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PERCEPTIONS OF GENERAL EDUCATION TEACHERS IN INCLUSIVE  
SETTINGS

by  
Katherine A. Conner

A Thesis

Submitted in partial fulfillment of the requirements of the  
Master of Arts Degree  
of  
The Graduate School  
at  
Rowan University  
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Approved by \_\_\_\_\_

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## ABSTRACT

Katherine A. Conner  
PERCEPTIONS OF GENERAL EDUCATION TEACHERS IN INCLUSIVE  
SETTINGS

2007/08

Dr. Roberta Dihoff and Dr. Frank Epifanio  
Master of Arts in School Psychology

The purpose of this study was to examine the collaborative relationships between general education teachers and their colleagues in school psychology and special education when in inclusive environments and to determine the effects of their perceptions on student-teacher relationships. Specifically, the researcher hypothesized that teachers with more knowledge and positive perceptions of their colleagues would have more positive relationships with the ASD included children in their classrooms. Consequently, those who have had children with ASD in their classes in the past were expected to be more knowledgeable about the field of school psychology and the special education department. Thirdly, training was hypothesized to be an important factor in the student-teacher relationship. A positive and significant correlation was found between knowledge of school psychology and closeness of relationship. While the data did not otherwise yield significant results, some interesting trends were found with respect to teachers' perceptions of school psychologists and special education teachers in their schools.

## Acknowledgements

Though the Master's thesis is definitely an independent learning experience, there are a number of people that I would like to thank for their help and support along the way.

First, I would like to thank previous researchers, especially the developers of the Student-teacher Relationship Scale. They recognized the need for this research first, and deserve acknowledgement for their contributions to the field. Also, I would like to thank Drs. Dihoff and Epifanio, who have given me a number of great opportunities to develop my skills as a school psychologist, including their help during this process.

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## Chapter One: Focus of the Study

### Need

Professional School Psychologists strive to find the best way possible to effectively educate the children under their care. In most cases, this requires direct collaboration with parents, teachers, and administrators. Although studies have been performed on teachers' relationships with their students, there is a need for more research on teacher relationships with disabled children who are included in regular education classrooms. Moreover, research on whether or not more access to educational resources and the support of the school psychologist can engender positive teacher-student relationships is of vital importance for several reasons.

First, with the ratification of current legislature on education, including the Individuals with Disabilities Education Act (IDEA) and the No Child Left Behind Act (NCLB), more classified students are being placed in the regular classroom setting based on the principle of the least restrictive environment. Both IDEA and NCLB agree that exceptional learners should be educated in close proximity to their non-disabled peers and as close to the home as possible (Hallahan & Kauffman, 2004). This however, can create problems for the teachers involved as far as their preparation to teach exceptional learners. "In one national survey, more than 90% of secondary education teachers reported having students with learning disabilities in their regular classroom and more than 90% of the same teachers indicate that their undergraduate education did not adequately prepare them to teach special populations" (Henning & Mitchell, 2002).

Although this article was written in 2002 and focused on only secondary education teachers, it is important that professionals in the education field seek to determine whether students are really thriving in this situation, and also how the teachers themselves are faring.

Another important facet of the information this research could provide deals with the role of the school psychologist. Currently, many students seen by school psychologists are assessed and then placed in a general education classroom for at least part of the day (Dahle & Gargiulo, 2004). Knowing what measures to take to ensure the development and progress of the child can mean a more positive outlook for teachers as well. Only when teachers have the resources they need can they teach children with exceptionalities to work to their full potential. Finding out whether teachers perceive school psychologists and special educators as allies is therefore of the utmost importance.

For this particular study, the exceptional learners of focus are those children classified with Autism Spectrum Disorders (ASD). This topic was chosen because of the rapid increase in knowledge about the spectrum in the last decade, the increase in children classified in recent years, and the percentage of ASD students who remain in the general education classroom. One example of the change in recent years concerns Asperger Disorder. Researchers Karen Dahle and Richard Gargiulo noted that only since 1994 has AD been recognized as its own syndrome and “the majority of the children with AD are being educated in the general classroom” (Dahle & Gargiulo, 2004). Because of the recent findings on these disorders, and the shortage of highly qualified teachers of Autistic children, there is a specific need for research in this realm of exceptionalities.

## Purpose

The purpose of this study is to examine the relationship between general education teachers' perspectives on special education teachers and school psychologists (in regard to knowledge of and perceived support from these colleagues) and their relationships with the exceptional learners in their classrooms. Although studies have been performed on the student-teacher relationship, most focus on the behavior of the child. This study solely considers the perceptions of the teacher in concordance with the training he or she has undergone, the knowledge he or she has of the Child Study Team and special education department, and the perceived support he or she gets from those resources. The information provided by teachers through the data will have implications for teachers, administrators, and school psychologists.

## Hypothesis

The first hypothesis can be divided into two parts: a) The more knowledge the general education teacher has of school psychology and special education, the more positive a relationship he or she will form with the included child, and b) The more perceived support from these resources will also result in more positive relationships. Second, it was hypothesized that those teachers with ASD included children in their classrooms at any point during their career would have more knowledge of school psychology and special education. Lastly, it is hypothesized that teachers who feel they have had adequate training in teaching children with Autism will have more positive relationships with those included children in their classrooms.

## History

As this study merges three important areas of research: 1) teacher preparation, 2) relationships between teachers and their students and peers and 3) best practices for teaching students with ASD, the background of this study is quite complex. Beginning with the idea of teacher preparation, it is important to note that recent legislature is now holding schools more accountable when it comes to hiring and maintaining staff. The No Child Left Behind Act, signed by President George W. Bush in 2002, “includes a provision that all students be taught by highly qualified teachers” (Scheuermann, et al., 2003). Once their preservice education is complete, teachers must continue to take classes in order to maintain their certification. Despite these measures, a 2003 article from the journal Focus on Autism and Other Developmental Disabilities charges that especially in the area of special education, teachers are failing to meet these standards. The authors cite special education teacher shortages as a major contributor saying, “This unrelenting shortage has forced states to hire uncertified teachers and to offer expedited routes to certification” (Scheuermann, et al., 2003). The authors continue to say that training is of the utmost importance in teaching children with Autism Spectrum Disorders and that even certified special education instructors may not be qualified to work with Autistic children.

Beyond setting goals for highly qualified teachers, the NCLB Act also calls for an increase in inclusion of exceptional learners in public schools with their non-disabled peers. Teacher preparation in this area has increased in recent years, however many general education teachers maintain negative attitudes toward inclusion that will be described in detail in the next chapter (Vaughan, et al., 1994).

Another area popular in research today is that of student-teacher relationships. Robert Pianta was a pioneer in these relationships, basing much of his research on them. Many such studies have focused solely on the correlation between a child's behavior and his relationship with his teacher, however. One example of this is a study by Kristen Robertson and her colleagues, who observed that "although children benefit from positive relationships with their teachers, the study of these relationships has rarely been extended to children who have disabilities" (Robertson, Chamberlain, & Kasari, 2003). Their study looked at these essential relationships in Autistic children and found that higher ratings of behavioral problems lessened the quality of student-teacher relationships. The child's status among peers was also important to the student-teacher relationship (2003). Unfortunately, these studies in children with disabilities have not yet been expanded to encompass teacher preparation and support as a factor in the student-teacher relationship.

Finally, it is necessary to discuss the previous research on best practices for teaching children with Autism Spectrum Disorder. As previously mentioned, ASD is a fairly new diagnosis; as such, the research on this topic is also new. Because of the recent legislature passed, most studies turn to inclusion and its effects on children with ASD. One such study points to the need for general and special educators to work together to plan for, instruct and assess students as inclusion grows in popularity (Henning & Mitchell, 2002). This, and other articles of its kind, show the need for researchers to determine how school faculty can work together and support each other because that is the best way to teach children with disabilities, especially those with ASD.

