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The attitudes of regular education teachers regarding inclusion for students with autism

Kimberly Showalter-Barnes

Walden University

COLLEGE OF EDUCATION

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Kimberly Barnes

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the review committee have been made.

Review Committee
Dr. Marie-Anne Mundy, Committee Chairperson, Education Faculty
Dr. Aaron Deris, Committee Member, Education Faculty

Chief Academic Officer

Denise DeZolt, Ph.D.

Walden University
2008

ABSTRACT

The Attitudes of Regular Education Teachers Regarding Inclusion for Students with Autism

by

Kimberly Barnes

M.S., James Madison University, 2001
B.S., Bloomsburg University, 1999

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
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Abstract

This study addressed the problem of students with autism being placed in regular education classrooms and the lack of support of regular eductors toward this practice. This research study was based upon the theoretical construct of attitude. Attitude is an important concept related to inclusion as teacher expectations and attitude affect student performance. This research study examined teacher attitude toward inclusion of students with autism based upon years of teaching experience, current teaching placement, gender, previous experience with inclusion, and amount of training regarding autism. The study sample consisted of 178 regular educators selected by cluster and random sampling within Pennsylvania. Data collection was conducted by the administration of a survey containing 22 items requiring a Likert Scale response and 5 items regarding demographic information. The survey data was analyzed by descriptive analysis, and inferential analysis consisting of univariate analysis of variance, independent t-tests, and regression analysis, in order to determine the relationship between years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training on teacher attitude. As indicated by the results, a greater amount of training regarding autism positively impacted teacher attitude toward inclusion for students with autism and increasing years of experience negatively impacted teacher attitude toward inclusion. This research study contributes to social justice by highlighting the nationwide impact autism has on teachers. The results of this research study can be utilized by school administrators to create professional development programs to improve teacher attitude toward inclusion.

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CHAPTER 1: INTRODUCTION TO THE STUDY

Introduction

It has been approximately 60 years since Kanner (1943) first described the disability now known as autism. Since that time, there has been an increase not only in research studies focused on intervention, but also, an increase in the number of children diagnosed with this disability. "Based on statistics from the U.S. Department of Education and other governmental agencies, autism is growing at a startling rate of 10-17 percent per year" (Autism Society of America, 2006, ¶6). Kanner utilized the following descriptors when characterizing the disability he labeled as early infantile autism: impaired communication, lack of eye contact, difficulty with social interactions, and exhibiting repetitive behaviors (p. 217-218). Since the time of Kanner's description of autism spectrum disorder (ASD), there has not been much change in the symptoms displayed by these children. There has been a significant change in the education of these students. "Historically, students with disabilities have been segregated from their peers, even from society as a whole. More recently however, there has been an increasing trend to include students with autism and other disabilities in general education classrooms" (Harrower & Dunlap, 2001, p. 762). Placement of these students in institutions is no longer common practice. They are being educated with their nondisabled peers in public schools across the United States.

According to the Center for Disease Control (2007), the number of children being diagnosed with autism is increasing across the United States. According to the Center for Disease Control (2007), the prevalence of autism was 6.7 per 1000 children in 2000 and increased to 1 in 150 children in 2007. Studies conducted by individual states have also

discovered an increase in the prevalence of autism. According to a study released in California:

> It was reported that the number of cases of autism in that state more than doubled since 1998 to December 2002. It went from 10,000 to over 20,000. This explosive rate in the growth in autism is not merely being observed in California, but throughout the country. (Future Challenges of Autism, 2003, p. 6)

In Pennsylvania, the Department of Education (2005) reported an increase in the number of school-age children being diagnosed with autism. In 2005, there were approximately 180 students identified as autistic, an increase of 23 students from the previous year; an increase of 14% (Pennsylvania Department of Education, 2005b, p. 32). The number of children diagnosed with autism is increasing across the United States.

Not only is the increase in the number of children diagnosed with autism affecting the nature of inclusion and the least restrictive environment, but also current litigation. "Although many definitions have been used to describe inclusion, the term is generally taken to mean that students with disabilities are served primarily in the general education classroom, under the responsibility of the general education teacher" (Mastropieri & Scruggs, 2000, p. 8). In September, 2005, a settlement was approved in the lawsuit Gaskin v. State of Pennsylvania (September 16, 2005). "The goal of the proposed settlement is to ensure that Individualized Education Program (IEP) teams consider the regular classroom with supplementary aids and services before considering a more restrictive placement" (Pennsylvania Department of Education, 2005a, p.1). Not only did the Gaskin settlement ensure that IEP teams consider the regular education classroom with supports prior to other placements, but the settlement provided increased training for teachers and school districts to meet the needs of students in the regular classroom and

increased monitoring by the department of education to ensure that students are properly placed in the least restrictive environment. “What is now known about effectively teaching and supporting all students, including those with disabilities in regular classrooms, is very different in 2005 than it was in 1975” (Rhen, 2005, p. 14). Due to these many factors, there is a heightened need for educators to provide appropriate programs for students with autism, including opportunities for inclusion.

This research study is designed to investigate the attitudes of regular educators toward inclusion for students with autism. As reported by Harrower and Dunlap (2001), in the past, students with disabilities rarely received their education in regular classrooms to learn among their nondisabled peers. Children with autism and other severe disabilities were more likely educated in separate classrooms with other children with disabilities, or in different schools altogether. Now, the focus is on educating students in inclusive environments (Simpson, De-Boer-Ott, & Smith-Myles, 2003, p. 117). Gaining the knowledge of the opinions of regular educators is necessary in order to design an effective program for these students as they are included in the regular education classroom.

Placing students with autism in the regular education classroom requires collaboration between many different educational professionals (Simpson et al., 2003). The movement toward inclusion has prompted more communication and collaboration between special educators and regular educators than in the past. “IDEA (Individuals with Disabilities Education Act) has strengthened the role of the general educator as an active team member in developing and implementing the IEP for students with

disabilities" (Hedeen & Ayres, 2002, p. 181). As the role of the regular educator in regard to IEP's and the education of students with disabilities have increased, it is necessary to investigate teacher attitude toward serving students with disabilities.

One study by Kasari, Freeman, Bauminger, and Atkins (1999) discovered that many general education teachers are satisfied with the current special education system and its current scope of placements and are hesitant to embrace full inclusion. Designing an educational program that meets the needs of students with autism is a challenge for special education teachers, regular education teachers, and administrators. Classroom teachers are the key decision-makers in adapting instruction to the needs of students in inclusive classrooms; therefore, it is imperative to investigate their attitudes toward inclusion. Merely placing these students within the regular classroom does not assure quality instruction. For teachers, "inclusive education represents a significant personal and professional change that requires reconceptualization of roles and responsibilities, redistribution of resources, and new ways of thinking" (Giangreco & Baumgart, 1995, p. 273). As a result of the rising placement of students with disabilities in the regular education classroom and the significant role of the regular education teacher in the education of students with autism, it is necessary to investigate attitudes to surmount any barriers to successful inclusive practices.

Implications for Social Change

This research study contributes to Walden University's commitment to social justice and change due to the nationwide impact this disorder has on teachers, students, and parents. As indicated by the hearing before the subcommittee on human rights and

wellness on the future challenges of autism and the Combating Autism Act of 2005, the education of students with autism is significant to leaders in education, government, research, and social agencies. Additionally, the passage of the No Child Left Behind Act (NCLB) of 2002, affected the education and inclusion of students with autism due to the required administration of high stakes testing. "The major principles of NCLB that will have the greatest effect on teachers, parents, and administrators include ensuring accountability for results, using scientifically based instruction, and providing highly qualified teachers and paraprofessionals" (Yell, Drasgow, & Lowrey, 2005, p. 131). Accountability for student learning, including students with disabilities is accomplished by the administration of high stakes testing. "By including students with disabilities in NCLB's assessment system, Congress made certain that schools would be held accountable for the academic performance of these students" (Yell et al., p. 134). As schools are being held accountable for the performance of students with autism, it is important to utilize evidence based teaching strategies and methods that have proven to improve student achievement. Research has indicated that students with autism display improved skills when placed in inclusive environments (Cross, Traub, Hutter-Pishgahi, & Shelton, 2004; Fisher & Meyer, 2002; Weiner, 2006). As more students with autism are being placed in inclusive environments, they are being taught by regular educators. As indicated by Clark (2000), teacher attitude directly affects student performance, therefore it is imperative to investigate teacher attitude toward inclusion for students with autism spectrum disorder. "According to SEEP [Special Education Expenditure Project], the estimated expenditure per child with autism was $18,790 in the 1999-2000 school year,

the most recent year for which data was available. For the same school year, per pupil expenditures for the typical regular education student were $6,556" (United States Government Accountability Office, 2005, p.28). If educators do not learn how to effectively educate students with autism, the costs will be overwhelming not only to individual states, but to the entire nation.

Statement of the Problem

A problem in schools today is the placement of students with autism in regular education classrooms and the lack of support of regular educators toward inclusion for students with disabilities (Simpson et al., 2003). "After a dark history of excluding students with disabilities from regular public schools, Congress in 1975 passed the Education for All Handicapped Children Act guaranteeing all children, regardless of disability the right to a free and appropriate public education in the least restrictive environment" (Dybvik, 2004, p. 44-45). As reported by Soodak, Podell, and Lehman (1998), many regular educators do not believe or embrace the idea of inclusion for students with moderate to severe disabilities or behavior disorders such as students with autism as they do for other disabilities. This problem affects teachers, students, administrators, and parents. There are many factors contributing to this problem, among which may include lack of regular educators' knowledge of autism and lack of support for autistic students educated within the regular education classroom. If teachers possess a negative attitude toward inclusion for students with disabilities, specifically, autism; this would negatively impact the education provided to these students and limit their educational performance. As reported in a research study by Love and Kruger (2005),

teacher attitude directly affects student peformance. Thus, if students with autism do not receive adequate supports and education from their classroom teachers, they will not reach their full potential negatively impacting the educational system and American society. “Success in education is a predictor of success in adult life. For students with disabilities, a good education can be the difference between a life of dependence and nonproductivity and a life of independence and productivity” (National Council on Disability, 1989, p. 2). Successful inclusive practices involve collaboration between regular educators, special educators, and administrators in order to design an effective program for all students. “General education teachers have been found to lack support for inclusion and the adoption of new instructional methods for students with disabilties unless they receive assistance from qualified resource personnel” (Simpson et al., 2003, p. 118). This study will contribute to the body of knowledge needed to address this problem by examining regular educators’ attitudes regarding inclusionary practices for students with autism.

Nature of the Study

A quantitative research methodology will be utilized within this research study. Specifically, a quasi-experimental static group comparison with nonequivalent groups research design will be utilized in this research study. As defined by Creswell, (2003), “a quantitative approach is one in which the investigator primarily uses postpositivist claims for developing knowledge, employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data” (p. 18). As reported by Meadows (2003), in a quantitative approach, data is collected via surveys

or another standardized method and the purpose of the research is deductive in order to test ideas and hypotheses (p. 520). Therefore, a quantitative methodology was chosen for this research study as the data will be collected for the purpose of testing hypotheses in order to determine relationships between the independent variables and the dependent variable.

This research study examined the views of 168 regular education teachers toward inclusion for students with autism. The participants of this research study were selected via cluster random sampling. As defined by Fraenkel and Wallen (2003), "the selection of groups or clusters of subjects rather than individuals is known as cluster sampling" (p. 100). To accurately represent the population a sample size of 168 teachers will be necessary. The sample size of 168 was determined by using the sample size calculator found at http://survey.scantron.com/resources/sample-calc.htm for 5% error and 95% confidence level. The participants in this research study will be selected by random sampling.

Data collection was conducted via survey format. The survey included five items requiring a multiple-choice response and 22 items requiring respondents to indicate using a Likert Scale. The responses to The Attitudes of Regular Educators toward Inclusion for Students with Autism were analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics were utilized to describe the demographics regarding gender, years of experience, current teaching placement, previous experience regarding including a child with a disability, and amount of training regarding autism. Inferential statistics consisting of t-tests and univariate analysis of variance (ANOVA) were utilized

to detail the relationships between the independent variables and the dependent variable. Additionally, a regression analysis was conducted in order to further examine the relationship between the independent variables and dependent variable.

Some threats to internal validity included the credibility of the participants, mortality of participants, and instrumentation relating to the survey questions. Some threats to external validity included transferability of the findings and applicability of the findings due to the small sample size. To ensure the validity of the survey instrument, the content chosen for the questions were based upon a review of inclusion literature to identify factors that may impact educators' attitudes toward inclusion of students with disabilities. The survey instrument was sent to three professors of education to examine for content validity and the instrument was later revised. The reliability of this survey was determined using Cronbach's alpha. As stated by Trochim (2006), Cronbach's alpha is a conservative estimate of reliability and it is based on the average correlation for all possible variable pairs. It reflects the correlation among all items in a particular measurement instrument. Although the possible range of values is .00 to 1.00, the preferred range is .70 to .90, which suggests internal consistency without redundancy" (Crane, Holm, Hobson, Cooper, Reed & Stadelmeier, 2005, p. 100).

Purpose of the Study

In the past, students with disabilities rarely received their education in regular classrooms to learn among their nondisabled peers however, the philosophy regarding their educational placement has significantly changed for the past two decades (Avramidis & Norwich, 2002). Children with autism and other severe disabilities were

more likely educated in separate classrooms with other children with disabilities, or in different schools altogether. The current focus is on educating students in inclusive environments, there are increasing numbers of students with autism and other disabilities entering general education classrooms (Young, Simpson, Myles & Kamps, 1997, ¶ 3). "IEP teams must consider the regular classroom with supplementary supports and services before considering a more restrictive placement" (Pennsylvania Department of Education, 2005a, p. 1). Difficulties in regular education classrooms have increased. Due to students with disabilities being placed in regular education classrooms, regular education teachers are facing challenges for which they were never trained. This research study investigated the beliefs of regular education teachers regarding inclusion for students with autism.

The purpose of this quasi-experimental static group comparison research study was to examine regular educators' views regarding inclusion for students with autism and to determine the personal characteristics that affected teacher attitudes regarding inclusion for students with autism. The independent variables were generally defined as gender, previous experience with inclusion, previous training regarding autism, current teaching placement, and years of experience. The following dependent variable was examined: teacher attitude toward inclusion for students with autism. The classroom teacher fulfills an instrumental role in providing a classroom environment that is contributing to social and academic gains for all students. As inclusion is a viable placement option for all students with disabilities, including students with autism, there were many questions that required answers. For example, what attitude does a regular

educator possess regarding inclusion for students with autism and what personal characteristics affect teacher attitude toward inclusion.

As a result of the settlement of the lawsuit of Gaskin v. the Pennsylvania Department of Education (September 16, 2005), "IEP teams must consider the regular classroom with supplementary supports and services before considering a more restrictive placement" (Pennsylvania Department of Education, 2005a, p. 1). As full inclusion is one placement option in least restrictive environment, the purpose of the study was to examine regular educators' views regarding autistic children included in the regular education classroom. As reported by Reynold, Martin-Reynolds, and Mark (1982) and Wilczenski (1993), teacher attitude directly relates to the success of inclusion. The purpose of this study was to examine educators' beliefs regarding inclusion for students with autism and to determine personal characteristics of educators that affected teacher attitude. A multitude of literature exists regarding inclusion for students with disabilities however; additional literature is required regarding inclusion for students with autism. As students with autism are placed in inclusive settings, further research will be conducted in this area.

Research Questions

1. What are the attitudes of regular educators toward inclusion for students with autism?

2. Do teachers' attitudes regarding inclusion for students with autism differ based upon years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding autism?

(a). Do teachers' attitudes regarding inclusion for students with autism differ based upon years of teaching experience?

Null Hypothesis: There are no significant differences among teachers with 0-5, 6-15, and 16 plus years of teaching experience on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with 0-5, 6-15, and 16 plus years of teaching experience on attitudes regarding inclusion.

(b). Do teachers' attitudes regarding inclusion for students with autism differ based upon current grade level teaching assignment?

Null Hypothesis: There are no significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

(c). Do teachers' attitudes regarding inclusion differ based upon previous experience with inclusion?

Null Hypothesis: There are no significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

(d). Do teachers' attitudes regarding inclusion for students with autism differ based upon gender?

Null Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

Alternative Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

(e). Do teachers' attitudes regarding inclusion for students with autism differ based upon previous training regarding autism?

Null Hypothesis: There are no significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes regarding inclusion.

3. How accurately can attitudes of regular educators toward inclusion for students with autism be predicted from a linear combination of years of teaching experience,

current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding inclusion?

Null Hypothesis: There is no significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Alternative Hypothesis: There is a significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Definition of Terms

Administrator: An administrator oversees administrative duties of the school environment. For the purpose of this research study, an administrator includes the principal, superintendent, assistant superintendents, and directors of curriculum and instruction.

Attitude: "Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly, A.H., & Chaiken, S. 1993, p. 1). This variable will be measured via the survey instrument.

Autism: Two definitions of autism will be presented.

The following essential features for autistic disorder compose the diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition:

1. Impairment in social interaction, manifested by impairment in the use of nonverbal behavior, lack of spontaneous sharing, lack of socio-emotional reciprocity, and/or failure to develop peer relationships.
2. Impairment in communication, manifested by delay in or lack of development of spoken language and gestures, impairment in the ability to initiate or maintain conversation, repetitive or idiosyncratic use of language, and or/lack of pretend play.
3. Restricted repertoire of activities and interests, manifested in preoccupation with restricted patterns of interest, inflexible adherence to routines, repetitive movements, and/or preoccupation with parts of objects (American Psychiatric Association, 2000, p. 75).

The following definition of autism is as it is defined in Individuals with Disabilities Education Improvement Act (2004). "Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences"

Individuals with Disabilities Education Improvement Act (IDEA, 2004): The major principles of IDEA are as follows: students must be provided with a free and appropriate public education (FAPE), each student must have an individual education program (IEP) which will delineate specific services to be provided; to the maximum

extent possible, students must be educated with students who are nondisabled in the least restrictive environment (LRE). (Individuals with Disabilities Education Act, 2004).

Individualized Education Program (IEP): As reported in IDEA, the following are necessary components of an IEP: statement of the child's present levels of academic achievement and functional performance; statement of measurable annual goals; description of how progress toward meeting annual goals will be measured and when progress will be reported; statement of related services and supplementary aids provided; explanation of the extent the child will not participate with nondisabled students; and location and duration of services and supplementary aids. (Individuals with Disabilities Education Improvement Act, 2004).

Inclusion: Many definitions of inclusion exist in the research literature. "Although many definitions have been used to describe inclusion, the term is generally taken to mean that students with disabilities are served primarily in the general education classroom, under the responsibility of the general education teacher" (Mastropieri & Scruggs, 2000, p. 8). For the purpose of this research, inclusion will be defined as having these three important characteristics: each student is progressing within the regular education classroom, modifications and supplementary services and aids are provided to the student with disabilities within the regular education classroom, and the needs of regular educators for training and support are being met.

Least Restrictive Environment: As defined in IDEA, "To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special

classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (IDEA, 2004)

No Child Left Behind: The No Child Left Behind (NCLB) is an act that addresses public education. Important components of this act include: increased accountability by schools and states by measuring adequate yearly progress, yearly assessment to measure student achievement, increased emphasis in the area of reading, recruitment/retainment of highly qualified teachers, and emphasis on utilizing research based educational programs and strategies. (No Child Left Behind, 2001).

Professional Development: As defined by Darling-Hammond and Sykes (1999), professional development is a "professional activity centered on the development of practice and practitioners" (p. 30). For the purpose of this research study, types of professional development and training include: in-service trainings within the school building, conferences outside of the school building, participation in graduate level courses, and faculty meetings. "In reviewing literature on professional development models currently practiced, six types of models emerged: training; observation/coaching/assessment; involvement in an improvement process; inquiry; individually guided or self directed; and mentoring" (Drago-Severson, 2004, p. xxii).

Regular Education Classroom Teacher: A regular education teacher is an individual that holds certification required by the state to teach a specific grade level or

subject governed by the standards defined by the state. Additionally, the regular educator oversees the regular education curriculum established by state standards.

Related Services: As defined in IDEA (2004), "the term related services means transportation, and such developmental, corrective, and other supportive services (including speech-language pathology and audiology services, interpreting services, psychological services, physical and occupational therapy, recreation, including therapeutic recreation, social work services, school nurse services designed to enable a child with a disability to receive a free appropriate public education as described in the individualized education program of the child, counseling services, including rehabilitation counseling, orientation and mobility services, and medical services, except that such medical services shall be for diagnostic and evaluation purposes only) as may be required to assist a child with a disability to benefit from special education, and includes the early identification and assessment of disabling conditions in children" (IDEA, 2004).

Special Education Teacher: A special education teacher is an individual who holds at least a bachelor's degree and maintains certification required by the state and meets the needs of students identified as disabled as defined by IDEA.

Theoretical Construct

This research study is based upon the theoretical construct relating to the attitudinal theory. "Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). As asserted by Alvidrez and Weinstein (1999), Brophy (1983), Jussim (1991), Jussim and

Eccles (1992), Jussim and Harber (2005), Love and Kruger (2005), teacher expectations and attitude directly affect student performance. If a teacher does not believe that the student has the potential to learn, this can result in less attention to the student and less interest in his or her academic programming. This has been demonstrated in the research literature.

