Year in graduate school \_\_\_\_\_
2. What college are you in? \_\_\_\_\_
3. What is your major and minor?  
major \_\_\_\_\_ minor \_\_\_\_\_
4. Circle your highest education level?  
High School BA BS MA PhD JD Other \_\_\_\_\_
5. Are you currently teaching? \_\_\_\_\_  
a. Grade level taught? \_\_\_\_\_  
SES of district low middle high
6. Years of teaching experience (not including internship) \_\_\_\_\_  
(a) What did you teach? \_\_\_\_\_
7. Years of internship \_\_\_\_\_  
(a) SES of district low middle high  
(b) What subject did you teach? \_\_\_\_\_  
(c) What grade level did you teach? \_\_\_\_\_
8. Cities, States that you have worked in \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please make sure that you have answered all parts to each question.

*Thank you for your participation!!!!*

## Appendix Four: Teacher Efficacy Questionnaire

### Teacher Efficacy

A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

**INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.**

**KEY: 1=Strongly Agree 2=Moderately Agree 3=Agree slightly more than disagree 4=Disagree slightly more than agree 5=Moderately Disagree 6=Strongly Disagree**

1. The amount a student can learn is primarily related to family background.  
1      2      3      4      5      6 (circle one)
2. If students aren't disciplined at home, they aren't likely to accept any discipline.  
1      2      3      4      5      6 (circle one)
3. When I really try, I can get through to most difficult students.  
1      2      3      4      5      6 (circle one)
4. A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on his/her achievement.  
1      2      3      4      5      6 (circle one)
5. If parents would do more for their children, I could do more.  
1      2      3      4      5      6 (circle one)
6. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.  
1      2      3      4      5      6 (circle one)
7. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.  
1      2      3      4      5      6 (circle one)
8. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.  
1      2      3      4      5      6 (circle one)
9. If I really try hard, I can get through to even the most difficult or unmotivated students.  
1      2      3      4      5      6 (circle one)
10. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.  
1      2      3      4      5      6 (circle one)

\*In Hoy, W.K. & Woolfolk, A.E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal* 93, 356-372.



















## Appendix Thirteen: Welcome Letter

Dear Teachers,

You are invited to participate in a research study with the School Psychology Program at MSU.

### What is the purpose of the research?

This research is designed to help us understand teacher perspectives about students.

### Directions:

Please read and/or complete the following:

- 1.** Teacher Consent Letter (Page 2)
  - i. Read and sign your name*
- 2.** Teacher Information Questionnaire (Page 3)
  - i. Read and answer each question thoroughly*
- 3.** Teacher Efficacy Questionnaire (Page 4)
  - i. Read and answer each question*
- 4.** Case Study (Page 5)
  - i. Read and answer 1 question at the end*

Thank you so much for your participation! Please email or call Daniele Eiland ([eilandd@msu.edu](mailto:eilandd@msu.edu) or 394-5457) or Jean Baker ([jbaker@msu.edu](mailto:jbaker@msu.edu) or 432-0843) if you have any questions about your participation or the study.

Sincerely,  
Daniele Eiland

## REFERENCES

- Algozzine, B., Christenson, S., & Ysseldyke, J. E. (1982). Probabilities associated with the referral to placement process. *Teacher Education and Special Education, 5*, 19-23.
- Algozzine, B., & Ysseldyke, J.E. (1986). The future of the LD field: Screening and diagnosis. *Journal of Learning Disabilities, 19*, 394-398.
- Andrews, T., Wisniewski, J.J., & Mulick, J.A. (1997). Variables influencing teachers' decisions to refer children for school psychological assessment services. *Psychology in the Schools, 34*(3), 239-244.
- Argulewicz, E.N., & Sánchez, D. (1983). The special education evaluation process as a moderator of false positives. *Exceptional Children, 49*, 452-454.
- Artiles, A.J., Aguirre-Munoz, Z., & Abedi, J. (1998). Predicting placement in disability programs: Do predictors vary by ethnic group? *Exceptional Children, 64*, 543-559.
- Artiles, A.J. & Trent, S.C. (1994). Overrepresentation of minority students in special education: A continuing debate. *The Journal of Special Education, 27*, 410-437
- Ashton, P., & Webb, R. (1986). *Making a difference: Teachers sense of efficacy and student achievement*. New York: Longman.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Bulletin, 84*, 191-215
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Beattie, R.I. (1985). *Special education: A call for quality*. Final report to Mayor Edward I. Koch of the Commission on Special Education, New York City.
- Blanchett, W. J., Mumford, V., & Beachum, F. (2005). Urban school failure and disproportionality in a post-Brown era. *Remedial and Special Education, 26*, 70-81.
- Brouwers, A. & Tomic, W. (2000). A longitudinal study of teacher burnout and



perceived self-efficacy in classroom management. *Teaching and Teacher Education*, 16(2), 239-253.