## Operational Definitions

While this study spans three areas of research, it deals mainly with two significant concepts: the idea of inclusion of children with Autism Spectrum Disorder in regular education classes and teachers' relationships with both the included children in their classrooms and the support staff of special education teachers and school psychologists. With that considered, it is most important to define Autism Spectrum Disorder.

“Autism and related (Pervasive Developmental Disorders) are early-onset neurobiological conditions that share fundamental impairments in social reciprocity, pragmatic and semantic communication, reactions to environmental stimuli, and the nature of preferred interests and activities. Although there is a broad range of cognitive, linguistic, and adaptive functioning across the autism spectrum, impairments in social understanding, emotion perception, and pragmatic communication are universally present” (Bregman, 2005). There are five Autism Spectrum, or Pervasive Developmental Disorders: Autism, Asperger syndrome, pervasive developmental disorder not otherwise specified (PDD-NOS), Rett syndrome, and childhood disintegrative disorder. The last two are much less common than the first three disorders (Strock, 2007).

Along with defining ASD, it is also important to discuss what is meant by the student-teacher relationship. For the purpose of this study, the Student-teacher Relationship Scale will be implemented as part of a larger teacher perception scale, and should therefore be defined. The STRS began as a 16-item, Likert-type scale that can be broken down into three subscales: closeness, conflict, and dependency. The items deal with both positive and negative instances and behaviors that ultimately have a hand in deciding the strength of relationship between a teacher and her student. The 28-item

measure based on the original scale has been validated for children from pre-kindergarten to third grade and can be administered individually or in groups of teachers (Pianta, Steinberg, & Rollins, 1995).

### Assumptions

As any other research study, this particular endeavor carries with it certain assumptions concerning the topic at hand as well as the method of collecting data. The first assumption was that the classifications by the schools were accurate. Teachers participating in the study reported the number of ASD classified students in their classroom, so we must assume that the classifications were appropriate for every student involved. Unfortunately, the study cannot possibly take into account the opposite situation: assuming that there are no ASD students who have not been classified.

The second set of assumptions deals directly with the measure. It was assumed that the teachers spent about the same amount of time and invested about the same amount of energy and effort into the questionnaire. It was also assumed that the teachers had enough time to forge a relationship with the classified student or students in their classrooms.

### Limitations

In this correlational study, there are a few limitations that should be delineated. The first is geographic region. Because the study was performed in the state of New Jersey, specifically southern New Jersey, it cannot be generalized to other cultures or countries, or even other states. Next, the sample size was fairly small and may not be representative of the general population. Lastly, the sheer subjectivity of the measure can

be considered a limitation. It is significant to note that students' actual behavior was not recorded; all data is based solely on teachers' perceptions. With that said, it is also important to consider limitations of using a likert scale, which include central tendency bias, in which participants avoid reporting extremes and acquiescence bias, in which the respondents tend to agree with the items as they are presented. These are limitations of any study involving such a scale.

### Summary

This research study brings to light two important concepts in school psychology today. First, the ever-growing knowledge base of Autism Spectrum Disorders, as well as indications of recently passed legislature, have led the field in new directions concerning intervention and placement of students. Secondly, the relationships between not only teachers and students, but teachers with their own peers in the profession have become increasingly more important as a result of the aforementioned concept of today's intervention techniques and placements. In the next chapter, a wealth of previous research that has affected the realization of this study will be discussed. Chapter 3 will explain the research methodology, specifically the participants, measures, and procedure of the design. In Chapter 4, results will be presented as they were analyzed. Finally, Chapter 5 will summarize the findings and include implications for the classroom as well as for future research.



## Chapter Two: Literature Review

### Introduction to Previous Research

As previously stated, this thesis draws from three separate areas of research throughout the field of psychology: best practices for teaching students with Autism Spectrum Disorder, teacher preparation and perceptions in the realm of both general and special education, and the student-teacher relationship. It is important to study these areas thoroughly before looking at how they interact with each other.

Essential to this research study is knowledge of the history and current educational considerations and methods for students with Autism Spectrum Disorders. Educators, psychologists, and doctors have all had their hand in attempting to find the best methods to teach these children through understanding of the etiology, behavioral characteristics, and abilities of Autistic and Autistic Spectrum Disorder children. This history will be examined, including some etiological and behavioral characteristics that help describe how some interventions have come to fruition.

Also of central importance to this study is teacher preparation. Teacher education programs and teachers' perceptions of their education will be examined as they relate to general education and special education. Inclusion is an important factor here, because of the increasing rates of inclusive methods mandated by current legislature.

Finally, the history of student-teacher relationships and assessment of them will be explored. This topic will be reviewed from the general idea of student-teacher relationships, to more specific studies that include the use of the Student-Teacher Relationship Scale (STRS) that will be implemented in this research design.

While these three main topics have been studied extensively, the interaction between them as a result of the evolution of educational practices has not yet been examined in depth. Today's best practices in educating children with Autism, along with the impetus for inclusion mandated by current legislature are important factors in the student-teacher relationship in inclusive settings. Through an investigation of these three topics, the focus and purpose of this thesis will become much clearer.

### Autism Spectrum Disorder and Best Practices for Education

Autism Spectrum Disorder, a fairly new term used in conjunction with Pervasive Developmental Disorder, includes 5 separate diagnoses. Most often discussed are Autism and Asperger syndrome, but Rett syndrome, pervasive developmental disorder not otherwise specified, and childhood disintegrative disorder are also considered part of this classification according to the DSM-IV-TR (Strock, 2007). Each of these disorders is characterized by varying degrees of impairment in the following categories: 1) communication skills, 2) social interactions and 3) repetitive and stereotyped patterns of behavior. Beyond the DSM definition, the Individuals with Disabilities Education Act (IDEA) states that Autism is generally evident before the age of three. For the purpose of education, Asperger syndrome is often seen as a milder form of Autism (Hallahan & Kauffman, 2004).

While the cause of ASD is not well-understood, some etiological factors may include exposure to ingredients in certain vaccinations and biological factors. While mercury-based preservatives in vaccinations have come under fire in recent years as a probable cause of Autism, many studies have shown no link between the two (Strock,

2007). More probable etiological factors are biological in nature, and include specific impairments in the brain as well as genetics. In his 2004 article, Simon Baron-Cohen discusses the various parts of the brain involved in ASD. The three main parts that are affected- the amygdala, orbito-frontal cortex, and the superior temporal sulcus and gyrus are often referred to as the “social brain” (a distinction made by Brothers, Ring & Kling in 1990). Most of the evidence on this theory is centered on animal lesioning studies and neuro-imaging studies of the amygdala (Baron-Cohen, 2004). Also indicated in this article as possible sites for abnormal brain functioning in Autism are the hippocampus, the cerebellum, the left-medial frontal cortex, and the frontal-limbic connections (2004).

These brain abnormalities could trace back to specific genes indicated in Autism. It seems that a polygenic model of inheritance is most likely, but as previously mentioned, environmental factors such as vaccines may also play a part. Several large-scale studies have been conducted on the genetic base of ASD. One such study, performed in Denmark on a nationwide scale, found that “the relative risk of autism in siblings of children affected with autism is increased by about 22 times, and increased by about 13 times in siblings of children with the broader autism diagnoses” (Lauritsen, Pedersen, & Mortensen, 2005). Although a definitive etiology has not been determined, these possible etiological factors provide valuable information for those affected with ASD as well as researchers.