Attitude is an important concept related to inclusion as attitudes influence behavior. "Because attitudes are hypothetical constructs that are not directly observable, researchers infer a person's attitude based on observable behaviors that the individual performs" (Jaccard & Blanton, 2005, p. 127). The study of attitude has been an important topic in both the fields of psychology and marketing. There are various definitions of attitude as delineated in the research literature. An attitude is defined as "an evaluative disposition toward some object" (Zimbardo & Leippe, 1991, p. 31). Another definition by Eagly and Chaiken (1993) is as follows, "attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p. 1). Yet another definition of attitude delineated in the literature as reported by Fishbein and Ajzen (1975), "A person's attitude toward any object is a function of his beliefs about the object and the implicit evaluative responses associated with those beliefs" (p. 29). The construct of attitude has been created in order to explain why people act and react to certain objects, situations, or people. "Although definitions [of attitude] may have varied somewhat across time, if one inspects how scholars have operationalized the concept of attitude across the field's history, evaluative aspects have always played a prominent role" (Albarracin, Johnson, Zanna & Kumkale, 2005, p. 4).

There are several components of an attitude. As reported by Leatherman and Niemeyer (2005), there is a cognitive component, affective component, and a behavioral component. Related to the affective component are emotions or feelings associated with the attitude. "Evaluative responses of the affective type consist of feelings, moods, emotions, and sympathetic nervous system activity that people experience in relation to attitude objects" (Eagly & Chaiken, 1993, p. 11). These emotions or feelings may be positive or negative depending upon the attitude object. The behavioral component relates toward actions that an individual takes in respect to a particular attitude. The cognitive component of an attitude is related to an individual's thoughts and perceptions regarding the object.

Attitude formation is an important subject. As reported by Eagly & Chaiken (1993) humans are not born with attitudes. Therefore, it stands to reason, that they are formed at later stages of development. There are different theories that demonstrate ways in which attitudes have been formed. "At the most general level, then, we learn to like (or have favorable attitudes toward) objects we associate with 'good' things, and we acquire unfavorable feelings toward objects we associate with 'bad' things" (Fishbein & Ajzen, 1975 p. 217). Attitudes are complex concepts that cannot be easily measured or observed; therefore, "attitude measurement depends on attitudes being revealed in overt responses, either verbal or nonverbal" (Krosnick, Judd, & Wittenbrink, 2005, p. 22). It is for this reason, that survey instruments are often utilized to measure attitude.

As teacher attitude can directly impact student performance within the classroom, it is imperative to investigate teacher attitude as it relates to the inclusion of students with

disabilities. “A person’s attitude toward a particular attitude object may influence his or her behavior toward this object” (Bohner & Wanke, 2002, p. 13). As reported in a research study conducted by Downing, Eichinger, and Williams (1997), the most frequently mentioned barrier to inclusion was the negative attitude of the teachers. As reported by a special educator participating in this research study, “I think a lot of times people have perceptions that it’s (inclusion) going to be a real problem and it ends up not being that. Lots of times fear is greater than the reality” (Downing et al., 1997, p. 135). A teacher’s attitude has the potential to affect the academic achievement of all students, not simply those with disabilities. A study by Rosenthal and Jacobson (1966) investigated teacher attitude as it related to the performance of typical students. As reported in Cotton (2001):

> The Rosenthal/Jacobson study concluded that students’ intellectual development is largely a response to what teachers expect and how those expectations are communicated. The original Pygmalion study involved giving teachers false information about the learning potential of certain students in grades one through six in a San Francisco elementary school. Teachers were told that those students had been tested and found to be on the brink of a period of rapid intellectual growth; in reality; the students had been selected at random. At the end of the experimental period, some of the targeted students- and particularly those in grades one and two- exhibited performance on IQ tests which was superior to the scores of other students of similar ability and superior to what would have been expected of the target students with intervention. (p. 1)

As delineated in the research study by Rosenthal and Jacobson (1966), teacher attitude and behavior is causally linked to student achievement. A teacher’s attitude can affect the achievement of all students within the classroom environment. The concept of teacher attitude as it relates to the academic achievement of students is an important

consideration not only for students with disabilities, but also for those without. “From their first years in school, students are able to perceive differences in teacher expectations for their own performance and that of their peers” (Gottfredson & Marciniak, 1995. p. 156). If students without disabilities can be affected by teacher attitude, what are the effects for students with disabilities?

Assumptions, Limitations, Scope, Delimitations

For the purpose of this research study, the scope included the following independent variables: gender, previous experience with inclusion, previous training regarding autism, current teaching placement, and years of experience. The following dependent variable were examined: teacher attitude toward inclusion for students with autism. The sample of this research study was delimited to 168 regular educators in one school district in Pennsylvania. Data was gathered through a paper survey instrument delivered to each individual respondent. The results of this research study will be utilized to measure only teacher attitude toward inclusion for students with autism and other disabilities are not investigated.

One notable limitation of this research study was that only regular educators’ attitudes toward inclusion will be measured in one school district in Pennsylvania. Attitudes of special educators, administrators, and parents were not investigated in this research study. Therefore, the sample was limited to regular educators in one school district in Pennsylvania resulting in a lack of generalizability.

The data for this research study was gathered with a survey instrument. Several assumptions were made regarding teacher participation and the survey instrument. It was

assumed that each respondent answered each question in a truthful manner. Also, it was assumed that the attitudes expressed by the sample population represented the opinions of the entire population.

Significance of the Study

As the population of children diagnosed with autism continues to rise, so does its effect on public schools. “Learners with ASD are being increasingly diagnosed (i.e. there are ever-increasing numbers of these students in public schools); and there is an ever-increasing trend to recommend them for placement in general education settings” (Simpson et all, 2003, p. 117). Autism is a complex disorder and children affected by autism possess a multitude of needs. As the rates of autism rise, it is very important to provide effective programs for these students. The Individuals with Disabilities Education Act (2004) mandated that students with disabilities receive their education in the least restrictive environment. Although, the least restrictive environment refers to a multitude of placement options and services, many students with autism are now educated within the regular classroom environment.

Given the recent trend toward inclusion, there are an increased number of children with autism and other pervasive developmental disorders who are being educated in the same classroom settings as their nondisabled peers. “Research suggests that successful integration depends on the careful planning, development, and implementation of programs that emphasize both the academic and the social needs of students with disabilities” (Kamps, Barbetta, Leonard, & Delquadiu, 1994, p. 49). As a consequence, educators and others must dedicate considerable attention to promoting effective

techniques to include students with autism in the regular education classroom. “It can be argued that our failures to produce quality inclusion for these students [students with autism] are tantamount to our failures to provide them with a quality education” (Harrower & Dunlap, 2001, p. 779).

Due to the complexity of the disorder, there has been much discussion regarding the correct educational placement for these students. As reported by the Virginia Department of Education, “the wide range of abilities and characteristics of children with autism spectrum disorder makes diagnosis and identification of the appropriate educational placement difficult” (Virginia Department of Education, n.d., p. 1). Although educational placement is often in question for these students, it is imperative that regular education teachers recognize that the least restrictive environment which may include inclusion is mandated by the law and they will be expected to be one component of the educational team for these students. It is for this reason that the researcher is investigating the attitudes of regular education teachers toward inclusion for students with autism. As reported by Alvidrez and Weinstein (1999), Brophy (1983), Jussim (1991), Jussim and Eccles (1992), Jussim and Harber (2005), and Love and Kruger (2005) teacher expectations and attitude directly affect student performance. “Judgments teachers made about student cognitive ability before children even began kindergarten had a predictive relationship with school achievement 14 years later” (Alvidrez & Weinstein, 1999, p. 743). A student’s achievement can be positively affected or negatively affected by teacher attitude. “Research shows that students achieve more when teachers hold high expectations” (Clark, 2000, p. 3). Research also showed that “teachers overestimate the

achievement of high achievers and underestimate the low achievers, and predict least accurately the responses of low achievers" (Gottfredson & Marcinak, 1995, p. 158). Students with autism must be held to the same high expectations as their nondisabled peers. If students with autism are not held to high expectations and taught with the best teaching practices, their achievement will be much more limited than that of their nondisabled peers.

"General education teachers have been found to lack support for inclusion and the adoption of new instructional methods for students with disabilties unless they receive assistance from qualified resource personnel" (Simpson et al., 2003, p. 118). This study contributes to the body of knowledge needed to address this problem by examining regular educators' beliefs regarding inclusionary practices for students with autism.

This research study contributes to Walden University's commitment to social justice and change due to the tremendous nationwide impact this disorder has on teachers, students, and parents. "The drastic increase in the prevalence of the autism classification presents a major challenge to the nation's special education service systems and is one that has already triggered responses from federal, state, and local agencies" (Newschaffer, Falb & Gurney, 2005, p. 281). Additionally, as many students with autism are now receiving services in the regular education classroom, regular educators are also impacted. As reported by Goodman and Williams (2007):

> Recent litigation supporting the right of all students to access the general education curriculum and instructional environment, along with empirical support attesting to the efficacy of inclusive education, has redefined the roles of special education teachers, general education teachers, paraprofessionals, and other service providers whose expertise is required for teaching students with disabilities in inclusive education venues. (p. 53)

Educating students with disabilities must focus on assisting them in reaching their full potential. “Integrated situations represent the optimal environment for the effective development and maintenance of functional living skills, communication, and social relationships for children with ASD” (Stichter, Brown, Clarent, Iskow, Krug & Richards, 2006, p. 31). If we do not learn how to effectively educate students with autism, the costs will be overwhelming not only to individual states, but to the entire nation.

This research study was necessary as there is limited published research regarding teacher attitude regarding inclusion for students with autism. In the past, students with disabilities rarely received their education in regular classrooms to learn among their nondisabled peers. Children with autism and other severe disabilities were more likely educated in separate classrooms with other children with disabilities, or in different schools altogether. Now, the focus is on educating students in inclusive environments. Acquiring knowledge of the opinions of regular educators is necessary in order to design an effective program for these students as they are included in the regular education classroom.

Summary of Key points of the Study

Chapter 1 has presented the introduction, statement of the problem, research questions, significance of the research study, definition of terms, assumptions, limitations, and delimitations of this research study. Currently, there is a heightened need for training of educational personnel in the areas of autistic disorder due to the increasing numbers of autistic students placed in inclusion education settings. The purpose of this research study was to examine regular educators’ views regarding inclusion for students

with autism. The secondary purpose of this research study was to delineate specific personal characteristics of the respondents that result in positive or negative attitudes regarding inclusion for students with autism. A teacher's attitude can affect the achievement of all students within the classroom environment. This research study investigated the attitudes of regular educators toward inclusion for students with autism with the use of a paper survey instrument.

Chapter 2 will focus on the literature review of this research study. Chapter 2, the literature review of the study investigated, (a) characteristics of autism,(b) history of the inclusion movement, (c) investigation of previous research studies focusing on inclusion for students with moderate to severe disabilities, (d) interventions within the school environment that have shown to improve the inclusion process and (e) administrator support. Chapter 3 is a comprehensive description of the methodology and procedures of data collection utilized within the research study. Chapter 4 will contain the data analysis, and chapter 5 will include a summary of the results and recommendations for further research.

CHAPTER 2. LITERATURE REVIEW

The education of students with autism is receiving increased interest. "As the number of children diagnosed with autism has increased, interest in understanding how children diagnosed with autism are being served under IDEA has grown" (United States Government Accountability Office. 2005, p. 1). No longer are children with autism locked up in institutions. "When the first systematic schooling was developed in the 1960's and 1970's, they [children with autism] were grouped together into separate classrooms or schools. Half lived in institutions with very little academic achievement" (Eaves & Ho, 1997, p. 277). They are now educated in regular schools and often in regular classes. This change in placement for many students with autism creates many questions that require answers for parents, teachers, and administrators. Inclusion is one of the strategies implemented for students with autism due to the IDEA (2004) and the idea of the Least Restrictive Environment. This research study considered the attitudes of educators regarding inclusion for students with autism in the regular education classroom. This chapter examined the characteristics of autism, the components of attitude, theories of attitude formation, theories of attitude change, attitudes of parents toward inclusion, attitudes of teachers toward inclusion, and attitudes of administrators toward inclusion.

Characteristics of Autism

Autism is a life-long disorder often diagnosed in very young children. There are five diagnoses under this spectrum disorder (a) autistic disorder, (b) Asperger's syndrome, (c) pervasive developmental disorder, (d) Rett's Syndrome, and (e) childhood disintegrative disorder. For the purposes of this paper, autism refers to autistic disorder,

Asperger's syndrome, and pervasive developmental disorder. As reported in the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition, deficits in communication, deficits in social interaction skills and limited interests are universally recognized as core deficits in autism (American Psychiatric Association, 2000, p. 75).

The following essential features for autistic disorder compose the diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition (American Psychiatric Association, 2000):

> 1. Impairment in social interaction, manifested by impairment in the use of nonverbal behavior, lack of spontaneous sharing, lack of socio-emotional reciprocity, and/or failure to develop peer relationships.
>
> 2. Impairment in communication, manifested by delay in or lack of development of spoken language and gestures, impairment in the ability to initiate or maintain conversation, repetitive or idiosyncratic use of language, and or/lack of pretend play.
>
> 3. Restricted repertoire of activities and interests, manifested in preoccupation with restricted patterns of interest, inflexible adherence to routines, repetitive movements, and/or preoccupation with parts of objects. (p. 75)

Autism is simply one of the many diagnoses of Pervasive Developmental Disorder. Other symptoms displayed by children with autism include detachment from peers and family, frequently refusing to be touched or held. "Behavioral characteristics noted in the autistic population are impaired social interactions, impaired verbal and nonverbal communication, and abnormal behaviors" (Galinat, Barcalow, & Krivda, 2005, p. 209). Many children with autism have limited speech, becoming easily frustrated when their needs cannot be expressed verbally. "In addition to core symptoms, children with autism frequently have serious behavioral disturbances such as self-injurious behavior, aggression, hyperactivity and temper tantrums in response to routine environmental

demands" (Karande, 2006, p. 208). As a result of deficits in multiple domains, such as language skills, cognitive skills, behavior skills, and social skills, it is important to provide training to all teachers that may participate in the education of students with autism in order to provide appropriate educational programming so they can become productive, functioning members of society.

Prevalence, Incidence and Cause of Autism

Autism is now recognized as a common disorder. "Autism, once a rare and mysterious disorder, is no longer so rare" (Manning, 2004, p. 1). As reported by Nash (2005):

> The latest studies, however, suggest that as many as 1 in 150 kids age 10 and younger may be affected by autism or a related disorder, a total of nearly 300,000 children in the U.S. alone. If you include adults, according to the Autism Society of America, more than a million people in the U.S. suffer from one of the autistic disorders. The problem is five times as common as Down syndrome and three times as common as juvenile diabetes. (p. 46)

No one knows what has accounted for the increase in autism. "Ever since autism was identified, researchers have struggled to determine what causes it. Scientists know that susceptibility to autism is inherited, although environmental risk factors also seem to play a role" (Ramachandran & Oberman, 2007, p. 20). It is necessary to consider many factors when determining why there are so many children being newly diagnosed as autistic. "Experts cite a much greater awareness of autism and related conditions, grouped as Autism Spectrum Disorders (ASD), and a broader definition that has allowed children who might otherwise have been overlooked to receive a diagnosis" (Manning, 2004, p. 1). Definitive causal factors for autism have yet to identified.

Historical Basis of Inclusion

Inclusion has not always been a choice for students with disabilities. "Until approximately 1800 in the United States most students with disabilities were not deemed worthy of education at all" (Stainback & Smith, 2005, p. 12). Even when these students were deemed worthy of education, they were educated in separate classrooms and even separate schools. "Segregation for these children (children with disabilities) was advocated by the vast majority of school professionals and researchers" (Osgood, 2005, p. 23). Throughout the early 1900's and the 1950's, special classrooms and schools remained the norm not only for students with disabilities, but also for students of different races. It was not until the landmark case of Brown v. the Board of Education in 1954, that segregation in education was addressed. This case however, focused only on the segregation of students of different races, not on the segregation of students with disabilities. Although the case of Brown v. the Board of Education was fought in 1954, it was not until the 1970's, that concerns regarding the segregation of students with disabilities were raised. "Basing their arguments on this decision (Brown v. Board of Education), advocates for students with disabilities argued that if segregation by race was a denial of equal educational opportunity, then the exclusion of students with disabilities from schools was also a denial of equal educational opportunity" (Yell, 2001, p. 325). In the early 1970s several landmark court cases addressed the educational rights of students with disabilities. "Until 1975, with the passage of the Education of All Handicapped Children Act, children with disabilities were not ensured what was a right of their nondisabled siblings and peers, the right to attend public schools" (Lipsky & Gartner,

1998, p. 78). The purpose of this legislation was to provide a free and appropriate education for all disabled students. “PL 94-142 mandated a free and appropriate education in the least restrictive environment for all children identified as disabled” (Osgood, 2005, p. 105). This law mandated that students with disabilities be educated to the maximum extent possible within the regular education classroom.

The passage of Education of All Handicapped Children Act (EAHCA) of 1975, called PL 94-142 provided opportunities for education previously unattainable for students with disabilities. “Congressional findings in 1974 indicated that more than 1.75 million students with disabilities did not receive educational services” (Yell, 2001, p. 324). With the passage of 94-142, mainstreaming became a placement option for students with disabilities. “The passage of PL 94-142 signaled a new era in special education, one in which integration- to use the then current term, mainstreaming served as the operative paradigm” (Osgood, 2005, p. 106). Children with disabilities were no longer excluded from public schools and they were assured a free and appropriate education in the least restrictive environment.

Debates arose over the definition and implementation of mainstreaming. Public schools faced challenges in attempting to implement this law. As asserted by Osgood (2005):

> The cascade of services- the pyramid like schematic representation of the range of special education services proposed by Maynard Reynolds in 1962 and inverted by Evelyn Deno in 1970- provided a manageable and relatively comfortable model for designing special education programs in local districts and school buildings. (p. 119)

The cascade model ensured that students were provided with the least restrictive environment as mandated by PL 94-142, in regard to educational placement for students with disabilities. “The cascade model offers students with disabilities instruction across a continuum of alternative placements extending from regular classrooms, separate classes, day schools, residential settings, to hospital and homebound services” (Crockett, 2000, p. 46).

According to Osgood (2005), the inclusion movement is linked to the Regular Education Initiative (REI) which gained support in the 1980s and early 1990s. The REI advocated further school reform on behalf of students with disabilities. The aim of the REI was to educate as many students as possible within the regular education environment. The REI movement attempted to “bring about more complete integration of students with disabilities into the mainstream through a fundamental restructuring of the nature and process of delivering special education services” (Osgood, p. 147). The goals of the REI included merging special education and regular education into one system enabling shared responsibility of students with disabilities. The argument was that “the traditional dualistic approach where special educators were responsible for the education of students formally identified as disabled and regular educators taught everyone else, had become cumbersome, inefficient, and unnecessary” (Osgood, p. 136). A second goal was to dissolve special education labels and educate more students with disabilities within the regular education classroom. “Even with the advent of more assertive calls for greater integration of all students with disabilities, the idea of including students with severe, multiple, and other low-incidence disabilities in regular classrooms on a more

permanent basis struggled to gain acceptance" (Osgood, p. 150). Although this movement gained momentum and supporters, much debate remained over the integration of students with moderate to severe disabilities into the regular education classroom.

In 1990, PL 94-142 was reauthorized and renamed IDEA. With this reauthorization, the two additional disability categories of traumatic brain injury and autism were added as well as, transition planning for students after the age of 16. (Yell, 2001, p. 327). "In 1997, IDEA was again reauthorized, this time to protect the rights of students whose disabilities result in violent or dangerous behavior and to improve parent participation as well as school-parent relationships in special education" (Osgood, 2005, p. 181). IDEA was further amended in 2004. Several significant changes were made as a result of the reauthorization of IDEA. As reported by Smith (2005):

> These [changes] included requirements for highly qualified special education teachers; a track that will result in full funding; changes in the composition of Individualized Education Programs and committee involvement in the IEP process; transition from school to post school; identification procedures for students with learning disabilities; due process hearings; and expulsion and suspension of students with disabilities. (p. 314)

The current reauthorization of IDEA continues to stress the role of the regular educator in regard to the education of students with disabilities. "This requirement [that a general education teacher participate on the IEP team] was included to enhance the successful inclusion of the child with a disability into the general education classroom" (Gartin & Murdick, 2005, p. 330).

The current reauthorization of IDEA does not mandate inclusion, but it does continue to mandate that all students be educated within the least restrictive environment. Despite the structure and the precise language of IDEA, there is still variability in the

definition of least restrictive environment. Inclusion may not represent the least restrictive environment for all students with disabilities. Under IDEA, inclusion is merely one placement option, not necessarily the only placement option for students with disabilities. Since the passage of the IDEA legislation, many students with disabilities have been educated for at least part of their school day in the regular education classroom. (United States Department of Education, 2004b). According to the report from the United States government (United States Department of Education, 2004a), the percentage of children ages 6 to 21, educated in the regular education classroom in Pennsylvania schools for at least 80% of the school day, has steadily increased since 1998. During the 1998-1999 school year, 34% of children with disabilities were educated in the regular classroom. In the 1999-2000 school year, 36% of the children were educated in the regular classroom. This number increased in 2002, where it was reported that 44% of disabled students were educated in regular classrooms for at least 80% of the day (p. 80). The percentage of students with disabilities with disabilities educated in regular classes for most of their school day that is, those who were outside of the regular classroom for less than 21% of the school day has steadily increased over the years from 43.4% in 1993 to 48.2% in 2002 (United States Department of Education, 2004b, p. 29). In examining the data from the Department of Education, it appears that the state of Pennsylvania is below the national average for inclusion for most of the school day. As reported in the Pennsylvania Autism Task Force Executive Summary (2004), few school districts consider inclusion for students with autism as the first placement option.

