

The Attitudes of School Principals toward the Inclusion of Students with Autism
Spectrum Disorder in the General Education Setting: Virginia Superintendent's Region 7

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Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State
University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
In
Curriculum and Instruction

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May 24, 2016
Blacksburg, VA

Keywords: autism, inclusion

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ABSTRACT

The placement of students with Autism Spectrum Disorder (ASD) in the inclusive general education setting has become a challenging task for public school principals. The purpose of this quantitative study was to identify and measure the attitudes of principals and assistant principals toward the inclusion of students with ASD in a rural region of Virginia. One hundred and twenty five participants across Superintendents Region seven of Virginia completed the Principals Autism Inclusion Survey (PAIS). Data were collected and analyzed using descriptive, correlational, and multivariate analysis of variance. The overall results conclude that principals have a very neutral attitude toward students with ASD. However, they do tend to favor a more inclusive placement for these students within their schools. Additionally, the challenges faced by principals in rural schools do not seem to impact their attitude toward the students with ASD in their buildings.

Acknowledgements

There have been so many people who have helped and supported me not only in the process of completing my study, but also through instilling in me the desire to further my education and the interest in such a valuable topic.

I would like to first acknowledge my committee chair, Dr. Tom Williams. He has been patient with me and understanding of my unique needs. He has provided me with invaluable guidance, feedback, and time throughout this process. His encouragement along the way helped me juggle the responsibilities of being a full time mother, wife, teacher, and student. I would also like to acknowledge Dr. Susan Asselin, Dr. Tom Brewster, and Dr. Heidi Mesmer, the members of my committee whose preciseness, experience, and wisdom have been instrumental in the development and completion of this dissertation.

I want to thank my entire family for their support. I am forever in debt to my mother, Gail Webb, for always believing in me. Without her influence I would not be the person I am today. Of course, it is the people who live with me who have suffered the most throughout this process and who deserve the most gratitude. I thank my husband, Dr. Eric Workman, for never having any sympathy for me and for constantly saying, “You mean you’re not finished yet?” Although his method of support may not be traditional, he always stood by my side and never doubted my abilities. I am also so very grateful to my two sons, Eric Ryan and Jacob, who always understood when Mom needed quiet time to work. I hope that observing the sacrifices my husband and I have made while pursuing our degrees will teach them that anything is possible with hard work and determination.

To the participating school districts, I appreciate your willingness to take part in this study. The school principals and division superintendents in region seven of Virginia were very receptive and I am thankful for your time and effort in allowing me to conduct my study.

In addition, I would like to acknowledge the students with ASD and other disabilities that I have had the pleasure of teaching over the years. They are the ones who sparked my interest in this topic and who have provided me with the passion to go forth with this study. The struggles these young students go through each and every day in the general education setting gave me the purpose and reason for the study. They are all special gifts from God.

Finally, speaking of God, I would like to thank My Heavenly Father and the hope and faith I have in Christ Jesus. “For I know the plans I have for you, declares the Lord, plans to prosper you and not to harm you, plans to give you a hope and a future.” Jeremiah 29:11.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
Background of the Study	1
Statement of the Problem	4
Statement of the Purpose	6
Research Questions	6
Significance of the Study	7
Definition of Terms	10
Limitations	12
CHAPTER 2: REVIEW OF THE LITERATURE	13
Brief History of ASD	13
Brief History of Inclusion	16
Principals Attitudes toward Inclusion of Students with ASD	22
Definitions of ASD	26
Specific Problems and Needs of Principals in Rural School Systems	29
Summary	33
CHAPTER 3: METHODOLOGY	36
Research Method and Design	36
Research Context	38
Participants	39
Instrumentation and Data Collection	40
Praisner's- PIS	43
Workman's- PAIS	45

Data Analysis	47
Research Question #1	48
Research Question #2	49
Research Question #3	50
Research Question #4	51
CHAPTER IV: RESULTS	52
Sample Size	52
Attitudes of Principals	53
Demographic Information	55
Training and Experience	59
Placement	64
Educational Challenges in Rural Regions	66
Summary	70
Conclusion	71
CHAPTER V: DISCUSSIONS	72
Purpose	72
Demographics	73
Training and Experience	75
Challenges in Rural Areas	76
Placement	78
Implications	79
Recommendations for Further Research	80
Summary	83

Conclusion	84
References	86
Appendix A: DSM-V Definition of ASD	93
Appendix B: Contact Letter to Principals	95
Appendix C: Superintendent Request to Participate	96
Appendix D: Email Permission to use Survey Instrument	97
Appendix E: Principals Autism Inclusion Survey	98

Chapter I

Introduction

Background of the Study

The inclusion of students with Autism Spectrum Disorder (ASD) in the general education setting is becoming a common trend in classrooms across Virginia (VDOE, May 2011). The movement toward inclusive classrooms began with the legal requirements of the No Child Left Behind Act (NCLBA) in 2001 and was further enforced in the Individuals with Disabilities Education Act (IDEA) of 2004. These laws provided individual students with disabilities full access to all educational programs along with the additional support services needed to meet their education needs (Ross-Hill, 2009). A common uncertainty of teachers in these inclusive settings is whether or not they are truly addressing the needs of the students with ASD through their general education curriculum. Therefore, classroom teachers turn to their school principals for guidance and support. The attitudes of these principals toward the inclusion of students with ASD affect the inclusion practices within their schools.

In an inclusive school setting, students with disabilities are provided specially designed instruction in the least restrictive environment (LRE) and to the maximum extent appropriate, with children who are not disabled. Special classes, separate schooling, or other removal of children with disabilities from the regular education environment occurs only when the nature and severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. The LRE varies according to the individual needs and goals of the student. In order to determine the LRE, federal laws such as IDEA require that an individualized education plan (IEP) committee first develop the individual goals for the student, and then determine how and where the student's goals can be

met. Although the development and implementation of inclusion has caused many to have a hopeful outlook for the future of students with special needs, it has also come with its fair share of challenges, especially for school principals.

According to Stainback and Stainback (1990), “An inclusive school is a place where everyone belongs, is accepted, supports, and is supported by his or her peers and other members of the school community in the course of having his or her educational needs met” (p.3). In inclusive schools, general education works cooperatively with special education to create a quality learning environment for all students. The true spirit of inclusive schooling emphasizes that all students should be included in the general curriculum with appropriate supports and programs to meet their individual needs. As the instructional leaders of their schools, principals are not only key participants in the restructuring of regular education programs, but also in leading special education initiatives for inclusion (Cook, Semmel, & Gerber, 1999). Therefore, it would seem logical that an in depth inquiry into administrators’ attitudes toward inclusive practices is timely and needed.

Until the 1950s, students with disabilities did not have to be educated in the public schools. The education of these students occurred at residential schools or homes. In 1952, the vast majority of states, all but two, implemented legislation that mandated education for students with mental retardation (Beirne-Smith, Patton, & Ittenbach, 1994). A little more than two decades later, in 1975, Congress passed Public Law 94-142, the Education for All Handicapped Children Act, which is now known as the Individuals with Disabilities Education Act (IDEA; Individuals with Disabilities Education Act 2004). This law attached federal funding to individual states for developing and implementing policies that assured a free, appropriate public education to all children with disabilities (Individuals with Disabilities Education Act 2004).

Historically, students with ASD were considered unintelligent and did not attend public school systems. They were enrolled in special schools that resembled institutions or they were not educated at all (Dybvik, 2004). In the 1970s, research and interest focused mainly on the so-called typical autistic syndrome (Goldberg, 2004). Prior to the 1975 legislation on inclusion, students with disabilities were removed from the general education classroom rather than being included in publicly supported education programs. Some states had laws that permitted public schools to deny admission to these children. Gradually, in the later 1970s, public schools began educating children with disabilities (which may or may not have included students with ASD) usually in a separate class or facility within the public school system (Dybvik, 2004).

According to Minkowski & Targowla, (2001), the general population, including school principals, thought of children with ASD as being retarded, having schizophrenia, and/or having emotional problems. School principals often held preconceived notions and assumptions concerning autism. These notions included a) the idea that students with ASD should not be included in the general education setting, b) the belief that students with ASD would not and could not benefit cognitively or socially from the inclusion setting, and c) the thought that students with autism would interfere with the general education population (Wagner, 2002). Based on the principals' fixed ideas, students with ASD continued to be limited to self-contained settings or periodical removal from the general education classrooms (Hidey, 2006). This practice of removal inhibited the students with ASD from reaching their full potential as theory, not practice, held that separating students with ASD from a normal environment exacerbated the problems these students have in terms of socializing and academic achievement (Taub, 2005).

Statement of the Problem

The education and treatment of individuals with ASD has undergone radical changes since the disorder was originally documented in 1943 by Leo Kanner. Decades ago, the education of a child with ASD would typically only be considered within a specialized school or psychiatric facility. Today, with the increased knowledge of the disorders associated with autism, the public school system is now expected to provide an appropriate learning environment for these students. However, researchers, practitioners, and parents do not always agree about the characteristics of the best environment to educate students with ASD. Ivanonne et al. (2003) stated that due to IDEA and related legislation, litigation regarding the education of students with ASD is the most common type of litigation concerning students with disabilities.

Praisner (2003) found that school principals have different experiences and perceptions of appropriate educational placements depending upon a student's disability. Principals often based their placement decisions on their beliefs and experiences. Therefore, students with certain disabilities may not be granted an equal opportunity to be included in regular education classes. Specifically, school principals were least likely to recommend students with emotional disturbance and ASD to be placed in an inclusion classroom (Praisner, 2003). According to Horrocks, White, & Roberts (2008), preparation programs for principals only provided them with a small part of the knowledge base considered necessary by special education experts to implement inclusion programs. Formal training, specifically in ASD, which familiarizes the principal with the unique characteristics of this disability, may play a significant role in placement decisions. Perhaps professional development for administrators concerning disabilities and inclusion could remove any trepidation on principals' behalf concerning ASD and facilitate placement decisions.

While school principals are faced with difficulties no matter where they are employed, being an instructional leader in a rural area presents a number of unique challenges. In rural communities, barriers include resistance to change, economic challenges, and geographic challenges (Cruzeiro & Morgan, 2006). According to Murphy and Ruble (2012), when educating students with ASD in rural areas, principals specifically struggle with providing necessary resources needed for the family and the children with autism due to the lack of available specialists in their communities.

Principals provide the leadership and encouragement to make inclusive education possible. In Virginia, it is the principals' duty to make sure that IDEA guidelines are implemented within their buildings. School principals are charged with the responsibility of monitoring the roles of each of the professionals responsible for providing education to each and every student. According to the *Guidelines for Uniform Performance Standards and Evaluation Criteria for Principals* approved by the Virginia Board of Education (2012), there are seven core performance standards for principals. These standards focus on (a) instructional leadership, (b) school climate, (c) human resources management, (d) organizational management, (e) communication and community relations, (f) professionalism, and (g) student academic progress. As a result, a principal must develop a plan to ensure success for all students, including those with ASD, and must facilitate the organization of services and supports for these students within their school. If the attitude of the principal towards students with ASD is negative, it could potentially have an adverse effect on their decisions in carrying out these plans. Does a principal's attitude regarding students with ASD effect his/her placement recommendation for those students? The opposing forces of legislation that protects the rights of students with disabilities and the possibly negative attitudes of school principals concerning those rights must

be investigated and analyzed in order to ensure that students with ASD are educated in their least restricted environment.

Statement of the Purpose

The purpose of this study is to contribute to a body of research surrounding the attitudes of school principals towards the inclusion of students with ASD in the general education setting. The literature review will also emphasize the history of ASD, how the definition of the disability has evolved, and the development of inclusion in public schools, thus providing a greater understanding of the challenges and concerns of school principals regarding the education of students with ASD. The secondary purpose of this study serves to more closely examine the relationship between specific demographic factors of principals in rural areas and their attitudes towards inclusion for students with ASD.

Research Questions

The following research questions will guide the dissertation:

1. To what degree are a principals personal and/or school demographic characteristics associated with their attitudes toward inclusion of children with differing levels of ASD?
2. To what degree is the amount of training and experience that a school principal has had related to ASD associated with their attitudes towards students with differing levels of ASD?
3. To what degree are school principals' attitudes towards students with differing levels of ASD associated with the educational placement decisions the principals make within their schools for these students?

4. To what degree are school principals attitudes towards students with differing levels of ASD associated with the educational challenges they face in rural regions?

Significance of the Study

Once thought to be a rare condition, ASD has recently emerged as a common childhood neurodevelopmental disorder. In March of 2012, the Centers for Disease Control and Prevention (CDC) significantly revised the estimated prevalence of ASD in the United States. The Autism and Developmental Disabilities Monitoring (ADDM) Network is an active surveillance system that estimates the prevalence of ASD and describes other characteristics among children whose parents or guardians reside within fourteen ADDM sites in the United States. This report stated that one in eighty-eight children in the United States has an ASD (CDC Surveillance Summaries, 2012).

To reach this number, the CDC reviewed the health and special education records of tens of thousands of eight year olds in the fourteen communities. The 2012 prevalence rate represented a 23 percent increase from the previous estimate of one in 110 children reported in 2009. The Virginia Department of Education (VDOE) posts their annual child count data each year. In 1998 VDOE reported 1,521 children identified with ASD. This number increased to 11,703 students as of 2011 (VDOE, 2011).

It is clear from these statistics that the number of students identified with ASD is steadily growing. Evidence suggests that the true prevalence of ASD in the United States could be higher. A 2011 study conducted on more than 55,000 children in South Korea suggested that ASD may be more prominent in the general school population than previously believed. Kim et al. (2013) tested all of the seven to 12 year old children in a single Korean town and found a prevalence rate of about one in thirty-eight children. The researchers in this study concluded that

two-thirds of the cases they found were undiagnosed. Their report suggested that more rigorous screening and comprehensive population coverage are needed to yield more-accurate estimates of ASDs prevalence. Therefore, principals must face the reality that an increasing number of students with ASD will be enrolled in their school.

With an increase in the diagnosis of ASD, recent national legislation emphasized the need for teacher training in the area of ASD since children with ASD accounted for almost one third of a comprehensive sample of published court decisions related to the core concepts of free appropriate public education (FAPE) and least restrictive environment (LRE) under the Individuals with Disabilities Education Act (Zirkel, 2011). Another major, and more significant, finding was that when comparing this litigation percentage with the ASD percentage in the special education population for the period 1993-2006, the ratio was approximately 10:1. Attempting to define the reasons for the escalation is complex, yet it is necessary to address the problem.