### Characteristics of ASD

In order to know what instructional methods are effective in teaching children with Autism Spectrum Disorder, one must understand the characteristics as they relate to

possible etiological factors. Outside of the three categories of impairment seen in children with ASD, there are more distinct characteristics present that negatively affect academic performance specifically. In her article in *Pediatric Rehabilitation*, Rita Jordan describes in detail the processes that are impaired in children with Autism Spectrum Disorder. Under the umbrella term of psychological processing lie five separate processes that are important to understand in the education of children with ASD.

The first of these processes, and perhaps one of the most important for education, is perception. “The child has difficulty separating focus from background in all areas of stimulation and can often only cope with what otherwise would be overwhelming, by focusing intently on some stimulus (often moving, as in a spinning coin) and blocking all other stimulation” (Jordan, 2005). This characteristic, which is also seen in ADHD, makes reading (among other things) very difficult. It is also exacerbated by the next characteristic, attention. In children with ASD, natural intuitive joint attention is missing; that is, they must be taught social referencing and how to respond to social signals, such as their name being called in class. These signals are not inherently understood by individuals with ASD.

Along with the lack of natural intuitive joint attention, children with ASD lack understanding of emotions and empathy. They do not recognize, for example, which facial expressions correspond to certain emotions, and what those emotions mean. This is significant for both self and others, including a lack of understanding that one’s own emotions can be experienced by others (empathy).

The last two characteristics of psychological processing are of central importance in the classroom setting. Memory, which often seems very good in those with ASD, is

based more on meaningless rote memorization; working memory is almost always affected. This leads to difficulties with comprehension and problems doing homework.

The last problematic feature of psychological processing is that of abstracting concepts. “Processing of concepts will take both time and cognitive effort, adding to the complexity of life for children with ASD and requiring teachers and others to be sensitive of this need for time to process recognition of concepts in any new situation” (Jordan, 2005). Because these five characteristics are so closely related to a child’s functioning in the classroom, it is important to keep them in mind when creating and implementing specific interventions.

#### Interventions throughout History

Interventions for children with ASD have taken various forms over the course of history. One of the earliest and most famous researchers in this area is Dr. O. Ivar Lovaas, who designed his technique at UCLA. The Lovaas method, based on Applied Behavior Analysis, is still used today for many Autistic children. Information about his methods can be inferred from the hypothesis of his 1987 article: “We hypothesized that construction of a special, intense, and comprehensive learning environment for very young autistic children would allow some of them to catch up with their normal peers by first grade” (Lovaas, 1987). This special environment has been said to replace the natural learning environment that the average child learns from throughout his waking hours, this idea reflecting the aforementioned characteristics of Autism and ASD. The Lovaas technique has not only proven successful, it has generated more specific applications of ABA that have helped bring interventions into the classroom. These applications, among

other intervention methods and educational considerations, will be described as they have evolved throughout history.

About eleven years after the 1987 Lovaas article, Patricia Howlin sought to summarize the intervention methods implemented within that time span in regard to the specific behaviors and skills targeted. For communication improvement, speech therapy was cited as an unfortunately ineffective intervention for those with Autism who do not develop speech by age seven. Alternative methods of communication, such as the Picture Exchange Communication System (PECS) were described as more effective communication interventions (Howlin, 1998). Project TEACCH, which promotes independence of the child, is cited as an augmentative intervention for verbal ASD children. In the realm of social adjustment, Howlin notes that the focus of intervention has shifted to the use of non-disabled peers to coach the child in social interactions. Finally, as for interventions with repetitive behaviors and perseveration, a “graded change” approach was found to be the best method (1998).

While Applied Behavioral Analysis, communication therapies, and multi-treatment programs such as Project TEACCH are widely known and used, an Australian study cited several other types of interventions used for children with ASD. The authors began with sensory-motor therapies such as Auditory Integration Therapy, which does not have much of a research base. They also discussed play and group therapies, as well as the interventions cited by Howlin. They noted that because of the nature of Autism Spectrum Disorders, interventions that may work well for one child may not necessarily work for others (Dempsey & Foreman, 2001).

For this reason, it is apparent that no matter which interventions are chosen for a child, researchers suggest that the importance lies in how the interventions are carried out. For example, Detrich noted that interventions for Autistic children are only effective when they are implemented precisely and consistently. She called this treatment fidelity, and stated that “goodness of fit” between interventions and current classroom practices is important for high treatment validity. “If an intervention is similar to current practices in the classroom, then it may be more likely that it will be implemented with fidelity” (Detrich, 1999). That is, if the intervention has a natural flow with what is already occurring in the classroom, it will have high fidelity, and therefore be more successful.

Along the same lines, a 2000 article in the *Journal of Positive Behavior Interventions* added to the body of evidence supporting interventions based on “natural interactions in the environment”. The study followed several ASD children who played games with their siblings as an intervention for ritualistic, stereotypic behaviors. The study was significant in its findings that “children with autism can learn social skills through play” (Baker, 2000).

Looking at the beginnings of research in ASD interventions is concordant with this theme of naturalistic settings and classroom practices. The Young Autism Model proposed by Lovaas implements principles of Applied Behavioral Analysis, which according to top researchers in the field, “is a prominent and pervasive factor in effective academic instruction for all students, including students with Autism Spectrum Disorder” (Dunlap, Kern & Worcester, 2001). Because these methods have been wholly integrated into educational practices, they have become part of the classroom setting. Up to this point, researchers seem to agree that although there are specific interventions for children

with ASD, these interventions should be tied to the natural environment of the home or classroom as well as to best practices for education of all students.

This in fact, is only a piece of what a successful intervention entails, according to Rose Iovannone and her colleagues. In a study that reviewed recent research, the authors pulled out six crucial elements in designing and implementing interventions for children with ASD. “These core elements are (a) individualized supports and services for students and families, (b) systematic instruction, (c) comprehensible/structured learning environments, (d) specialized curriculum content, (e) functional approach to problem behavior, and (f) family involvement” (Iovannone, et al, 2003). The study took into account some of the interventions mentioned above, such as Project TEACCH and the UCLA Young Autism Project, as well as other interventions not mentioned in the current study. This framework can be used when reviewing the past five years’ worth of research in this area.

For example, a research design concerning an Autistic child with augmentative and alternative communication (AAC) needs tested the written narrative skills and their improvement as the child worked with a verbal, yet mentally retarded peer. They found that the AAC student improved greatly over the course of the intervention, and while these were preliminary results that should not be generalized, they show promise and the direction that interventions have moved toward in recent years (Bedrosian, et al, 2003).

The idea of bringing non-ASD and non-disabled peers into interventions with Autistic and Autistic Spectrum Disorder children is directly related to the idea of inclusion, which is at the forefront of research studies today. In truth, most studies from the past two years discuss the implications and efficacy of inclusion practices, probably a



result of the legislature passed recently which stresses the importance of the least restrictive environment. The rest of this section will focus on some examples of these studies.

In 2003, Richard Simpson and his colleagues published a report on the Autism Spectrum Disorder Inclusion Collaboration Model. They stated that although inclusion of students with ASD presents a unique challenge, it is appropriate for many such students. The first benefit they noted is that “students with ASD and their non-disabled peers benefit from planned contact with one another” (Simpson, de Boer-Ott, & Smith-Myles, 2003). The authors concluded that collaboration was key; the model “emphasizes shared responsibility and shared decision making among general educators, special educators, and support personnel” (2003).

More than just collaboration, researchers have claimed that early intervention is important for inclusion of children with ASD. Two years after Simpson et al. wrote about their collaboration model, Diehl, Ford and Federico published a case study that followed a young boy with ASD from the age of three to eleven. The authors focused on his communicative development, which was shown to improve greatly after being enrolled in a fully-inclusive preschool. The researchers’ report reflects the ASD Inclusion Collaboration Model, declaring, “it is the continued support of his educational team, his family, and his communication partners, working together...that will ensure Jose’s future success” (Diehl, Ford, & Federico, 2005).