Although students with autism are guaranteed the least restrictive environment as stated in PL 94-142, they are more likely than other disability categories to be served outside of the regular education environment. According to the Department of Education (2004a):

> Students with mental retardation were more likely than students with other disabilities to be educated outside the regular classroom for more than 60 percent of the school day (52.6 percent). Students with multiple disabilities (46.9 percent) or autism (45.5 percent) were also more likely to be educated in this environment. (p. 32)

Additionally, if these students are educated in a self-contained classroom, it positively impacts the school budget. "Districts can spend $50,000 a year educating a child with this lifelong disorder (autism) that impairs communication and social interactions skills" (Ciavaglia & Callahan, 2004, n. p.)

Attitude

"Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). Teacher expectations and attitude affect student performance. "In the course of a person's life, his experiences lead to the formation of many different beliefs about various objects, actions, and events. These beliefs may be the result of direct observation or inference processes" (Fishbein & Ajzen, 1975, p. 217). As teacher attitude relates to student achievement and with the arrival of state wide testing pertaining to school funding, it is important to research teacher attitude as it relates to students with disabilities. As reported by Leatherman and Niemeyer (2005), "Teachers form attitudes toward children with disabilities, and ultimately toward inclusion based on a child's characteristics, the factors

in the classroom, and their previous experiences" (p. 24). A teacher's attitude can affect student learning, self-esteem, and success within the school environment. It is necessary to investigate teacher attitude toward inclusion due to the effect it may have on student achievement.

Components of an Attitude

The concept of attitude relates to inclusion as attitudes influence behavior. "Because attitudes are hypothetical constructs that are not directly observable, researchers infer a person's attitude based on observable behaviors that the individual performs" (Jaccard & Blanton, 2005, p. 127). The study of attitude has been a researched topic in both the fields of psychology and marketing. There are various definitions of attitude as delineated in the research literature. An attitude is defined as "an evaluative disposition toward some object" (Zimbardo & Leippe, 1991, p. 31). Another definition by Eagly and Chaiken (1993) is as follows "attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p. 1). Another definition of attitude delineated in the literature as reported by Fishbein and Ajzen (1975), "A person's attitude toward any object is a function of his beliefs about the object and the implicit evaluative responses associated with those beliefs" (p. 29). The construct of attitude has been created in order to explain why people act and react to certain objects, situations, or people. "Although definitions (of attitude) may have varied somewhat across time, if one inspects how scholars have operationalized the concept of attitude across the field's history, evaluative aspects have always played a prominent role" (Albarracin, Johnson, Zanna, & Kumkale, 2005, p. 4).

As reported by Leatherman and Niemeyer (2005), there are several components of an attitude including, a cognitive component, affective component, and a behavioral component. Related to the affective component are emotions or feelings associated with the attitude. "Evaluative responses of the affective type consist of feelings, moods, emotions, and sympathetic nervous system activity that people experience in relation to attitude objects" (Eagly & Chaiken, 1993, p. 11). In regard to teacher attitude about inclusion, "the affective component is based on the cognitive understanding of a disability, which can motivate people to get involved in working with a child who has a disability, or produce feelings that could cause them to exclude a child with a disability" (Leatherman & Niemeyer, 2005, p. 24). These emotions or feelings may be positive or negative depending upon the attitude object. The behavioral component relates toward actions that an individual takes in respect to a particular attitude. "The behavioral component deals with a tendency to behave or respond in a particular way when in contact with children who have disabilities" (Leatherman & Niemeyer, p. 24). The cognitive component of an attitude relates to an individual's thoughts and perceptions regarding the object. "The cognitive component pertains to knowledge and thoughts about the causes of the behavior of children with disabilities in an inclusive setting" (Leatherman & Niemeyer, p. 24). Attitude formation is accomplished as a product of the interaction between the cognitive processes, affective processes, and evaluative processes. "This suggests that teachers form attitudes toward children with disabilities, and ultimately toward inclusion, based on a child's characteristics, the factors of the classroom, and their previous experiences" (Leatherman & Niemeyer, p. 24).

Attitude Formation and Change

Humans are not born with attitudes; they are formed at later stages of development (Eagly & Chaiken, 1993). In the study of attitude formation and attitude change, there have been many proposed theories such as the theories of operant conditioning, and observational learning. "The processes regarding attitude formation and attitude change are often overlapping and hardly separable" (Bohner & Wanke, 2002, p. 69).

Research indicated that attitudes can be formed and changed through the use of learning principles such as operant conditioning. Operant conditioning is "a type of learning in which the consequences of behavior are manipulated in order to increase or decrease that behavior in the future" (Zimbardo & Leippe, 1991, p. 144). If an educator experienced a negative experience with a student with a disability, he or she would be more unlikely to view inclusion with a positive attitude and would possibly be unwilling to participate in inclusive practices. "Behaviors or attitudes that are followed by positive consequences are reinforced and are more likely to be repeated than are behaviors or attitudes followed by negative consequences" (William, n.d., p. 1). A negative experience with a student with the disability or with inclusion will possibly reinforce the negative attitude held by the educator toward students with disabilities or inclusion. Research conducted by Leatherman and Niemeyer, discovered that teachers' previous experiences with inclusion shaped their attitudes toward inclusion. The results of the research study indicated that "all four participants' positive attitudes were influenced by their previous experiences with children who have disabilities" (p. 33). As demonstrated by the research

study by Leatherman and Niemeyer, and also by the theory of operant conditioning as it relates to attitude change and formation; it is imperative to provide educators with positive inclusive experiences in order to foster positive attitudes toward inclusion. Leatherman and Niemeyer indicate that "it could be suggested that with more experiences in successful inclusive classrooms, these teachers' attitudes toward inclusion would increase and become even more positive" (p. 33). As demonstrated by the theory of operant conditioning as it relates to attitude change and formation, when teachers are reinforced or provided with positive experiences, their behaviors and attitudes are also reinforced making them more likely to exhibit positive behaviors and positive attitudes resulting in successful inclusion practices. In order to foster positive attitudes and behaviors while teachers are implementing inclusive practices, providing them with appropriate supports and reinforcement will positively reinforce their behaviors and additionally, their attitude toward inclusion.

Research has also demonstrated that attitudes can also be formed or changed via observational learning. "What people think, believe, and feel affects how they behave" (Bandura, 1986, p. 25). Observational learning is one component of Bandura's social learning theory. "The social learning theory of Bandura (1973) emphasizes the importance of observing and modeling the behaviors, attitudes and emotional reactions of others" (Kearsley, 2007, ¶1). Observational learning is a process where behaviors and/or attitudes are acquired by observing others. According to Grusec (1992), there are four stages to observational learning which may impact attitude development (p. 782). The first stage involves directing attention to the attitude object. In the second stage, the

individual must recall the event or action. The third stage involves the individual transforming the action into behavior, and finally, in the fourth stage, the individual has motivation in order to continue to perform this behavior toward the attitude object. “Early perceptions about individuals with disabilities lay the groundwork for attitude formation. In fact, by the age of five, children have already formed perceptions, either positive or negative, about youngsters with disabilities” (Favazza, 1998, p. 255). The social learning theory by Bandura (1973) indicates that attitudes are formed and changed by direct experiences, observing a model or someone else’s experiences (Miller, 2005, para 13). This concept is important as it relates to teacher attitude and inclusion because modeling can be utilized to assist teachers in forming positive attitudes toward inclusion. Modeling of accepting and positive attitudes is the responsibility of school administrators in an inclusive environment. “Administrative leadership is a powerful predictor of positive teacher attitudes in schools as they implement inclusive education practices for students with disabilities” (DiPaola, Tschannen-Moran, & Walther-Thomas, 2004, p. 3). The modeling component of Bandura’s theory can also be utilized to model appropriate teaching strategies to assist teachers in forming positive attitudes or changing negative attitudes toward inclusion. As reported by MacGregor and Vogelsberg (1998), “In a sample of 84 teachers, a significant relationship was found between the degree to which teachers reported themselves to be successful including students with disabilities and their attitudes and level of confidence about inclusion” (p. 40). Teachers that feel more effective at assisting students with disabilities will exhibit more positive attitudes toward these students and toward including them within the inclusion environment.

According to Bandura (1997), the belief of self-efficacy has an effect on attitude formation, attitude change, and thus, behavior. “Self-efficacy (personal beliefs about one’s capabilities to perform particular behaviors) plays a major role in social cognitive theory, serving as one key mechanism through which people help to steer their own courses” (Lent & Maddux, 1997, p. 241). A teacher’s belief in his/her efficacy with students would directly affect student performance. “Social cognitive theory maintains that efficacy beliefs influence the choices that people make, as well as the effort and perseverance with which they engage in tasks” (Brownell & Pajares, 1999, p. 2). Teachers who possess the attitude that they are effective teachers, typically are. As reported by Troia and Maddox (2004), “teachers’ confidence in their ability to help their students succeed exerts a direct influence on their classroom routines and consequently their students’ motivation and success” (p. 19). Bender and Ukeje (1989) discovered that teachers with a positive sense of efficacy were more likely to try and motivate their disabled students than those teachers with a low sense of efficacy. “Attitudes are a factor in one’s daily living and therefore play an important role in an educator’s daily interactions with students” (Parasuram, 2006, p. 232). An additional study by DeForest and Hughes (1992) discovered a positive relationship between a teacher’s belief in self-efficacy and willingness to utilize accommodations within the regular education classroom for students with disabilities.

Teachers with low self-efficacy beliefs toward teaching students with disabilities may possess a negative attitude toward participation in inclusive programming. As reported by Cross, Traub, Hutter-Pishgahi, and Shelton (2004), “some teachers reported

that they were hesitant to include children when they felt unprepared (e.g., inadequate training, lack of training, insufficient child specific information) to meet the needs of children in their programs" (p. 176). Negative teacher attitude can be changed as result of gaining a feeling of self-efficacy. "Evidence seems to indicate that teachers' negative or neutral attitudes at the beginning of the innovation such as inclusive education may change over time as a function of experience and the expertise that develops through the process of implementation" (Avramidis & Norwich, 2002, p. 134). It is important to provide teachers with support during their participation in inclusion so that they may provide effective education to the included student which will positively impact teacher attitude.

Teacher attitude is one important component to consider when implementing inclusive practices. "Teachers' beliefs and attitudes are critical in ensuring the success of inclusive practices since teachers' acceptance of the policy of inclusion is likely to affect their commitment to implementing it" (Avramidis & Norwich, 2002, p. 130). The construct of attitude relates to cognitive components, emotional components, and behavioral components. An attitude is formed based upon the interaction between each of these components. "Teachers form attitudes toward children with disabilities, and ultimately toward inclusion, based on a child's characteristics, the factors of the classroom, and their previous experiences" (Leatherman & Niemeyer, 2005. p. 24). Consideration of the theory of operant conditioning and social cognitive theory is vital when determining how to assist teachers in forming positive attitudes toward inclusion or

changing negative attitudes toward inclusion. Key concepts of each of these theories delineate specific actions and events that promote attitude formation and change.

Role of Attitude as It Relates to Education

The construct of attitude relates to education as a teacher's attitude can directly affect student performance within the classroom. As asserted by Zimbardo and Leippe (1991):

> From an influence point of view, attitudes are often the most important component of attitude systems and corresponding mental representations. The tendency to evaluate- to form attitudes – is basic to being human. Indeed, we seem to automatically evaluate just about everything that we come across, no matter how brief our encounter or how unimportant the object. (p. 34)

One of the primary barriers to the success of inclusion is teacher attitude. Rosenthal and Jacobson (1966) investigated teacher attitude as it related to the performance of typical students. As reported in Cotton (2001):

> The Rosenthal/Jacobson study (1966) concluded that students' intellectual development is largely a response to what teachers expect and how those expectations are communicated. The original Pygmalion study involved giving teachers false information about the learning potential of certain students in grades one through six in a San Francisco elementary school. Teachers were told that those students had been tested and found to be on the brink of a period of rapid intellectual growth; in reality; the students had been selected at random. At the end of the experimental period, some of the targeted students- and particularly those in grades one and two- exhibited performance on IQ tests which was superior to the scores of other students of similar ability and superior to what would have been expected of the target students with intervention. (p. 1)

Not only does teacher attitude influence typical students, but also students with disabilities. Multiple researchers have investigated the relationship of inclusion and the attitude of personnel, and student achievement. Bishop (1986), Stainback, Stainback,

Strath, and Dedrick (1983), and Strain (1983), discovered that a positive attitude is necessary for inclusion and/or mainstreaming to be successful for included students.

As referenced in Eagly and Chaiken (1993), attitudes can be formed and changed through the theories of social learning theory and operant conditioning. It is important to consider the social learning theory and that of operant conditioning when investigating teacher attitude and inclusion. In the social learning theory, one individual's behavior is influenced by the environment and others in that environment. A regular educator's beliefs regarding his/her self efficacy and ability to implement inclusive practices will directly affect the performance of included students in the regular education classroom. "Teachers' confidence in their ability to help their students succeed exerts a direct influence on their classroom routines and consequently their students' motivation and success" (Troia & Maddox, 2004, p. 19). The role of the classroom teacher is to provide an appropriate education for all students, including those with disabilities. When a teacher feels confident about his/her ability to teach a child with a disability, his/her attitude is positive. As reported by MacGregor and Vogelsberg (1998), "In a sample of 84 teachers, a significant relationship was found between the degree to which teachers reported themselves to be successful including students with disabilities and their attitudes and level of confidence about inclusion" (p. 40). In order to provide an appropriate education and successful inclusive practices for students with autism, the teacher must possess a positive attitude toward the child with autism and his/her ability to change, and must also be willing to collaborate with other personnel to best meet the child's needs (Simpson et al., 2003). As reported by Idol (2006), "as teachers have more

practice with inclusion, their acceptance and tolerance of students with disabilities seems to improve" (p. 94). It is important to provide teachers with experience in inclusionary practices in order to foster more positive attitudes.

Regular Educators' Views of Inclusion

Previous studies investigating inclusion including those by Hewitt (1999); Soodak, Podell, and Lehman (1998); and Snyder (1999) displayed the frustration and dissatisfaction that educators feel regarding inclusion. There are varied reasons for this dissatisfaction including number of accommodations, lack of collaborative planning time, lack of support from administrators, and the fear that teaching time will be taken away from typical students. Also, many teachers believe that inclusion is a process that should be conducted slowly. This sentiment is also echoed by Davis (1989), who stated, "If it [inclusion] is adopted too quickly on a widespread basis, could bring serious harm to the very students it is designed to help" (p. 144). The implementation of inclusive practices must be carefully planned and participation and assistance of teachers, administrators and parents is a necessary component.

The attitude of regular educators toward inclusion has been a recent subject of interest in the research literature due to the passage of NCLB and IDEA. While there has been significant research conducted on attitudes of teachers toward inclusion for students with learning disabilities and physical disabilities, there is a lack of research on teacher attitudes toward inclusion for students with autism. This lack of research can be explained by the recent increase in the diagnosis of autism and the need for further research on inclusion for these students.

The movement toward inclusion has prompted more communication and collaboration between special educators and regular educators than in the past. "IDEA has strengthened the role of the general educator as an active team member in developing and implementing the IEP for students with disabilities" (Hedeen & Ayres, 2002, p. 181). Designing an educational program that meets the needs of students with autism in a classroom of typical learners is a challenge for teachers, parents, and administrators. Traditionally, there have been well defined roles for the regular and special educator. "The regular education teacher is responsible for determining curriculum, developing test materials and enrichment. The special education teacher is responsible for the monitoring and maintaining IEP goals and objectives of the special education students" (Familia-Garcia, 2001, p. 6). The role of the regular educator is vastly different than that of the special educator. Implementing inclusive practices will require many people to work together to provide quality education for all children; including those with disabilities.

Effective teaching practices and effective implementation of inclusive practices are necessary for students with autism. "It can be argued that our failures to produce quality inclusion for these students are tantamount to our failures to provide them with a quality education" (Harrower & Dunlap, 2001, p. 779). To be successful in providing appropriate services for students in an inclusive setting, teachers can no longer work in isolation. Collaboration is necessary for inclusion to succeed. As reported by Welch (2000), there are four tenets that must exist for collaboration to occur. First, all individuals within the school must have common goals. Second, collaboration must be valued by parents, teachers, and administrators. Third, all individuals involved must

acknowledge the benefits of collaboration. Fourth, time and resources must be allocated for successful collaboration to occur (p. 73). Teachers need to work together to address the needs of these students. "The skill depth and breadth of education personnel are the most significant variable accounting for gains made by persons with autism" (Simpson & Myles, 1998, p. 18).

Levins, Bornholt, and Lennon (2005) investigated teachers' attitudes toward children with special education needs in the regular classroom. As students with disabilities are educated within the regular education classroom, there are many more tasks and responsibilities of the regular classroom teacher. "As teachers assume this ever-broadening scope of duties, it is reasonable to expect they express a mix of positive, negative, and neutral attitudes toward children with disabilities" (p. 329). In this research study, attitudes to pre-service and in-service teachers were compared. Each subject participated in an inventory using rating scales to measure teachers' thoughts regarding students with attention deficit hyperactivity disorder (ADHD), a physical disability, intellectual disability, and general needs regarding disability. The results of this inventory indicated that

> Compared to children with physical needs, attitudes to children with cognitive needs were more positive (effect size 1.0 SD) and less negative (effect size 0.6 SD) and attitudes to children with social needs were less positive (effect size 0.6 SD) and more negative (1.0 SD). (p. 338)

This research study is significant because it indicates that teachers possess negative feelings toward students with social needs and social skills deficits are one of the major hallmarks of a child with autism. These findings are unfortunate because research has determined that children with disabilities socialize more when they are educated with

nondisabled peers. “When all children are totally included in the classroom, many benefits are realized. One benefit for children with disabilities is increased social skills and acceptance by typically developing peers” (Leatherman & Niemeyer, 2005, p. 23). One other important point of this study is that “it appears that professional and personal experiences do not provide differential influences on teachers’ implicit thoughts toward children with special needs” (Levins et al., 2005, p. 339). The results of this research study point to the need for professional development for all teachers regardless of previous personal and professional experiences with children with disabilities.

There is limited research detailing the relationship between teachers and students with autism. Robertson, Chamberlain, and Kasari (2003), attempted to examine this relationship. A total number of 187 children ranging from second to third grade participated in this research study. Of those 187 students, 12 of those students were autistic. Also participating were the 12 regular education classroom teachers. The classroom teachers completed a questionnaire assessing personal characteristics relating to their profession and their relationship with the included student.

> General education teachers also completed the 28 item Student Teacher Relationship Scale, a teacher report instrument that utilizes a five point Likert type format to assess teacher’s feelings about their relationship with the a student, the student’s interactive behavior with the teacher, and the teacher’s beliefs about the student’s feelings toward the teacher. (p. 125)

Results of the research study indicated that “teachers reported generally positive relationships with included students with autism. However, a higher rating of behavior problems did lessen the quality of the teacher-student relationship” (p. 128). This research study discovered results similar to those of Birch and Ladd (1998), a teacher’s

relationship with a student is related to student behavior within the classroom environment. The fact that a teacher's relationship with a student is affected by student behavior is problematic for students with autism because they do exhibit negative behaviors within the classroom environment which may impede the formation of a positive relationship with their classroom teacher. The implication of this research study is that regular education teachers must be provided with support in order to manage the behaviors of students with autism. Teachers require opportunities for professional development so that they can gain the required skills in regard to behavior management.

Snyder (1999) investigated the attitudes of general education teachers toward inclusion. Data was collected by surveying teachers in graduate level courses and in workshops that were taught by the author. Most of the thoughts expressed by the classroom teachers were negative in regard to the inclusion process. "Most of the subjects surveyed did not think that their administrators were very supportive of the needs of the general education teacher regarding mainstreaming or inclusion" (p. 176). Of all the respondents, 75% believed that a lack of support from administrators exists regarding inclusion and mainstreaming. Concerns raised by the teachers included lack of training and lack of time for collaboration. As reported by one teacher in the qualitative study, "The only information I've received about special education, its needs and accommodations is the paper I researched on special education for a class in college" (p. 179). A lack of training may be one reason for the negative attitudes of these individuals toward inclusion of students with disabilities. Results indicated that, 100% of the elementary teachers, 80.0% of the middle school teachers, and 84.6% of the high school

teachers felt a lack of confidence working with students with disabilities in regular classrooms. This study clearly supports the view that further education is required for general education teachers to positively embrace inclusion for students with disabilities, including students with autism. The results of this qualitative research study must be interpreted with caution due to the characteristics of respondents including low sample size, gender, and any personal experiences with inclusion that may have affected attitude. Additionally, this research study encompassed only one state and only 1/3 of the counties in that state which may limit the generalization of these results.