In a period of a national special education teacher shortage, training and support for individuals teaching students with ASD has become an important topic in the field of special education (Morrier, Hess, & Heflin, 2012). According to the most recent national data, students with ASD are served in many different educational settings; thirteen percent attend regular classrooms one hundred percent of the time; 14 percent attend regular classrooms plus resource rooms; 14 percent attend separate classrooms with some regular class participation; and 24 percent attend separate classrooms nearly all the time (USDOE, 2004). This evidence supported the varying degrees of severity of ASD characteristics that are present within the population of students. Principals may not be trained to appropriately place students with ASD in their least

restrictive environment, and the instructional leader of the school may not have an ASD specialist or trained special educator to turn to for advice.

The quantity and quality of administrative assistance has been found to directly affect teacher efficacy and retention. According to Yell et al. (2003), teachers often look for logistical support from their principals through scheduling (including time to plan and collaborate), consideration of class load (severity, size, and ratio), provision of trained paraprofessionals, and budgetary resources. Principals also provide instructional support in the forms of relevant professional development, expert consultants, and suggestions of resources and evidence-based strategies. Iovanne et al. (2003) also noted emotional support as another required component. Staff will likely seek to have their principals understand the singular challenges of serving students with autism by having the administration observe their classrooms frequently, listening to their concerns, and directing them to resources and solutions. Simple actions like allowing teachers of students with ASD to request a particular substitute (even if that is not the general school policy) can have a significant impact on the class success when a teacher has to be absent. The characteristics associated with ASD place extraordinary demands on educators. Support from building principals is critical to teacher and student success.

This study may also be significant in examining inclusion models for students with ASD within the general education classroom. Faced with inclusion initiatives, school principals are being called upon to respond in ways quite different from what has previously been required (Cohen, 2000). In order for inclusion to be effective, it is generally agreed that the school personnel responsible for carrying out the services should be receptive to the required principles and demands (Avramidis, Bayliss, & Burden, 2000). School principals provide instructional guidance and play vital roles in the process of including students with ASD within the regular

classroom environment. It is imperative that these principals identify and articulate a philosophy, or vision, which reflects the belief that all children can learn, and that all children have the right to be educated with their peers in an age appropriate regular education classroom (Fullan, 2003).

As the leader in the school, the principal directly influences “resource allocations, staffing, structures, information flows, and operating processes that determine what shall and shall not be done by the organization” (Nanus, 1992, p. 142). Due to their authoritative position, principals’ attitudes about inclusion could result in either increased opportunities for students to be served in general education or in limited efforts to reduce the segregated nature of special education services. Therefore, in order for inclusion to be successful, first and foremost the school principal must display a positive attitude and commitment to inclusion. A study investigating the relationships between principals’ attitudes towards students with ASD and the placement of these students in the inclusive classroom will provide data that may be helpful in developing future inclusive programs within schools.

Definition of Terms

The following terms and definitions are explained in relation to the current study:

1. Autism Spectrum Disorder (ASD) - The Individuals with Disabilities Education Act (IDEA) of 2004 defines autism as 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. For this research, the term

- autism* will include students with a severity level of one or two as measured by the DSM-V levels (Appendix A) that require support or require substantial support.
2. Principal- An individual at the building level in a public school setting who has direct responsibility for leadership that affects the individual school and the placement of the students with disabilities within that school. School principals, or assistant principals, are members of the IEP teams within their schools by which the placement of the student with a disability is determined. Therefore, this study will include principals and assistant principals, as they are both involved in the placement of students with ASD within the schools they represent.
 3. Inclusion- The practice by which the service and education of the special needs population are met in the general education classroom where the students have the opportunity for social and academic learning with modifications and accommodations within the general education setting. The general educator and special educator share in the delivery of the material to the students (Idol, 2006).
 4. Attitude – Boone and Kurtz (2002) define attitude as “a person’s enduring favorable or unfavorable cognitive evaluations, emotional feelings, and action tendencies toward some object or data” (pp. 281-282). In this study, the object of an attitude will be students with autism in a general education classroom. For the purpose of this study, attitude will be measured by a mean score on section three of the survey instrument being completed by participants.

Limitations

The limitations of this study are associated with the respondents and the instrument. One notable limitation of this research study is that only principals' attitudes toward the inclusion of students with ASD will be measured in one region in the state of Virginia. Only public school principals who work in school districts in the Superintendents region seven of Virginia are included in the sample for this study. Due to the regional similarities of the various school districts that are located in this region, these districts may have a common culture. Principals of non-public elementary schools are not included in the study.

The data for this research study was collected through the use of a survey instrument. There were several assumptions that were made regarding principal participation and the survey instrument. It was assumed that each respondent answered each question in a truthful manner. The results of the study were limited by the responding principals' accuracy in self-reporting. It was also assumed that attitudes expressed by the sample represented the opinions of the entire population.

Chapter II

Review of the Literature

Chapter one presents the information necessary to understand the reasoning for the current study, which includes a background of the study, the purpose and significance of the study, a statement of the problem, research questions, definition of terms, and limitations. The purpose of this chapter is to provide an overview of the relevant literature that pertains to this study. The research reviewed in the chapter address the following areas related to the inclusion of students with ASD: (a) brief history of ASD, (b) brief history of inclusive education, (c) principals attitudes toward inclusion of students with ASD, (d) definitions of ASD, and (e) the specific problems and needs of principals in rural school systems.

Brief History of ASD

Controversy has surrounded the diagnosis of Autism Spectrum Disorder since it was first identified by Leo Kanner over seventy years ago. In 1943, Kanner described the syndrome of autism based on his close observation of a group of eleven children who all shared the same characteristics. These eleven children exhibited difficulties in social interactions and in adapting to changes in routines. They displayed good memory and good intellectual potential, but were very sensitive to environmental stimuli (especially sound). Several issues with food resistance and allergies to food were also observed in the children, as well as echolalia, or propensity to repeat words of the speaker, and difficulties in spontaneous activity. Additionally, they showed an inability to develop relationships with people, a delay in development of speech, non-communicative use of speech after it developed, literalness, pronominal reversal, excellent rote memory, selective eating, insistence on sameness, repetitive and stereotypic play patterns of behavior, normal physical appearance, and highly intelligent obsessive parents (Kanner, 1943).

While Kanner was the first to identify the similar behaviors that exist in students with ASD, he was not the first to develop the terminology of this syndrome. In 1910, Eugene Bleuler, a Swiss psychiatrist, first used the term *autismus* to refer to the active withdrawal into fantasy shown by schizophrenic patients. Bleuler derived the word autism from the Greek word “autos,” which means “self.” He used the term *autismus* to define the symptoms of schizophrenia, which is a mental disorder characterized by abnormalities in the perception or expression of reality. Also, in the 1940’s, Hans Asperger, a physician with the University Children’s Hospital in Vienna, Austria, borrowed Bleuler’s term “autistic psychopaths” and included it in a lecture about child psychology.

In 1944, Hans Asperger, who worked separately from Kanner, studied another group of children. These children did not have echolalia as a linguistic problem, but spoke like grownups. He also mentioned that many of the children were clumsy and different from normal children in terms of fine motor skills. Asperger described boys in his practice as lacking nonverbal communication skills, demonstrating limited empathy with peers, and being physically awkward (Coleman and Gillberg, 1985). In contrast to Kanner’s description of autism, Asperger characterized his population as “exhibiting significant social problems despite their essentially appropriate verbal abilities” (Prelock, 2006, p. 5).

During the same time that Kanner and Asperger were conducting their research, the renowned professor and child development specialist Bruno Bettelheim served as director of the Sonia Shankman Orthogenic School at the University of Chicago, which was a residential treatment facility for children with behavior disorders. Bettelheim, who developed a highly regarded reputation at the school due to his treatment of children with autism, became influential in promoting the *refrigerator theory* associated with ASD.

Building upon the work of Kanner and Asperger, Bettelheim declared that ASD was an emotional disorder that developed in some children because of psychological harm brought upon them by their mothers (Bettelheim, 1967). This notion that ASD was the product of mothers who were cold, distant and rejecting, thus depriving babies of the chance to *bond properly*, was embraced by the medical establishment and went largely unchallenged into the mid 1960's. Soon afterwards, Bettelheim wrote *The Empty Fortress: Infantile Autism and the Birth of the Self*, in which he compared ASD to being a prisoner in a concentration camp. "The difference between the plight of prisoners in a concentration camp and the conditions which lead to Autism and schizophrenia in children is, of course, that the child has never had a previous chance to develop much of a personality" (p. 117).

While Bettelheim followed the same theory that others before him had endorsed, Bernard Rimland challenged this psychiatric belief about the causes of ASD. As a parent of a child with ASD and a research psychologist, Rimland conducted his own methodical research and came to believe that the "refrigerator mother" theory was founded on circumstantial and anecdotal evidence. In his book *Infantile Autism: The Syndrome and Its Implications for a Neural Theory of Behavior* (1964), Rimland questioned the theory that ASD was the result of unloving parent-child relationships and presented the first solid argument that autism was a biological condition. This book was initially ignored by the medical community, but became highly popular with psychology students and parents who had suffered from being labeled as a refrigerator *mother*.

Rimland received many inquiries into his research from parents. His investigation into these inquiries revealed a need for support among parents of children with ASD, which was a rare disorder at the time. In 1969, in order to offer support and awareness, Rimland founded the National Society for Autistic Children, which is now known as the Autism Society of America

(ASA). Rimland is also founder and director of the Autism Research Institute in San Diego, which serves as a data-collection center and information resource for parents of children with ASD worldwide (Prelock, 2006).

Brief History of Inclusion

Students with disabilities were not always given the opportunity to receive an education. “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 received the privilege of an education, they were most often taught in separate classrooms or even separate schools. The fact that children with disabilities are permitted and even required to attend school is a relatively new development in the United States. Until the 1970’s, children with disabilities were often excluded from schools. In order to explore the beliefs surrounding the inclusion of students with autism in the general education classroom, it is necessary to review the history of special education by looking briefly at how formal education advanced in the United States, and how inclusion has developed as common practice in special education placements.

Before federal laws mandated public schools to serve students with disabilities, special schools were created for students who were deaf or blind. The American School for the Deaf was founded in 1817 in Connecticut as the first school for students who were deaf (American School for the Deaf, 2009). In 1829, the first school for students who were blind was founded in Boston (Perkins School for the Blind, n.d.). These schools were created due to the specific supports that are needed for students with these sensory deficits. Thus, these schools serving students who were deaf or blind were unique. Now, every state has at least one residential school for students who are deaf or blind and these schools have evolved over time with changes

in education. However, many of these schools now serve fewer students due to an increase in inclusive placements in public schools.

According to Urban and Wagner (2009), the indigenous people in what is now the United States treated education as a set of skills and knowledge to be mastered before they could be accepted in their tribe as an adult. The beliefs of the Europeans who later arrived in this area conflicted with the Native Americans. “Although they themselves were willing teachers, Native Americans found themselves cast in the role of unwilling learners. Although the European colonizers had much to learn, from the outset they assumed the role of master” (2009, p.11).

This European adoption of an attitude in assuming the “role of master” is an attitude that continues to have profound effects on education. For example, education was shaped by “deliberate attempts to transplant familiar English customs and institutions to the new world” (Urban and Wagoner, 2009, p. 24). This resulted in education being treated as a private matter that allowed affluent families to hire tutors or teach their children privately. Families with fewer resources were not able to provide formal education to their children. Therefore, the socioeconomic status of the family determined the educational level of the child (2009). Formal education began to take root in the colonies of settlers. Missionary groups in the southern colonies established free “charity schools” for poor children (2009). An emphasis on education and literacy based in religious training continued until the Enlightenment period.

During the Enlightenment period (1770’s to 1830’s), new ideas about learning emerged. These concepts focused on observation as a key to understanding the world, progress as being inevitable, and people being born as blank slates (Urban and Wagoner, 2009). The idea of progress being inevitable implies that people continue to develop and evolve, and that the future will be better than the past. This idea has serious implications for people with disabilities. If

humans believe in the goal of moving toward a more perfect form, with perfected abilities, then people with disabilities could be seen as incapable because they do not fit in with the ideal perfect human (Rapp and Arndt, 2012). The effect of Enlightenment on special education is that some may believe that disabilities impede progress, and that a future better than the past does not include disability.

In the late 1800's and early 1900's, laws requiring education were passed in all states. Compulsory attendance laws developed at this time required that all children of a certain age attend school, but the law did not include ramifications for parents who did not send children to school (Provasnik, 2006). During this time, concern evolved related to child labor issues. Children were working in factories instead of attending schools. This led to controversy surrounding the limits of state authority requiring school attendance. Provasnik (2006) also noted that "since at least the 1830's, state courts have regularly upheld the power of school authorities to establish and enforce rules and regulations over the admission, attendance, graduation, conduct, suspension, and expulsion of students" (p. 321). By 1918, most states had compulsory education legislation in place for all children up to the age of 16 except for the students with disabilities. Many times these students were not placed in a school because of the severity of their needs, or they were expelled because of behaviors resulting from their disability (Provasnik, 2006).

When tracing the history of formal education in the United States, it is important to discuss the impact of race, class, and gender. As schooling continued to evolve in the late 1800's and early 1900's, separate systems for black and white children continued to exist. Equality was not realized in education. Upper class Caucasian males were most likely to be educated and therefore have access to jobs, advancement, and opportunity (Lee, 2009). Until slavery was

abolished in 1865 it was not permitted for blacks to read, write, or attend school. However, after slavery was outlawed in the 13th amendment to the U.S. Constitution, a progressive era of education allowed more children to attend school. The concepts of kindergarten, junior high, and extracurricular activities were developed, and curricula and testing were introduced (Urban and Wagoner, 2009). Nonetheless, education continued to be separate for white and African American students.

Brown vs. Board of Education (1954) was a landmark desegregation case that altered the makeup of classrooms across the United States. Prior to this case, it was considered legal for African American and white students to be educated separately as the systems were presumed to be equal in quality and resources. The results of this case determined that separate schools, materials, and teachers were not equal, and eventually desegregation took place in schools across the country. This 1954 ruling was not only instrumental in the Civil Rights Movement and the educational rights for minorities, but also affected educational law and procedures (Stainback and Smith, 2005). Advocates for special education students used the principles of this ruling to communicate that special education students were treated differently and were not provided an equal education as their non-disabled peers. The case of *Brown v. Board of Education* was meant to shed light on the education of Black children, but it also focused attention on the population of students with disabilities. This case laid the foundation for disability rights legislation.