In a more specific early intervention model, Gusty-Lee Boulware and colleagues developed Project DATA for Toddlers: an inclusive program for preschool aged children with ASD. Their focus on such a young age reflects the increasing population of Autistic

children that are classified before the age of three. The program includes an inclusive playgroup for children with ASD, individualized instruction, and increased support and coordination of services for families as well as systematic transition planning. Beyond the positive results reported by the authors regarding functionality after the participants completed the program, parents also described benefits. “Parents of four of the children reported that their children had meaningful and reciprocal relationships with peers at school and in the community. Interestingly, these are the same four participants who were attending and succeeding in general education classrooms” (Boulware, et al., 2006). From this statement, it can be inferred that inclusive early intervention methods can lead to a smooth transition to inclusive school settings, which can be highly beneficial for the child with ASD in developing social skills.

In 2007, the focus of research on interventions for children with ASD was definitely on bringing specific methods into the inclusive classroom while tailoring them to the unique needs of the child. Goodman and Williams cite ways to provide “unobtrusive” support for children with ASD in order to improve social skills as well as active participation in the academic side of the classroom (Goodman & Williams, 2007). Their belief that inclusion is a best practice for many children with ASD is supported by the research, which has confirmed the benefits of inclusion in the realms of both social skills (Fisher & Meyer, 2002) and positive academic outcomes (Schreibman, 2005).

After a review of the research concerning educational considerations for children with Autism Spectrum Disorder, the evidence can be summarized with a few important concepts. First, Applied Behavior Analysis, in its many shapes and forms, is considered one of the most promising types of interventions for children with ASD. Although the

research base on other types of interventions, such as music therapy, sensory integration therapy, and play therapy is not conclusive as far as efficacy, these interventions have worked for some students, and should not be forgotten or minimized. As the country is moving toward inclusion, there are a few important things to remember: “(a) the evidence base for intervention, (b) accountability reform programs in the school, (c) legal mandates of the Individuals with Disabilities Act (IDEIA), including least restrictive environment (LRE), (d) the capacity of staff to implement the intervention with fidelity, and (e) availability of resources in the classroom and the school that are needed to support the intervention” (Tincani, 2007). The above recommendations for treatment of ASD will be important in the following sections.

## Personnel Preparation and Perceptions

### Teacher Preparation and Implications for Inclusion

Through examining the body of research concerning instructional methods and interventions for children with ASD, it can be inferred that this nation is moving forward with inclusion as a key component of special education. This, of course, has many implications for teachers of both general and special education classrooms. As stated previously, many general education teachers do not feel as though their teacher education programs prepared them to teach exceptional learners. In reviewing research on personnel preparation, one must look at both the quality of teacher education programs and perceptions of teachers regarding their education and inclusion itself.

Of the seemingly countless teacher preparation programs in the United States, not much research has been done on which types of programs are most effective. Moreover,

assessing the differences between general educator preparation and special educator preparation can prove difficult without first looking at previous research. For these reasons, Mary Brownell and colleagues proposed a framework for studying teacher preparation programs and also reviewed the literature in order to examine these programs. What they found is that many programs emphasize inclusion, but did not necessarily “discuss the pedagogy used to help students learn relevant skills” (Brownell, et al., 2005).

Many researchers have realized this discrepancy, and seen the need for teaching inclusion in pre-service programs. Most of these changes have focused on bridging the gap between general and special education and emphasizing co-teaching strategies. Cooperative teaching has been described as “an educational approach in which general and special educators work in co-active and coordinated fashion to jointly teach heterogeneous groups of students in educationally integrated settings” (Ripley, 1997). Co-teaching requires that teachers share responsibilities and hold equal positions in the classroom. ERIC Digest author Suzanne Ripley stated, “Collaboration should also be part of teacher preparation programs” (Ripley, 1997). She is not alone in this idea; several recent research studies have focused on revitalizing teacher preparation programs to include inclusion and co-teaching as key principles.

A stellar example of this has happened at Webster University. In a paper presented at the Annual Meeting of the Association of Independent Liberal Arts Colleges for Teacher Education, the authors described the many changes to the curriculum that were implemented to reflect the changes in policy as the nation looks to inclusion as a main strategy in special education. In a state where inclusion was far from being a

popular option, the faculty of the university added courses in the undergraduate and graduate programs and strengthened the connection to inclusion in existing classes. Through adding programs in unified curriculum, dual certification and an infusion of inclusion approach, these researchers believe they will reach their goal to “enable practicing teachers to investigate issues and examine strategies that relate to the education of all students, regardless of ability” (Campbell & Fyfe, 1995). Although this is an early and highly optimistic example, this study has shown what strides teacher education programs have taken to evolve as the nation’s ideas about best practices are evolving.

#### Personnel Preparation and ASD

Because Autism Spectrum Disorder is such a unique and challenging classification, teacher preparation should target this area specifically. This has proved quite problematic, because there really are no accepted standards for teaching Autistic children- a fact probably related to the multitudes of intervention techniques and the underdeveloped knowledge base discussed previously. As in the case of special education as a whole, teaching programs for autism vary widely, according to Brenda Scheuermann and colleagues. “The Council for Exceptional Children...has standards for teachers in all major disability areas except autism. Therefore, those autism teacher preparation programs that do exist may vary widely in the content of training” (Scheuermann, et al., 2003). Beyond training teachers to have more specialized skills, training teachers in multiple approaches and preparing personnel across disciplines are cited as two recommendations for personnel preparation. This is because “teachers need to be able to create a coordinated, well-informed team. This will require knowledge

about communication, consultation, organization, and management” (2003). This can become difficult because of teachers’ attitudes toward inclusion and because of the multitudes of services that must be provided.

Not only is the child considered ASD in the classroom; these children are affected by the disorder throughout their lives in various settings. General Education teachers, therefore, have been given the responsibility of teaching them social skills, life skills, etc. For example, some researchers have called for a “social inclusion” movement, where the teacher facilitates friendships between the ASD included child and his non-disabled peers. “Just placing children with disabilities with typical peers does not necessarily ensure that friendships will occur” (Boutot & Bryant in Boutot, 2007). The characteristics of Autism Spectrum Disorder include lack of social skills, and because of these difficulties, teachers have been called on to use strategies to improve relationships for and promote acceptance of included children in their classrooms.

On another note, teachers have been indicated as possible parent trainers, especially in early childhood special education. In an article published in both the *Journal of Positive Behavior Interventions* and *Topics in Early Childhood Special Education*, researchers described a parent training program they had devised for young children with ASD. The training program consisted of 9 weeks of either 1.5 hour or 45 minute sessions per week (Ingersoll & Dvortcsak, 2006).

In response to these added responsibilities on teachers, keeping in mind the pressure high-stakes testing has recently put on them, it is easy to see that some teachers may feel unprepared or even against inclusion. As teacher perceptions are often integral to the success of interventions and inclusion in general, it is important to look at this issue

from a historical perspective, considering attitudes before and after IDEA and the NCLB Act were passed.

### Perceptions Regarding Inclusion

In the mid 1990's, teacher perceptions of inclusion were reported to be very negative. In a paper entitled "Teachers' Views of Inclusion: 'I'd Rather Pump Gas'", 74 teachers participated in focus group interviews. They were fortunately very candid and expressed mainly strong and negative feelings based on their doubts, fears, and resentment of policymakers that make changes without their input. One teacher said, "I think it's so unrealistic, if it happens, and it probably will happen" (Vaughn, et al., 1994). These teachers seemed to realize that the nation was on the cusp of passing legislature that would promote inclusion and were very uneasy about it.