Training teachers to teach students with autism effectively must not only be constrained to those teachers currently in service. Preservice teachers must be exposed to this important topic. As reported by Silverman (2007), there is a vital need for training on implementing inclusion in the regular education classroom. "Many beginning general educators hold negative attitudes toward inclusion because they feel unprepared to teach students with disabilities, citing serious concerns about extra planning, record-keeping, and potential classroom management problems" (Silverman, p. 44). The reality of the current teacher preparation programs is that many regular education teachers or subject-specific teachers leave the university receiving no instruction on how to implement inclusion and how to include and teach students with disabilities. A research study conducted by Lambert, Curran, Prigge, and Shorr (2005), investigated the attitudes of preservice elementary and secondary teachers toward inclusion prior to and after completing a class on inclusion. Approximately 479 individuals completed the pre and post surveys. Initially, preservice educators were least in favor of including students with

more severe special needs involving intellectual ability and behavior problems (Lambert et al., p. 7). “While increases in mean scores were present in the post-survey, these items continued to rate less positively than the others.” (Lambert et al., p. 7). While the preservice secondary teachers displayed an improvement in their attitude toward inclusion, it was not as significant a change as the attitude of the preservice elementary teachers. “These findings are similar to those reported in earlier studies in which many educators suggested that it is not realistic to make the instructional accommodations needed for students with disabilities beyond the elementary level” (Lambert et al., p. 8).

The view that a regular educator holds regarding the inclusion process will directly affect the way that the child with a disability is included into the classroom. Often, a teacher’s attitude is based upon the severity of the child’s disability and, therefore, his academic performance. Teacher attitudes have been found to be crucial in the successful inclusion of students with disabilities. Studies by Baker and Zigmond (1995), Jordan, Stanovich, and Roach (1997), and Semmel, Abernathy, Butera, and Lesar, (1991) have exhibited this phenomenon. Most times, regular educators fear inclusion due to their lack of knowledge regarding disabilities and accommodating for these disabilities as reported by Snyder, (1999).

Personal Characteristics Related to Teacher Attitude toward Inclusion

Personal characteristics of teachers may affect their attitude toward inclusion. Age of the teacher is one personal factor that may affect his or her attitude toward inclusion. Heflin and Bullock (1999) determined that teacher age impacted teacher attitude toward inclusion. “Teacher age appeared to affect willingness to provide inclusionary services:

older teachers were more resistant" (p. 109). Parasuram (2006) also indicated that teacher age affects attitude toward inclusion. "Analyses of the age variable indicate more positive attitudes in the age group of 20-30 years than in the age group of 40.1-50 years" (p. 238). One conclusion may be that younger teachers are more familiar with disabilities and technology which may make them less fearful about including students with significant needs within the classroom environment.

Current teaching placement is another personal factor that may affect teacher attitude toward inclusion. As reported by Smith (2000), "most of the studies in the literature have been done with elementary teachers, who appear to exhibit more positive attitudes toward inclusion than secondary teachers" (p. 56). Similar results were also noted by Larrivee and Cook (1979). As reported by Larrivee and Cook, "examination of the data indicates that the regular classroom teacher's attitude toward mainstreaming tends to become less positive as grade level increases" (p. 317). Further investigation is required in order to determine why teacher attitude toward inclusion is negatively impacted by the increase in grade level.

Experience with inclusion or a relationship with an individual with a disability is related to teacher attitude. Research conducted by Avramidis et al. (2000), discovered that teachers with experience with inclusion had significantly more positive attitudes. Additional research conducted by Leatherman and Niemeyer (2005), indicated that teacher attitudes regarding inclusion were influenced by experiences in an inclusive classroom. "The results also indicate that all four participants' positive attitudes [toward inclusion] were influenced by their previous experiences with children who have

disabilities" (Leatherman & Niemeyer, p. 35). Even an acquaintance with a person with a disability has proven to affect teacher attitude toward inclusion. Parasuram (2006) indicated that "teachers who were acquainted with a person with a disability had significantly more positive attitudes toward people with disabilities and toward inclusion than the teachers who were not acquainted with a person with a disability" (p. 237).

Avramidis et al. (2000) also discovered a relationship between training and teacher attitude. "Teachers with substantial training in special education held significantly higher positive attitudes than those with little or no training about inclusion" (p. 201). Wall (2002) reported that teachers with more special education coursework had more positive attitudes toward inclusion. "Survey studies have shown that teacher acceptance or resistance to the inclusion or integration of students with disabilities into general education classrooms is related to the knowledge base and experiences of teachers" (Van Reusen, Shoho, & Barker, 2000, para. 6). As the No Child Left Behind Act indicated that highly qualified teachers must be placed in classrooms across the United States, teachers must receive training to be highly qualified not only to teach regular education students, but also those with disabilities as now more than ever, they are being included in regular education classrooms.

As demonstrated, teachers with a greater knowledge base of inclusion and disabilities possess more positive attitudes toward inclusion. Therefore, teachers must be provided with further education and training on the topics of inclusion, disability types, and accommodations that can be utilized within the regular classroom environment to facilitate inclusion. However, careful consideration must be given to the delivery of this

information. As reported by Wolfe and Snyder (1997) in-services must be supplemented by follow-up strategies in order to effectively transfer the learning of strategies and knowledge to the job. "Transfer of learning is the effective application by program participants of what they learned as a result of attending an educational program. It is the so what or now what phase of the personnel development process" (p. 174). Types of professional development activities that facilitate learning and transfer of skills to the classroom include: coaching, learning communities, and peer support groups. Teachers should not be viewed as passive vessels acquiring necessary knowledge. "Continuous learning opportunities need to become part of teachers' everyday working lives and part of every school's institutional priorities" (Bull, 1994, x). Professional development should be viewed as a daily activity.

Another personal characteristic investigated to determine effect upon teacher attitude is gender. Alghazo and Gaad (2004) investigated teacher attitude toward inclusion. Teachers completed a questionnaire indicating agreement or disagreement with statements relating to the philosophy of inclusion. The results of this study indicated that "males had less positive attitudes towards including persons with disabilities in the regular classroom than their female counterparts" (p. 96). A research study conducted by Parasuram (2006) surveyed regular educators to determine their attitudes toward inclusion and individuals with disabilities. Upon examination of the study results, it was discovered that gender did not affect attitude toward inclusion. "A one-way ANOVA conducted to check whether there was a statistically significant difference between the mean scores of males and females yielded a non-significant difference between the two

means" (p. 235). Another research study conducted by Van Reusen et al. (2001) investigated high school teacher attitudes toward inclusion. Variables relating to the personal characteristics of the teachers including classroom experience with inclusion, gender, amount of special education training, and subject area were investigated. "The variables of gender, content or subject area taught, and experience level (number of years taught) were found to be insignificant factors in the attitudinal responses of the teachers across all domains in this study" (para. 18). Research conducted by Leyser and Tappendorf (2001) examined teacher attitude toward inclusion based upon teacher completion of two questionnaires relating to attitude and willingness to utilize accommodations within the classroom environment. Female teachers scored higher scores than male teachers indicating a more positive view. Also, "female teachers reported using adapted instructional practices more frequently than their male counterparts" (p. 758). The relationship of gender to teacher attitude has proven to be inconclusive due to the varying results reported in the research literature. "Findings reported in the literature regarding the relationships between teacher demographic characteristics and attitudes are often inconsistent. More research is needed to examine this question" (Leyser & Tappendorf, 2001, p. 758).

Parents' Views of Inclusion

The creation of an inclusion environment necessitates the involvement of parents. Family members have an important role in designing the individualized educational program (IEP) of students with autism. "The Individuals with Disabilities Education Act Amendments confirms the rights of parents to be involved in their child's referral,

testing, program planning, placement, and program evaluation" (Leyser & Kirk, 2004, p. 272). Family members, teachers, administrators, and parents often have different views and experiences regarding inclusive programming. Kasari, Freeman, Bauminger, and Alkin (1999) examined parent perceptions of inclusion. 113 parents of children with autism and 149 parents of children with Down syndrome participated in the research study. This study attempted to determine if diagnosis, age, and current educational program affected parent position regarding inclusion. The results of the study indicated that parents of children with Down syndrome viewed full inclusion as more appropriate for their child with disabilities than did the parents of a child with autism. The parents of children with autism viewed mainstreaming as a more appropriate option for their child. "Over half of the parents of autistic children commented that their children's current educational needs could not be adequately met in an inclusive program" (p. 303). There are many reasons why parents of children with autism may feel that their child's needs may not be adequately met within an inclusive classroom. Many times, in autistic classrooms, the student- to- teacher ratio is much smaller than the regular classroom. Also, many parents of the children with autism viewed the specialized training of the staff in the special education classroom.

> There is both empirical and practical support for a specific teaching approach that works with autistic children which likely influences parental perceptions of what their children need educationally. Thus, these parents are more likely to endorse a specialized program and staff than parents of non-autistic children. (p. 303)

Although the research study by Kasari et al., (1999) indicated that the parents of children with autism believed that a more specialized program was warranted, this belief was not expressed by the parents in a research study conducted by Davern (1999). Davern (1999)

interviewed 21 parents, from 15 different families. The 15 students were representative of a wide range of diversity in regard to their diagnoses and need for specially designed instruction and accommodations. In this study, 21 parents from 15 families with children with a wide range of disabilities participated in semi-structured interviews regarding their thoughts of their child's inclusive classroom placement. Many of the parents shared positive thoughts regarding their child's inclusion in a regular classroom. "These parents were very pleased that their child was a member of a general class and would not consider placing the child in (or returning the child to) a special class or special school" (p. 174). There are several limitations to this study including subject selection (the parents were chosen from a support group or conference); therefore, they may not be representative of a larger population. Also, the majority of the individuals were European American.

Leyser and Kirk (2004), surveyed parents in order to investigate their beliefs regarding inclusion. "Parents from 21 different school districts representing all regions of a midwestern state participated in the study" (p. 275). The parents completed an eighteen-item survey indicating responses using a Likert Scale ranging from 1 (strongly agree) to 5 (strongly disagree). Overall, the results of the study demonstrated parent support toward inclusion and mainstreaming for their children with disabilities.

> Parents were concerned about the quality of instruction and the possible loss of needed services. Many also expressed a concern regarding the instructional skills and the availability of time by general classroom teachers, while sharing the view that special education teachers were better skilled to instruct students with special needs. (p. 281)

Combined with concerns regarding instruction, parents also expressed concerns with the social adjustment of the disabled child into the regular classroom. “More supportive views regarding inclusion were noted for parents of students with mild disabilities in comparison to those with moderate and severe disabilities; for parents of younger school age children in comparison to those at the secondary level” (p. 281). Some limitations of the study included location of sample in one state, which limits generalization, limited participation of parents with students and the secondary level, and lack of specificity regarding diagnoses of children involved in the research study.

With the reauthorization of IDEA, the role of parents in regard to educational programming for their child with a disability has been strengthened. While there has been much debate regarding the placement of students with disabilities in the regular education classroom, there is little debate over the important role a parent plays in the education of his/her child with a disability. “What is often missing in the ongoing debate and discussions [regarding inclusion] are the views of the affected stakeholders, parents and children” (Leyser & Kirk, 2006, p. 65). Many parents of children with disabilities express concern regarding the placement of their child within the regular education classroom. As reported by Leyser and Kirk,, these concerns include the “lack of knowledge, skills, time and training of regular classroom teachers” (p. 66). One formula does not exist which specifically details how to effectively implement inclusive practices for all students with disabilities. One theme delineated in the research literature and echoed by Leyser and Kirk, is that professional development is one necessary component when implementing inclusive practices. “School administrators should provide ongoing support for inclusion,

including resources, services, materials and continuing professional developmental programs" (Leyser & Kirk, p. 67). This is a sentiment shared not only by teachers, administrators, but also parents.

Administrators' Views and Responsibilities Regarding Inclusion

"Administrative leadership is a powerful predictor of positive teacher attitudes in schools as they implement inclusive education practices for students with disabilities" (DiPaola, Tschannen-Moran, & Walther-Thomas, 2004, p. 3). There are many ways that principals can assist in facilitating inclusion. Not only does the principal determine the climate of the school, but he/she also has the responsibility of ensuring that all students including those with disabilities, are educated in the least restrictive environment and provided with the appropriate accommodations. According to Tourgee and DeClue, (1992) a number of behaviors have generally been observed in principals who facilitate successfully integrated special education programs: (a) the principal clearly states his/her position about the education of students with disabilities; (b) the principal is proactive and committed to his or her values regarding educating students with disabilities; (c) the principal's expectations are clear and they have been communicated to staff; (d) the principal provides ample planning time and (e) the principal encourages parent involvement (p. 3-4). The success of students included in regular classrooms relies heavily on the attitudes of administration and teachers. The principal is the primary leader in the school community and his or her attitudes and actions set the tone for the entire school community. A welcoming attitude of the staff will probably result in a welcoming attitude of students.

Praisner (2003) investigated the attitudes of elementary school principals toward inclusion of students with disabilities. Over 400 elementary school principals were surveyed to determine attitudes, beliefs, and actions of principals regarding included students. "The Principals and Inclusion Survey (PIS) was designed to determine the extent to which variables such as training, experience, and program factors were related to principals' attitudes" (p. 136). It is important to note that placement decisions are made by the IEP team, but this study recognized that there are a number of roles that must be fulfilled by the principal in order to facilitate a successful placement. "Principals are now expected to design, lead, manage, and implement programs for all students including those with disabilities" (p. 135). The results of the study indicated that principals with more positive attitudes toward inclusion favored less restrictive placements than those principals with negative attitudes toward inclusion and students with disabilities. Also, the elementary principals believed that "certain disability categories, such as those without emotional or social needs and who tend to "fit in" academically were more appropriate for inclusive settings" (p. 141). Analysis of this study displayed that most principals based their beliefs on inclusion on the contacts that they had with students with special education needs. "In order to change the perceptions of principals toward groups like serious emotional disturbance, autism/pervasive developmental disorder, and/or multi-handicapped, it is essential to provide principals with positive experiences with individuals from all disability categories" (p. 143). The principals in this research study also had limited knowledge regarding students with moderate to severe handicapping conditions. The authors believed that "preparation programs and in-service training

programs for principals need to address inclusion as part of their required curriculum. Principals require specific training that is designed to meet their needs as building administrators, especially regarding their leadership role in inclusion" (p. 143).

"Given the complexity of their roles and responsibilities, it is not surprising that many principals feel poorly prepared for jobs as special education leaders in their buildings" (DiPaola et al., 2004, p. 7). Many educators in leadership roles lack coursework in areas of special education; therefore, it is difficult for them to oversee issues involving IEP's. If the goal of educating all students in the least restrictive environment is to be realized, then principals and school leaders must be prepared to address these students' needs. "State and local agencies must provide building leaders with easy access to useful information such as new legislation action, case law precedents, changes in regulations, relevant research, online resources, and information about upcoming professional development opportunities" (p. 7). The principal and educational leaders within a school building are responsible for providing a climate of responsibility toward all students and providing students with required services and accommodations. The principal must support the teachers and provide them with professional development opportunities and collaborate with each other to best meet each child's needs.

Studies Supporting Inclusion for Students with Autism

Studies have indicated that inclusion supports improvement in the social skills of students with autism (Weiner, 2006; Cross, Traub, Hutter-Pishgahi & Shelton, 2004; Fisher & Meyer, 2002). However, limited research exists which demonstrates academic

improvement for students with autism as a result of being included in the regular education environment. As reported by Hunt and Goetz (1997),

> Perhaps the lack of research on learning outcomes [for students with severe disabilities included in general education classrooms] is due to the fact that the impetus for the movement to include students in the mainstream of general education was grounded in human rights guaranteed by the Constitution, legal precedents, and ethical considerations, rather than in theories of learning or research on effective teaching. (p. 17)

Further research must be conducted on the effects of inclusion on the academic and developmental progress of students with autism included in the regular education environment.

Fisher and Meyer (2002) investigated the improvement in social skills and developmental skills of students with severe disabilities based upon 2 years of placement in an inclusive program versus a self-contained program. There were 40 students participating in this research study with varied diagnoses including autism, mental retardation, sensory impairments, and multiple disabilities. The developmental skill improvement of students was measured by the administration of the Scales of Independent Behavior (SIB). "The SIB is organized into four major clusters and sub-clusters reflecting traditional curricular domains as follows: (a) Motor Skills Cluster; (b) Social Interactions and Communication Skills cluster; (c) Personal Living Skills Cluster; and (d) Community Living Skills Cluster" (p. 167). Additionally, the Assessment of Social Competence (ASC) was administered to measure improvements in social competence. "The results of this study point to greater gains on psychometrically valid measures for students who were included in general education settings in comparison to matched peers who were segregated" (p. 172). Students with severe disabilities placed in

an inclusive setting displayed greater improvements in the areas of socialization and developmental skills than those students placed in self-contained settings. The results of this research study indicate that students with severe disabilities (including students with autism) display improvement in social communication skills as a result of being placed in an inclusive setting. “Contact with typical peers is thought to be crucial in assisting students with autism to develop social and communicative skills” (Ochs, Kremer-Sadlik, Soloman, & Sirota, 2001, p. 10).

Weiner (2006) investigated the benefits of providing quality inclusive educational opportunities to young students with disabilities to prepare them to enter inclusive school age placements. Twenty six children with disabilities ranging in age from 2 to 6 years of age were enrolled in inclusive preschool placements. “The primary disability labels of the participants were as follows: 56% autistic, 16% developmental disability, 12% deaf and hard of hearing, 8% emotionally disturbed, 4% cerebral palsy, 4% pervasive behavior disorder” (p. 4). As reported by Weiner, all children experienced developmental improvements, communication and motor skill improvements, and achievement of annual IEP goals as a result of being placed in an inclusive educational setting. Not only did this research study focus in improving the social and academic skills of the students with disabilities placed in inclusive placements, but it also focused on training the staff working with these students and improving their willingness to participate in future inclusive practices. Not only did the students’ skills improve across three different domains, but teacher attitude and willingness to participate in inclusion improved as well. At the conclusion of the research study, the staff was asked to complete a survey to

indicate their satisfaction with the inclusion experience. “The responses were extremely favorable. For example, one telling query asks, ‘If given the chance again next Fall would you have another student with disabilities in your classroom.’ The response was an overwhelming 100% ‘yes’” (p. 7).

Research by Cross et al., (2004) investigated the elements of successful inclusion for 7 children with severe disabilities, including 1 child identified with autism. Cross et al. (2004) described successful inclusion as: children making progress on their individual goals, children making gains in their personal development, children being welcomed by staff members and peers, and parent approval toward their child’s progress. Data for this research study was gathered through the use of interviews, observation, and analysis of records. “The results of this study suggest that children with significant needs and disabilities can have a successful inclusive experience and that there are identifiable elements and associated practices that contribute to that success” (p. 181).

Additional studies by Stainback and Stainback, (1992); Odom, Hoyson, Jamieson, and Strain, (1985); and Odom and Strain, (1986); Harris, Handleman, Kristoff, Bass, and Gordon (1999) and Fryxell and Kennedy (1995); suggested that inclusion supports improvement in the social skills of students with autism. As reported by Harrower and Dunlap (2001),

> Researchers have documented that students with disabilities, including students with autism, who are fully included (a) display higher levels of engagement and social interaction, (b) give and receive higher levels of social support, (c) have larger friendship networks, and (d) have developmentally more advanced individualized education plan goals than their counterparts in segregated placements. (p. 763)

Improvement in social skills is vital for students with autism. “Socially inappropriate behavior rather than poor job performance is often the cause for job loss among employees with disabilities” (Owens, 1997, ¶4). Deficits in social skills impede functioning both inside and outside of the school environment.

Kamps, Leonard, Potucek, and Garrison-Harrell (1995) investigated the effects of cooperative learning on reading achievement for three male students with autism included within a regular education classroom. “The intervention in the present study was CWPT [classwide peer tutoring], an academic skills program that measured the direct effects on the students’ academic skills (reading) and the indirect effects on students’ social interactions” (p. 51). Activities occurring during the reading time included oral reading of passages, feedback by peers regarding reading fluency, and response to comprehension questions regarding the reading passage. The tutor role was shared by both students in the dyad during each tutoring session. For each of the three students with autism, the use of the peer tutoring in the inclusive environment produced an improvement in both their reading and social skills. “CWPT produced an increase in reading rates for Mike, Adam, and Pete of 19, 31, and 12 words respectively” (p. 53). Reading fluency rates improved for each student as well as their ability to answer comprehension questions regarding the orally read passage. “Implementation of CWPT resulted in superior performances for Mike, Adam, and Pete from baseline performances of 47%, 24%, and 67% to initial CWPT performances of 76%, 68%, and 90%” (p. 54). Not only did academic performance improve as a result of the tutoring program, but also social interaction. “CWPT produced higher mean social interaction times for all 3

students. The baseline duration means per 5 min sample (300 s) for Mike, Adam, and Pete were 50 s, 40 s, and 25 s respectively. Social interaction time averaged 144 s, 120 s, and 145 s during CWPT" (p. 54). This research study suggests that peer mediated interventions in inclusive environments can improve the academic and social skills of students with autism.