Motivated by the results of the *Brown vs. Board of Education* case, a group of families in Pennsylvania challenged the exclusion of children with intellectual disabilities in schools. Members of the Pennsylvania Association of Retarded Citizens (PARC) sued the Commonwealth of Pennsylvania. PARC members wanted equal access to education for children with developmental disabilities. This 1971 case sparked the concept of inclusion. The United

States District Court ruled that it is unconstitutional to deny any child of compulsory school age with a developmental disability the access to a free public education. The ruling further stipulated that, whenever possible, retarded students should be educated in regular classrooms rather than segregated from the normal school population. (*Pennsylvania Association of Retarded Citizens vs. Commonwealth*, 1971).

PARC vs. Pennsylvania addressed one disability category in one state, but it was the beginning of a shift in the treatment of students with disabilities in public schools. In 1972, *Mills v. Board of Education of District of Columbia* expanded this decision to include all disabled children. In 1972, 18,000 students with disabilities in the District of Columbia were being excluded, suspended, expelled, and transferred from regular public schools without due process (*Mills vs. Board of Education*, 1972). The parents of seven of these students sued the Board of Education and the court ordered that all the removed students be enrolled into appropriate programs. The significance of this case brought attention to the rights of all children to have an appropriate education to meet their needs and abilities.

Shortly after the decision of *PARC v. Pennsylvania* (1971) and *Mills v. the Board of Education* (1972) came much federal legislation that has had a huge impact on the inclusion movement in education. In 1975, there were more than eight million children in the United States with disabilities (Hardman, Drew, and Egan, 2011). This number does not reflect the students with undetected disabilities. Professionals needed federal legislation in order to standardize procedures for educating students with disabilities and for identifying them. The Education of All Handicapped Children Act (EHC) of 1975, also known as Public Law 94-142, established six major provisions for educating students with disabilities. These ground breaking provisions included free appropriate public education, disability qualifications,

nondiscriminatory assessment, least restrictive environment, individualized education programs, parent involvement, and procedural due process (Education for All Handicapped Children Act, PL 94-142, 1975).

While EHC advanced the field of special education by giving all students access to school, it also created new problems. In 1990, EHC was renamed the Individuals with Disabilities Education Act (IDEA). Since then, however, the law has been reauthorized to provide various provisions as needs arise. For example, in 1990, autism and traumatic brain injury were added to the list of disability classifications. Transition planning for students sixteen years and older was also instituted. Osgood (2005) discusses IDEA reauthorization in his book *The History of Inclusion in the United States*. He stated, “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” (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 controversy surrounding the current reauthorization of IDEA is that there is still variability in how the least restrictive environment for a child is defined. An inclusion classroom may not be the most appropriate environment for a child with a disability, but this decision is one that must be made by members of the Individualized Education Program, which includes the school principal.

According to the Virginia Department of Education, the percentage of students with disabilities ages 6-21 educated in the regular classroom for at least 80% of the school day is on the rise, but still does not meet the state target. During the 2012-2013 school year, 62.2 percent of children with disabilities were educated for at least 80 percent of the school day in the regular classroom setting. However, this number is well below the state target of 68 percent (VDOE, 2014). Data from the United States Department of Education (USDOE) (2013) reveals that participation of students with autism in the general education curriculum for more than 80 percent of the school day increased from nine percent in 1993 to 31 percent in 2006, representing an increase of 244 percent (USDOE, 2013).

Although IDEA guarantees students with autism to be served within their least restrictive environment, they are more likely than other populations of students with disabilities to be served outside the general education classroom. According to the USDOE (2010),

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)

Principals Attitudes toward Inclusion of Students with ASD

In order to investigate the principal's attitude toward the education of students with ASD in an inclusive setting, the Ebsco Host database was used to search Education Research Complete. The results were limited to include full text, scholarly (peer reviewed) articles. The first keywords entered by the researcher were "administrator's attitudes" and "inclusion". These yielded only five results. Next, "administrator's" was changed to "principals" and this revealed several different results. Finally, the researcher explored "principal's perceptions" and "inclusion" and "students with disabilities" and "autism spectrum disorders." This criterion

yielded a different batch of results from which many were even narrowed down to different levels of schooling such as elementary and middle. However, this search generated very few research articles that related specifically to a principals attitude or perception of students with ASD.

Based on the current research, principals tend to have positive attitudes towards educating students with disabilities in the regular classroom. Principals interviewed in a study by Salisbury (2006), which was conducted in urban, suburban, and metropolitan communities, shared the belief that all students, including those with disabilities, were “part of the fabric of the school” and that they belonged in the general education classroom. Research also showed that even for students with more severe disabilities, such as ASD, an inclusion setting is seen as the best placement by principals (Horrocks et al., 2008). The majority of principals surveyed in a study conducted by Cook, Semmel, and Gerber (1999) agreed that “inclusion is the most effective placement option for students with mild disabilities” and that the achievement of these students would increase when the students are included.

The level and type of experience that school principals have had with students with disabilities has proven to be important. Principals’ attitudes toward inclusion are based upon their experience and/or lack of experience with disabled students. Through a survey of 408 elementary school principals, Praisner (2003) determined that the more positive experience that the elementary school principal has had, the more positive the principal’s attitude is toward inclusion. Horrocks et al. (2008) conducted a study to examine principals’ attitudes toward inclusion of students with autism. Horrocks et al. (2008) found that principals who held the personal beliefs that children with autism should be included in the general education classroom tended to have more positive views toward inclusion in general.

Research has shown experience with individuals with disabilities is related to positive attitudes toward inclusion. “To favor inclusion, a principal should have previous and noteworthy experience with disabled students insofar as such an experience is associated with more positive attitudes toward these children, thus predisposing administrators to adopt the philosophy, principles, and practices of inclusion schooling” (Schmidt & Venet, 2012).

Sharma and Chow (2008) also found through surveying 130 primary school principals in Hong Kong those principals who had previous experiences working with individuals with disabilities or close relatives living with disabilities have more positive attitudes toward inclusion. Principals’ attitudes can promote or discourage the successful implementation of inclusion in their schools. Principals must make frequent decisions related to special education delivery in public schools (Salisbury, 2006). Just as many children, youth, and adults have opinions and attitudes toward specific things in life based upon experiences, so is the same with principals. Their attitudes toward inclusion, according to research, are based upon their experience and/or lack of experience with students with disabilities.

Another study by Inzano (1999) investigated the attitudes of school principals in the state of New Jersey toward inclusive education. The results of the survey found that neither years of experience as a principal nor location of school had an effect on principals’ attitude toward inclusion. The study also found that principals were in favor of including students with disabilities in the general education classroom. Levy’s study of 124 elementary principals in New York City investigated their attitudes toward the restructuring of programs towards inclusive education. Results indicated that age was a variable that influenced support for principal attitudes but gender, teaching experience, years as an administrator, years of inclusion

experience, and training in special education had no significant relationship to principals' attitudes toward inclusive education (Levy, 1999).

Much of the research in this review revealed that positive attitudes held by principals toward the inclusion of children with disabilities in the regular education classroom often begin during principal preparation programs and are reinforced by in-service training. According to Praisner (2003), the more topics that principals had as part of their formal training such as courses, workshops, and/or significant portions of courses, the more positive their attitudes were toward inclusion. In validating a scale to measure principals' attitudes toward inclusion, Bailey (2004) saw the importance of including professional training programs and special education qualifications in her instrument. Lasky & Karge (2006) examined the formal training of 205 principals in various school districts in southern California. Their results clearly call for a need for increased training of principals in the area of special education during pre-service administration programs as well as on the job training. Salisbury (2006) also recognized the importance of training. "The professional development component has to happen. People have to be given tools and resources, and sometimes they don't even know they need them" (p. 79). Horrocks et al., (2008) determined through her study that principals with formal training recommended higher levels of placement for those students with ASD who exhibited social detachment. This finding also suggests that formal training is an important factor influencing students' placement in inclusive settings.

A common theme that prevailed in the research was the realization that administrative support played a large role in determining the success of inclusion programs at all school levels. Because of the role that principals play in implementing inclusion programs into their schools, it is important to study how principals' perceptions of inclusion guide their decisions. In a study

by Cook et al., (1999) research revealed that principals see inclusion as a cost saving measure. This may explain why many schools are implementing inclusion without the requisite resources. Praisner (2003) also emphasized in her research that as a leader in the school, the principal directly influences “resource allocations, staffing, structures, information flows, and operating processes that determine what shall and shall not be done by the organization”(p.136).

A proactive avenue to address the principals’ role in inclusionary practices is for more extensive research to be conducted in order to better define the role of administrators in structuring inclusion practices in their schools. Bailey (2004) validated a scale to measure school principals’ attitudes toward the inclusion of students with disabilities in regular schools. The simple premise for this study was that the person with the most organizational power in the school is in the best position to adversely or positively affect inclusion practices. To ensure the success of inclusion, it is important that principals exhibit behaviors that advance the integration, acceptance, and success of students with disabilities in general education classes.

Definitions of ASD

Since Kanner (1943) first identified autism, several diagnostic schemes have been used to define and redefine the disorder. However, it was not until the 1970’s that ASD gained acceptance as a valid diagnostic category. Micheal Rutter proposed a simplified set of criteria in 1978 that included impaired social development, impaired language development, insistence on sameness, and onset prior to 30 months (Rutter, 1978). Thanks to Rutter’s criteria, ASD was officially included as a diagnostic category under “Pervasive Developmental Disorders” in *The Diagnostic and Statistical Manual of Mental Disorders-Third Edition (DSM-III)* in 1980. The

manual outlined the diagnosis of the disorder based on Rutter's four major criteria (American Psychiatric Association [APA], 1980).

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.), or DSM-5, of the American Psychiatric Association (2013) provides two domains where people with Autism Spectrum Disorder (ASD) must show persistent deficits. They include persistent social communication and social interaction, and restricted and repetitive patterns of behavior. More specifically, people with ASD must demonstrate (either in the past or in the present) deficits in social-emotional reciprocity, deficits in nonverbal communicative behaviors used for social interaction, and deficits in developing maintaining and understanding relationships. In addition, they must show at least two types of repetitive patterns of behavior including stereotyped or repetitive motor movements, insistence on sameness or inflexible adherence to routines, highly restricted, fixated interests or hypo or hyper reactivity to sensory input or unusual interest in sensory aspects of the environment. The new additional category of Social Communication Disorder was also added to the DSM-5, which will more accurately recognize individuals who have significant problems with verbal and nonverbal communication purposes, but who do not exhibit any other characteristics of autism (American Psychiatric Association, 2013).

This diagnostic criterion has been modified from the past definition based on the research literature and clinical experiences of the past 19 years since the DSM-IV was published in 1994. One of the major changes in this new definition is that the diagnosis will be called Autism Spectrum Disorder (ASD), and there will no longer be sub diagnoses of Autistic Disorder, Asperger Syndrome, Pervasive Developmental Disorder Not Otherwise Specified, and Disintegrative Disorder. Also included in the DSM-IV definition of ASD, symptoms were divided into the three areas of social reciprocity, communication, and restricted and repetitive

behaviors. The new diagnostic criteria have been rearranged into two areas: social communication/interaction, and restricted and repetitive behaviors. The diagnosis will be based on symptoms, in the past or current, in these two areas (American Psychiatric Association, 1994).

The DSM-5 has substantial implications for special education services, supports, and accommodations. According to data from the US Department of Education's Office of Special Education Programs Data Analysis System (DANS), 419,262 students from ages three to twenty-one currently receive special education services mandated under the Individuals with Disabilities Education Act (IDEA) under the educational label of autism (Office of Special Education Programs). Furthermore, some students on the autism spectrum receive services under the "intellectual disability" or "multiple disabilities" eligibility category. IDEA defines ASD as:

a developmental disability significantly affecting verbal and nonverbal communication and social interaction, usually evident before age 3 that adversely affects a child's educational performance. Other characteristics often associated with ASD are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected because the child has an emotional disturbance. [34 C.F.R. 300.8(c)(1)]

While this IDEA definition does not precisely track with either the DSM-IV or the DSM-5 criteria for ASD, it is easier for parents to establish eligibility under IDEA's "educational definition of ASD" with a medical diagnosis of ASD. According to Maenner et al. (2012) school districts are often unsure as to whether or not to consider a student with a diagnosis of Asperger's or PDD-NOS as qualifying for IDEA's ASD category. Although legal precedent and regulation supports including Asperger's within IDEA's ASD category, many families without access to high-quality resources and assistance during the eligibility determination process

struggle to make school districts aware of this fact. As such, the DSM-5 shift to a single unified diagnosis of ASD will likely positively impact access to special education and related services under IDEA for those covered under the unified diagnosis.

For students re-classified into the new proposed diagnosis of Social Communication Disorder or who are otherwise ineligible for an ASD diagnosis under the DSM-5, the IDEA eligibility process may prove more challenging. Although it is not impossible to qualify for IDEA's ASD definition without a medical diagnosis, it is significantly difficult. Eligibility for IDEA-funded services can be found through other IDEA disability categories; however, given that analyses of DSM-5's sensitivity have found that individuals with higher IQ's are more likely to lose access to the ASD diagnosis, the "intellectual disability" and "multiple disabilities" categories are likely not to apply (D'Eramo et al., 2012).

Specific Problems and Needs of Principals in Rural School Systems

According to the United States Department of Education (2008), the definition of a rural school is a school in a district where average daily attendance is fewer than 600 students, or in a district in which all schools are located in counties with a population density of fewer than 10 persons per square mile. Additionally, rural schools generally exist in countryside areas which typically have less economic development and a lower population than urban or suburban areas. The research concerning problems that principal's face related to serving students with ASD in a rural area is scarce. The Ebsco Host database was used to search Education Research Complete for investigation into this topic. The results were almost null, revealing only a few articles. However, when the search was completed with the term "autism spectrum disorder" replaced with "students with disabilities," a few more selections became available that address issues in rural special education that affect the service delivery of students with disabilities in general.

Williams (1993) identified rural necessity from a historical perspective as “the mother of invention”. The focus of his work was aimed at collaboration as a method to extend services for students with ASD and other low-incidence disabilities in rural areas. Williams found that funding and transportation inadequacies, recruitment and retention of staff, and staff development led to the lack of appropriate programming for students with ASD in rural settings. He also noted that when school districts in rural areas could not meet the needs of students with ASD, referrals to out of area placements were made. This practice would be viewed as a last resort by administrators, special education teachers, and parents when an absence of appropriate services is determined by the IEP team.