In addition to this paper, one year later a study was published entitled "Duck! Someone Said Inclusion: Reactions to a Survey". It becomes obvious even from the titles of these works that teachers were upset and even fearful about inclusion. 98% of participants reported that they felt general education teachers were not properly trained for inclusion to be successful (Shipley, 1995). This particular study did cite PL 94-142, which is the basis for the Individuals with Disabilities Education Improvement Act in place today.

One study of central importance to the current research project regards practicum experiences and their effect on teachers' perceptions of inclusion. Reber and his colleagues found that when teachers participated in practica regarding special needs students, they had more positive views toward inclusion. The study also found that

perceptions differed based on the type of disability (Reber, et al., 1995). As the participants were pre-service teachers, this study is concordant with the ideas presented earlier in this chapter about creating successful teacher preparation programs based on inclusion.

As it became more evident that inclusion was becoming an option used more often in schools, studies focused more on teachers' ideas about essential supports needed, rather than their general perceptions. One form this essential support takes is co-teaching. The participants in a 2001 study reported that they believed "the general education co-teacher did the most in the inclusive classroom" (Austin, 2001). The participants were both general and special education teachers, so this statistically significant result is even more striking. More special educators reported that their pre-service training prepared them for co-teaching. Lastly, even though most teachers reported that they did not volunteer to co-teach, they saw it as a positive experience.

Another manifestation of support needed for general education teachers in inclusive classrooms was studied by Sharon Lohrmann and Linda Bambara. They found that there are two levels of support needed: 1.) a school wide level of support based on a shared vision of inclusion, and 2.) a more situation-specific, individualized support system that responds to immediate needs (Lohrmann & Bambara, 2006). The first level of support has been cited in several articles, such as a 2006 article which discussed the efficacy of Individualized Education Plans (IEP) in relation to teachers' beliefs about the "active involvement of regular education teachers, administrators, and parents in the IEP process" (Lee-Tarver, 2006). The second level of support has been indicated in such studies that examine teachers' perceptions of school psychologists, where it has been



found that general education teachers have less knowledge of school psychology and therefore less satisfaction with the services provided by school psychologists (Gilman & Medway, 2007)

The difference between Lohrmann and Bambara's study and the studies previously mentioned is that these teachers had included students in their classrooms during the study. It seems that because inclusion is now a more commonly accepted practice, studies are beginning to focus on teachers' perceptions as they interact with students in inclusive settings.

One such example is the 2007 study performed by David Paterson. The data for this study was collected through semi-structured teacher interviews, recall of "in-flight" thinking, and researcher field notes. What separates this study from most is that the distinction was made between teachers' observable actions and their unconscious thoughts about particular students, or the group as a whole. Previous studies that focused only on observable actions found that general education teachers mainly focused on the class as a whole. In this study, however, "An examination of the in-flight thoughts of teachers in this study revealed that at this unobservable cognitive level, all participants were thinking not only about the whole class but also about individual students, recognizing their experiences, personalities, skills, and preferences and making ongoing adjustments to the lesson in accordance with that recognition" (Paterson, 2007). Therefore, as inclusion has progressed to a much more acceptable and highly implemented way of instructing children, the focus of research has shifted not only to teachers' perceptions of inclusion, but also of their perceptions of students as individuals.

With that said, it is becoming important to look at the student-teacher relationship and its effects on outcomes of both non-disabled and exceptional learners.

### Student-Teacher Relationship

As early as the 1960's, researchers and educators have been singing the praises of the student-teacher relationship as a tool for building a more effective classroom. It has been noted that "in the classroom, students who feel accepted by their teachers are more likely to do what the teacher asks of them and less likely to do things that make teachers' lives difficult" (Morganett, 1991). Throughout the numerous research studies, psychologists and educators have found that "constructive teacher-student relationships have been shown to impact affective learning, which then facilitates cognitive learning" as well as the fact that "the teacher-student relationship can be classified as an interpersonal relationship" (Dobransky & Frymier, 2004). Though these statements may seem intuitive, the nature and development of student-teacher relationships has been a topic of research because it is not as apparent what affects these relationships and what we can do to improve them.

In a review of the literature regarding theories surrounding the study of the student-teacher relationship, Heather Davis found that most studies look to one of three theories (motivation, attachment, or sociocultural perspectives) to determine the level or quality of the student-teacher relationship (Davis, 2003). Other studies have agreed, noting that "Researchers have used attachment theory as well as cognitive and motivational theories and social ecological theories as frameworks for explaining the impact of the teacher-student relationship on a child's developmental status" (Hughes,

Cavell & Jackson, 1999). Furthermore, in 2001, Schlechty and Atwood discussed the power of the student in the student-teacher relationship, noting that all relationships are reciprocal in nature. “Not only does recent research indicate that students exert some influence over teacher behavior, but in addition, it appears that teachers respond differently to different students” (Schlechty & Atwood, 2001).

In an attempt to better understand why researchers want to study the student-teacher relationship, a few of the actual studies should be examined. These investigations have looked at everything from race, to student behavior, to students’ academic performance in relation to the student-teacher relationship. For example, a 1993 study reported that it is not necessarily the science curriculum that is important, but the interpersonal behavior of the teacher that matters in student outcomes. The researchers concluded, “To improve student outcomes, the introduction of new curriculum materials probably has to be accompanied by changes in teacher behaviour” (Wubbels, 1993). Another example concerns the sociocultural aspects of the student-teacher relationship. Looking at race as a factor into the quality of student-teacher relationships, Warikoo studied the effects of having a same race teacher on students’ academic performance. Ultimately she found that “teachers of different ethnic and racial backgrounds had quite different approaches to connecting with their students” (Warikoo, 2004). Lastly, a 2000 study focused on improving the hyperactivity of children through the student-teacher relationship. This application of the relationship is one of many that ties into research from the previous sections because the author points out that these relationships may be especially difficult to form and maintain and require extra energy and knowledge on the teacher’s part (Tyson, 2000). A separate study concerning this piece of the relationship

reported that “teacher stress was significantly correlated with negative affect, self-efficacy, and negative relationships” (Yoon, 2002). It is easy to see why this area of research has become popular in the past few decades and why it is important to the current study: the broad range of possible interactions with other variables, implications for student success in school, and specific applications for intervention are all reasons why studying the student-teacher relationship is valuable.

#### Student-Teacher Relationship Scale (STRS)

It is also important to understand how the student-teacher relationship has been measured and studied in previous years. Although interviews, focus groups, and other scales such as the Questionnaire on Teacher Interaction have been used, it was not until the early 1990’s that a true measure of the student-teacher relationship was created. Robert Pianta, a pioneer in the field, worked with several colleagues to develop the Student-Teacher Relationship Scale, which is comprised of three subscales: conflict, closeness, and dependency (Pianta & Nimetz, 1991; Pianta, Steinberg, & Rollins, 1995). Through his numerous studies, Pianta has validated the scale and shown “findings [that] point to an association between the quality of students’ relationships with their teachers and the quality of their current and future school performance” (Pianta, Steinberg & Rollins, 1995). “To date, the Student–Teacher Relationship Scale (STRS) remains the only self-report measure of teachers’ perception of their relationship with students that has been validated and widely accepted” (Ang, 2005).

## What the STRS has studied

As the STRS is used in the current study, it is noteworthy to mention what the scale has studied in the past. Beyond Pianta's own studies, other prominent researchers have used the STRS to determine the quality of student-teacher relationships for various reasons. A few, like Pianta's studies, have focused on the STRS itself. In 2004, one such study researched the child's background and academic and behavioral characteristics as they relate to the student-teacher relationship. The authors found that these factors were more related to the negative aspects of the relationship, meaning the conflict and dependency subscales (Murray & Murray, 2004). This could be one reason why the STRS is often used in studies regarding behavior of students and students with disabilities.