Conclusion

As demonstrated in the literature review, one potential barrier to student success in inclusive environments is teacher attitude. A teacher's attitude toward inclusion can directly impact the success of an included student. As a result of this literature review regarding attitudes and inclusion, there is a clear need for both elementary and secondary teachers to master teaching strategies in order to facilitate the learning of all students in the regular education classroom, including those with disabilities. The attitude of administrators was also considered in this literature review as they are also responsible for implementing inclusive practices. "Administrators must model shared decision making, arrange supports, and incentives for collaboration as an expected behavior" (Villa, Thousand, Meyers, & Nevin, 1996, p. 43). Also included in this literature review was an exploration of parent attitude toward inclusion. The attitude of parents toward inclusion as examined by French and Chopra (2004) indicated that parents are an integral component of successful inclusive practices. "Parents are now recognized as the best advocates and initiators of reform and as partners and collaborators with the school in the care, treatment, and education of their children" (Chopra & French, 2004, p. 240).

Teacher attitude directly affects student achievement. Leatherman and Niemyer (2005), Avramidis and Norwich (2002), Bender and Ukeje (1989), Brophy (1983), Bishop (1986), Stainback et al. (1983), and Strain (1983), discovered that a positive attitude is necessary for inclusion and/or mainstreaming to be successful for included students. The literature review pointed out that regular education teachers often favor those students with mild disabilities than those with moderate and severe. This attitude places students with autism at grave risk of being viewed as a burden by the regular education teacher due to their significant level of need. Investigation into teacher attitude toward disabilities and identification of personal factors that may affect teacher attitude can assist school districts in developing and implementing appropriate professional development programs in order to assist teachers in developing positive attitudes toward inclusive practices.

The following information will be presented in the subsequent chapters. Chapter 3 is a comprehensive description of the methodology and procedures of data collection utilized within the research study. Chapter 4 will contain the data analysis, and chapter 5 will include a summary of the results and recommendations for further research.

CHAPTER 3: METHODOLOGY

Introduction

This chapter includes a description of the research methods utilized in this research study. The purpose of this research study is to examine the attitudes of regular educators toward inclusion for students with autism. This chapter includes a description of the research design, the participants, and the survey instrument created and utilized in the current study. Positive attitudes are critical for the success of included students. As demonstrated by Brophy (1983) and Trouilloud et al. (2002), teacher expectations and attitude directly affect student performance. "Research shows that students achieve more when teachers hold high expectations" (Clark, 2000, p. 3).If a teacher does not believe that the student has the potential to learn, this can result in less attention to the student and less interest in his/her academic programming.

Overview of Methodology

A quantitative research methodology was utilized within this research study. Specifically, a quasi-experimental static group comparison with non-equivalent groups research design was utilized in this research study. As defined by Creswell, (2003), "a quantitative approach is one in which the investigator primarily uses postpositivist claims for developing knowledge, employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data" (p. 18). This study relied on the statistical data determined from the survey results. As reported by Meadows (2003), in a quantitative approach, data is collected via surveys or another standardized method and the purpose of the research is deductive in order to test ideas

and hypotheses (p. 520). Therefore, a quantitative methodology was chosen for this research study as the data will be collected for the purpose of testing hypotheses in order to determine relationships between the independent variables and the dependent variable. Quantitative research was chosen over qualitative research as "qualitative research is to help to understand social phenomena in a natural rather than experimental setting" (Meadows, 2003, p. 519). Also, as reported by Meadows, qualitative research examines the views of an individual and quantitative research examines a group of people or a group of statistics (p. 519). A quasi-experimental static group comparison with nonequivalent groups research design will be utilized in this research study.

Research Questions

The following research questions were investigated within this research study.

1. What are the attitudes of regular educators toward inclusion for students with autism?

2. Do teachers' attitudes regarding inclusion for students with autism differ based upon years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding autism?

(a). Do teachers' attitudes regarding inclusion for students with autism differ based upon years of teaching experience?

Null Hypothesis: There are no significant differences among teachers with 0-5, 6-15, and 16 plus years of teaching experience on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with 0-5, 6-15, and 16 plus years of teaching experience on attitudes regarding inclusion.

(b). Do teachers' attitudes regarding inclusion for students with autism differ based upon current grade level teaching assignment?

Null Hypothesis: There are no significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

(c). Do teachers' attitudes regarding inclusion differ based upon previous experience with inclusion?

Null Hypothesis: There are no significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

(d). Do teachers' attitudes regarding inclusion for students with autism differ based upon gender?

Null Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

Alternative Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

(e). Do teachers' attitudes regarding inclusion for students with autism differ based upon previous training regarding autism?

Null Hypothesis: There are no significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes regarding inclusion.

3. How accurately can attitudes of regular educators toward inclusion for students with autism be predicted from a linear combination of years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding inclusion?

Null Hypothesis: There is no significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Alternative Hypothesis: There is a significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade

level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Participants

This research study was conducted in one school district in Pennsylvania. This school district contains 7 elementary schools, 2 middle schools, and 1 high school. At the time of the research study, approximately 8,000 students are being educated within this school district. Approximately 870 of these students are identified as disabled and served with IEP's. The school district employs approximately 550 teachers. Approximately 300 teachers are considered general education teachers and the remaining are considered special education teachers.

The population of this research study included 300 regular educators in one school district in Pennsylvania. To accurately represent the population a sample size of 168 teachers was necessary. The sample size of 168 was determined by using the sample size calculator found at http://survey.scantron.com/resources.sample-calc.htm for 5% error and 95% confidence level. The participants of this research study were selected via cluster random sampling. As defined by Fraenkel and Wallen (2003), "the selection of groups or clusters of subjects rather than individuals is known as cluster sampling" (p. 100). The participants in this research study were selected by cluster sampling. One high school, one middle school, and three elementary schools were chosen as sites for this research study. Cluster random sampling was utilized to choose the middle school and elementary schools as sites for this research study. As the district has two middle schools, each middle school will be given a number and a random number generator utilized in

Microsoft Excel was utilized to choose the middle school as the research site. The district has 7 elementary schools therefore, each elementary school was assigned a number. A random number generator in Microsoft Excel was utilized to choose the three elementary schools as research sites. The school district has only one high school. In order to assure random selection at the high school level, each regular educator was assigned a number. A random number generator in Microsoft Excel was developed to choose 60 respondents at the high school for participation in the research study. Although, the sample size of 168 was necessary for this research study, approximately 178 surveys were administered as a result of the cluster sampling.

This particular school district was chosen for this research study based upon its current philosophy of educating all students with autism within their home school district. Many other school districts within this county in Pennsylvania choose to educate their students with autism through the local Intermediate Unit; however, this particular school district does not. It is for this reason, that this school district was selected to complete this research study because the professionals within this school district have been exposed to students with autism, may have received some training on autism and in the future because of the district's mission to educate these students within district classrooms, will have some contact with students with autism.

Ethics

Prior to data collection, approval was obtained from the Institutional Review Board of Walden University (Approval No 0303040). Participation in this research study was voluntary. Respondents were notified of anticipated benefits and consequences to

participation in this research study via an informed consent form. The informed consent form included information regarding the purpose of the research study and the time commitment required by participation. Contact information was presented to each respondent in order to allow the ability to ask pertinent questions regarding the survey instrument itself and participation. Complete anonymity was assured to each respondent. Participants were instructed to place an X on the informed consent form to indicate agreement and participation in the research study. Participants did not sign their names on the consent form in order to assure anonymity. In order to improve the response rate, at the conclusion of 1 week, reminder post-cards and additional copies of the survey instrument and informed consent form were placed in teacher mailboxes to encourage participation.

Data Collection Instrument

In reviewing surveys utilized in previous research studies measuring teacher attitudes toward inclusion, no single survey emerged that would adequately measure teacher attitudes specifically for students with autism. Several of the surveys focused solely on one disability type such as the Inclusion Perception Survey Instrument (Wanzienried, 1998) created by Linda Kelly Wanzenried which focused on learning disabilities and Attitudes toward Children with Serious Emotional Disturbance (Minor, Acheson, Kane, Calahan, Leverntz, Pasden, & Wegener, 2002) which focused on students with social-emotional needs. There were many other published and validated survey instruments that measured attitudes toward inclusion, but not necessarily for students with autism. Examples of these surveys included the following: Opinions

Relative toward Integration of Students with Disabilities Scale (Antonak & Larrivee, 1995), the Principals and Inclusion Survey (Algozzine & Thurlow, 2003), the Parent Attitude to Inclusion (Palmer, Borthwick-Duffy, & Widaman, 1998) and the Scale of Teachers' Attitudes toward Inclusive Classrooms (Cochran, 1999)

Due to the limited availability of appropriate survey instruments for this study, a survey was constructed by the researcher in order to investigate teacher attitudes toward inclusion for students with autism. The survey instrument was developed based upon examination of the research literature. Pertinent issues related to inclusion such as administrator support, proposed academic benefits, proposed social benefits, and classroom management were discovered in the research literature as relating to the success or failure of the inclusion process.

The Attitudes of Regular Educators toward Inclusion for Students with Autism Survey (Appendix A) consists of two sections. The first section consists of demographic information. The second section consists of 22 items in which the participants were expected to indicate agreement or disagreement based upon a Likert-type scale. A Likert Scale survey was chosen due to its reported efficiency and reliability (Fink, 2006, p. 14). The efficiency of a multiple choice survey "comes from being easy to use, score, and enter data. Also, their reliability is enhanced because of the uniform data they provide; everyone responds in terms of the same options" (Fink, 2006, p. 14). The choices given in the survey were valued as follows: (-2) strongly disagree, (-1) disagree, (1) agree, and (2) strongly agree. As stated previously, the items that were chosen were areas identified in the research literature as significant areas of concern regarding inclusion of students

with disabilities in the regular education classroom. Each item within the survey instrument focused on the following content: ability to teach a child with autism, classroom management, support from administrators, social issues, philosophical issues, and academic issues.

Table 1
Summary of the Items Delineated by Content

Content Area 1: Perceived Ability to Teach a Child with Autism

Survey Item #	Survey Item
10	Regular educators possess the knowledge and skills to adequately teach a child with autism.
16	I believe that I can collaborate effective with other staff to meet the needs of a child with autism included in my classroom.
15	I am knowledgeable regarding curriculum modifications that have proven helpful to assist a child with autism in my regular education classroom.

Content Area 2: Classroom Management

Survey Item #	Survey Item
4	The extra attention that will have to be given to a student with autism will not take away from the education of the other students.
7	The behavior of a student with autism can be successfully managed within the regular education classroom.
17	The behavior of the regular education students will set a positive example for the autistic student included in the regular education classroom.
14	It will not be more difficult to maintain appropriate classroom behavior when a student with autism is included in my classroom.
8	There are enough resources (materials, personnel) in place to support a student with autism being placed in my regular education classroom.

Content Area 3: Support from Administrators

Survey Item #	Survey Item
5	My school principal promotes the philosophy that students with disabilities are the responsibility of all school personnel.
9	Should a student with autism be placed in my classroom, my administrators would provide time for regular education staff and special education staff to discuss and plan for the student.
13	I believe that my principal and other administrators provide a supportive, collaborative environment that is conducive to providing inclusive education.
18	Should a child with autism be placed within my regular education classroom, I believe that my principal would periodically check in to see if assistance is necessary.

Content Area 4: Social Issues

Survey Item #	Survey Item
3	Including students with autism will benefit typical students as they will learn to accept students with disabilities.
11	The student with autism will develop social skills as a result of being included within the regular education classroom.
19	The student with autism will possess an increased self esteem as a result of being included within the regular education classroom.
20	The student with autism will initiate more interactions with peers and teachers as a result of being included within the regular education classroom.

Content Area 5: Philosophical Issues

Survey Item #	Survey Item
1	As a regular educator, I believe that inclusion is the most appropriate way to service students with autism spectrum disorder.
2	Students with autism have the right to receive all education within the regular education classroom.

Content Area 6: Academic Issues

Survey Item #	Survey Item
6	A student with autism included in the regular education classroom will display academic gains as a result of being included.
12	Including students with autism in the regular education classroom will positively impact the academic achievement of typical students.
21	Including a student with autism in the regular education classroom will not require significant changes in pacing so that I can still meet the district benchmarks within the required times.
22	Standardized test scores will not be affected by the inclusion of students with autism in the regular education classroom.

Reliability and Validity

Internal validity has been defined as "experimental procedures, treatments, or experiences of the participants that threaten the researcher's ability to draw correct inferences from the data in an experiment" (Creswell, 2003, p. 171). Some threats to internal validity may include: credibility of the participants, mortality of participants, and instrumentation relating to the survey questions. External validity has been defined as "threats that arise when experimenters draw incorrect inferences from the sample data to other persons, other settings, and past or future situations" (Creswell, 1998, p. 171). Some threats to external validity may include: transferability of the findings and applicability of the findings due to the small sample size.

To ensure the validity of the survey instrument, the content chosen for the questions was based upon a review of inclusion literature to identify factors that may impact educators' attitudes toward inclusion of students with disabilities. As reported by Salend and Duhaney (1999), teachers' perceptions of inclusion seem to be related to their success in implementing inclusion, to student characteristics, and to the availability of financial resources, instructional and ancillary supportive services, training, administrative support, and time to collaborate and communicate with others" (p. 123). Additionally, to ensure content validity, the survey was sent to three professors in the education department of Walden University for review and later revised.
These professors were chosen to review the survey instrument due to their specialization areas of inclusion, quantitative research and education of children with disabilities.

Recommendations from these individuals included changing the response format by removing the response of neutral. The recommendation to remove the response of neutral was implemented. Paul and Bracken (1995) reported that a neutral response choice will be chosen by 20% of respondents if provided as a choice and that neutral choices lend themselves to uncertainty. Additional suggestions centered on the survey items. The initial draft contained 5 questions regarding the personal characteristics of the respondents and 18 questions requiring a Likert Scale response. The first draft of this survey contained the 5 construct areas of social/academic gains, philosophical issues, support from administrators, classroom management, and ability to teach a child with autism. Upon review by the education faculty members, it was recommended that additional items be inserted into the survey instrument in order to separate the content area of social/academic gains into two content areas; one focusing on social issues and the other on academic issues. The following four additional survey items were created: the student with autism will possess an increased self esteem as a result of being included within the regular education classroom; the student with autism will initiate more interactions with peers and teachers as a result of being included within the regular education classroom; including a student with autism in the regular education classroom will not require significant changes in pacing so that I can still meet the district benchmarks within the required times; and standardized test scores will not be affected by the inclusion of students with autism in the regular education classroom.

As several constructs or factors were raised within the survey instrument, construct validity will also be examined. Construct validity will be measured to determine if the questions related to each construct were positively correlated. It will be expected that when each of the categories is examined by factor analysis, each of the individual questions will be significantly, positively related to the other survey questions within the category. An exploratory factor analysis will be utilized as it "is a technique used to identify factors that stastically explain the variation and covariation among measures. Generally, the number of factors is considerably smaller than the number of measures and consequently, the factors succinctly represent a set of measures" (Salkind & Green, 2008, p. 313). The Bartlett's Test of Sphericity will be conducted as well as, the Kaiser-Meyer-Olkin measure of sampling adequacy in order to ensure that a factor analysis procedure is feasible.

The reliability of this survey will be determined using Cronbach's alpha. As reported by Trochim (2006), Cronbach's alpha is based on the average correlation for all possible variable pairs. It"reflects the correlation among all items in a particular measurement instrument. Although the possible range of values is .00 to 1.00, the preferred range is .70 to .90, which suggests internal consistency without redundancy" (Crane, Holm, Hobson, Cooper, Reed & Stadelmeier, 2005, p. 100).

Data Collection

Initial contact was made with the Superintendent of Schools on March 7, 2007 to request permission to conduct research (see Appendix B). After this initial contact, the request was forwarded to the Assistant Superintendent for further review. Permission was

granted by the Assistant Superintendent to conduct research within district (see Appendix C). The survey accompanied by the informed consent form (see Appendix D) were placed in individual teacher mailboxes at their respective schools. Also included was an addressed envelope to return the completed questionnaire and informed consent form to the researcher. Teachers were requested to complete the questionnaire and place an X on the informed consent form, place both documents in the attached envelope, and send it via inter-office mail to the researcher. To ensure a higher response rate, each survey was coded with a number. Number sets were identified for each selected school building. Surveys and informed consent forms of each number set were placed randomly in teacher mailboxes to ensure anonymity of teacher responses. In order to ensure an adequate response rate of 70% participation, one week after the delivery of the initial survey, post-cards and additional copies of the survey and informed consent were placed in respondents' mailboxes at each school with a low response rate as a reminder to complete the survey instrument.

Data Analysis Procedures

The responses to The Attitudes of Regular Educators toward Inclusion for Students with Autism (AREISA) were analyzed using SPSS utilizing a significance value of $p = < .05$. Descriptive statistics were utilized to describe the demographics regarding gender, years of experience, current teaching placement, previous experience regarding including a child with a disability, and amount of training regarding autism. The dependent variable of teacher attitude was measured by teacher response to the 22 item survey. The independent variables of gender, years of experience, current teaching

placement, previous experience including a child with a disability, and amount of training regarding autism was measured via responses to these items on the survey instrument.

Several research questions were investigated within this research study.

Research Question 1: What are the attitudes of regular educators toward inclusion for students with autism? This research question was analyzed utilizing descriptive analysis. The mean score for each of the respondents' responses to each survey item was averaged to obtain an average of the attitude toward inclusion. Additionally, each survey item was examined and frequency counts were obtained to describe teacher attitude toward inclusion for students with autism. Scores ranging from 44 to -44 were possible. A higher score will represent a more favorable view of inclusion.

Research Question 2: Do teachers' attitudes regarding inclusion for students with autism differ based upon years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding autism?

(a). Do teachers' attitudes regarding inclusion for students with autism differ based upon years of experience?

Null Hypothesis: There are no significant differences among teachers with 0-5, 6-15, and 16 plus years of experience on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with 0-5, 6-15, and 16 plus years of experience on attitudes regarding inclusion.

For this research question, an analysis of variance (ANOVA) was utilized as the means of more than two groups will be investigated and compared. The independent variable of this particular research question is years of experience, and the dependent variable is teacher attitude toward inclusion.

(b). Do teachers' attitudes regarding inclusion for students with autism differ based upon current grade level teaching assignment?

Null Hypothesis: There are no significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

An ANOVA was utilized as the means of more than 2 groups were being compared and investigated. The dependent variable was teacher attitude toward inclusion. The independent variable was current teaching placement.

(c). Do teachers' attitudes regarding inclusion differ based upon previous experience with inclusion?

Null Hypothesis: There are no significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

This research question was investigated by a t-test. The dependent variable is teacher attitude toward inclusion and the independent variable is the teacher's previous experience with inclusion.

(d). Do teachers' attitudes regarding inclusion for students with autism differ based upon gender?

Null Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

Alternative Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

This research question was investigated with the use of a t-test. The dependent variable was teacher attitude toward inclusion and the independent variable was gender.

(e). Do teachers' attitudes regarding inclusion for students with autism differ based upon previous training regarding autism?

Null Hypothesis: There are no significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes toward inclusion.

Alternative Hypothesis: There are significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes toward inclusion.

Analysis of this research question was conducted with an ANOVA. An uni-variate analysis of variance (ANOVA) was utilized to "find out whether there were significant differences between the means of more than two groups" (Fraenkel, J., & Wallen, N., 2003, p. 241). The independent variable was amount of training regarding autism and the dependent variable was teacher attitude regarding inclusion for students with autism.

Research Question 3: How accurately can attitudes of regular educators toward inclusion for students with autism be predicted from a linear combination of years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding inclusion?

Null Hypothesis: There is no significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Alternative Hypothesis: There is a significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Analysis of this research question was conducted by a regression analysis. This analysis determined if the factors of teaching experience, teaching assignment, experience with inclusion, previous training on autism, and gender are significantly related to attitude.

Summary

Chapter 3 began with a description of the methodology and the design utilized in this research study. The purpose of this study was to determine the attitude of regular educators toward inclusion for students with autism. To measure these concepts, a survey instrument was developed as a result of the lack of an established survey in the research literature. The survey instrument contained six different content areas which assisted in answering the research questions delineated within this research study. The survey consisted of twenty-two items that required responses based upon a Likert Scale. Five additional items were presented to collect demographic information. Descriptive and inferential statistics will be utilized to analyze the results and provide answers to the research questions. Chapter 4, will contain the data analysis, and chapter 5 will include a summary of the results and recommendations for further research.

CHAPTER 4: RESULTS

Introduction

The purpose of this study was to investigate the attitude of regular educators toward inclusion for students with autism. Additionally, this research study attempted to determine personal characteristics of the regular educators related to their attitude toward inclusion for students with autism. This chapter displays the results of the data analysis obtained from survey responses.

Method

The data for this study are based on the completion of The Attitudes of Regular Educators toward Inclusion for Students with Autism Survey (AREISA). This survey consists of two sections. The first section consists of demographic information. The second section consists of 22 items in which the participants were expected to indicate agreement or disagreement based upon a Likert-type scale. The items that were chosen were areas identified in the research literature as significant areas of concern regarding inclusion of students with disabilities in the regular education classroom. Each item within the survey instrument focused on the following content: ability to teach a child with autism, classroom management, support from administrators, social issues, philosophical issues, and academic issues.