The location of a school (e.g. rural or urban) has been shown to affect various factors related to the education of students with ASD. According to Murphy and Ruble (2012), services for students with ASD in rural areas tend to be less abundant and more challenging compared to those living in urban areas. The authors of this study surveyed 112 parents and caregivers of children with ASD from forty-six counties within one southern state in the United States. The geographical location of the child with ASD was measured against diagnosis and onset of intervention, access to services, qualified educators, and trained professionals, parent satisfaction with educational services, and parent report of prioritized needs for specific services. The most significant results of this study revealed that finding a physician or trained professional in treating autism was more problematic for parents in rural areas. Additionally, the need for behavior management techniques was ranked as a higher priority from rural parents compared to urban parents. These findings indicate that more research related to identifying resources needed for families and children with ASD in rural areas is essential.

Berry, Petrin, Gravelle, and Farmer (2011) studied dilemmas in recruiting, retaining, and training for special education teachers in rural and remote areas. Many factors are attributed to limited services and resources for students with ASD and other handicapping conditions in rural areas. The movement of young adults to other states contributes to the overall decrease of college bound pre-service special education students in rural areas. The closing of many rural school districts create new and more challenging problems such as longer transit times and student fatigue. Recruiting new teachers with specialized training is challenging due to the lack of urbanization. The authors of this study sought to analyze the recruitment and retention of special education teachers in rural districts and to understand their needs for professional development. Principals and special educators from fifty-five rural districts completed a telephone interview survey, which confirmed that administrators face difficulties in hiring appropriately qualified teachers in rural areas. The challenges related to low salaries, paperwork, and geographic isolation were demands noted by special education teachers that placed the teachers at risk for attrition. The most common professional development needs identified by rural special education teachers were working with paraprofessionals and parents, training in specific disability categories, and including students with disabilities in the general education curriculum.

In June of 2010 The National Research Center on Rural Education Support investigated the importance of attracting and retaining special education teachers in rural areas in an issued brief titled *Grow Your Own and Other Alternative Certification Programs in Rural School Districts*. The authors identified a variety of factors that contribute to a shortage of qualified special education teachers in rural areas. Some of these factors included low teacher salary in rural areas and geographical isolation, lower number of students attending college, and a lack of professional development opportunities (Dadisman, Gravelle, Farmer, and Petrin, 2010). The

purpose of the *Grow Your Own* program was to detect citizens in rural areas who wanted to become certified teachers and teach in their locality, and to provide them access to teacher preparation programs as well as tuition assistance. The authors of this issued brief scrutinized the results of two national studies that focused on data specifically designed for the purpose of providing a perspective on the problems associated with teacher recruitment in rural areas. Data from the 2007 Rural Teacher Retention Study and the 2009 Rural Special Education Study revealed that in regard to school-age special education, rural school principals reported that students with ASD are in the disability category for which competent professionals and adequate educational services are most often difficult to find (Dadisman, Gravelle, Farmer, & Pétrin, 2010).

Many states across the country are working to establish programs to help extinguish the problem that exists in rural areas related to serving students with ASD. The education agency of the large, mostly rural state of Montana, the Montana Office of Public Instruction (OPI), developed and implemented a strategy to enhance education programs for students with autism. The Montana Autism Education Project (MAEP) is funded by the OPI. The main goals of the program were to disseminate information, train teachers, and provide professional development. The state of Montana is the fourth largest in the U.S., but “is one of the lowest in population density at fewer than seven people per square mile” (Young-Pelton and Doty, 2013, p. 26). Due to the large population of American Indians on seven reservations located throughout the state, Montana is made up of cultural and linguistic diversity as well. Therefore, authorities in the state sought to develop a method to improve the services for students with ASD across the state. “Meeting the needs of a vast, expansive state where pockets of highly isolated schools/districts exist, and where differences in culture and language play a significant role in professional

development needs, has become possible through the use of traveling consultants, online training, and outreach efforts from the MAEP” (p. 32). Analysis of data from this study suggests that the MAEP helped improve teachers' ability to implement quality educational programs for students with ASD spectrum disorders in rural areas and on Indian reservations.

Summary

The study of ASD is relatively young, having begun with Kanner’s work in the 1940’s. However, the evolution of understanding this disability has been rapid, and today’s practices for students with ASD are informed by considerable research related to the characteristics and needs of this population of students. Currently, students are being identified as having ASD at an alarming rate within the United States. According to current data, 1 in 88 children has an ASD (CDC Surveillance Summaries, 2012). These children are enrolled in public schools and have a right to an education within the least restrictive setting, which is the regular education classroom. The literature review presented in this chapter included a historic approach to defining ASD and also included characteristics of the disability as outlined in the current Diagnostic and Statistical Manual published by the American Psychological Association (2013).

The next section of the literature review contained a brief history of inclusion. Inclusion has been the most significant movement in special education over the past three decades, and has a foundation in the history of special education. Inclusion did not exist in the early years of public education. Prior to IDEA, children with disabilities were either taught in the home or institutionalized. In 1954, *Brown v. Board of Education* contributed to the inclusion movement. This landmark case that ended segregation for African Americans opened the door to laws that would eventually protect students with disabilities. Soon after the passage of Public Law 94-142, the forerunner of the Individuals with Disabilities Education Act, parents of children with

intellectual disabilities began to express dissatisfaction with the separation of their children from their non-disabled peers. These parents wanted their children included with other students in school, and thus the concept of inclusion was introduced to the field of education. Specifically written in IDEA is the term “least restrictive environment.” Hardman, Drew, and Egan (2011) define least restrictive environment as “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 nondisabled” (p.43).

While the process of inclusion is well documented in research, principal’s attitude toward this practice as related specifically to students with ASD has received less attention. Principals are the leaders of schools and thus, have been acknowledged as the agents of change (Barnett & Monda-Amaya, 1998). Furthermore, a principal’s attitude toward inclusion policy has a direct effect on opportunities for students with disabilities to be educated in general education settings (Praisner, 2003). Thus, it is critical to understand principal’s opinions about inclusion.

The challenges of educating children with ASD are universal to all families and schools. However, in rural communities the challenges can be compounded by distance and scarce resources (Murphy & Ruble, 2012). Specific to educational services for students with ASD, one study has investigated both in-school and out-of-school service use by families of students with ASD to determine access to care (Thomas et al., 2007). Parents in this study were interviewed at two different time points to determine the type, amount, and treatment approaches their child with ASD received. As summarized previously, results of this study suggested that individuals from an ethnic minority, families with low levels of education, and families living in non-metropolitan areas (as defined by the Rural Urban Continuum Codes [RUCC], Butler & Beale, 1994) accessed fewer services overall. Specific to educational services, speech and language

therapy was the most frequently reported service, followed by occupational therapy, and social skills training. Findings from this study provide further support of the disparities in educational services for students with ASD in rural areas.

In light of the literature reviewed in this chapter, the purpose of the present study is to assess the attitudes of school principals as they relate to the inclusion of students with ASD.

Specifically, the current study focuses on the following questions:

1. To what degree are a principals personal and/or school demographic characteristics associated with their attitudes toward inclusion of children with differing levels of ASD?
2. To what degree is the amount of training and experience that a school principal has had related to ASD associated with their attitudes towards students with differing levels of ASD?
3. To what degree are school principals' attitudes towards students with differing levels of ASD associated with the educational placement decisions the principals make within their schools for these students?
4. To what degree are school principals attitudes towards students with differing levels of ASD associated with the educational challenges they face in rural regions?

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

Chapter III

Methodology

The purpose of this research study is to identify rural school principals' attitudes toward the inclusion of students with autism spectrum disorder (ASD) in the general education setting. To fulfill this purpose, a quantitative research study was conducted using a correlational design. The population to be studied was school principals in region seven of southwest Virginia. This chapter describes the research method that was used to gather data from this specific population of Virginia school principals. This chapter discusses the research method and design appropriateness, research context, participants in the study, instrumentation and data collection, and data analysis. The research questions are restated and a summary is provided for how each question will be explored in the study.

Research Method and Design

This quantitative study will utilize a survey instrument to collect data. The data will be analyzed using descriptive and correlational statistics and a multivariate analysis of variance (MANOVA). According to Glatthorn and Joyner (2005), this quantitative method is useful to describe characteristics of a specific population by directly examining selected samples of that population. In this study, a quantitative method was used to address a research problem that requires a description of trends or an explanation of the relationship among variables.

A correlational study is used to show the relationship between two or more variables. While researchers can use correlations to see if a relationship exists, the variables themselves are not under the control of the researchers. This kind of research cannot prove that changes to one variable lead to changes to another variable. In other words, correlational studies cannot prove cause-and-effect relationships. A correlational design was the appropriate design to use for this

research because the goal was to describe and measure the association between the variables in the study. A survey design identifies trends over time and the data can be used to examine current attitudes, beliefs, and opinions (Creswell, 2002). The study attempted to establish an overall tendency of the responses of the school principals in terms of their attitude toward inclusion of students with ASD. Commonalities of responses determined the relationship between the attitude of school-based administrators and the inclusion practices.

The correlational design used in this study was also used by Praisner (2003) and Hasselbart (2005) to research and conclude that a relationship exists between (a) inclusion and the attitude of elementary principals and (b) the attitude of the administrator toward inclusion and the impact of administrator preparation. A similar study was completed by Farris (2011) in which the focus was narrowed to Texas high school principals' attitudes towards students with disabilities.

The recommendations and limitations presented by Praisner (2003), Hasselbart (2005) and Farris (2011) were heeded by others. Horrocks (2005) limited her study to include only one category of disability. By only including students with autism in her study, more clarity was allowed in the responses of the secondary school principals across the state of Pennsylvania. McKelvey (2008) also narrowed this research to isolate the attitudes of secondary school principals in relation to the inclusion of students with autism and Asperger's syndrome specifically. However, McKelvey (2008) broadened her results by including participants from the four states of Maryland, New York, Texas, and Wisconsin. Therefore, a correlational design to study the relationship between the school principals' attitude and the inclusion of students with ASD is warranted in order to further this research to expand upon the importance of the school principals' attitude with an emphasis placed in a rural area.

Research Context

The school districts in the state of Virginia are divided into eight regions. This study will take place in Superintendents region seven of Virginia, which is also referred to as Southwest Virginia (SWVA). Southwest Virginia is a mountainous region of Virginia in the westernmost part of the commonwealth. Region seven includes fifteen counties and four city/town school divisions. This study will include K-12 school principals from nineteen different school systems across region seven. Specifically, the county school systems of Bland, Buchanan, Carroll, Dickenson, Giles, Grayson, Lee, Pulaski, Russell, Scott, Smyth, Tazewell, Washington, Wise and Wythe are included in region seven along with Bristol, Galax, Norton, and Radford city school systems.

The Virginia Department of Education places locale descriptions on all school divisions based on the National Center for Educational Statistics (NCES) Common Core of Data Locale Code File (2007). The locale codes identify the geographic status of Local Education Agencies (LEA's) across the nation and are based on a school's physical address (NCES, 2007). In Southwest Virginia there are five school divisions that are identified as being rural, fringe. The counties of Bland, Pulaski, Scott, Washington, and Wise fall within a census-defined rural territory that is less than or equal to five miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster. Buchanan, Dickenson, Grayson, and Wythe counties are labeled as rural, remote, which is a territory that is more than 25 miles from an urbanized area and is also more than ten miles from an urban cluster. The rural, distant counties of Carroll, Giles, Lee, and Russell are more than five miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to ten miles from an urban cluster. The three school divisions of Smyth, Tazewell, and

Norton City are identified by the NCEES as being town, distant, which means they fall within an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area. Radford City school division is a town, fringe system. This places them inside an urban cluster that is less than or equal to ten miles from an urbanized area. The town, remote school system of Galax City is within an urban cluster that is more than 35 miles of an urbanized area. Finally, Bristol City schools are coded as a city, small system. This is a territory inside an urbanized area and inside a principal city with population less than 100,000. The Census Bureau classifies all population and territory not included in an urbanized area or urban cluster as rural.

Participants

The participants in this study include public school principals of grades kindergarten through 12 in region seven of Virginia. The region was chosen due to its varying rural characteristics. In the spring of 2015, there were approximately 200 school based principals in region seven of Virginia. As mandated by the Individuals with Disabilities Education Act, principals, or assistant principals, are required to assist in the development of an Individualized Education Plan for all students with disabilities and are responsible for the placement of these students within their buildings. Participants in this study included principals and assistant principals. Participants were contacted through each districts superintendent via a letter of consent (See Appendix). Division superintendents were asked to voluntarily allow their school principals to participate in the study. After consent was given, each superintendent was emailed a cover letter that contained the purpose of the study, and offered instructions for completing the survey. A link to the actual online survey was also contained in the cover letter. The letter also stated that all responses would be kept confidential and the information reported would be reported confidentially. Each division superintendent was then asked to forward the email to all

principals within their school system. The Institutional Review Board for the Protection of Human Subjects (IRB) will be obtained before implementing this study.

Instrumentation and Data Collection

This study examined the attitudes of principals in region seven of Virginia towards the inclusion of students with ASD in the general education classroom. A survey was utilized to collect this data. The survey was distributed to participants through a survey software site entitled survey.vt.edu. For purposes of confidentiality, the survey did not contain information that would identify the school or the school principal, only the county or city school system.

The instrument used in this study is a questionnaire developed by Workman (2015) entitled *Principal's Autism Inclusion Survey* (PAIS). The data collection tool, PAIS, was used to address the variables of attitudes toward inclusion based on the nature of disability, the demographics of the school, and the background of the school principal. The PAIS was based on Praisner's (2003) *Principals and Inclusion Survey* (PIS). Praisner (2003) recommended in her study that a specific disability category be examined in order to refine and clarify the attitudes of the school principals toward the inclusion model. Praisner created the *Principals and Inclusion Survey* (PIS) that was used in her study "Attitudes of Elementary School Principals toward the Inclusion of Students with Disabilities in General Education Classes" (Praisner, 2000). Dr. Praisner was contacted by e-mail (see Appendix) and provided permission to use the information and instrument that she created for her study. Praisner sent a letter confirming her permission (see Appendix).

Praisner (2003) created the PIS to measure attitude towards inclusion of students with all disabilities from the perspective of elementary school principals in the state of Pennsylvania. In 2008, McKelvey used a modification of Praisner's PIS in her doctoral dissertation entitled

“Relationships Between Attitudes of School Based Administrators and Inclusion Practices of Students with Autism/Asperger’s Syndrome”.