For example, one study that implemented the STRS in its design sought to determine the correlation between student-teacher relationship and teacher stress. The researchers found that teachers tended to avoid behaviorally challenging students (those that tended to cause them more stress). In addition, they suggested "teachers have different perceptions of and experience different stress levels with regard to specific students in their classroom" (Abidin & Kmetz, 1997). These results demonstrate the efficacy and value of using the STRS on specific children within a subtype (such as behaviorally challenging, or learning disabled).

Finally, a study that strongly relates to the current thesis examined student-teacher relationship among included students with Autism and their teachers. The authors found that teachers reported mainly positive relationships with included students with Autism, but that a higher rating of behavior problems did lessen the quality of the relationship

(Robertson, Chamberlain, & Kasari, 2003). Through this review of the literature on the STRS, it is apparent that most studies performed so far have focused on the behavior of the child as the independent variable. Through the current study, the researcher will identify possible other areas that may affect the student-teacher relationship in inclusive settings.

### Summary of Findings

In this chapter, the topics of best practices for the education of children with ASD, personnel preparation and perceptions, and the student-teacher relationship have been thoroughly examined. Previous research has provided psychologists and educators with invaluable information regarding these topics. With the current legislature in place, it seems that interventions for autistic children must be part of an inclusive classroom in order to both benefit the child and follow the law to provide a free and appropriate education in the least restrictive environment. Certain principles and applications of Applied Behavior Analysis have come to the forefront of these interventions. The legislature has also affected teachers' views and knowledge where personnel preparation is concerned. Many teachers are currently working in inclusive environments, whether or not they were trained or willing to do so.

Today's legislature has had an effect on both of the first two topics of research, and in this thesis, the researcher will begin to study a possible relationship between these variables and the student-teacher relationship. Using the Student-Teacher Relationship Scale, which has been validated through numerous studies, the correlation between these variables will be observed, keeping in mind the previous research which has provided

knowledge about both the nature of these relationships and how educators and administrators can and should seek to improve them.

## Chapter Three: Research Design

### Sample

The participants for this research study were Kindergarten to Third grade general education teachers from seven schools. All of the schools were located in Southern New Jersey, specifically in Burlington and Gloucester counties. It did not matter if the teachers were inclusion teachers, co-teaching, or had no classified children in their classrooms. All Kindergarten to Third grade general education teachers from the schools denoted above were invited to participate, but it was not mandatory; all schools had given their consent for the research to be performed.

Of 103 questionnaires distributed, 35 were returned and usable. This 33% response rate is average for mail surveys without incentive. Demographics of the group are indicative of the stereotypic makeup of teachers in the nation's public schools. 100% of the participants were Caucasian, and 97.1% of respondents were female. The mean years of teaching experience was 17 years; some teachers reported that it was their first year of teaching, and the teacher with the most experience had 39 years of service. Interesting to the study is the percentage of teachers who reported working in an inclusive environment. 64.7% of teachers surveyed responded that they had, in fact, had a child with Autism Spectrum Disorder in their general education class. 32.35% of participants reported that they had at least one child with ASD in their classroom this year and subsequently filled out the STRS portion of the questionnaire. It is interesting to note that the majority of those teachers who filled out the STRS had more than one child with



Autism Spectrum Disorder in their general education classroom. The mean STRS score was 91.152.

## Measures

The measure created for this study was a blend of a published scale and a likert scale written by the researcher. The first part of the scale asks demographic information, such as gender, race/ethnicity, and years of teaching experience. The second part of the measure asks about teachers' perceptions and knowledge of school psychology and special education. This section, created by the researcher, follows the 5 point likert scale format of the third section. This final section is the Student-Teacher Relationship Scale (STRS) designed and validated by Robert C. Pianta. In the early 1990's, the first edition of the scale consisted of 16 questions (Pianta, 1991). A later edition contained 30 questions (Pianta 1995). The finalized version of the STRS is made up of 28 likert-type questions that can be administered individually or in groups. The scale "has been normed on more than 1500 students and 275 teachers and has been shown to be psychometrically reliable and valid" (Pianta, 2001). This means that the STRS has been shown to be a sound measure of teachers' relationships with their students. The relationship score is based on three subscales: closeness, conflict, and dependency. Closeness and dependency are positively correlated and both correlate to the total score. The conflict subscale is negatively correlated with closeness and dependency, yet contributes to the total score. The purpose of the Perceptions of General Education Teachers measure as a whole is to assess teachers' perceptions of their colleagues and students in the context of inclusion.

## Procedure

Before any data could be collected, the researcher obtained permission to do research from the proper authorities at each school. In most cases, the researcher sent formal letters describing the nature and reason for the research and held a meeting with school personnel to discuss the proposal. Once the schools consented to have the research performed, the questionnaire was distributed in prospective participants' mailboxes, with a cover letter containing much of the same information in the research proposal. This explanation of the research served to generate a higher rate of response. The questionnaires also included stamped, addressed envelopes so that the anonymous responses could easily be returned to the researcher. Data was collected after the first half of the school year, during the winter break period, so that teachers would have an ample amount of time to acclimate themselves and to forge relationships with those students included in their classrooms. Once data was collected, the STRS was scored for each participant according to the Professional Manual for the STRS published by Psychological Assessment Resources, Inc. For those teachers who had more than one child with ASD included in their classroom and subsequently filled out more than one STRS questionnaire, their scores were averaged.

## Hypothesis

It was hypothesized that the more knowledge a teacher has, along with a more positive perception of support from school staff (i.e. special education teachers and school psychologists) the more positive teacher-student relationships will be. It is also hypothesized that general education teachers that have had children classified with

Autism Spectrum Disorders included in their classrooms will be more knowledgeable about special educators and school psychologists in regard to their respective roles and the support they give. Lastly, it is hypothesized that teachers who feel they have had adequate training in teaching children with Autism will have more positive relationships with those included children in their classrooms.

### Analysis Design

Because one of the hypotheses relates to all of the participants and the other two relate only to those who completed the STRS, the select cases function of SPSS was used to exclude those teachers who did not apply for each test. Analysis should be described in terms of each hypothesis, which is as follows: For the first hypothesis, in which it is believed that increased knowledge and positive perceptions result in a more positive student-teacher relationship, a correlation was performed between the total of the perceptions scale and the STRS score. Correlations were also found for individual items (e.g. "I am knowledgeable about the field of school psychology) and the STRS score as well as subscale scores. For the second hypothesis, chi-square tests were performed for the individual knowledge items for both school psychology and special education in order to determine whether there was a difference in the perceptions. For the third hypothesis, a one-way Analysis of Variance was used for those teachers that completed the STRS. This hypothesis stated that the more training a teacher receives, the more positive a relationship he or she will have with the included student. Using the STRS score and condensing the likert scale into three groups (one for those who responded positively, one for negative responses and one for the neutral response) an ANOVA was performed.

Finally, various descriptives and crosstabulations were run in order to examine demographic information and patterns of response.

### Summary

In Chapter 3, the research design was discussed in detail and included information as to the subjects, exact procedure and analysis of data. Responses to the questionnaire, provided by general education teachers in the early elementary grades, will prove or disprove the hypotheses stated previously. With the use of a validated measure in conjunction with the instrument designed by the researcher, this thesis should provide valuable information to school personnel, whether the hypotheses are proven or some interesting trends are found. The information given in this chapter can also help other researchers to replicate the study, which will of course increase the knowledge base on the topic of student-teacher relationships in the inclusive classroom. In the following chapters, the data analysis and results of the study will be described.