Sample

The population of this research study included 300 regular educators in one school district in Pennsylvania. To accurately represent the population a sample size of 168

teachers was necessary. The sample size of 168 was determined by using the sample size calculator found at http://survey.scantron.com/resources.sample-calc.htm for 5% error and 95% confidence level. The participants were chosen for this research study as a result of cluster sampling and random sampling. Cluster random sampling was utilized to choose the middle school and elementary schools as sites for this research study. A random number generator in Microsoft Excel was utilized to choose 1 middle school and 3 elementary schools as the research sites. In order to ensure random selection at the high school level, each regular educator was assigned a number. A random number generator in Microsoft Excel was utilized to choose 60 numbers for participation. As a result of this random and cluster sampling, 178 surveys were placed in teacher mailboxes on December 4, 2007.

To ensure a higher response rate, each survey was coded with a number. Number sets were identified for select school buildings. Surveys within each numbered set were placed randomly within teacher mailboxes at each site to ensure teacher anonymity. At the conclusion of one week, 39 surveys were returned. In order to boost the low response rate, post-cards and additional copies of the survey and informed consent forms were placed in respondents' mailboxes at each school as a reminder to complete the survey instrument. At the conclusion of 2 weeks, a total of 101 surveys were received. Therefore, 178 surveys were sent out with 101 surveys received, resulting in a 56% response rate. It should also be noted that 8 of the returned surveys were unable to be utilized due to incomplete responses. If a respondent left one or more questions unanswered, the survey was not utilized in the data analysis.

Reliability and Validity

Prior to answering the research questions, an exploratory factor analysis (EFA) procedure was conducted to determine whether the items of the AREISA survey would load onto their respective components. An exploratory factor analysis was utilized as it "provides procedures for determining an appropriate number of factors and the pattern of factor loadings" (Fabrigar et al., 1999, p. 277). The results of this EFA procedure will first be presented. Thereafter, the descriptive statistics of the demographic and independent variables will be detailed.

An EFA procedure was conducted to determine whether the questionnaire items would load highly onto their respective components. Principal components analysis was used to extract the components and an orthogonal Varimax procedure was specified for the rotation procedure. As reported by Floyd and Widaman (1995), "the rotation procedure can be either orthogonal, in which factors are kept uncorrelated, or oblique, in which the factors are allowed to correlate. In exploratory factor analysis, orthogonal rotation using the varimax procedure is most commonly used" (p. 292).

The Bartlett's Test of Sphericity value was statistically significant ($\chi 2 = 894.737$, $p = .000$) thus indicating that the correlation matrix was not an identity matrix. In addition, the Kaiser-Meyer-Olkin measure of sampling adequacy was moderate at .75. These findings indicate that factor analysis of the 22 items would be a feasible procedure.

Two criteria were used to determine the number of factors to be rotated. The first criterion was statistical; it entailed assessment of the scree plot and the corresponding

proportion of variance explained by each factor. The second criterion was theoretical logic; it involved evaluating the resulting solution based on conceptual input.

Upon closer inspection of the scree plot in Figure 1 and the proportion of variance each factor explained (refer to Table 1), there appeared to be a large gap between the fifth (eigenvalue = 1.27) and sixth (eigenvalue = 1.16) factors. The first five components appeared to be distinct from the other 18 components. Accordingly, a second EFA was conducted and an orthogonal Varimax rotation specifying five factors was indicated.

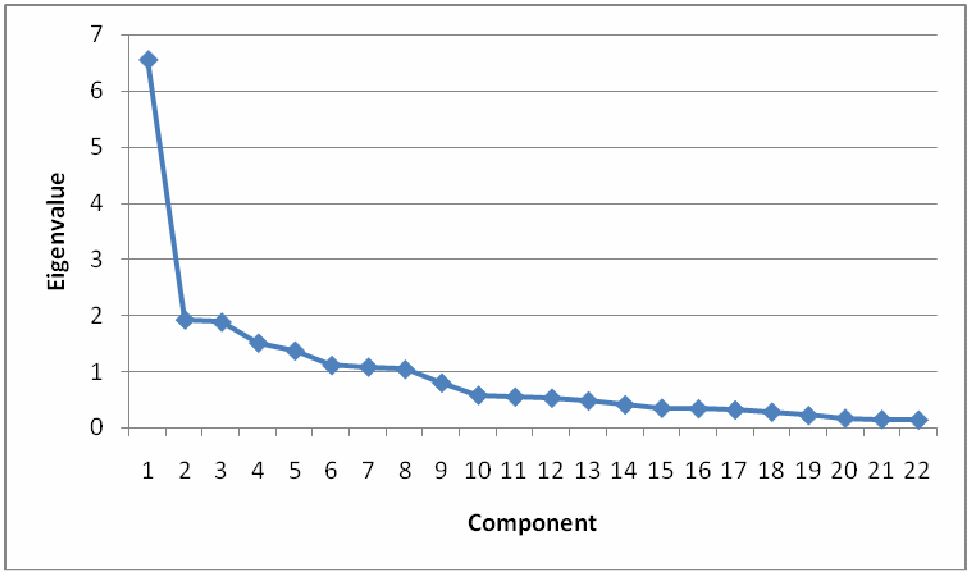

Figure 1. Scree plot for EFA procedure.

Table 2
Variance Explained by Resulting Components

Component	Eigenvalue Total	% Variance Explained
1	6.559	29.813
2	1.932	8.783
3	1.885	8.567
4	1.521	6.914
5	1.380	6.271

The second EFA procedure generated the following five factors: philosophical issues, benefits of inclusion, available resources, support from administrators, and effect of student with autism on other students. The factor loading matrix as well as the list of items that loaded onto each of the factors is presented in Appendix F. The following items loaded onto the first component: 1, 2, 3, 7, 14, 16, and 20. The following items loaded onto the second component: 6, 11, 17, 19, and 21. The following items loaded onto the third component: 8, 9, and 15. The following three items loaded onto the fourth component: 5, 13, and 18. The fifth component had two items: 4 and 12. Note that two items were dropped from the survey analysis. Item 22 was dropped because it loaded about equally onto three components. Item 10 was dropped because it did not fit conceptually into the factor it loaded onto.

In order to assess the reliability of each of the subscales and of the overall scale, Cronbach's Alpha coefficients were computed. The internal coefficient alphas for the

scale and subscales used in the study are presented in Table 3. The findings in the table indicate that the overall scale had moderate reliability (α = .86). Two of the subscales, Philosophical Issues and Benefits of Inclusion, had acceptable to moderate reliability (i.e., the alphas were above .70) while the other three subscales had below acceptable reliabilities (i.e., alphas were below .70).

Table 3
Internal Coefficient Alphas for the Attitudes of Regular Educators toward Inclusion for Students with Autism Scale and Subscales (N = 93)

Measure	Items	Alpha
Philosophical issues	1, 2, 3, 7, 14, 16, 20	.82
Benefits of inclusion	6, 11, 17, 19, 21	.79
Available resources	8, 9, 15	.57
Support from administrators	5, 13, 18	.64
Effect of student with autism on other students	4, 12	.49
Overall score	1 to 9, 11 to 21	.86

As can be gleaned from these results, the Philosophical Issues Subscale, Benefits of Inclusion Subscale and the Overall Score exhibited adequate internal consistency reliability, with Cronbach's Alpha higher than 0.7. All other scales had relatively low associated Cronbach's Alpha coefficients, suggesting a lack of consistency in responses by respondents.

As delineated within the research questions, this research study sought to examine teacher attitude toward inclusion as it related to gender, years of experience, amount of

training regarding autism, current teaching placement, and previous experience with inclusion. For the purpose of this research study, only the Overall Scale Score was utilized to answer the proposed research questions as the focus of this research study was to examine overall teacher attitude toward inclusion of students with autism related to personal characteristics. Additionally, as 3 of the subscales achieved inadequate internal consistency reliability, further analysis utilizing each subscale was not conducted. This survey instrument requires revision in order to achieve adequate reliability across all subscales. Future research should examine teacher attitude toward inclusion of students with autism as related to philosophical issues, benefits of inclusion, available resources, support from administrators, and effect of student with autism on other students.

Demographic Information

The following table (Table 4) presents the composition of the sample in terms of gender, years of experience, teaching placement, previous experience with inclusion and amount of training with autism. The respondents included 30 male teachers (32.3%) and 63 female teachers (67.7%). The following was revealed by respondents in regard to years of experience: 30.1% (28 respondents) reported 0-5 years of experience; 36.6% of the sample (34 respondents) reported 6-15 years of experience; and 33.3% of the sample (31 respondents) reported 16 plus years of experience. The following was reported regarding current teaching placement: 44 respondents (47.3%) were currently placed in a K-5 teacher assignment, 19 respondents (20.4%) were placed in a 6-8 teacher assignment and 30 respondents (32.3%) were currently in a 9-12 assignment. In regard to previous experience with inclusion, 10.8% (10 respondents) reported a lack of previous experience

with including a student in their regular education classroom. Eighty-three respondents (89.2%) of the respondents reported having previous experience with including a child in their regular education classroom. In regard to training on autism, 44.1% (41 respondents) had 0 hours of training, 43.0% (40 respondents) had 1-5 hours of training, 3.2% (3 respondents) had 6-10 hours of training and 9.7% (9 respondents) had 11 or more hours of training.

Table 4
Frequencies for Gender, Years of Experience, Teaching Placement, Previous Experience and Training on Autism

Variable	Frequency	Percentage
Gender		
Male	30	32.3
Female	63	67.7
Years of experience		
Less than 5 years	28	30.1
6 to 15 years	34	36.6
More than 16 years	31	33.3
Teaching placement		
K through 5	44	47.3
6 through 8	19	20.4
9 through 12	30	32.3
Previous experience with inclusion		
No	10	10.8
Yes	83	89.2
Training on autism		
None	41	44.1
1 to 5 hours	40	43.0
More than 6 hours	12	12.9

Research Questions

One of the primary aims of this research study was to examine teacher attitude toward inclusion for students with autism. The following research questions were investigated.

Attitudes of Regular Educators toward Inclusion

Research Question 1 asked, "What are the attitudes of regular educators toward inclusion for students with autism?"

The minimum score on The Attitudes of Regular Educators toward Inclusion for Students with Autism (AREISA) was -44 and the maximum score was +44. Scores on the AREISA scale could range from -2 to +2. Lower scores on this scale were indicative of a more negative view of inclusion whereas, higher scores on this scale were indicative of a more positive view of inclusion. The minimum observed score on the AREISA scale was -1.32 and the maximum score was 1.55. The overall mean score of the respondents was 0.1813 (SD = 0.5936) indicating a slightly positive view toward inclusion for students with autism.

Table 5
Descriptive Statistics on Items and Scale (N = 93)

	Minimum	Maximum	Mean	Std. Deviation
Item 1	-2.00	2.00	.1720	1.12891
Item 2	-2.00	2.00	.3978	1.19909
Item 3	-2.00	2.00	1.0753	1.08584
Item 4	-2.00	2.00	-.9355	.98694
Item 5	-2.00	2.00	.8925	1.08810
Item 6	-2.00	2.00	.6022	1.03356
Item 7	-2.00	2.00	.0215	1.14188
Item 8	-2.00	2.00	-.4624	1.11861
Item 9	-2.00	2.00	.4624	1.33155
Item 10	-2.00	1.00	-1.0323	1.00490
Item 11	-2.00	2.00	.7849	1.01990
Item 12	-2.00	2.00	-.3871	1.13283
Item 13	-2.00	2.00	.7204	1.09709
Item 14	-2.00	2.00	-.1183	1.23226
Item 15	-2.00	2.00	-.1935	1.38515
Item 16	-2.00	2.00	.9785	1.04235
Item 17	-2.00	2.00	.6989	.98670
Item 18	-2.00	2.00	-.0430	1.37457
Item 19	-2.00	2.00	.6237	1.02059
Item 20	-2.00	2.00	-.5914	1.17248
Item 21	-2.00	2.00	.5699	1.03628
Item 22	-2.00	1.00	-.2473	1.21276
Overall Score	-1.32	1.55	.1813	.59366

In regard to the survey responses, Table 6 provides detailed results regarding individual responses to each survey item.

Table 6
Descriptive Statistics on Responses to Items (N = 93)

	Strongly Disagree	Disagree	Agree	Strongly Agree
Item 1	5	33	51	4
Item 2	5	27	48	13
Item 3	3	11	41	38
Item 4	23	57	10	3
Item 5	1	18	45	29
Item 6	3	19	61	10
Item 7	6	38	46	3
Item 8	12	51	28	2
Item 9	7	26	37	23
Item 10	33	45	15	0
Item 11	3	14	59	17
Item 12	10	51	29	3
Item 13	5	14	57	17
Item 14	8	44	33	8
Item 15	16	38	26	13
Item 16	2	13	48	30
Item 17	3	15	64	11
Item 18	12	38	28	15
Item 19	3	18	62	10
Item 20	20	45	26	2
Item 21	2	22	59	10
Item 22	16	34	43	0

Perceptions about Inclusion by Years of Experience

Research Question 2a asked:"Do teachers' attitudes regarding inclusion for students with autism differ based upon years of experience?" In order to answer this research question, a one-way ANOVA was performed, using years of experience as the

independent variable. A significance level of .05 was utilized and post-hoc Tukey tests were utilized to determine which groups were causing the significant difference.

There were three levels for variable Years of Experience: 0-5 Years, 6-15 Years and 16+ Years. The following table presents the mean and standard deviation of the overall score by teacher's years of experience.

Table 7
Mean Attitudes toward Inclusion Scores

Years of Teaching Experience	N	Mean	SD
Below 5 years	28	.55	.50
5 to 15 years	34	.14	.58
More than 16 years	31	.14	.63

Results of the ANOVA showed that there were significant differences in the Overall Score (F (2, 90) = 5.045, p = .008) scales. "The Eta squared values of .01, .06, and .14 are, by convention, interpreted as small, medium, and large effect sizes, respectively" (Salkind & Green, 2008, p. 185). Therefore, the Eta squared value of .10 indicates a moderate effect.

Table 8
ANOVA Results on Attitudes toward Inclusion by Years of Experience

Variable	df	F	p	η^2
Overall Score	2	5.045	.008	.101
Error	90			

In order to further examine the nature of the differences by years of experience in terms of the Overall Score, Tukey's HSD was performed. Post-hoc tests indicate that the group of teachers with less than 5 years of experience had a significantly higher mean inclusion score (M = .55) than teachers with 6 to 15 years of experience (M = .14; p = .016) and teachers with more than 16 years of experience (M = .14; p = .020).

Perceptions about Inclusion by Teaching Placement

Research Question 2b asked "Do teachers' attitudes regarding inclusion for students with autism differ based upon current grade level teaching assignment?" In order to answer this research question, one-way ANOVA was performed, using teacher's current grade level teaching assignment as the independent variable. There were three levels for this variable K-5, 6-8 and 9-12. The following table (Table 9) presents the mean and standard deviation by teacher's current grade level teaching assignment.

Table 9
Mean Attitudes toward Inclusion Scores

Teacher Placement	N	Mean	SD
Elementary School	44	.33	.66
Middle school	19	.33	.45
High School	30	.12	.58

Results of the ANOVA indicate that there was no significant difference in the Overall Score. The findings in Table 10 indicate that attitudes towards inclusion did not vary significantly across categories of teaching placement (F (2,90) = 1.246, p = .293).

As can be gleaned from the table, the effect size was small. The Eta squared was .03; thus, indicating a small effect.

Table 10
ANOVA Results for Attitudes toward Inclusion

Variable	df	*F*	*p*	η^2
Overall Score	2	1.246	.293	.027
Error	90			

Perceptions about Inclusion by Previous Experience with Inclusion

Research Question 2c asked "Do teachers' attitudes regarding inclusion differ based upon previous experience with inclusion?" In order to answer this research question, a *t*-test was conducted, using teacher's previous experience with inclusion as the independent variable. The following table presents the mean and standard deviation by teacher's experience with inclusion status.

Table 11
Descriptive Statistics for Attitudes about Inclusion, by Previous Experience with Inclusion Status

Previous Experience	N	Mean	SD
No	10	.43	.64
Yes	83	.24	.59

The findings in Table 12 indicated that attitudes toward inclusion scores did not vary significantly across categories of previous experience (t (91) = .930, p = .355).

Table 12
T-test Results on Attitudes about Inclusion, by Previous Experience with Inclusion Status

Variable	Mean Diff.	df	*t*	*p*	η^2
Overall score	.19	91	.930	.355	.009

Perceptions about Inclusion by Gender

Research Question 2d asked "Do teachers' attitudes regarding inclusion for students with autism differ based upon gender?" In order to answer this research question, an independent t-test was performed, using teacher's gender as independent variable. The following table presents the mean and standard deviation by teacher's gender.

Table 13
Descriptive Statistics for Attitudes about Inclusion, by Gender

Gender	N	Mean	SD
Males	30	.25	.60
Females	63	.27	.60

Results of the independent *t*-test showed that there were no significant differences by gender. The findings in Table 14 indicate that attitudes toward inclusion scores did not vary significantly between males and females (t (91) = -.130, p = .897).

Table 14
Independent T-test Results on Attitudes about Inclusion, by Gender

Variable	Mean Diff.	df	*t*	*p*	η^2
Overall score	-.02	91	-.130	.897	.000

Perceptions about Inclusion by Amount of Training Regarding Autism

Research Question 2e asked "Do teachers' attitudes regarding inclusion for students with autism differ based upon previous training regarding autism?" In order to answer this research question, one-way ANOVA was performed, using teacher's amount of training regarding autism as independent variable. There were three levels for this variable: 0 hours, 1-5 hours and 6+ hours. Categories 6-10 and 11+ hours were merged into 6+ hours due to their small sample size. The following table presents the mean and standard deviation of the overall score by teacher's amount of training regarding autism.

Table 15
Descriptive Statistics for Attitudes about Inclusion, by Amount of Training Regarding Autism

Hours Spent Training	N	Mean	SD
None	41	.14	.53
1 to 5 hours	40	.26	.62
More than 6 hours	12	.68	.60

The findings in the following table indicate that attitudes toward inclusion scores varied significantly across levels of hours spent on training regarding autism (F (2,90) = 4.007, p = .022). The results of the ANOVA showed that the means were significantly different. Additionally, an Eta squared value of .08 indicated a moderate effect.

Table 16
ANOVA Results on Attitudes about Inclusion, by Amount of Training Regarding Autism

Variable	df	*F*	*p*	η^2
Overall Score	2	4.007	.022	.082
Error	90			

In order to further examine the nature of differences by amount of training in terms of Overall scales, Tukey's HSD was performed. Results of this post-hoc test indicate that individuals with 6 + hours of training had significantly higher Overall Scores (M = .68) than individuals with 0 hours (M = .14; p = .016). No other significant differences were found.

Regression Analysis on Perceptions about Inclusion

Research Question 3 asked: "How accurately can attitudes of regular educators toward inclusion for students with autism be predicted from a linear combination of years of teaching experience, previous experience with inclusion, and previous training regarding autism?" To determine whether years of teaching, previous experience with inclusion, and previous training regarding autism accurately predicted attitudes towards inclusion of students with autism in the regular education classroom, a multiple linear regression analysis was performed. A significance level of .05 was specified for the procedure.

To assess whether there were outliers, a residual analysis using levers, standardized residuals, and Cook's D was requested. A case was considered an outlier in the X space if its centered leverage value was greater than .2; a case was considered an

outlier in the Y space if the deleted residual value was greater than the absolute value of 2; and a case was considered as affecting model fit if the Cook's D value was one standard deviation above the Cook's D mean. None of the cases appeared to be outliers.

The overall model was statistically significant (F (3,89) = 7.318, p = .000). Altogether, the three predictors – years of experience, previous experience with inclusion, and hours of training – accounted for 20% of the variation in attitudes towards inclusion (R^2 = .198). The tolerance values of each of the predictors were high (i.e., tolerance ranged from .94 to .98); thus, because the predictors were not highly correlated with each other, each predictor uniquely explained the variance in attitudes toward inclusion.

From the findings in Table 17, the following regression equation was generated: Predicted Attitude = .368 – .248 (Years of Experience) – .152 (Previous Experience) + .298 (Hours of Training). Only years of experience and number of training hours significantly predicted attitudes towards inclusion of students with autism in the regular education classroom above and beyond the effect of the other predictors. Further, the beta coefficients and effect sizes (i.e., square of the partial correlation coefficient) indicate that hours of training (Beta = .346; r^2 = .111) had a slightly stronger relationship with attitudes toward inclusion than years of teaching experience (Beta = -.334; r^2 = .107).

As can be gleaned from Table 17, years of teaching experience was significantly and negatively associated with attitudes toward inclusion (t (89) = =3.415, p = .001). The more years of teaching experience the respondents had, the less receptive they were towards including children with autism in the regular education classroom. On the other hand, the number of hours spent on inclusion training was significantly and positively

associated with attitudes toward inclusion (t (89) = 3.579, p = .001). The more hours respondents spent on training, the more receptive they were towards including students with autism in the regular education classroom.