McKelvey (2008) expanded on Praisner (2003) and substituted the categories autism, Asperger’ syndrome, and pervasive developmental disorder (PDD) for the general special education categories used by Praisner (2003) and also focused her research on secondary school principals in place of elementary. The adapted instrument used by McKelvey was entitled *Administrator’s Autism Inclusion Survey (AAIS)*.

The *Principals Autism Inclusion Survey (PAIS)* used in the current study is a substantially modified instrument developed by Workman (2015) to address the most recent changes to the definition of ASD and to expand upon the research related to principals’ attitudes toward this population of students with an emphasis placed in a rural area. For the purposes of the current study, the researcher used the DSM-V definition of Autism Spectrum Disorder, which eliminated the Asperger’s and PDD terminology and restructured the classification to include three severity levels. The survey was structured to include the levels of autism severity. The term “principal” was substituted for “administrator” in order to ensure that it is used exclusively by school leaders and not special education administrators that are not involved in the day to day operation of schools.

The Principal’s Autism Inclusion Survey (PAIS) used in this study included four sections: (a) demographic information, (b) training and experience, (c) attitudes toward inclusion of students with autism, and (d) beliefs about the most appropriate placement for students with autism. All questions included in the questionnaire were close-ended with pre-determined multiple choice responses. As the PAIS is a modified version of the PIS, similar methods will be used to validate the PAIS.

The validity of the Principal's Inclusion Survey (PIS) was determined by the original author, Praisner (2003), and is explained below. Validity information is also included in the description of each section of the survey. A reliability measure was not computed for the entire survey due to the amount of different information collected within it and the variety of question types (Praisner, 2003).

Content validity of the original PIS was determined by expert judgment. After developing the questionnaire, Praisner had it reviewed by a panel of four professors with experience in the area of inclusive education and educational administration from Lehigh University. The panel reviewed and evaluated the questions' validity for measuring variables that may relate to the attitudes and perceptions of school based administrators toward inclusion. The validity of the initial instrument rests with the panel of experts that reviewed and piloted the survey as well as the research performed by Praisner. The revised version of the PIS by the researcher was used by all participants in this study. Since Praisner's (2000) original study *The Principals and Inclusion Survey* has been used in other studies across the country.

In order to ensure the modifications to the instrument were appropriate to use in the current study, the researcher conducted a pilot study in a bordering state with participants not included in the actual study. Permission was obtained from the county superintendent and the survey was sent electronically to all twenty four principals within the school division. Within a two week period, twelve participants responded to the survey. This pilot survey also included a question for participants to voluntarily offer feedback on the instrument and/or on the process of completing it. Those who chose to offer this feedback did not propose any changes be made and only included positive remarks. Therefore, based on this pilot study and the validity and

reliability methods obtained in previous versions of the survey, the PAIS was deemed appropriate to use in the current research context.

Praisner's PIS

Section I of the original questionnaire was developed by Praisner (2003) to elicit demographic information related to the population of the school. This section consisted of 4 questions and was used to describe the sample only.

Section II of the PIS was designed to gather background information on the principal's training and experience. The original instrument designed by Praisner (2003) included thirteen questions. To ensure validity of this section, the content chosen for the questions was based on review of the literature to identify those factors related to personal characteristics, training, and experience that might relate to educators' professional attitudes toward inclusion. Variables that showed a positive, negative, or inconsistent relationship with principal's attitudes toward inclusion were chosen for incorporation in the survey. To more specifically address the question of validity for this section, Praisner (2003) presented the questionnaire items to a panel of four university professors with experience in the area of integration of students with disabilities and/or educational administration. They reviewed, analyzed, and evaluated the questions to assure the potential content validity of the questions for measuring the variables that may relate to the attitudes of elementary principals. As a result, the decision to exclude gifted students from the counts of students with IEP's in Section I and other minor rewording changes were made (Praisner, 2000).

Response formats for Section II varied between fill in the blank and closed format response categories in which the respondent chose the most appropriate response. Question eleven was presented in a manner that assigned values to types of experiences: -2 for negative

experience, -1 for somewhat negative, 0 for no experience, 1 for somewhat positive experience, and 2 for positive experience. The total possible score range was from -22 to 22.

Section III included questions, according to Praisner (2003), that were adapted by Stainback (1986) from the *Autism Attitude Scale for Teachers*. The questions were constructed to be evenly distributed in terms of positive or negative in tone (Praisner, 2003). Stainback (1986) addressed the question of validity by presenting the questionnaire to a panel of five administrators with experience in the integration of students with severe and profound disabilities into general education environments. The five administrators reviewed, analyzed, and evaluated the questions to assure the potential content validity of the questions for measuring the attitudes of superintendents. In addition, Stainback (1986) conducted an analysis of reliability by computing a Person product-moment correlation coefficient with a split half correction factor. The reliability coefficient was 0.899 for this section.

For each statement in Section III, the respondent was asked to answer on a five-point Likert scale with the following options: strongly agree, agree, uncertain, disagree, and strongly disagree. Each response in this section was given a score weight from five to one, with a five indicating the most positive attitude and a one indicating the most negative. A three was scored for all uncertain responses and those were considered neutral. The range of possible total scores was from 10 indicating the most negative attitude toward inclusion to 50 indicating the highest positive attitude. For each principal, individual item scores and a total attitude score were determined.

Section IV of the PIS was designed by Praisner to measure principals' perceptions about the most appropriate placement for students in all disability categories. For each disability category, the principal chose one of six different placements that were available as part of

Pennsylvania's continuum of services. Each disability identified in IDEA and the Pennsylvania regulations were included in the list. An inclusiveness score was generated from the responses of this section. For each placement, a value of 1 to 6 was assigned for placements from special education services outside regular school to full-time regular education with support respectively. Total scores ranged from a low of 11 being most restrictive to a high of 66 being most inclusive. Based upon the responses of the principals, a total score was determined as well as average responses for each disability category. The validity of this section was considered excellent because the items were based upon all of the possibilities of placement and identification currently available in Pennsylvania through special education services as defined by the Individuals with Disabilities Education Act (Praisner, 2000).

Workman's PAIS

As previously stated, the researcher was given permission by the author of the PIS to modify the survey to meet the needs of the current research study. Section I of the PAIS was reworked by the researcher to include more detailed information regarding each school. The modifications include two additional questions aimed specifically toward the population of students with ASD within the school, a question to address age and gender of the principal, and a question to determine the school district of the participant. Therefore, section I of the PAIS included a total of nine questions.

The questions in section II of the PAIS were modified by the researcher in order to address the specific category of autism and the levels of severity associated with this disability, while continuing to focus on the training and experience of the principal. Section II of Praisner's (2000) survey contained 13 questions, two of which asked the participant for their gender and

age. These two questions were included in section I by Workman (2015) as part of the demographic characteristics of the participants.

Section III of the survey used in the current study included three different segments to account for the three levels of severity identified in the DSM-V definition of ASD (Appendix A). The original survey developed by Praisner (2000) included only 1 section aimed at the entire population of students with disabilities. The same ten questions and response format by means of a Likert scale used by Praisner were incorporated into this section, but were adjusted to only target students with ASD.

The fourth and final section of the survey used in this study asked for the participant to identify the most appropriate placement for students with levels one, two, and three of ASD. Section IV of Praisner's (2000) survey shared the same purpose, but included eleven categories of disability. Although the current study only focuses on ASD, the validity was considered excellent just as it was in the work of Praisner (2000). The items were based on all of the possibilities for placement and identification that are currently available in the state of Virginia as defined by the Individuals with Disabilities Education Act. An inclusiveness score was created from the responses of this section in the same way it was generated in previous studies. Based upon the responses from the principals, a total score was determined as well as average responses for each level of severity of ASD.

The survey was placed on www.survey.vt.edu. This tool provided confidentiality of the data while recording and storing the participants' responses. An email was sent to each principal and assistant principal within the 19 school systems in region seven of Virginia on behalf of the division superintendent. Each principal received an email containing a cover letter explaining the purpose of the study and discussing consent (See Appendix C). A link to access the survey

on line was included in the cover letter. Principals were asked to complete and submit the survey within two weeks of receipt. An email reminder was sent to the participants every two weeks.

The surveys were closed after a one month period.

Data Analysis

The correlational and descriptive analysis of the data was completed using the Statistical Package for Social Sciences (SPSS) 22.0. Section I and Section II of the survey contained twenty questions. For all questions, numerical values were assigned to the data. Descriptive statistical analysis was used to obtain frequencies, percentages and means relative to the different variables of gender, age, placement, position, years of experience as an administrator, years of teaching experience in exceptional education, and years of experience teaching in general education. Descriptive statistics was also used to analyze the data, present data summaries, and to examine the relationships among the variables. Frequency distributions and percentages were computed for each variable of the survey. Data collected determining principals attitudes toward inclusion of students with autism were analyzed to determine if there was a relationship between the variables. A Pearson's Product-Moment Correlation (PPMC) was used to measure the strength and direction of the relationship between the variables in the study.

A Multivariate Analysis of Variance (MANOVA) was also used to examine the effects of independent variables on the dependent variables of attitudes toward the three levels of ASD. Various factors including professional experiences and training were analyzed to determine if they were related to a principal's attitude toward the inclusion of students with autism.

Research Questions

The following research questions were addressed in this study:

1. To what degree are a principals personal and/or school demographic characteristics associated with their attitudes toward inclusion of children with differing levels of ASD?
2. To what degree is the amount of training and experience that a school principal has had related to ASD associated with their attitudes towards students with differing levels of ASD?
3. To what degree are school principals' attitudes towards students with differing levels of ASD associated with the educational placement decisions the principals make within their schools for these students?
4. To what degree are school principals attitudes towards students with differing levels of ASD associated with the educational challenges they face in rural regions?

Research Question #1

To what degree are a principals personal and/or school demographic characteristics associated with their attitudes toward inclusion of children with differing levels of ASD?

The relationship between attitude towards students with ASD and educational placement decisions was tested using Pearson's Product-Moment Correlation coefficient. The first variable of interest was the attitude towards students with differing levels of ASD, which was measured by section III of the survey. Participants were asked to respond to 10 Likert scale-based questions asking about attitudes of inclusion. Individual items with which the respondent strongly agreed received a score of 5; items with which the respondent strongly disagreed received a score of 1. A maximum score of 50 would indicate the greatest degree of inclusiveness and the minimum score of 10 would represent the lowest degree of inclusiveness.

The second variable of interest was the most appropriate placement for students with differing levels of ASD. For the three different levels, participants were asked to provide the placement that they believe would be the most appropriate for students with the given severity of ASD. Respondents were given six choices, ranging from most inclusive to most restrictive. The most inclusive choice was given a score of 6; the most restrictive choice a score of 1. Scores for the ten areas were summed to form a single dependent variable ranging from 10 (least overall inclusive) to 60 (most overall inclusive).

Additionally, MANOVA was used to examine the effects of five independent demographic variables on the dependent variables of attitudes toward the three levels of ASD. Independent variables examined were gender, school type (elementary or secondary), certification in special education (yes or no), job type (principal or assistant principal, and location (rural fringe, rural remote, rural distant, town distant, city). These variables were selected due their implications of importance in previous studies.

Research Question #2

To what degree is the amount of training and experience that a school principal has had related to ASD associated with their attitudes towards students with differing levels of ASD?

This research question examined the differences in principal attitudes toward students with ASD among individuals with different professional experiences and levels of formal training.

The attitude score was obtained from the mean score for attitude toward students with ASD from Section III of the survey. This research question was addressed by section II of the PAIS.

Pearson-Product Moment Correlation was computed between each of the sets of data to determine if there was a significant relationship, at the 0.05 level of significance, between the

attitudes of principals and their years of experience in regular education, special education, number of special education credits, number of in-service hours, categories covered in preparation programs and type of experiences. The categories of programming, characteristics of students with ASD, behavior management, special education law and crisis intervention were identified. Each category was correlated with the attitude measurement of Section III of the survey using a Mean score for attitude toward inclusion of students with differing levels of ASD.

Research Question #3

To what degree are school principals' attitudes towards students with differing levels of ASD associated with the educational placement decisions the principals make within their schools for these students?

Section I of the PAIS asked principals to answer eleven questions to describe the characteristics of their particular schools and was used to obtain personal demographic information as well. Due to prior research, there was a desire to control for the effects of being at different school levels (elementary or secondary) and to explore the differences in responses from principals and assistant principals. The age and gender of the participant was also explored. The responses from Section I will be presented through frequency distributions and percentages.

Research Question #4

To what degree are school principals attitudes towards students with differing levels of ASD associated with the educational challenges they face in rural regions?

Two questions are included in section one of the PAIS to address the rural aspect of the current study. Participants were asked to identify the locale descriptor of their school division. The challenges rural school principals face in relation to educating students with ASD within their schools are presented in a list. These challenges included in the survey were derived from

topics presented in the literature. Participants were asked to identify the top three challenges they have experienced in their role as a principal in a rural school system. The responses from these questions on the survey will be presented through frequency distribution and percentages. They will also be used to determine if the rural location of a school has an impact on the attitude the principal has towards the inclusion of students with ASD. It is a goal to determine the challenges that are unique across participants within the five locale descriptors included in the study.

Chapter IV

Results

The purpose of this research study was to contribute to a body of research surrounding the attitudes of school principals towards the inclusion of students with ASD in the general education setting and to more closely examine the relationship between specific demographic factors of principals in rural areas and their attitudes towards inclusion for students with ASD. To fulfill this purpose, a quantitative research study was conducted using descriptive analyses, correlational analyses and a multivariate analysis of variance. The population studied was principals and assistant principals in Superintendents region seven of rural southwest Virginia. The analysis of the data and results of the statistical procedures are presented in chapter four. The results are organized around the four research questions, which all relate to the attitude of the principal and which guided this study. A frequency table contains the frequency and percentages of the demographic information and experience followed by a presentation of the data associated with each research question.

Sample Size

A request to participate in the current study was sent electronically to all nineteen school systems within Superintendents Region seven of the Commonwealth of Virginia. Full permission to participate in the study was granted from eighteen of those school systems. Changes in leadership at central office prevented one system from participating. The *Principal's Autism Inclusion Survey* developed by Workman (2015) was delivered via email to approximately 200 principals and assistant principals. The initial request to participate was sent on October 5, 2015. Weekly reminders to take part in the study were sent for a period of seven weeks. The final opportunity to participate was requested on November 16th and the survey was closed on

November 22, 2015. Of the possible 200 participants, 125 surveys were completed, which yielded a response rate of 62%. Note, however, that all frequency data do not total 125 due to missing data. Percentages were calculated using the actual sample size for that particular item.