Campbell, M.A. (2003). An innovative multi-disciplinary approach to identifying at-risk students in primary schools. *Australian Journal of Guidance and*

*Counseling*, 13, 159-166. Cook, L & Boe, E.E. (1995). Who is teaching students with disabilities. *Teaching Exceptional Children*, 28(1), 70-72.

Coutino, M.L. & Oswald, D.P. (2000). Disproportionate representation in special education: A synthesis and recommendations. *Journal of Child and Family Studies*, 9, 135-156

Cushner, McClelland & Safford (2003). Human diversity in education: an integrative approach (4<sup>th</sup> edition). New York: McGraw Hill.

Delgado, C.E. & Scott, K.G. 2006. Comparison of referral rates for preschool children at risk for disabilities using information obtained from birth certificate records. *The Journal of Special Education*, 40(1), 28-35.

Delpit, Lisa. (1995). *Other people's children: Cultural conflict in the classroom*. New York: New Press.

Elhoweris, H., Mutua, K., Alsheikh, N. & Holloway, P. (2005). Effect of children's ethnicity on teachers' referral and recommendation decisions in gifted and talented programs. *Remedial and Special Education*, 26 (11), 25-31.

Frey, A. (2002). Prediction of placement recommendations for children with behavioral or emotional disorders. *Behavioral Disorders*, 27, 126-136.

Ford, D.Y. & Harris, J.J. (1991). On discovering the hidden treasure of gifted and talented Black children. *Roeper Review*, 13, 27-32.

Fuchs, L. S., Fuchs, D., & Bishop, N. (1992). Teacher planning for students with learning disabilities: Differences between general and special educators. *Learning Disabilities Research and Practice*, 7, 120-129..

Fuchs, D., Mock, D., Morgan, P.L., & Young, C.L. (2003). Responsiveness to intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research & Practice*, 18, 157-171.

Ghaith, G. & Shaaban, K. (1999) The Relationship Between Perceptions of Teaching Concerns, Teacher Efficacy, and Selected Teacher Characteristics, *Teaching and Teacher Education*, 15, pp. 487-496.

Gibson, S. & Dembo, M., (1984). Teacher Efficacy: A construct validation. *Journal of Educational Psychology*, 76 (4), pp. 569–582.

Gravois, T.A. & Rosenfield, S.A. (2006). Impact of instructional consultation teams on the disproportionate referral and placement of minority students in special education. *Remedial and Special Education*, 27(1), 42-52.

Gregory, M. (1977). Sex bias in school referrals. *Journal of School Psychology*, 15, 5-8.

Grossman, H. (1995). *Special education in a diverse society*. Boston: Allyn & Bacon.

Guskey, T. R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 4, 63-69.

Guskey, T. & Passaro, P. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal*, 31, 627–643.

Gutkin, T. (1980). Teacher perceptions of consultation services provided by school psychologists. *Professional Psychology*, 11, 637-642.

Guskin, S.L., Peng, C.J., & Simon, M. (1992). Do teachers react to “multiple intelligences”? Effects of teachers’ stereotypes on judgments and expectancies for students with diverse patterns of giftedness/talent. *Gifted Child Quarterly*, 36, 32-37.

Gutkin, T. B., Singer, J. H., & Brown, R. (1980). Teacher reactions to school based consultation services: A multivariate analysis. *Journal of School Psychology*, 18, 126-134.

Harris, J.D., Gray, B.A., Rees-McGee, S., Carroll, J.L. & Zaremba, E.T. (1987). 'Referrals to School Psychologists: A National Survey'. *Journal of School Psychology*, 25, 343-354.

Hosp, J. L., & Reschly D. J. (2002). "Predictors of restrictiveness of placement for African American and Caucasian students." *Exceptional Children*, 68, 225-238.

Hosp, J.L. & Reschly, D.J. (2004). Disproportionate representation of minority students in special education academic, demographic and economic predictors. *Exceptional Children*, 70.

<http://psychologytoday.com/articles/pto-20030430-000001.html>, retrieved 2/22/07.

<http://quickfacts.census.gov/qfd/states/26000.html>, retrieved 4/17/07.

<http://www.msualum.com/evecoll/>, retrieved 7/23/07.

<http://www.msualum.com/evecoll>, retrieved 6/1/07.

Hyde, E. M. (1975). School psychological referrals in an inner city school. *Psychology in the Schools*, 12(4), 412-420.