Table 17
Regression Results for Attitudes toward Inclusion of children with autism in the Regular Education Classroom (N = 92)

Model	B	SE	Beta	η^2	t	Sig.
Years of experience	-.248	.073	-.334	.107	-3.415	.001
Previous experience	-.152	.183	-.080	.005	-.829	.409
Hours of training	.298	.083	.346	.111	3.579	.001

Note. R = .445 and R^2 = 198.

Summary

Chapter 4 began with a description of the procedures utilized to collect the data. Of the 178 surveys distributed, 101 surveys were returned, resulting in a 56% response rate. Demographic information of the respondents was presented. Demographic information elicited included: years of experience, current grade level teaching assignment, gender, previous experience with inclusion, and previous training regarding autism. Following this description, the data analysis was presented. Descriptive and inferential analysis was conducted and the results were displayed. Data analysis for research question 1 indicated that the mean score of the respondents was 0.1813 (SD = 0.5936) indicating a slightly positive view toward inclusion for students with autism. Data analysis for research question 2a indicated that individuals with 0-5 years of experience had significantly higher overall scores than individuals with 6-15 years and

individuals with 16+ years of experience. Data analysis for research question 2b indicated that there were no significant differences on the overall scale score based upon current teaching placement. Data analysis for research question 2c indicated that for the overall score, there were no significant differences based upon previous experience with inclusion. Data analysis for research question 2d indicated that there were no significant differences by gender in any of the attitude scales. Data analysis for research question 2e indicated that individuals with 6+ hours of training had significantly higher Overall scores than individuals with 0 hours. Data analysis for research question 3 indicated that individuals with more years of experience tended to have significantly worse perceptions about inclusion. Likewise, individuals with a higher degree of training regarding autism, tended to have significantly better perceptions about inclusion. Chapter 5 will follow with conclusions and recommendations.

CHAPTER 5: CONCLUSIONS

Introduction

There has been a significant change in the education of students with autism. As reported by Harrower and Dunlap (2003), Robertson, Chamberlain, and Kasari (2003), and Simpson et al., (2003), more students are being diagnosed with autism and are included within the regular education classroom. As a result of this phenomenon, the regular educator has an increased role in the education of these students. "IDEA has strengthened the role of the general educator as an active team member in developing and implementing the IEP for students with disabilities" (Hedeen & Ayres, 2002, p. 181). As documented in the research literature, the regular educator is an integral component of the inclusion process. As the regular educator is integral to the success of inclusion, this research study sought to examine the views of regular educators toward inclusion for students with autism. Additionally, this research study sought to delineate specific personal characteristics of the respondents that resulted in positive or negative opinons regarding inclusion for students with autism.

Overview of Research Study

In conducting the research, a survey was administered to respondents who were chosen by a process of cluster and random sampling. The population of this research study included 300 regular educators with the sample size totaling 168 teachers. As a result of cluster sampling, 178 surveys were placed in teacher mailboxes. The response rate of this research study was 56% as 178 surveys were delivered and 101 surveys were

returned. Data received from the surveys were analyzed with inferential and descriptive statistics. The following research questions and hypotheses were investigated.

Research Question 1: What are the attitudes of regular educators toward inclusion for students with autism?

The results of the data analysis indicated that the regular educators exhibited a slightly positive attitude toward inclusion of students with autism. The overall mean score of the respondents was 0.1813 (SD = 0.5936) indicating a slightly positive view toward inclusion for students with autism.

Research Question 2: Do teachers' attitudes regarding inclusion for students with autism differ based upon years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding autism?

(a). Do teachers' attitudes regarding inclusion for students with autism differ based upon years of experience?

Null Hypothesis: There are no significant differences among teachers with 0-5, 6-15, and 16 plus years of experience on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with 0-5, 6-15, and 16 plus years of experience on attitudes regarding inclusion.

In regard to research question 2a, the null hypothesis is rejected as the data analysis indicated that individuals with 0-5 years of experience had significantly higher overall scores than individuals with 6-15 years and 16+ years of experience. Post-hoc

tests indicate that the group of teachers with less than 5 years of experience had a significantly higher mean inclusion score (M = .55) than teachers with 6 to 15 years of experience (M = .14; p = .016) and teachers with more than 16 years of experience (M = .14; p = .020).

(b). Do teachers' attitudes regarding inclusion for students with autism differ based upon current grade level teaching assignment?

Null Hypothesis: There are no significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences among teachers with grades K-5 teaching placement, grades 6-8 teaching placement, and grades 9-12 teaching placement on attitudes regarding inclusion.

In regard to research question 2b, the null hypothesis was accepted as there were no significant differences among teachers' attitudes based upon current grade level teaching assignment. Results of the ANOVA indicate that there was no significant difference in the Overall Score. The findings in Table 10 indicate that attitudes towards inclusion did not vary significantly across categories of teaching placement (F (2,90) = 1.246, p = .293).

(c). Do teachers' attitudes regarding inclusion differ based upon previous experience with inclusion?

Null Hypothesis: There are no significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

Alternative Hypothesis: There are significant differences between teachers with previous experience with inclusion and teachers with no previous experience with inclusion on attitudes regarding inclusion.

In regard to research question 2c, data analysis indicated no significant difference in the overall score based upon previous experience with inclusion. Therefore, the null hypothesis is accepted. The results of the independent t-test indicate that attitudes toward inclusion scores did not vary significantly across categories of previous experience (t (91) = .930, p = .355).

(d). Do teachers' attitudes regarding inclusion for students with autism differ based upon gender?

Null Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

Alternative Hypothesis: There are no significant differences between male teachers and female teachers on attitudes regarding inclusion.

In reference to research question 2d, there were no significant differences in the overall attitude survey score based upon gender. Therefore, the null hypothesis is accepted. Results of the independent t-test showed that there were no significant differences by gender. Attitudes toward inclusion scores did not vary significantly between males and females (t (91) = -.130, p = .897).

(e). Do teachers' attitudes regarding inclusion for students with autism differ based upon previous training regarding autism?

Null Hypothesis: There are no significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes toward inclusion.

Alternative Hypothesis: There are significant differences among teachers based upon 0 hours of training, 1-5 hours of training, 6-10 hours of training, and 11 plus hours of training regarding autism on attitudes toward inclusion.

In respect to research question 2e, data analysis indicated that individuals with 6+ hours of training had significantly higher overall scores than individuals with 0 hours of training. Therefore, the null hypothesis is rejected. The findings indicate that attitudes toward inclusion scores varied significantly across levels of hours spent on training regarding autism (F (2,90) = 4.007, p = .022). Results indicate that individuals with 6 + hours of training had significantly higher Overall Scores (M = .68) than individuals with 0 hours (M = .14; p = .016).

Research Question 3: How accurately can attitudes of regular educators toward inclusion for students with autism be predicted from a linear combination of years of teaching experience, current grade level teaching assignment, previous experience with inclusion, gender, and previous training regarding inclusion?

Null Hypothesis: There is no significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade

level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

Alternative Hypothesis: There is a significant relationship between the criterion variable of attitude and the composite set of years of teaching experience, current grade level teaching assignment, previous experience of inclusion, gender, and previous training regarding inclusion.

In regard to the regression analysis, it was determined that years of teaching experience was significantly and negatively associated with attitudes toward inclusion ($t(89) = =3.415$, $p = .001$). The more years of teaching experience the respondents had, the less receptive they were towards including students with autism in the regular education classroom. On the other hand, the number of hours spent on inclusion training was significantly and positively associated with attitudes toward inclusion ($t(89) = 3.579$, $p = .001$). The more hours respondents spent on training, the more receptive they were towards including students with autism in the regular education classroom.

Interpretation of Findings

The results of this research study indicated that the respondents exhibited a slightly positive view toward inclusion for students with autism. This finding is consistent with research studies conducted by Avramidis, Bayliss, and Burden (2000), Cornoldi, Terreni, Scruggs and Mastropieri, (1998), Downing, Eichinger and Williams (1997), and Villa et al. (1996), in which it was determined that the teachers displayed a positive attitude toward inclusion.“Teachers generally agreed that inclusion enhances social skills, learning skills, and autonomy of students with disabilities, and tolerance and

understanding of diversity in other children" (Cornoldi et al., p. 351). Although some research studies exhibit positive views toward inclusion, there are additional research studies with an opposite view. Results reported by Hewitt (1999), Soodak, Podell, and Lehman (1998), and Snyder (1999) indicated that teachers felt frustration and dissatisfaction regarding inclusion. Varied reasons presented in these studies for the negative attitude toward inclusion included number of accommodations, lack of collaborative planning time, the lack of support from administrators, and fear that time would be taken away from typical students. As explained by Soodak, Podell, and Lehman (1998), there are mixed views regarding inclusion for students with disabilities.

Inclusion of students with autism is an ever increasing trend. As a result of the passage of NCLB and the reauthorization of the Individuals with Disabilities Education Act, inclusion must be a consideration for all students with disabilities, including those with autism. There is a lack of research regarding teacher attitude toward inclusion for students with autism.

As reported by Downing (1996),

> Due to their behaviors and the educational benefits for these students [students with autism], inclusion in typical classrooms has not been as strongly advocated. As a result, little information is available specifically addressing this group of students in inclusive settings. (p. 4)

"The importance of understanding general educators' attitudes and beliefs about inclusive education is underscored by findings that indicate that general educators' willingness to include students with disabilities in their classes is critical to the successful implementation of this innovation" (Soodak et al., 1998, p. 480). As regular educators are

an important component of the process, understanding their attitudes regarding inclusion is a necessity.

Personal characteristics of teachers may affect their attitude toward inclusion. Data analysis for research question 2a indicated that individuals with 0-5 years of experience had significantly higher overall scores than individuals with 6-15 years and individuals with 16+ years of experience. This finding is consistent with a research study conducted by Parasuram (2006) in which it was discovered that "those with less than five years experience, have more positive attitudes than teachers with 5.1–10 years experience, 10.1–15 years experience, 15.1–20 years experience and 20.1–25 years experience" (p. 239). One conclusion may be that younger teachers are more familiar with disabilities and technology which may make them less fearful about including students with significant needs within the classroom environment. There has been an increased emphasis on exposing preservice regular education teachers to assistive technology and methods to utilize to assist all students, including students with disabilities in the regular education classroom (NCATE, 2006). The NCATE has stated that new teacher graduates should be able to "apply effective methods of teaching students who are at different developmental stages, have different learning styles, and come from diverse backgrounds" (NCATE, p. 7). As reported by Ryndak (2000), some teacher preparation programs are including information regarding severe disabilities in both special education and regular education programs. It stands to reason that more recent graduates from teacher preparation programs would exhibit more positive views toward inclusion as a result of an increased emphasis in teacher preparation programs on

meeting the needs of all learners within the regular education classroom. Due to the results of the analysis of these research questions, teachers currently employed with greater than 5 years of experience should be provided with further training regarding disability types, teaching techniques, and accommodations within the regular education classroom.

Data analysis for research question 2b indicated that there were no significant differences on the overall scale score based upon current grade level teaching assignment. This finding is consistent with the discrepancies in the research literature regarding attitude based upon current grade level teaching assignment. Research studies conducted by Chalmers (1991), Larrivee and Cook (1979), Rogers (1987), and Smith (2000) indicated that teacher attitude toward inclusion is more positive at the elementary level. As reported by Larrivee and Cook, "examination of the data indicates that the regular classroom teacher's attitude toward mainstreaming tends to become less positive as grade level increases" (p. 317). The discrepancy between the current research study and those presented in the literature may be due to the limited research conducted regarding teacher attitude toward inclusion at the secondary level and the limited amount of research conducted regarding teacher attitude toward inclusion for students with autism. As reported by Smith, "most of the studies in the literature have been done with elementary teachers, who appear to exhibit more positive attitudes toward inclusion than secondary teachers" (p. 56). Further research must be conducted in order to examine teacher attitude toward students with autism and to also investigate teacher attitude at the secondary level.

Experience with inclusion or a relationship with an individual with a disability can be related to teacher attitude. Data analysis for research question 2c indicated that for the overall score, there were no significant differences based upon previous experience with inclusion. Research conducted by Avramidis et al., (2000) and Leyser et al. (1994), discovered that teachers with experience with inclusion had significantly more positive attitudes. Additional research conducted by Leatherman and Niemeyer (2005), indicated that teacher attitudes regarding inclusion were influenced by experiences in an inclusive classroom. "The results also indicate that all four participants' positive attitudes [toward inclusion] were influenced by their previous experiences with children who have disabilities" (Leatherman & Niemeyer, p. 35). Reasons for the contradiction between the results of this research study and those presented in the literature may be that the respondents' previous experience with inclusion was negative. An further reason for the lack of significance between previous experience with inclusion and attitude toward inclusion may be influenced by the increasing amount of students included in the regular education classroom and as inclusion becomes more widely accepted, teachers are not entering into the inclusion process with a negative attitude. As more teacher education programs have developed coursework that expose preservice teachers to disability types and accommodations, they may not possess a negative attitude toward the inclusion process.

Data analysis for research question 2d indicated that there were no significant differences by gender. The findings of this research study are consistent with multiple studies in the research literature. Research studies conducted by Avramidis et al., (2000),

Berryman (1989), Parasuram (2006), and Van Reusen et al. (2001), discovered that gender did not affect attitude toward inclusion. The relationship of gender to teacher attitude has proven to be inconclusive due to the varying results reported in the research literature. "Findings reported in the literature regarding the relationships between teacher demographic characteristics and attitudes are often inconsistent. More research is needed to examine this question" (Leyser & Tappendorf, 2001, p. 758).

Data analysis for research question 2e indicated that individuals with 6+ hours of training had significantly higher Overall scores than individuals with 0 hours ($p = 0.010$). This finding is also consistent with the research literature. Avramidis et al. (2000) and Wall (2002) also discovered that a positive view toward inclusion is positively correlated with training. "Survey studies have shown that teacher acceptance or resistance to the inclusion or integration of students with disabilities into general education classrooms is related to the knowledge base and experiences of teachers" (Van Reusen, Shoho & Barker, 2000, ¶6). As demonstrated in the research literature and in this research study, teachers with a greater knowledge base of inclusion and disabilities possess more positive attitudes toward inclusion. Therefore, teachers must be provided with further education and training on the topics of inclusion, disability types, and accommodations that can be utilized within the regular classroom environment to facilitate inclusion.

Data analysis for research question 3 indicated that individuals with more years of experience tended to have significantly "worse" perceptions about inclusion. Likewise, individuals with a higher degree of training regarding autism, tended to have significantly "better" perceptions about inclusion.

Implications for Social Change

Despite attitudes possessed by educators, students with autism are increasingly being placed within the regular education classroom. As a result of the passage of NCLB, states and school districts are now responsible to ensure that all students, including those with autism, meet and/or exceed educational standards established by individual states. As documented within the research literature, teacher attitude directly affects student performance. It is imperative to establish positive teacher attitudes toward the inclusion of students with autism in the regular education classroom.

Effective inclusive practices involve not only the regular education teachers, but also special education teachers and administrators. "As with any innovation or educational reform effort, the successful inclusion of students with disabilities requires fundamental change in the organizational structures of schools and in the roles and responsibilities of teachers" (Burstein, Sears, Wilcoxin, Cabello & Spagna, 2004, p. 104). It is for this reason that changes must be made both at the district level and at the teacher level in order to produce effective inclusive practices for students with autism.

At the district level, the administrators must first embrace the philosophy of inclusion. As reported by Zollers, Ramanathan and Yu (1999), there are three components necessary to successfully implement inclusive practices: inclusive leadership, a shared vision and philosophy of the school community, and shared language and values. (p. 163). Not only must a philosophy change be instituted, but also commitments must be made by administrators to implement policies and practice in order to produce positive inclusion experiences. As reported by Burstein et al., (2004),

"teachers feel unprepared to serve students with disabilities, have little time available to collaborate, and make few accommodations for students with special needs" (p. 104). Policy and structural changes at the district level that must be instituted by school administrators include flexible scheduling and increased planning time in order to facilitate co-teaching and collaboration among school personnel.

As many teachers feel unprepared to support students with disabilities within an inclusive environment, districts must be prepared to enact changes to their practices regarding professional development. As demonstrated in the research literature, and in this research study, teachers with a greater knowledge base of inclusion and disabilities possess more positive attitudes toward inclusion and teachers with greater years of experience exhibit more negative views toward inclusion. The results of this research study can be utilized in order to create professional development programs in order to further improve teacher attitude toward inclusion of students with autism. In this particular school district, teachers with greater than 5 years of experience and with less than 6 hours of training on inclusion or disabilities, participating in an inclusive classroom should be provided with further education and training on the topics of inclusion, disability types, and accommodations that can be utilized within the regular classroom environment to facilitate inclusion. Consideration must be given to the delivery of this information. As reported by Wolfe and Snyder (1997) in-services must be supplemented by follow-up strategies in order to effectively transfer the learning of strategies and knowledge to the job. "Transfer of learning is the effective application by program participants of what they learned as a result of attending an educational program.

It is the so what or now what phase of the personnel development process" (p. 174). Types of professional development activities that facilitate learning and transfer of skills to the classroom include: coaching, learning communities, and peer support groups. Teachers should not be viewed as passive vessels acquiring necessary knowledge. "Continuous learning opportunities need to become part of teachers' everyday working lives and part of every school's institutional priorities" (Bull, 1994, x). Professional development should be viewed as a daily activity.

Teachers are a necessary component in the planning process when implementing inclusive practices. Teachers participating in an inclusive classroom must undergo a paradigm shift in regard to the methods they utilize for classroom management, teaching strategies, and collaboration with other professionals within the school environment. They must be prepared to utilize accommodations to meet the needs of all students placed in their classroom. "Efforts to change school practices often fail when methods that are used to manage reform consist of autocratic, or top-down approaches" (Burstein et al., 2004, p. 105). Teachers will be more likely to embrace the philosophy of inclusion and the policy changes accompanying it, if they are included along with district administrators in the decision making process.

Not only must changes be made at the school level, but changes must also be instituted into teacher preparation programs. As reported by Wilkins and Nietfeld (2004), "one of the most prevalent factors identified in research as being key to teacher acceptance of inclusion based practices is that of pre-service training" (p. 115). Teacher preparation programs for regular educators must focus on teaching strategies to assist

included students with disabilities. “The new, more direct role of the general education teacher has demanded an increased understanding of various types of disabilities, types of appropriate curricular and instructional modifications, and interactions with the students with disabilities in the classroom” (Turner, 2003, p. 492). Many states currently require preservice regular education teachers to take one or two courses in the special education department however, with the increasing numbers of students with disabilities being placed within regular education classrooms, this does not effectively prepare teachers to meet student needs. As reported by Stainback and Stainback (1989), the merger of regular education and special education teacher preparation programs has been suggested for the past 20 years in order to best meet the needs of students with disabilities within the regular education classroom. This suggestion certainly requires further consideration as more students are being included within the regular education environment.

Implications for Practice

Children are increasingly being diagnosed with autism and they are being educated in U.S. schools (Simpson et al., 2003, p. 117). It is essential that educators be given the opportunity to learn about techniques to teach these students as they are being educated in general education classrooms. Based upon the information presented in this research study, it appears that further training regarding inclusion and strategies to teach students with autism is necessary. As reported by Van Reusen et al., (2001), “administrators contemplating inclusive education programs need to consider teacher attitudes and beliefs about inclusion prior to its implementation. For example, it is recommended that administrators think beyond providing teachers with one-day

workshops" (¶. 25). As demonstrated in the research literature and in this research study, teachers with a greater knowledge base of inclusion and disabilities possess more positive attitudes toward inclusion. As reported by Lamberson (2006), multiple in-service trainings can positively affect teacher attitude toward inclusion for students with autism. "The findings of this study clearly indicated that teachers who had multiple in-service trainings in special education law, autism, and inclusion strategies demonstrated a positive change in their perception of including children with autism into the general education classroom setting" (p. 69). Teachers must be provided with further education and training on the topics of inclusion, disability types, and accommodations that can be utilized within the regular classroom environment to facilitate inclusion. Additionally, they must receive opportunities to practice the presented skills.

Professional development activities to improve teacher attitude, teacher self-efficacy, and teacher knowledge regarding inclusion of students with autism should focus on the following: characteristics of autism, accommodations and modifications to curriculum, assessment of student progress, behavior management techniques, managing student IEP's, usage of assistive technology, and understanding of social needs. "Infrequent workshops, goal statements, orientation training, and even limited amount of co-teaching may not be powerful enough interventions to sustain lasting attitudinal changes in teachers" (Wilkins & Nietfeld, 2004, p. 119). Professional development activities in the form of professional learning communities and lesson studies should be implemented to improve teacher attitude toward inclusion for students with autism. The suggestion of professional learning communities in order to improve teacher attitude and

performance is echoed by Burstein et al. (2004) and DuFour and DuFour (2003). Teachers will be more likely to embrace the philosophy of inclusion if they are included in the decision making process.

Additionally, as this research study has also indicated that training on inclusion and autism improve teacher attitude, preservice teachers should be exposed to coursework and training opportunities in order to prepare them to include students with disabilities in the regular education classroom. Often, regular educators major in a grade level or specific content area, but are not provided with the knowledge to adequately modify the curriculum or provide accommodations for students with disabilities. As reported by Ryndak (2000), "all teachers (i.e., both general and special educators) need knowledge and skills related to general education curriculum, general education methods, and accommodating and modifying curriculum and instruction for diverse learners" (¶ 21).