Attitudes of Principals

One purpose of this investigation was to determine the attitudes of school principals in a rural area of Virginia toward the inclusion of students with Autism Spectrum Disorder (ASD). To measure the attitude of the principal, a Likert type rating scale was used in Section III of the *Principals Autism Inclusion Survey* (PAIS). Strongly Agree, Agree, Uncertain, Disagree, and Strongly Disagree provided positive and negative points on the continuum. The response choices for Section III of the PAIS were each given a numeric value that were added and divided by 10 (the number of statements in Section III). A mean was obtained and used as a numeric measurement for attitude toward inclusion of students with autism. This process was used to determine the measurement of attitude toward inclusion of students with Levels 1, 2, and 3 ASD. Based on the total score from this section, with a possible range from 10 to 50, lower scores indicated less favorable attitudes while higher scores indicated more favorable attitudes toward inclusion. Actual scores for attitude toward level one ASD ranged from 12 to 31 with a mean of 23.66. Scores for level two ASD ranged from 20 to 37 with a mean of 29.23 and actual scores of level 3 ASD ranged from 18 to 40 with a mean of 30.88. Therefore, principals attitudes toward students with ASD in general tend to become more favorable as the severity of the disorder increases. These results indicate that principals agree with the inclusion of students with ASD when it is appropriate and they seem to have favorable attitudes towards students with levels two and three of ASD. However, as shown in Table 1, the attitude scores for 43% of the responses fell within the range of 21-30, which does not indicate a strong positive or negative score, as

reflected in the mean, which may indicate that overall, principals are actually uncertain of their attitude toward this population of disability. The uncertainty of the attitude may also be due to the recent changes in the definition of the disorder as well as the rapid rise of this population within schools.

Table 1

Total Attitude Scores for Sample of Principals

Level of ASD	Range	<i>f</i>	%
Level 1 (<i>n</i> =125)	10-20	19	15
	21-30	105	84
	31-40	1	<1
	41-50	0	0
Level 2 (<i>n</i> =123)	10-20	1	<1
	21-30	89	47
	31-40	33	26
	41-50	0	0
Level 3 (<i>n</i> =124)	10-20	1	<1
	21-30	55	44
	31-40	68	54
	41-50	0	0

Although Praisner (2003) evaluated the attitudes of principals towards the entire population of students with disabilities, the attitude score for 76.6% of respondents to her survey were not strongly positive or negative, however, the scores were skewed toward a positive attitude. McKelvey (2008) examined the attitudes of principals towards the inclusion of students identified with ASD and those who at the time of the study were identified with Aspergers Syndrome. The attitude scores obtained from the participants in this study were neither strongly positive nor negative. However, the scores were generally skewed toward a negative attitude in terms of inclusion of students with ASD as indicated by the negative mean scores. Therefore, the

neutrality of the results of the current study are echoed in previous research. Perhaps this is due to the fact that ASD is an evolving disability whose definition has undergone many diagnostic changes since it was first discovered, thus leaving educational leaders indeterminate as to where this population of students is best served within their schools.

Demographic Information

RQ1: To what degree are a principals personal and/or school demographic characteristics associated with their attitudes toward inclusion of children with differing levels of ASD?

The principals surveyed answered twelve questions in section one of the PAIS to describe the characteristics of their school and their own personal demographics. The responses related to school demographics showed a range of approximate numbers of students, class sizes, percentage of students with IEP’s in the building, percentage of students with IEP’s included in the regular education classroom, approximate percentage of students with ASD, approximate percentage of students with ASD included in the regular education setting for at least 75% of the day, and the locale descriptor of the school as well as challenges rural school principals are faced with. Personal demographics in section one included the age, gender, and job title of the participant. Table 2 shows the frequency and percentage data for the demographic information.

Table 2

Demographic Information

Variable	Range	<i>f</i>	%
Number of students (<i>n</i> =125)	0-250	26	21
	251-500	56	45
	501-750	40	32
	751-1000	2	2
	1000 or more	1	1
Average Class Size (<i>n</i> =125)	0-9	3	2
	10-19	34	27

	20-29	88	70
	30-39	0	0
	40 or more	0	0
Percentage of Students with IEP's (<i>n</i> =123)	0-5%	7	6
	6-10%	35	28
	11-15%	43	34
	16-20%	28	22
	21% or more	10	8
	No answer	2	2
Percentage of Students Included (<i>n</i> =123)	0-20%	14	11
	21-40%	3	2
	41-60%	3	2
	61-80%	20	16
	81-100%	83	66
	No answer	2	2
Percentage of Students with ASD (<i>n</i> =123)	0-5%	105	84
	6-10%	12	10
	11-15%	4	3
	16-20%	1	1
	21% or more	1	1
	No answer	2	2
Percentage of ASD Included (<i>n</i> =123)	0-20%	47	38
	21-40%	1	1
	41-60%	6	5
	61-80%	7	6
	81-100%	62	50
	No answer	2	2
Job Title (<i>n</i> =122)	Principal	90	72
	Assistant Principal	32	26
	No answer	3	2
School Description (<i>n</i> =125)	Elementary	61	49
	Secondary	64	51

Age (<i>n</i> =123)	20-30	3	2
	31-40	22	18
	41-50	56	45
	51-60	35	28
	61 or more	7	6
	No answer	2	2
Gender (<i>n</i> =119)	Male	64	51
	Female	55	44
	No Answer	6	5
Region Locale Descriptors (<i>n</i> =125)	Rural, Fringe	48	38
	Rural, Remote	24	19
	Rural, Distant	19	15
	Town, Distant	27	22
	City	7	6
Challenges (<i>n</i> =125)	Training	44	35
	Resources	40	32
	Support	31	25
	Networking	16	13
	Behavior	54	43
	Management		
	Budget Restraints	63	50
	Recruiting Teachers	42	34
	Retaining Teachers	7	6
	Geographic Isolation	14	11
Role of Principal	46	37	

Several question related to demographics were included in the PAIS to explore the relationship between potential predictor variables associated with principals and their attitudes toward inclusion. An exception is the data for questions eleven and twelve, which is covered under the final research questions. A Pearson Product Moment Correlation coefficient (PPMC) was computed for those variables that were continuous while the Point Biserial Correlation (PBC) was computed for the dichotomous variables. The probability level is indicated for statistically significant results, defined as an alpha of at least .05.

As evident in Table 3, no statistically significant relationship was found between any of the demographic variables of the participants and their attitudes toward inclusion of students with ASD. Based on the results of previous studies and reviews of the literature surrounding this topic, some of these variables are also included in a Multivariate Analysis of Variance (MANOVA) and are discussed in greater detail further along in this chapter.

Table 3

Correlation Coefficients between Demographic Variables and Attitude Score

Variable	n	r1	r2	r3
Number of students	125	.040	.016	.065
Average class size	125	.044	.125	.153
Percentage of students with IEP's	123	-.157	-.027	-.011
Percentage of students included	123	-.092	.075	.123
Percentage of students with ASD	123	-.122	-.043	-.113
Percentage of ASD included	123	-.096	-.030	.060
Job Title	122	.094	.000	-.033
School Description	125	.039	.058	.049
Age	123	-.021	-.111	-.092
Gender	119	.087	-.093	-.152

* $p < or = .05$

Training and Experience

RQ2: To what degree is the amount of training and experience that a school principal has had related to ASD associated with their attitudes towards students with differing levels of ASD?

Section II of the PAIS survey addressed training and experience. To ensure validity of this section Praisner (2003) selected the content based on the review of inclusion literature

identifying those factors which might relate to educator’s attitudes toward inclusion. In addition, a panel of experts in the field of education reviewed the questions. Questions in this section collected data reflecting years of full time regular education teaching experience, special education teaching experience, years as a school principal, number and type of special education credits in their formal training, training in inclusive practices and Autism practices, certification in special education, personal experience with individuals with ASD, and three questions presented using a Likert scale to determine experiences with level one, two, and three ASD in the school setting. The frequency and percentage data related to the variable in section II of the survey are presented in Table 4.

Table 4

Variables Related to Attitude Score

Variable	Range	<i>f</i>	%
Regular Education Experience (<i>n</i> =123)	0	3	2
	1-6	12	10
	7-12	30	24
	13-18	28	22
	19 or more	50	40
	No answer	2	2
Special Education Experience (<i>n</i> =124)	0	98	78
	1-6	6	5
	7-12	7	6
	13-18	5	4
	19 or more	8	6
	No answer	1	1
Years as School Principal (<i>n</i> =125)	0-5	41	33
	6-10	44	35
	11-15	29	23
	16-21	8	6
	22 or more	3	2
Special Education	0	11	9

Courses (<i>n</i> =124)	1-3	79	63
	4-6	16	13
	7-10	10	8
	11 or more	8	6
	No answer	1	1
Inclusive In-service Hours (<i>n</i> =125)	0	9	7
	1-8	93	74
	9-16	6	5
	17-24	4	3
	25 or more	0	0
Special Education Training Years (<i>n</i> =123)	1-5	40	32
	6-10	37	30
	11-20	33	26
	21 +	13	10
	No answer	2	2
Special Education Certification (<i>n</i> =124)	Yes	17	14
	No	107	86
	No answer	1	1
Areas of ASD Formal Training	Academics	17	14
	Characteristics	60	48
	Behavior	47	38
	Management		
	Law	108	86
	Crisis Intervention	59	47
Personal Experience with ASD (<i>n</i> =123)	Yes	55	44
	No	68	54
	No answer	2	2
If yes, relationship (<i>n</i> =74)	Self	0	0
	Immediate family	16	13
	Extended family	19	15
	Friend	18	14
	Neighbor	2	2

	Other	1	1
	No answer	69	55
Experience with Level 1 ASD (<i>n</i> =123)	Negative	1	1
	Somewhat Negative	5	4
	No Experience	6	5
	Somewhat Positive	48	38
	Positive	59	47
	Undecided	5	4
	No answer	2	2
Experience with Level 2 ASD (<i>n</i> =121)	Negative	1	1
	Somewhat Negative	15	12
	No Experience	12	10
	Somewhat Positive	45	36
	Positive	39	31
	Undecided	9	7
	No answer	4	3
Experience with Level 3 ASD (<i>n</i> =124)	Negative	6	5
	Somewhat Negative	18	14
	No Experience	32	26
	Somewhat Positive	34	27
	Positive	19	15
	Undecided	15	12
	No answer	1	1

A PPMC was also used to determine if a principal's attitude toward the inclusion of students with ASD was associated with aspects of their training and experience. As shown in table 5 below, a statistically significant relationship at the .05 level was discovered between the principals who had special education experience, and their attitude toward inclusion of students with Level 3 ASD. Therefore, principals with special education teaching experience have a more positive attitude toward the inclusion of students with more severe characteristics of ASD.

Similar results were discovered by McKelvey in her 2008 study analyzing principal's attitudes towards inclusion of students with ASD and Aspergers. She found that a significant

relationship existed between the attitude of the principal towards students with Aspergers and the years of full time general education teaching experience. Perhaps this is because students diagnosed with Aspergers Syndrome are very high functioning and most often placed in the general education classroom for the majority of their school day. The work of Praisner (2003) revealed positive correlations between the attitude toward inclusion and the number of special education credits ($r = 0.09$), inservice hours ($r = 0.18$), specific topics taken ($r = 0.22$), and the Experience Score ($r=0.35$). However, her study was not narrowed down to ASD only. It covered all categories of disabilities.

Table 5

Correlation Coefficients between Training and Experience and Attitude Score

Variable	n	r 1	r 2	r 3
Regular Ed. Experience	123	-.036	-.006	-.055
Special Ed. Experience	124	-.134	-.034	-.181
Years as School Principal	125	.091	.019	.021
Special Ed. Courses	124	-.017	.045	.028
Inclusive In-Service Hours	125	-.119	.050	.005
Special Ed. Training Years	123	-.128	-.024	-.009
Special Ed. Certification	123	-.071	-.059	-.016
Personal Experience ASD	123	.021	.054	.081
Experience Level 1	123	.081	-.037	.022
Experience Level 2	121	-.032	-.108	.026
Experience Level 3	124	.020	-.138	-.062

* $p \leq .05$

The type of specific topics important to ASD and inclusion included in preparation programs were also investigated. Data were collected related to the specific topic covered in the

principals' formal training such as courses, workshops, and/or significant portions of courses (10% of content or more). Descriptive statistics for this question is presented in Table 6.

The majority of participants (86%) received adequate training in special education law. Approximately half of the participants noted formal training in crisis intervention (47%) and characteristics of students with ASD (48%). Behavior management for students with ASD was included in 38% of the participants' formal training. However, only 14% of the respondents noted receiving formal training in academic programming for students with ASD.

Table 6

Specific Topics Covered in Preparation Programs

Topic	f	%
Academic Programming for Students with ASD	17	14
Characteristics of students with ASD	60	48
Behavior management for students with ASD	47	38
Special Education Law	108	86
Crisis Interventions	59	47

Placement

RQ3: To what degree are school principals attitude towards students with differing levels of ASD associated with the reported placement decisions the principals make within their schools for these students?

This study examined principals' attitude in relation to their reported best placement of students diagnosed with the three levels of ASD. The placement selections for each level were the following: special education services outside regular school; special class for most or all of

the school day; part-time special education class; regular classroom instruction and resource room; regular classroom instruction for most of the day; and full-time regular education with support. These are the current placement options for students with disabilities offered in the state of Virginia. The results from these survey items are displayed below in Table 7.

Table 7

Placement Options Chosen by Principal (n=125)

Level	Placement Option	<i>f</i>	%
One	Special Ed. outside Regular school	0	0
	Special Class most/all school day	2	1.6
	Part time special ed. Class	7	5.6
	Regular Class/Resource Room	31	24.8
	Regular Class most of day	35	28
	Full time Regular Ed.	50	40
Two	Special Ed. outside Regular school	0	0
	Special Class most/all school day	12	9.6
	Part time special ed. Class	39	31.2
	Regular Class/Resource Room	50	40
	Regular Class most of day	15	12
	Full time Regular Ed.	9	7.2
Three	Special Ed. outside Regular school	13	10.4
	Special Class most/all school day	78	62.4
	Part time special ed. Class	19	15.2
	Regular Class/Resource Room	10	8.0
	Regular Class most of day	4	3.2
	Full time Regular Ed.	1	.8

The inclusiveness score was calculated based upon a value of 1 to 6 given for the range of placements from most to least restrictive. The mean score for the most appropriate placement for students with level 1 ASD was 4.96. The mean score for level 2 was 4.04 and the mean for

level 3 was 2.34. The scores at the extreme end of the continuum were found least often.