## Chapter Four: Results

### Introduction and Restated Hypotheses

The purpose of this study was to complete a thorough investigation of general education teachers in inclusive environments. Specifically, teacher perceptions of knowledge and support of school psychologists and the special education department were examined. Also of central importance to the research was the student-teacher relationship within the context of the perceived rapport between teachers and their colleagues within the school. The researcher limited the study of the student-teacher relationship to those students classified with Autism Spectrum Disorders because of their increased presence in the general education classroom and previous research on teacher perceptions.

There were three main hypotheses in this study. The first two-part hypothesis is as follows: The more knowledge a teacher has, along with a more positive perception of support from school staff, the more positive the student-teacher relationship will be for ASD included students. Accordingly, it was also hypothesized that teachers who have had students with ASD included in their classrooms in the past would be more knowledgeable about school psychology and special education. Finally, the third hypothesis was that teachers who feel as though they have had adequate training in teaching children with Autism will have more positive relationships with the included children in their classrooms.

## Results

For the first hypothesis, a correlation of  $r = .739$ ,  $p < .01$  was found between the knowledge of school psychology and the closeness subscale on the STRS (see table 4.1). No similar correlations were found for the knowledge of special education item, however. No significant correlations were found regarding the support of school psychologists and special educators as a whole using the totals of the perceptions scale.

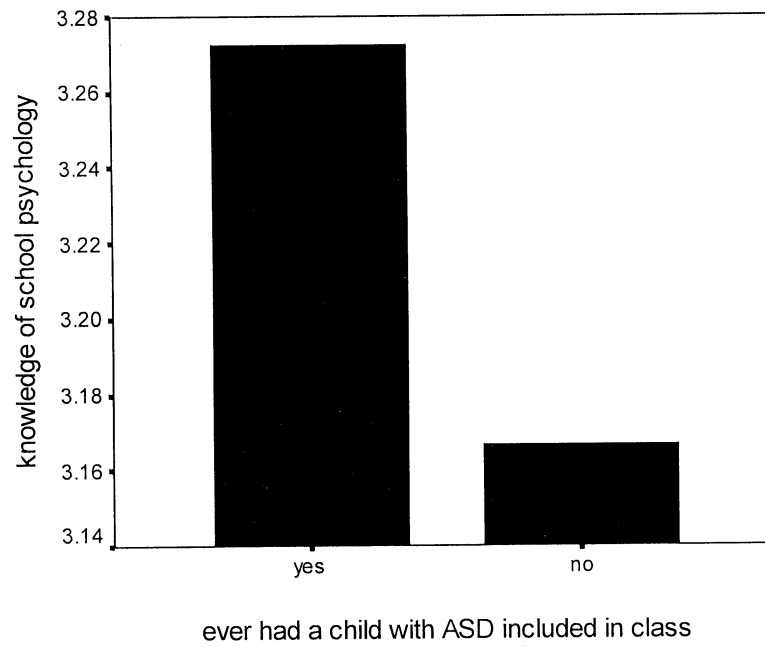
Table 4.1 Knowledge of School Psychology and STRS

		closeness subscale on strs	knowledge of school psyc	score on strs
closeness subscale on strs	Pearson Correlation	1	.739(**)	.753(**)
	Sig. (2-tailed)		.009	.007
	N	11	11	11
knowledge of school psyc	Pearson Correlation	.739(**)	1	.590
	Sig. (2-tailed)	.009		.056
	N	11	11	11
score on strs	Pearson Correlation	.753(**)	.590	1
	Sig. (2-tailed)	.007	.056	
	N	11	11	11

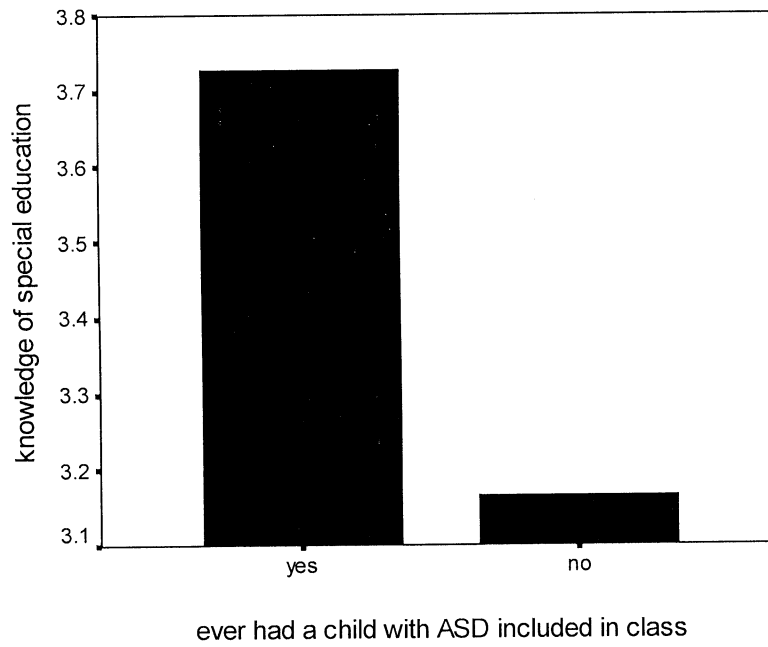
\*\* Correlation is significant at the 0.01 level (2-tailed).

In regard to the second hypothesis, chi-square tests were performed to measure the differences in means between teachers who had students with ASD included in their classrooms in the past from those who had not. Results for both tests were found to be not significant, but show some promising trends. The means for knowledge of school psychology were as follows: 3.273 for those with included students, and 3.1667 for those who never had a child included. For the knowledge of special education variable, the mean reported by those with an included child was 3.727; the mean for those who never had an included student with ASD was 3.1667 (See Graphs 4.1 and 4.2)

Graph 4.1 Knowledge of School Psychology and Inclusion Status



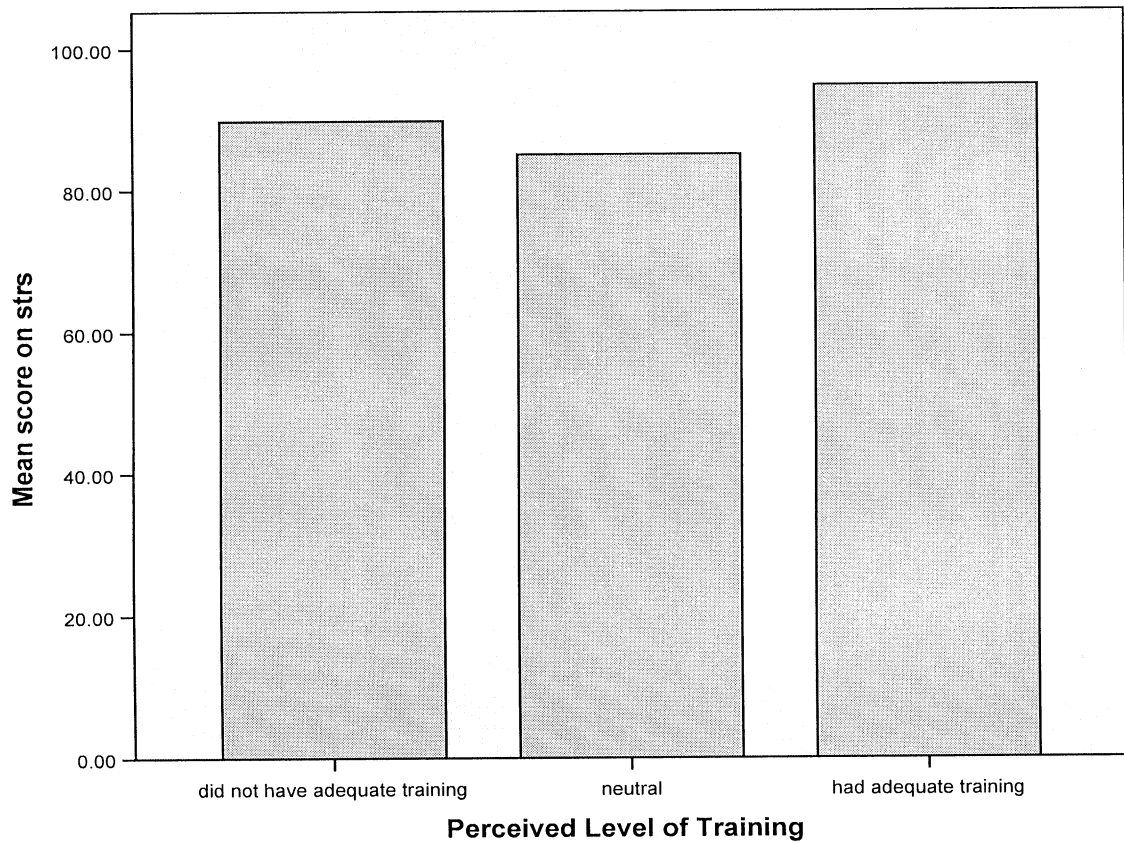
Graph 4.2 Knowledge of Special Education and Inclusion Status