Jensen, M., & Rosenfeld, C. (1974). Influence of mode of presentation, ethnicity, and social class on teachers' evaluations of students. *Journal of Educational Psychology*, 66(4), 540-547.

Klinger, J.K., & Edwards, P. (2006). Cultural considerations with response to intervention models. *Reading Research Quarterly*, 41(1).

Knoblauch, D., & Woolfolk Hoy, A. (2008). The effects of school setting and cooperating teachers' efficacy beliefs on student teachers' sense of efficacy. *Teaching and Teacher Education*.

Ladson-Billings, G. (2000). Radicalized discourses and ethnic epistemologies. In N. Denzin & Y. Lincoln (Eds.), *The SAGE Handbook of qualitative research* (2nd ed., pp. 257-277). Thousand Oaks, CA: Sage.

Lambert, N.M. (1981) Psychological evidence in Larry P. v. Wilson Riles: An evaluation by a witness for the defense. *American Psychologist* 36, 937-952.

Lehman, L.R., & Podell, D.M., & Soodak, L.C. (1998). Teacher, student, and school attributes as predictors of teachers' responses to inclusion. *Journal of Special Education*, 31(4), 480-497

Linan-Thompson, S. & Vaughn, P. (2007). Determining English language learners' response to intervention: Questions and some answers. *Learning Disability Quarterly*, 30(3), 185-195.

Losen, D.J. & Orfield, G. (2002). Racial inequity in special education. <http://gseweb.harvard.edu/~hepg/introduction.html>, retrieved 9/28/06.

MacMillan, D. L., Gresham, F. M., Lopez, M. F., & Bocian, K. M. (1996). Comparison of students nominated for prereferral interventions by ethnicity and gender. *The Journal of Special Education*, 30, 133-151.

MacMillan, D.L., & Reschly, D.J. (1998). Overrepresentation of minority students: The case for greater specificity or reconsideration of the variables examined. *The Journal of Special Education*, 32, 15-24.

Maddux, J. E. (1995). Self-efficacy, adaptation, and adjustment: Theory, research, and application. New York: Plenum Press.

Meijer, C., & Foster, S. (1988). The effect of teacher self efficacy on referral chance. *Journal of Special Education*, 22, 378-385

Merrell, K. W., Ervin, R. A., & Gimpel, G. A. (2006). *School psychology for the 21st century: Foundations and practices*. New York: The Guilford Press.

Mutua, N.K. (2001). Policies identifies: Children with disabilities, *Educational Studies*, 32, 289-300.

National Center for Education Statistics (2005).  
[http://nces.ed.gov/pubs2005/nativetrends/ind\\_2\\_3.asp](http://nces.ed.gov/pubs2005/nativetrends/ind_2_3.asp)

Office of Special Education Programs (1998).  
<http://www.ed.gov/about/offices/list/osers/osep/index.html>, retrieved 9/13/06.

Office of Special Education Programs (2001).  
<http://www.ed.gov/about/offices/list/osers/osep/index.html>, retrieved 9/13/06.

Office of Special Education Programs (2002).  
<http://www.ed.gov/about/offices/list/osep/index.html>, retrieved 9/13/06.

Ogbu, J. (1992). Understanding cultural diversity and learning. *Educational Researcher*, 21 (8), 5-14.

O'Reilly, C., Northcraft, G.B., & Sabers, D. (1989). The confirmation bias in special education eligibility decisions. *School Psychology Review*, 18, 126-135.

Oswald, D.P., Best, A.M., Coutinho, M.J., & Nagle, H.A. (2003). Trends in the special education identification rates of boys and girls: research and change. *Exceptionality*, 11(4), 223-237.

Oswald, D.P., Coutinho, M.J., Best, A.M., & Singh, N.N. (1999). Ethnic representation in special education. *The Journal of Special Education*, 32, 194-206.

Pang, V. O., & Sablan, V. A. (1998). Teacher efficacy: How do teachers feel about their abilities to teach African American students? In M. E. Dilworth (Eds.), *In being responsive to cultural differences: How teachers learn* (pp. 39-58). Thousand Oaks, CA: Corwin Press.

Patton, J.M. (1998). The Disproportionate Representation of African Americans in Special Education: Looking Behind the Curtain for Understanding and Solutions. *The Journal of Special Education*, 32(1), 25-32.

Prieto, A.G., & Zucker, S.H. (1981). Teacher perception of race as a factor in the placement of behaviorally disordered children. *Behavioral Disorders*, 7, 34-38.

Reid, D.K., & Knight, M.G. (2006). Disability Justifies Exclusion of Minority Students: A Critical History Grounded in Disability Studies. *Educational Researcher*, 35(6), 18-23.