Overall, however, the scores were skewed toward inclusiveness at levels 1 and 2.

To explore the possible relationship between attitude and placement decisions, a Pearson Product Moment Correlation (PPMC) coefficient was calculated between the Attitude and Inclusiveness Scores. A positive correlation ($r = .145, p < .05$.) was detected between the principals attitude towards students with level 1 ASD and the most appropriate placement for these students.

However, a slightly negative correlation ($r = -.006$) was found between students with level 2 ASD and placement decisions.

A significant correlation at the 0.05 level was found between the principal's attitude towards students with level 3 ASD and where they believe is the most appropriate placement for these students (.207). Thus, the more positive the attitude toward inclusion, the more inclusive the placements were selected. Additionally, it is the perception of the principal that the more substantial supports required of students with ASD, the more restrictive the placement of the student may be. However, in a rural school setting with limited resources for students with ASD, the fact that 78% of the participants reported students with level 3 ASD should be educated within the school shows the principal's commitment to including students with severe characteristics of ASD as much as possible. The most segregated settings of special education services outside regular schools and special classes were chosen by 49.8% of the respondents in Praisner's (2003) study for the category of Autism. When compared to the current study, this shows that principals are now more accepting of educating students with ASD in their home school than they were a decade ago.

Educational Challenges in Rural Regions

RQ4: To what degree are school principals attitudes towards students with differing levels of ASD associated with the educational challenges they face in rural regions?

A secondary purpose of this study was to examine the relationship between specific demographic factors of principals in rural areas and their attitudes towards inclusion for students with ASD. Two questions were included in section one of the PAIS to address this concern. Participants were asked to identify which locale descriptor their individual school was located in. A list of various challenges rural school principals face in relation to providing services to students with ASD and their families was devised based on the research surrounding this topic. In addition to identifying the location of their school, participants were asked to identify the top three challenges from the list that they have experienced in their role as a principal in a rural school system. While this information is also included in the demographics table above (Table 2), it is presented separately here in order to address the research question related to the rural regions. The locale descriptors from the participants are identified in table 8 and the rural challenges in table 9.

Table 8

Locale Descriptors of Participants (n=125)

Locale	<i>f</i>	%
City School System (Bristol, Galax, Radford, Norton)	7	5.6
Rural, Distant (Carroll, Giles, Lee, Russell)	19	15.2
Rural, Fringe (Bland, Pulaski, Scott, Washington, Wise)	48	38.4
Rural, Remote (Dickenson, Grayson, Wythe)	24	19.2
Town, Distant (Tazewell, Smyth)	27	21.6

Table 9

Challenges of Rural School Principals (n=125)

Challenge	<i>f</i>	%
Lack of professional development and training	44	35
Lack of available resources	40	32
Lack of support for teachers	31	25
Lack of networking opportunities	16	13
Lack of behavior management assistance for ASD	54	43
Financial restraints/restricted budgets	63	50
Difficulty recruiting teachers certified in ASD	42	34
Difficulty retaining teachers certified in ASD	7	6
Feeling of geographical isolation	14	11
Feeling as if the role of the principal is expanding	46	37

To answer this research question, MANOVA was conducted to determine the difference in the attitude of the principal and the level of ruralness based on their local descriptor. This was done in order to illustrate how survey results could be generalized across samples taken from principals in 18 different schools divisions within five different locale descriptors. . The results of this test did not reveal any effect between or among these variables. Therefore, it seems that principals of schools within different levels of rurality all share the same problems in relation to educating students with ASD.

Being a principal in a rural school, no matter how rural the school, does not have an effect on the attitude of the principal when it comes to the inclusion of students with ASD. Therefore, being a principal in a rural fringe school district presents no greater challenges in educating students with ASD than being a principal in a city school system. Perhaps geographical isolation may have been a challenge to rural principals at one time, and is thus identified in the research as a challenge, it appears from these results that rural principals are doing the best they can with the resources they have access to. No difference among that many

respondents across locale descriptors suggests that the results might be generalized to a broader population of principals that share characteristics with those studied in the present research effort.

In addition to the above analyses, MANOVA was used to examine the effects of five independent variables on the dependent variables of attitudes toward the three levels of ASD. Independent variables examined were gender, school type (elementary or secondary), certification in special education (yes or no), job type (principal or assistant principal, and location (rural fringe, rural remote, rural distant, town distant, city). These variables were selected due their implications of importance in previous studies. Praisner (2003) only included elementary school principals in her study while Farris (2011) narrowed his study of principals' attitudes towards students with disabilities to include only high school principals. Therefore, school type was included in this analysis to determine if a relationship existed.

While a relationship was detected between attitude and certification in special education in the current study, other studies such as McKelvey (2008) revealed a relationship between attitude and years of full time general education teaching experience, which yielded a need for further analysis around this topic. Previous studies have not been clear in expressing whether or not assistant principals were included as participants. Because assistant principals are typically assigned the difficult task of handling discipline problems and playing a role in Individualized Education Plan meetings, it was of interest to the researcher in the current study to determine if these responsibilities had an effect on their attitudes. Gender has also not had a huge impact in the results of previous studies. However, additional analysis was warranted in this area because of the nearly equal population of male and female participants in the current study. The location,

or level of rurality, was an essential variable in this study, which is why additional investigation is justified in this area.

None of the variables examined were statistically significant at the $p < .05$ level on the attitudes toward the three levels of ASD. The MANOVA revealed a non-significant multivariate main effect for gender, Wilks' $\lambda = .93$, $F(6, 142) = .84$, $p = .54$; school type, Wilks' $\lambda = .99$, $F(6, 142) = .32$, $p = .81$; certification in special education, Wilks' $\lambda = .97$, $F(6, 142) = .42$, $p = .86$; job type, Wilks' $\lambda = .96$, $F(6, 142) = .54$, $p = .77$; and location, Wilks' $\lambda = .95$, $F(12, 188.14) = .29$, $p = .99$. These results are presented in table 10 below.

Table 10

MANOVA Variables and Descriptors

Dependent Variables	Independent Variables	Variable Description
LEVEL 1 attitude	Gender	Male or Female
LEVEL 2 attitude	School type	Elementary or secondary
LEVEL3 attitude	Special education certification	Yes or no
	Job type	Principal or Assistant principal
	Location	Rural fringe, rural remote, rural distant, town distant, city

The dependent variable level 1 attitude is the sum of the 10 level 1 attitude questions. The scores for this variable ranged from 12 to 31 ($M = 23.66$, $SD = 3.06$). The dependent variable of level 2 attitude is the sum of the 10 level 2 attitude questions. The scores for this variable ranged from 20 to 37 ($M = 29.24$, $SD = 2.56$). The dependent variable of level 3 attitude is the sum of the 10 level 3 attitude questions. The scores this variable ranged from 18 to 40 ($M = 30.88$, $SD = 3.03$).

Limitations were present in the MANOVA investigation. A small sample size for some of the demographic variables in the categories may have affected the results. For example, there were only 15 participants who had a special education certification.

Summary

This chapter presented a review of the data collection and analyses process from the current study. The most significant result was that the attitude scores of the respondents were not strongly positive or negative; however, the scores were generally neutral as indicated by the almost median mean score across all levels of ASD. However, when analyzing the reported decisions the participants make in regard to the placement of these students with ASD within their schools, an overwhelming percentage of the participants lean toward inclusiveness for the entire population of students with ASD. A significant relationship was found to exist between the attitude of the principal and the placement of students with level 3 ASD. In addition, there was a significant relationship between the years of full-time special education teaching experience and the attitude of the principal for students with level 3 ASD with a significant level of $p = .181$. In this study, the demographics of the principal did not play a major role in their attitude toward inclusion of students with ASD, nor did the rural location of their school.

Conclusion

The results of the survey provided information about the relationships between the attitude of school principals and the inclusion of students with ASD. The findings were identified in chapter 4. Chapter 5 will now connect the findings presented in chapter 4 to implications, recommendations, and areas for additional research.

Chapter 5

Discussion, Conclusions, and Recommendations

Chapter five contains a summary of the study findings and presents an interpretation of results, including comparisons to previous literature. The chapter begins with a statement of purpose and is organized according to the major topics of the study. Lastly, recommendations for future research and implications are addressed.

Purpose

The purpose of the study was to explore the attitudes of school principals towards the inclusion of students with Autism Spectrum Disorder (ASD) in the general education setting and to more closely examine the relationship between specific demographic factors of principals in rural areas and their attitudes towards inclusion for students with ASD. To further the understanding of the inclusion of students with ASD, this quantitative descriptive, correlational, and multivariate analysis of variance study focused on the principals' attitude and their training and experience, demographics, reported placement decisions, and challenges faced in rural school divisions. The study answered the following research questions:

1. To what degree are a principals personal and/or school demographic characteristics associated with their attitudes toward inclusion of children with differing levels of ASD?
2. To what degree is the amount of training and experience that a school principal has had related to ASD associated with their attitudes towards students with differing levels of ASD?

3. To what degree are school principals' attitudes towards students with differing levels of ASD associated with the educational placement decisions the principals make within their schools for these students?
4. To what degree are school principals attitudes towards students with differing levels of ASD associated with the educational challenges they face in rural regions?

Demographics

One demographic variable was found to be significantly associated with attitude toward inclusion using the PPMC. The number of years of special education teaching experience was the one statistically significant professional demographic variable that was found to be related to a principal's attitude towards students with level 3 ASD. This has been a consistent finding in the body of literature that exists on principals' attitudes toward inclusion. This finding was discovered in the quantitative studies of Praisner (2003) and Horrocks et al. (2008). The consistency in findings highly suggests that special education teaching experience has a profound impact in creating more favorable attitudes toward inclusion among school principals. The revelation of the current study that 78% (98 of the 125 participants) had no experience teaching in the field of special education is quite alarming.

All other demographic factors of the survey did not reveal clinically significant results. Like Horrocks (2008) and Praisner (2003), the variable of gender was not a significant factor related to principals attitudes toward inclusion. The influence of gender on inclusion attitudes remains unclear, however, as the majority of participants in other studies (e.g., Horrocks., 2008) were male. Interestingly, in this study, the principals and assistant principals were 51% male and 44% female. As the number of male and female principals becomes more equalized in schools,

the topic of gender differences in this population may also reveal more prominent results in research investigations.

Previous studies have isolated elementary and secondary participants to determine attitude toward a population of students with disabilities. Praisner (2003) only included elementary principals in her study as did Weller (2012). Others such as McKelvey (2008) and Farris (2011) focused on secondary school principals. While this demographic variable did not present to be a significant factor in the current study, it could possibly have contributed to the diversified responses of the participants. By including participants who represented elementary, middle and high school students, the response rate of the study was strengthened and allowed for an overall portrayal of principals in a rural region. Additionally, this study uniquely contributes to the literature by examining the attitudes of both principals and assistant principals in public elementary and secondary schools toward the inclusion of students with disabilities in general education classrooms. Both principals and assistant principals have the authority to determine student placement; therefore, it is important to understand the attitudes of school leaders who have the authority to create inclusive programs.

Like Sharma and Chow (2008), age was *not* related to attitudes toward inclusion in the current study. However, Praisner (2003) found that younger principals had more favorable attitudes toward the inclusion of students with disabilities into the general education classes. Praisner's (2003) findings with regard to age and attitudes toward inclusion were consistent with results seen in teachers as reported in the review of literature by Avramidis et al. (2000). These studies are over ten years old. The lack of significance with regard to age and attitudes toward inclusion seen in the current study as well as in the more recent study by Sharma and Chow

(2008) suggests that age may play less of a role in shaping attitudes toward inclusion among the newer generation of principals. This lack of age effects may furthermore be a reflection of the changes in education and training that include more of a focus on children with disabilities and inclusion practices received by this new generation.

Training and Experience

The number of years of special education teaching experience was the one statistically significant professional variable related to principal's attitudes toward inclusion of students with ASD. This has been one of the most consistent findings in the body of literature on principals' attitudes toward inclusion. This finding was found in the quantitative studies conducted by Praisner (2003), and Horrocks (2008). It also supports the qualitative findings of Weller (2012). The consistency in findings highly suggests that special education teaching experience has a profound impact in creating more favorable attitudes toward inclusion among school principals.

While the current study did not show any significance related to the demographic variable of having a friend or relative with a disability on attitudes toward inclusion, the quantitative studies by Praisner (2003) and Sharma and Chow (2008) did reveal this to be an important variable related to principals attitude toward inclusion. Horrocks (2008) did not find a significant effect of personal experiences with individuals with disabilities on inclusion attitudes at the $p < .05$ level; however, the results were close to significant, with $p = .078$ and may likely have been significant given a larger sample size. The current study showed a similar result as Horrocks (2008) with a $p = .081$ at level three of ASD. This consistency in findings across studies suggests that having personal connections with individuals with disabilities are related to more favorable attitudes toward inclusion (Praisner, 2003).

Although areas of formal training did not play an important role in relation to principal's attitudes toward the inclusion of students with ASD, some interesting implications can be made from the responses to this question. Eighty six percent of participants reported special education law as a topic included in their formal education training. However, academic programming for students with ASD was reported by only fourteen percent of respondents. Academic programming would cover topics related to inclusion of students with disabilities. The relationship between principal's attitude and their formal training in inclusion has revealed a lack of formal training. The results indicated the majority of principals received the standard training in special education law and practices, but little training in inclusive practices.

The majority of principals indicated they have had somewhat positive experiences with students at levels 1, 2, and 3 of ASD. The positive experiences with these students provided principals with knowledge to make informed decisions on the placement of students with ASD into the general education classroom. Therefore, students can achieve to their maximum extent possible.

Challenges in Rural Areas

The challenges associated with being the principal of a school in a rural area are many, and there are no perfect solutions. The availability of research related to serving students with ASD in rural schools is limited. One of the goals of this study was to more closely analyze the trials of rural school principals when faced with educating students with autism. While there are many definitions for what constitutes a "rural" area or school, classifications from the National Center for Educational Statistics (NCES) were used to determine the levels of rurality for the current study.