The results of this research study also indicated that teachers with greater years of experience possessed more negative attitudes toward inclusion of students with autism in the regular education class. One explanation for the more positive attitude reflected by teachers with fewer years of experience may be due to the introduction of classes at the university level targeting including students with disabilities within the regular education classroom. Since the late 1990's, more universities in the state of Pennsylvania are incorporating inclusive education into their teacher preparation programs. Two universities located within 40 miles from the district in which this research study was based, offers 3 credit courses on inclusive practices. Topics explored in these courses

include: categories of disabilities, collaboration, co-teaching, adaptations and differentiated instruction in order to meet the needs of students included within the regular education classroom. Teachers primarily affected by this improvement in teacher education programs on the topic of inclusion in the state of Pennsylvania would have experience of less than 15 years. In this research study, the results indicated that 62% of teachers with less than 15 years of experience, participated in 1-5 hours of training regarding autism; whereas only 38% of respondents with greater than 16 years of experience indicated participation of 1-5 hours in training on autism. Therefore, as indicated by the results of this research study, teachers with less years of experience may be participating in some form of inclusion training at the university level, and as this study indicates; increased training results in improved attitudes toward inclusion.

Recommendations for Future Research

Further research should also examine administrator attitude toward inclusion for students with autism. As reported in Cook et al., (1999), and Timor and Burton (2006), administrator attitude has been investigated toward inclusion for other disability types such as, learning disabilities. A principal is the school's instructional leader and as a result, the attitude that the principal holds regarding inclusion for students with autism, will directly affect the teacher attitude toward inclusion for this population. Research conducted by DiPaola et al. (2004) discovered that many principals feel poorly prepared to implement special education services, including inclusion, building-wide. "Administrators' attitudes toward students with disabilities are especially critical for inclusion to succeed due to the administrators' leadership role in developing and

operating educational programs in their schools" (Daane, Beirne-Smith & Latham, 2000, p. 332). As many administrators lack coursework in special education, their attitude toward inclusion may be affected. Research should be conducted on administrator attitude toward inclusion for students with autism to identify characteristics of administrators that may positively or negatively impact attitude. At the conclusion of this research, areas of need in regard to professional development can be identified and initiated.

Further research should also be conducted to examine if teacher attitude toward inclusion varies based upon severity of autism. Research conducted by Soodak, et al., 1998) indicated that "teachers' attitudes toward integration appear to vary with their perception of the specific disability as well as their beliefs about the demands that students' instructional and management needs will place on them" (p. 481). Autism is a disorder that varies both in severity and symptoms. "Children with autism form a very heterogeneous group showing a wide range in type, number and severity of social deficits, behavior problems, communication, language and cognitive difficulties" (Eaves, Ho, & Eaves, 1994 p. 4). Further analysis should determine whether teacher attitude differs based upon the severity of autism.

Further research should also examine teacher attitude as it relates to years of experience. This research study confirmed research studies conducted by Heflin and Bullock (1999), Leyser et al. (1994), and Parasuram (2006), which indicated that teachers with more years of experience possess more negative attitudes toward inclusion. Reasons for this may be that teachers with more years of experience are less likely to accept

change within their teaching style and they may be uncomfortable with technology and therefore, fearful about including students with more significant needs within their classroom. As reported by Waugh and Punch (1987), another reason for a teacher's negative attitude toward a school-wide change toward inclusion may be that "teachers are not likely to be strongly receptive to any proposed or attempted implementation of a change that is in direct conflict with the traditional values of a school or school system" (p. 244). Additional research must be conducted to examine the significant relationship between teacher attitude and years of experience. In order to combat this effect, teachers with increasing years of experience must be exposed to technology and ways to utilize it within the classroom. Additional recommendations include pairing a teacher with more years of experience with a teacher with less years of experience in a co-teaching environment. This relationship would be symbiotic in nature in that each individual can provide insight and assistance to the other. The veteran teacher can provide tips on classroom management and the newer teacher can provide information on utilization of technology and providing accommodations within the classroom environment.

Conclusion

As a result of the increase in the number of children being diagnosed with autism, the passage of federal legislation, and the increasing trend to place students with disabilities in inclusive placements, all regular education teachers must be prepared to participate in the education of students with disabilities, including autism. The results of this research study should be utilized to create or enhance professional development programs regarding inclusion of students within the regular education classroom. The

results of this research study indicated that regular educators with more training regarding autism possessed a more positive attitude toward inclusion of students with autism and that educators with more years of experience exhibited a more negative attitude toward the inclusion of students with autism.

There has been a lack of information regarding teacher attitude toward the inclusion of students with autism in the regular education classroom. This research study provides additional pertinent information to current literature regarding the inclusion of these students. The results of this research study determined that years of experience and amount of training are significant factors relating to teacher attitude toward inclusion. Although this research study indicated that teachers exhibited slightly positive attitudes toward the inclusion of students with autism, it also denoted the negative relationship between attitude and years of experience. In order to improve the education of students with autism, the findings of this research study must be utilized for professional application in the form of professional development and possible changes within the preservice education of teachers. These results should be utilized as a guide for school districts to develop and/or improve professional development programs. Specific recommendations based upon the results of this research study urge administrators to plan professional development activities to target teachers with more years of experience and less training in order to create positive attitudes toward the inclusion of students with autism. Additional suggestions include professional development activities that encompass multiple different formats including professional learning communities, lesson study, action research, and hands-on workshops with opportunities to practice

learned skills. Improvement in professional development programs in order to enhance teacher knowledge and attitudes regarding autism will positively impact the education of students with autism, as teacher attitude directly affects student achievement. Additionally, as a result of participation in professional development programs focused on students with autism, teachers will experience increased confidence in supporting these students within the regular education classroom and therefore, will exhibit less resistance to inclusion As a result, an increased number of students with autism may gain the opportunity to participate in inclusive placements.

Autism affects not only families and educational systems, but society as a whole. "Autism is a very expensive disorder costing our society upwards of 35 billion dollars" (Ganz, 2007, p. 343). It is for this reason, that an increased focus must be placed on the education and inclusion of these students. In order to include these students within the regular education classroom, teachers must embrace inclusion and be prepared to adequately teach and support these students within this environment. It has been reported that teacher attitude directly affects student achievement. It is imperative to improve teacher attitude toward inclusion in order to successfully implement inclusion and effectively educate all students with disabilities, including autism. Effective inclusion of these students will positively impact their education and future earnings as members of society. Although autism is generally considered a disease of childhood, its costs continue to skyrocket as these children reach adulthood and may continue to require adult care (Ganz, 2007, p. 348). If these students are effectively taught in inclusive classroom by teachers with positive attitudes and a willingness to collaborate and utilize appropriate

teaching strategies and accommodations, the effect on society will be a positive one. As reported by the National Council on Disability (1989), “success in education is a predictor of success in adult life. For students with disabilities, a good education can be the difference between a life of dependence and nonproductivity and a life of independence and productivity” (p. 2).

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Appendix A: Attitudes of Regular Educators Toward Inclusion for Students with Autism Survey

Attitudes of Regular Educators toward the Inclusion of Students with Autism Spectrum Disorder

This survey investigates the attitudes of regular educators toward inclusion for students with autism spectrum disorder. For the purposes of this survey, autism spectrum disorder encompasses Pervasive Developmental Disorder, Asperger's Disorder, and Autism. Indicate your response which most closely reflects your agreement or disagreement with the each statement. Completion of this survey should take approximately 10-15 minutes. There are no correct or incorrect answers.

Demographic Information

Gender	Male ☐	Female ☐	
Years of Experience (Including this year)	0-5 ☐	6-15 ☐	16+ ☐
Current teaching placement	K-5 ☐	6-8 ☐	9-12 ☐
Do you have previous experience with including child with a disability in your regular education classroom?	Yes ☐	No ☐	
Amount of training regarding autism (in hours)	0 ☐	1-5 ☐	6-10 ☐
	11+ ☐		

		Strongly Disagree -2	Disagree -1	Agree +1	Strongly Agree +2
1	As a regular educator, I believe that inclusion is the most appropriate way to service students with autism.	O	O	O	O
2	Students with autism have the right to receive all education within the regular education classroom.	O	O	O	O
3	Including students with autism will benefit typical students as they will learn to accept students with disabilities.	O	O	O	O
4	The extra attention that will have to be given to a student with autism will not take away from the education of the other students.	O	O	O	O
5	My principal and school administrators promote the philosophy that students with disabilities are the responsibility of all school personnel.	O	O	O	O
6	A student with autism included in the regular classroom will display academic gains as a result of being included.	O	O	O	O
7	The behavior of a student with autism can be successfully managed within the regular education classroom.	O	O	O	O
8	There are enough resources (materials, personnel) in place to support a student with autism being placed in my regular education classroom.	O	O	O	O
9	Should a student with autism be placed in my classroom, my administrators would provide time for regular education staff and special education staff to discuss and plan for the student.	O	O	O	O
10	Regular educators possess the knowledge and skills to adequately teach a child with autism.	O	O	O	O
11	The student with autism will develop social skills as a result of being included within the regular education classroom.	O	O	O	O
12	Including students with autism in the regular education classroom will positively impact the academic achievement of typical students.	O	O	O	O
13	I believe that my principal and other administrators provide a supportive, collaborative environment that is conducive to providing inclusive education.	O	O	O	O
14	It will not be more difficult to maintain appropriate classroom behavior when a student with autism is included in my classroom.	O	O	O	O
15	I am knowledgeable regarding curriculum modifications that have proven helpful in teaching a child with autism spectrum disorder.	O	O	O	O
16	I believe that I can collaborate effectively with other staff to meet the needs of a child with autism included in my classroom.	O	O	O	O
17	The behavior of the regular education students will set a positive example for the autistic student included in the regular education classroom.	O	O	O	O
18	Should a child with autism be placed within my regular education classroom, I believe that my principal would periodically check in to see if assistance is necessary.	O	O	O	O
19	The student with autism will possess an increased self esteem as a result of being included within the regular education classroom.	O	O	O	O
20	Including a student with autism in the regular education classroom will not require significant changes in pacing so that I can still meet the district benchmarks within the required times.	O	O	O	O
21	The student with autism will initiate more interactions with peers and teachers as a result of being included within the regular education classroom.	O	O	O	O
22	Standardized test scores will not be affected by the inclusion of students with autism in the regular education classroom.	O	O	O	O

Appendix B: Request to Conduct Research

Dr. ZXXXX
800 Pine Street
XXXXX, PA 18049

Dear Sir:

I am currently a doctoral student at Walden University. I am planning to conduct research on the attitudes of regular educators toward inclusion for students with Autism Spectrum Disorder. As you are well aware, the incidence of autism is increasing not only in our state, but nationwide. There has been much discussion regarding appropriate programming for these students. Additionally, with the settlement of the Gaskin lawsuit, there has been a strong movement initiated to educate all students with disabilities within the regular education classroom. As I currently work in the district with students with Autism, I would like to investigate regular educators' attitudes toward including these students.

My research study will entail teacher participation and I am requesting district approval to survey my colleagues within the XXXXX School District. Participation of regular educators will be on a voluntary basis. Participants will complete a Likert style survey to include personal characteristics, views toward inclusion, and necessary supports to facilitate inclusion. All information will be kept confidential and participation is voluntary. There will be no consequences should individuals choose not to participate in the research study. Additionally, this research will not take away from current job responsibilities and duties of the classroom teacher.

There are proposed benefits to the school district as a result of this research study. One proposed benefit will be the investigation of teacher attitudes toward inclusion. Additionally, teacher characteristics will be explored to determine if years of experience and current teaching placement affect teacher attitude. This information will directly benefit the school district because training on inclusion and disabilities such as autism can be applied to the specific population which may require this need.

The anticipated starting date of research collection is April 16, 2007. The regular educators within the district will be supplied with a copy of the survey and a return envelope to return it to me at XXXX Elementary through inter-office mail.

I understand that the school district's permission to allow me to conduct research within district does not necessarily mean endorsement of research data. Should you request it, I agree to send a copy of the research results to your attention at the conclusion of the research study.

Sincerely,

Kimberly A. Barnes M.S. CCC-SLP

Appendix C: Permission Granted to Conduct Research

-----Original Message-----
From: TXXX, DXXX
Sent: Mon 3/26/2007 10:09 AM
To: Barnes, Kim
Cc: ZXXXX, GXXXX
Subject: RE: Research Study

To Kim,

Dr. ZXXXXX and I have reviewed the survey.

You may proceed with your research and look forward to the results of your study.

Good luck!

Appendix D: Consent Form

Dear Teacher,

You are asked to be part of in a research study as you are a regular educator. The title of the study is, 'The attitudes of regular educators toward inclusion for students with Autism." My name is Kimberly Barnes and I currently work as a Speech Therapist within the district. I am a student currently working on my doctoral study.

Background Information:
The aim of this study is to study teacher attitude toward inclusion of students with autism in the regular education classroom.

Procedures:
If you agree to be in this study, you will be asked to complete a survey. This survey will take approximately 15 minutes to complete. You will receive an addressed envelope to return the survey and consent.

Voluntary Nature of the Study:
Your participation is voluntary. There are no consequences to non-participation. You may leave at any time. Your identity is anonymous.

Payment:
There will be no payment.

Risks and Benefits of Being in the Study:
This study has been approved by the Walden University Institutional Review Board. There are minimal risks which may include psychological stress. Benefits may include an increased awareness of issues relating to inclusion and autism. A summary of the results will be posted in the office of each school building.

Informed Consent:
By completing this survey, you agree to be a part of this research study.

If you have any questions regarding this survey or research procedures, you may contact me at (barnekim@eastpennsd.org)

You may contact the following individuals:

Dr. Marie-Anne Mundy Ph.D. Study Chair: mmundy@waldenu.edu

The Research Participant Advocate at Walden University is Leilani Endicott. You may contact her at 1-800-925-3368, extension 1210 if you have any questions.

Sincerely,
Kimberly A. Barnes M.S. CCC-SLP (barnekim@eastpennsd.org)

Place an "x" on the line to indicate that you agree to be a part of this study.

_____

Appendix E
Correlation Matrix

Table 1
Correlation Matrix

Item No.	Component				
	1	2	3	4	5
Item 1	.632	.344	.095	-.057	.037
Item 2	.652	.072	.096	.214	.323
Item 3	.588	.533	.102	.010	.061
Item 4	.037	.073	.003	.126	.836
Item 5	.040	.016	-.194	.777	-.005
Item 6	.417	.492	.042	.317	-.278
Item 7	.728	.239	.102	.061	.047
Item 8	.191	-.127	.732	.135	.032
Item 9	-.042	.442	.716	.144	-.051
Item 10	.361	-.132	.358	.550	.186
Item 11	.152	.836	-.043	.010	.146
Item 12	.288	.174	.172	.082	.609
Item 13	.237	.353	.134	.606	.173
Item 14	.693	.001	.052	-.115	.178
Item 15	.125	.114	.585	-.199	.177
Item 16	.493	.311	.209	.191	-.014
Item 17	.247	.511	.398	.153	-.129
Item 18	-.171	.262	.483	.625	.142
Item 19	.358	.657	-.059	.283	.186
Item 20	.598	.038	.011	.350	-.014
Item 21	.062	.667	.267	-.009	.178
Item 22	.322	.315	.338	-.232	.312

Appendix F
List of Factors with Respective Items

Table 1

Philosophical Issues (Factor 1)

Item No.	Survey Item
1	As a regular educator, I believe that inclusion is the most appropriate way to service students with autism spectrum disorder.
2	Students with autism have the right to receive all education within the regular education classroom
3	Including students with autism will benefit typical students as they will learn to accept students with disabilities.
7	The behavior of a student with autism can be successfully managed within the regular education classroom.
14	It will not be more difficult to maintain appropriate classroom behavior when a student with autism is included in my classroom.
16	I believe that I can collaborate effectively with other staff to meet the needs of a child with autism included in my classroom.
20	The student with autism will initiate more interactions with peers and teachers as a result of being included within the regular education classroom

Table 2

Benefits of Inclusion (Factor 2)

Item No.	Survey Item
6	A student with autism included in the regular classroom will display academic gains as a result of being included.
11	The student with autism will develop social skills as a result of being included within the regular education classroom.
17	The behavior of the regular education students will set a positive example for the autistic student included in the regular education classroom
19	The student with autism will possess an increased self-esteem as a result of being included within the regular education classroom.
21	Including a student with autism in the regular education classroom will not require significant changes in pacing so that I can still meet the district benchmarks within the required times.

Table 3

Available Resources (Factor 3)

Item No.	Survey Item
8	There are enough resources (materials, personnel) in place to support a student with autism being placed in my regular education classroom.
9	Should a student with autism be placed in my classroom, my administrators would provide time for regular education staff and special education staff to discuss and plan for the student.
15	I am knowledgeable regarding curriculum modifications that have proven helpful to assist a child with autism in my regular education classroom.
22*	Standardized test scores will not be affected by the inclusion of students with autism in the regular education classroom.

* Dropped from the analysis as the factor loading was very low and it loaded about equally onto 3 other components.

Table 4

Support from Administrators (Factor 4)

Item No.	Survey Item
5	My school principal promotes the philosophy that students with disabilities are the responsibility of all school personnel.
10**	Regular educators possess the knowledge and skills to adequately teach a child with autism.
13	I believe that my principal and other administrators provide a supportive, collaborative environment that is conducive to providing inclusive education.
18	Should a child with autism be placed within my regular education classroom, I believe that my principal would periodically check in to see if assistance is necessary.

** Dropped from the analysis because item did not fit "conceptually" with the other items.

Table 5

Effect of Student with Autism on Other Students (Factor 5)

Item No.	Survey Item
4	The extra attention that will have to be given to a student with autism will not take away from the education of the other students.
12	Including students with autism in the regular education classroom will positively impact the academic achievement of typical students.

CURRICULUM VITAE

Kimberly A. Barnes

Education

Currently Enrolled in Ed.D. Teacher Leadership Program

January, 2005- Present — Walden University

- Overall GPA: 4.0 — Baltimore, MD

M.S. Degree in Speech Language Pathology

August 1999 – December 2001 — James Madison University, Harrisonburg, VA

- Overall GPA: 4.0
- Certification: Speech-Language Pathology

B.S. Degree in Special Education

August 1995 – May 1999 — Bloomsburg University, Bloomsburg, PA

- Overall GPA: 3.93
- Major GPA: 4.00
- Certification: Mentally and Physically Disabled K-12

Coursework/Skills

Dysphagia	Resonance
Neurology of Speech and Language	Phonology
Voice Disorders	Adult Language Disorders
TBI	Research
Motor Speech Disorders	Acoustics
Fluency Disorders	Ageing
Language Disorders in Children	

Current Employment

Speech Language Pathologist

August 2004 - Present — East Penn School District

- Assumed responsibility for treatment of school age children with speech and/or language impairments
- Responsible for evaluating children and writing evaluation reports and IEP's
- Serviced children with Autism, Hearing Impairments, Articulation and Language Impairments

Professional experience

Speech Language Pathologist

January 2001- August 2004 — Berks County Intermediate Unit

- Assumed responsibility for treatment of preschool age children with speech and/or language impairments
- Responsible for evaluations, writing evaluation reports and IEP's

Graduate Clinician

June 2000 – December 2000 James Madison Speech and Hearing Center

- Assumed responsibility for treatment of children with speech and/or language impairments.
- Participated in Scottish-Rite Summer Clinic for clients with moderate-severe speech and/or language impairments

Graduate Clinician

January 2001 – May 2001 Stone Spring Elementary, Harrisonburg, VA

- Assumed caseload of cooperating speech-language pathologist, with clients ranging from 4 to 12 years of age.
- Team-taught with regular educator in classroom setting and another speech-language pathologist in small group settings.
- Participated in hearing screening of incoming kindergarten students.

Graduate Clinician

May 2001 – July 2001 Hershey Medical Center, Hershey, PA

- Assumed caseload of cooperating speech-language pathologist, which consisted of adult clients in rehabilitation.
- Performed speech and language evaluations and completed appropriate documentation.

Graduate Clinician

August 2001 -- December 2001 Lancaster General Hospital, Lancaster, PA

- Assumed caseload of cooperating speech-language pathologist in an acute care hospital setting.
- Performed modified barium swallows and documented results.

Employment

August 2000 – May 2001 **Graduate Assistant**

Office of Communication Sciences and Disorders, James Madison University

- Performed various clerical duties. Assisted in grading tests and tutoring undergraduate students. Maintained database of information about continuing education students in the field of Speech-Language Pathology.

May 1996 – August 2001 **Court Clerk, Account Clerk, Court Clerk**
Lancaster County Domestic Relations, Lancaster, PA

- Performed various clerical duties, such as typing, filing and answering phones. Assisted fiscal department in collection of funds from IRS tax intercepts.

Professional memberships

American Speech and Hearing Association
Kappa Delta Pi- Educational Honor Society

Awards Received

Dean's List- 8 consecutive semesters
Lynn Wesley Grimm Scholarship
Kenneth and Mary Betterly Maiers Scholarship
Alumax Foundation Scholarship
Ambucs National Scholarship
Nominated for Ginny Thornburgh Award in Special Education (1998, 1999)
Recipient of Ginny Thornburgh Award in Special Education (1999)

References

Available Upon Request