Lastly, results for the third hypothesis were also found to be not significant. The mean STRS score for teachers who felt they had adequate training was 94.793. The

mean score for those who felt they did not have enough training was 89.750. Graph 4.3, below, represents the mean scores on the STRS for each response for the “Since I began my teaching career, I feel I have completed adequate training to teach children with ASD” item.

Graph 4.3 STRS Score and Training Level





## Summary

This chapter has served to outline the results found by the researcher. For the first hypothesis, in which knowledge of school psychology and special education was proposed to relate to more positive student-teacher relationships, a positive correlation was found for knowledge of school psychology and STRS score. While the other hypotheses were not proven by the analyses of this data set, some interesting and valuable trends were uncovered. These findings will be described in full detail in the following chapter.

## Chapter Five: Discussion and Implications

### Description of Findings

In this study, there were three main hypotheses that aimed at examining the complex relationships found in schools. The first hypothesis examined the relationships general education teachers had with their colleagues in both school psychology and special education. While the results of tests revealed a non-significant correlation between the perceptions section of the questionnaire as a whole and the teachers' reports of student-teacher relationships, there were some interesting trends shown for individual items. Interestingly, it is knowledge of school psychology, not of special education, that correlates with higher scores on the STRS. The closeness scale of the STRS was positively correlated with knowledge of school psychology at a highly significant level. It is possible that the Child Study Team process is easier for those teachers who are familiar with school psychology practices, and therefore, can focus on the needs of the child in order to forge a closer relationship.

Because the perceptions section of the questionnaire included items about knowledge and perceived support, it became necessary to draw out these concepts separately. While knowledge of school psychology was found to be important in the student-teacher relationship, teachers' reports of perceptions as a whole made no difference on the STRS score. The justification for this is evidenced by the mean responses for the perceived support item. Teachers who filled out the STRS reported a mean level of 4.727 for support from special education teachers, yet only 3.091 for

support of school psychologists. In general, teachers with ASD included children in their classrooms felt more support from special education teachers than from school psychologists. The fact that teachers had such different opinions about special education teachers as opposed to school psychologists could be why STRS score and the perceptions section were not more positively related.

In the second hypothesis, the researcher focused on teachers who had had students with Autism included in their classrooms at some point before the current academic year. While the hypothesis that those who had students in the past would generally be more knowledgeable was not proven, the data again showed some promising tendencies. The trend suggests that those teachers who have had children classified with ASD in their classrooms will be more knowledgeable about special education than school psychology, with respective means of 3.727 and 3.273. Moreover, teachers who had not had students classified as ASD reported the exact same level of knowledge of special education and school psychology, with a mean of 3.1667. The fact that those who never had a child with ASD included in their classroom did not report any difference in their knowledge of special education vs. that of school psychology suggests that the presence of a child with ASD does place the teacher in certain situations that increase his/her knowledge, especially of special education.

Bringing these two hypotheses together, it is apparent that while knowledge of school psychology and special education may not go exactly hand in hand, the teachers who have had classified students in their classrooms tend to report having more knowledge about special education and school psychology. Beyond that, knowledge of

school psychology has been positively correlated with the closeness subscale of the STRS. With a larger sample size, these hypotheses may have been proven.

Finally, the third hypothesis looked at level of training, both in pre-service training and continuing education the teachers participated in after they had begun teaching. Again, results disproved the hypothesis. Looking at the mean responses for level of training can provide some insight into a possible reason for the non-significant results. The mean for teachers who had students included during the current year was 2.45 signifying that, in general, teachers reported a very low level of satisfaction with the amount of training they had received on teaching students with Autism. They did not, by and large, feel comfortable with teaching these students. The mean response for all teachers surveyed was an even lower score of 1.971. Bearing in mind that a positive response began at a response of 4, these results are striking.

#### Connections to Previous Research

Current legislature has resulted in an influx of students with Autism Spectrum Disorder into the general education classroom. Previous research has been performed on teachers' opinions of this phenomenon, but most of these studies occurred before the laws went into effect. The teachers involved in these studies perceived inclusion as something that probably would not happen, and if it did, they thought that it would not work. Unfortunately, the results of this study provide evidence that their views are coming to fruition. Not only did levels of training not correspond to the student-teacher relationship, overall perceived levels of training were very low.

It is interesting, however, that there were certain trends concerning teachers' knowledge of school psychology and special education. Previous research has pointed to resources in the classroom as one of the necessary components in teaching students with ASD. Authors have noted that interventions that are closely aligned with teachers current classroom practices are more effective. It can be inferred, therefore, that teachers that are more aware of specific interventions and how they relate to their classroom structure would be better resources for the children included in their classrooms. Data showed in this study that those with knowledge of school psychology, and therefore better resources, had closer relationships with the included children in their classrooms. Moreover, several prominent authors concluded that collaboration was key for teaching students with Autism and pervasive developmental disorders; their model emphasizes shared responsibility and decision making among general educators, special educators, and support personnel (i.e. school psychologists, etc). The fact that general education teachers reported an increase in knowledge of school psychology and special education when they had children included in their classrooms suggests that inclusion can be a positive learning experience for teachers as well as their students. One of the problems seen in this specific study is that perceptions of support from special education teachers were higher than those of school psychologists. It could be that school psychologists are still being seen as "gatekeepers" of special education; as neither insiders nor outsiders in the school, teachers may feel less comfortable with them.

The most promising piece of the research is probably the results regarding the inclusion practices of the schools in the study. It seems that this sample of the population has moved toward inclusion, with about two-thirds of teachers reporting having had a

student with ASD included in their classroom during their career. In the future, school districts should provide more training to support teachers during this time of increasing inclusive practices. School psychologists should also work to forge relationships with teachers and present themselves as a resource and support system. More positive perceptions of school psychology, inclusion, and collaborative relationships could improve knowledge of these systems as well as benefit students through the student-teacher relationship.

#### Future Directions

While this particular research study has provided some insight into the student-teacher relationship in inclusive environments, much more research is needed in this area. A replication of this thesis on a larger scale could provide more significant evidence as to the influences on student-teacher relationship in inclusive environments. Future studies should focus on teacher training in the realm of students with exceptionalities as policies are becoming more stringent concerning highly qualified teachers. Another interesting direction is that of school psychologists. It would be interesting to observe what school psychologists are doing to be more supportive of teachers in inclusive environments and how they view the collaborative relationships within their schools. Previous research has shown that a positive student-teacher relationship leads to successful outcomes for students. Research that delves into the complex influences of these relationships can provide valuable information for students, teachers, school psychologists, and school systems as a whole.

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