Richardson, S.A., Katz, M. & Koller, H. (1986). Sex differences in number of children administratively classified as mildly mentally retarded: an epidemiological review. *American Journal of Mental Deficits*, 91(3), 250-256.

Robertson, P., Kushner, M.L., Starks, J., & Drescher, C (1994). An update of participation rates of culturally and linguistically diverse students in special education. *The Bilingual Special Education Perspective*, 4, 1-9.

Robbins, R. C., Mercer, J. R., & Meyers, C. E. The school as a selecting-labeling system. *Journal of School Psychology*, 1967, 5, 270-279.

Ross, R.P. (1992). Accuracy in analysis of discrepancy scores: A nationwide study of school psychologists. *School Psychology Review*, 21, 480-493.

Shavelson, R. J., & Borko, H. Research on teachers' decisions in planning instruction. *Educational Horizons*, 57, 183-189.

Shepard, L. A., & Smith, M. L. (1983). An evaluation of the identification of learning disabled students in Colorado. *Learning Disability Quarterly*, 6, 115-127.

Shinn, M. R., Tindal, G. A., & Spira, D. A. (1987). Special education referrals as an index of teacher tolerance: Are teachers imperfect tests? *Exceptional Children*, 54, 32-40.

Skiba, R., Simmons, A., Ritter, S., Kohler, K., Henderson, M. & Wu, T. (2006). The context of minority disproportionality: Practitioner perspectives on special education referral. *Teachers College Record*, 108(7), 1424-1459.

Soodak, L., & Podell, D. (1993). Teacher efficacy and student problems as factors in special education referral. *Journal of Special Education*, 12, 66-81.

Soodak, L. C., & Podell, D. M. (1994). Teachers' thinking about difficult-to-teach students. *Journal of Educational Research* 88 (1), 44±51.

Soodak, L., & Podell, D. (1997). Efficacy and Experience: Perceptions of efficacy among preservice and practicing teachers. *Journal of Research and Development in Education*, 30, 214-221.

Tabachnick, B.G. and Fidell, L.S. (1996). Using Multivariate Statistics. NY: HarperCollins.

Tschannen-Moran, M., Woolfolk Hoy, A & Hoy, W. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-249.

Tschannen-Moran, M. & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers, *Teaching and Teacher Education*, 23, 944 - 956.

Tournaki, N., & Podell, D.M. (2005). The impact of student characteristics and teacher efficacy on teachers' predictions of student success. *Teaching and Teacher Education*, 21, 299-314.

U.S. Census Bureau (2005). <http://quickfacts.census.gov/qfd/states/26000.html>)

Wehmeyer, M.L. & Schwartz, M. (2001). Disproportionate Representation of Males in Special Education Services: Biology, Behavior, or Bias? *Education and Treatment of Children*, 24(1), 28-45.

Woolfolk, A., Rosoff, B. & Hoy, W. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6(2), 137-148.

<http://www.ed.gov/about/reports/annual/osep/2002/execsumm.html>, retrieved 10/11/06).

Valles, E.C. (1998). The disproportionate representation of minority students in special education: responding to the problem. *The Journal of Special Education*, 32 (1), 52-55.

Ysseldyke, J.E. & Algozzine, B. (1983). LD or Not LD: That's Not the Question! *Journal of Learning Disabilities*, v16 n1 p29-31

Ysseldyke, J. E., Dawson, P., Lehr, C., Reschly, D. J., & Reynolds, M. (1997). *School Psychology: A blueprint for training and practice II*. Bethesda, MD: National Association of School Psychologists.

Ysseldyke, J. E., Vanderwood, M. L., & Shriner, J. (1997). Changes over the past decade in special education referral to placement probability: An incredibly reliable practice. *Diagnostique*, 23, 193-201.

Ysseldyke, J. E., Thurlow, M., Gladen, J., Wesson, C., Algozzine, B., & Deno, S. (1983). Generalizations from five years of research on assessment and decision making: The University of Minnesota Institute. *Exceptional Education Quarterly*, 4, 75-93.

Zeichner, K., & Hoelt, K. (1996). Teacher socialization for cultural diversity. In J. Sikula, T. Buttery, E. Guyton (Eds.), *Handbook on research on teacher education* (2nd ed.), (pp. 525-547). New York: McMillan

Zucker, S.H. & Prieto, S.H. (1977). Ethnicity and teacher bias in educational decisions. *Instructional Psychology*, 4, 2-6.

Zucker, S. H., Prieto, A. G., & Rutherford, R. B. (1979). Racial determinants of teachers' perceptions of placement of the educable mentally retarded. *Exceptional Child Education Resources*, 11, 1.

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