Overall, the problems identified by principals within rural schools do not affect their attitudes toward students with ASD in the inclusion setting. In fact, principals within the different levels of rural categories all shared the same problems. Fifty percent of the principals surveyed in this study identified financial restraints and restricted budgets as an area of concern in relation to providing services to students with ASD and their families. The lack of behavior management assistance for students with ASD was a problem shared by forty-three percent of principals surveyed and thirty seven percent of principals noted a feeling that their role as principal is expanding.

On the other hand, only eleven percent of rural principals felt as if their school were geographically isolated, which may indicate that principals in rural areas share rural characteristics and may not feel as if their schools are lacking in providing services to any population of students or that they exhibit the struggles identified in the research on rural education. Thus, these problems do not affect the attitudes these principals have toward serving students with ASD and their families in rural communities.

Rural counties experience problems related to enabling characteristics of the community that are specific to their area and are a function of their population size. One significant problem that greatly impacts the resources and funds available to special education programs in rural areas is that schools are funded based on attendance (U.S. Department of Education, Office of Special Education Programs, 2006c). Rural schools have fewer students enrolled, thus, they receive lower federal and state funding than schools in urban areas. Additionally, rural counties have a smaller local population to receive local taxes and funds from, thereby increasing the influence of a low population's effects on a school system's available funding. Exactly half (63) of the participants in the current study identified financial restraints as being a challenge they

face being a principal in a rural school. Farris (2011) noted that it is significant to explore the attitudes of school leaders in different geographic regions because of the difference in interpretation and implementation of federal laws to service students with disabilities.

Placement

The last part of this study examined principals' attitude for the best placement of students with ASD. The levels of ASD are described in section II of the survey and used as the basis for this section as well. . A significant correlation at the 0.05 level was found between the principal's attitude towards students with level 3 ASD and where they believe is the most appropriate placement for these students (.207). According to the results of this section, as the severity of the characteristics of ASD increases, so does the time the principal feels the student needs to spend outside of the general education setting. However, overall, the principals felt that inclusion of students with ASD in the general education classroom with their non-disabled peers would be educationally beneficial for these students.

Although a statistically significant relationship was only detected to exist between a principal's attitude and students with level 3 ASD, the data from this section of the instrument reveals information that is very crucial to the overall findings of the current study. In regards to educating students with level 1 ASD within their least restrictive environment, 92% of principals reported these students should be in the general education setting as much as possible. 71% of the principals surveyed reported that students with level 2 ASD should spend only part of their day in a special education setting. Only 12% felt like level 2 ASD students should be placed in a special education classroom full time. For students identified with level 3 ASD, only 10% of the respondents reported the best placement for these students as being outside of the school environment. While a strong positive attitude among principals is not present within the results

of this study, the placement decisions these principals reportedly make for their students with ASD overwhelmingly reveal a positive attitude. Even while reporting financial restraints, a lack of behavior management strategies, and a lack of professional development and training opportunities, principals within the rural schools of this study agree with the inclusion of students with ASD when it is appropriate and are strongly committed to providing a favorable learning environment for all students with ASD within their school environment.

It is important to note this finding of the study because of the implications of a principal's ability to influence placement decisions, even though those decisions must be made by an IEP team. A principal with a positive attitude toward inclusion would most likely positively influence an IEP team. Praisner found that principals with more positive attitudes toward inclusion were more likely to believe that less restrictive placements were most appropriate for students with disabilities (2003). A principal who is supportive of the practice of including students with ASD in regular education classrooms appears to be a significant factor in creating effective inclusive settings.

Implications

Due to the increase in the number of children diagnosed with ASD entering schools, it has become even more imperative that principals provide an environment that will offer appropriate instruction for these students. Therefore, a principal must have a thorough understanding of the behavioral characteristics of ASD. In addition, principals must have a comprehensive knowledge base concerning the best practices for instructing students with ASD, both in and out of the regular education classroom setting.

There are many ways that current principals and assistant principals can improve their working knowledge of inclusion and ASD, and the results and implications of this study show

that the need is present. The number of students being diagnosed with ASD and subsequently being included in the general education classroom is on the rise. School principals are taking a more active role in developing inclusion models to meet the needs of these students. The findings from this study have indicated that the overall attitude toward inclusion of students with ASD is uncertain, but tend to be more positive when these students exhibit mild characteristics of ASD.

The findings of this study demonstrate the important role that attitude plays in the inclusion of students with Autism Spectrum Disorder. The principals' placement decisions were, in part, related to their attitude towards inclusion. Therefore, when school division hire and/or evaluate principals, their attitude toward inclusion of all students with disabilities should be an integral part of the process. In order for them to develop a favorable attitude towards inclusion in general, it is also important that principals are made aware of the factors related to attitude.

The results of this study revealed that principals attitudes toward inclusion of students with ASD were somewhat related to their training and experience. Thus, the findings of this study can assist educational administration programs in preparing a leader/principal for the role of an inclusion facilitator. Teacher and administrator preparation programs should include curricula that are relevant to the current practices of inclusion and co-teaching. Student teachers should have experience in these areas. There must be further changes in preparation of administrators and teachers requiring increased inclusion training. Furthermore, systematic training in current inclusion practices, should be required as part of the renewal procedure for all educators certificates.

Recommendations for Future Research

Based on the literature and data surrounding the current study, the following recommendations for future research have been identified and will be discussed:

- Examine if educational administration programs or principal professional development have an impact on principal's attitudes toward inclusion.
- Expand upon the rural aspect of the current study by more closely analyzing the characteristics of rural principals and by including principals from a larger sample from both urban and rural districts.
- Examine if inclusion of special education students affects standardized tests scores and Annual Yearly Progress of a class. Additionally, to study if inclusion has any effect on the test scores of students with and without disabilities in an inclusive classroom.
- A study to track students with ASD throughout their school years to determine educational impact from the perspective of all parties involved.

This and other empirical work (Farris, 2011; Horrocks, 2008; Praisner, 2003) have consistently documented that special education teaching experience is significantly associated with positive attitudes toward inclusion. This finding can be used to inform and develop professional development trainings for principals on instituting inclusive school programs. A pre- and posttest design could be used to determine the effect of professional development training that focuses on developmental disabilities such as ASD and special education inclusion practices on principals' attitudes toward the inclusion of students with disabilities as a whole. Furthermore, the findings of this study suggest that more inclusive training be added to a principal's formal training. Hence, research can be done to examine the effects of more inclusive training on principal's attitudes toward inclusion before they take on their first administrative position.

The rural aspect of the current study opens more questions than there is available research to answer. At present, research indicates that there is a chronic problem related to the persistent shortage of special education personnel available to school districts in rural areas. These findings highlight the disparities between rural and urban school districts related to the availability of

services for students with disabilities. Although there is research available concerning the availability of service providers, there is very minimal research inventorying the nature of special education services in rural areas as well as research that chronicle the type, number, and frequency of educational services provided to students with ASD. More research is needed to be able to adequately address these questions and to determine the resources that may be needed by this population.

Because the availability of research surrounding principals in rural schools is rare, a possibility to further expand this literature is to investigate the actual characteristics of the principals in these rural areas. Because most professionals do not relocate to rural areas for work, a hypothesis could be made that the majority of principals who lead rural schools are a product of growing up in a rural school system. Therefore, the job they have is in a geographical community they are familiar with and desire to live in. It would be interesting to compare this population to a representation of principals who have been forced to relocate to a more rural school division and community in order to find employment as a school principal. Then, analyzing the viewpoints and challenges of these two categories of principals in rural school could reveal critical information surrounding this topic.

In contrast to the current study and previous studies on attitudes toward inclusion among principals and teachers, a focus for future research would be to include other stakeholders like students and parents. It would be interesting to see how students with autism (and their parents) feel about learning in inclusive classrooms and their suggestions for what could make inclusion programs successful. This information could add to current literature including this study, to strengthen inclusion classrooms with input from every team member involved in educating students with ASD.

The educational impact of inclusion on students with ASD into the general education classroom by tracking them from elementary to high school and by looking at national, state, and local formal assessments and grades is another area to be considered for future research. This can also include investigating if inclusion of students with ASD, or the population of students with disabilities, affects standardized tests scores and Annual Yearly Progress (AYP) of a class. Also related to this topic, it could be determined through research if inclusion has any effect on the test scores of students without disabilities in an inclusive classroom.

In relation to the actual study, a recommendation to add to the depth of this study would be to design the study using a qualitative method framework. Conducting interviews, observations, and longitudinal studies over time could help to explore and identify the reasoning behind a positive or negative attitude of a principal.

Summary

In summary, principals' attitudes toward the inclusion of students with ASD in regular education classrooms are multifaceted. The quantitative, correlational approach was used to collect data for this study. Principals and assistant principals in the rural superintendents region seven of southwest Virginia participated in the study by completing a survey instrument titled *The Principals Autism Inclusion Survey*. The data revealed several key points that demonstrated the principal's beliefs and attitudes about the inclusion of students with ASD in the inclusive setting. Special education teaching experience plays a role fostering a positive attitude toward the inclusion of students with ASD. The attitude the principal exhibits toward the children with ASD within their school is also related to the placement of these children within their least restrictive environment.

While a connection did not exist in the present study to show that being a principal in a rural school setting is related to having a positive or negative attitude toward a child with ASD within their school, the rural aspect of the study contributes to an almost non-existent body of research that exists surrounding this topic. Perhaps the challenges identified in the research on rural schools are not just unique to these geographically isolated regions. Similar studies in more diversified regions have revealed the same results as the current study. This study presents a multitude of viewpoints that could be expanded to further the body of research on rural education services for students with ASD.

Conclusion

Autism Spectrum Disorder is seen as a daunting disability to educators. The characteristics of ASD are unique to the child that possesses them. Unlike the more familiar disability categories of learning disabilities or intellectual disabilities, Autism is not a single disorder, but a spectrum of closely related disorders with a shared core of symptoms. Every individual on the autism spectrum has problems to some degree with social skills, empathy, communication, and flexible behavior, but the level of disability and the combination of symptoms varies tremendously from person to person. In fact, two children with the same diagnosis may look very different when it comes to their behaviors and abilities. The vast uniqueness of the disorder, as well as the rise in population and the changing definition, is what makes the term ASD so overwhelming, and why this population is, and should be, the focus of current investigation in disability research.

Principals have the central role of fostering an inviting and inclusive learning setting for students with ASD. They are also responsible for influencing the tone for the instructional and support staff members who collaborate to make inclusion successful for these students.

Additionally, principals are responsible for placement decisions of all students with disabilities. Ongoing training and professional development is necessary to ensure that 21st Century school leadership fosters acceptance of the diversity in the population of students with ASD in the schools and integration that legally and morally encompasses highly qualified inclusive learning institutions for all students, including those in rural school division nationwide.

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Appendix A

DSM-V Definition of Autism Spectrum Disorder

Autism Spectrum Disorder

Must meet criteria A, B, C, and D:

A. Persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:

- 1. Deficits in social-emotional reciprocity; ranging from abnormal social approach and failure of normal back and forth conversation through reduced sharing of interests, emotions, and affect and response to total lack of initiation of social interaction,*
- 2. Deficits in nonverbal communicative behaviors used for social interaction; ranging from poorly integrated- verbal and nonverbal communication, through abnormalities in eye contact and body-language, or deficits in understanding and use of nonverbal communication, to total lack of facial expression or gestures.*
- 3. Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers); ranging from difficulties adjusting behavior to suit different social contexts through difficulties in sharing imaginative play and in making friends to an apparent absence of interest in people*

B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least two of the following:

- 1. Stereotyped or repetitive speech, motor movements, or use of objects; (such as simple motor stereotypies, echolalia, repetitive use of objects, or idiosyncratic phrases).*
- 2. Excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or excessive resistance to change; (such as motoric rituals, insistence on same route or food, repetitive questioning or extreme distress at small changes).*
- 3. Highly restricted, fixated interests that are abnormal in intensity or focus; (such as strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).*
- 4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment; (such as apparent indifference to pain/heat/cold, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects).*

C. Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities)

D. Symptoms together limit and impair everyday functioning.

There are also 3 new “Severity Levels” for ASD.

Level 3: ‘Requiring very substantial support’

Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning; very limited initiation of social interactions and minimal response to social overtures from others.

Preoccupations, fixated rituals and/or repetitive behaviors markedly interfere with functioning in all spheres. Marked distress when rituals or routines are interrupted; very difficult to redirect from fixated interest or returns to it quickly.

Level 2: 'Requiring substantial support'

Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions and reduced or abnormal response to social overtures from others.

RRBs and/or preoccupations or fixated interests appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress or frustration is apparent when RRB's are interrupted; difficult to redirect from fixated interest.

Level 1: 'Requiring support'

Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions.

Rituals and repetitive behaviors (RRB's) cause significant interference with functioning in one or more contexts. Resists attempts by others to interrupt RRB's or to be redirected from fixated interest.

Appendix B

Initial Contact Letter

Dear Principal,

Since the passage of Public Law 94-142 in 1975, there has been a steady rise in the number of students with Autism Spectrum Disorder (ASD) being served in the inclusive setting. As a result, principals have been asked to take on an increasingly more active and direct role in the educational programming of students.

As a doctoral candidate at Virginia Polytechnic Institute and State University, I have designed a study to investigate the attitude a school principal has toward educating students with autism in the inclusion setting. Specifically, it attempts to ascertain the attitudes of school principals in region seven of Virginia and gain information about the type and length of their training in special education and experiences with inclusion. You have been selected to participate in the study and your assistance is greatly appreciated.

Attached is the link that will connect you to a website where the survey titled *Principals Autism Inclusion Survey* is located. To complete the questionnaire, please click on the following link:

<https://survey.vt.edu/survey/preview.jsp?surveyId=1430068944891&url=https://survey.vt.edu/survey/entry.jsp?id=1430068944891>

Please take approximately ten minutes to complete the survey by_____. If you are a principal for more than one building, complete the survey for only one school. If you have any questions regarding this study you may contact April Workman at 276-970-6774 or via email at aworkman@vt.edu.

The information you provide will remain confidential and the reporting of the results will be by group analysis only. Although you may not receive any direct benefit from participating in this study, your participation may help to increase the knowledge base in the area of inclusion and autism that may benefit others in the future. Participation is voluntary and refusal to participate will involve no loss and you may choose to discontinue your participation in this study at any time without penalty. Upon request, I will be glad to email you a summary of this research study.

Your participation in this study will be greatly appreciated.

Sincerely,

April M. Workman
Ph.D. candidate
Virginia Polytechnic Institute and State University

Appendix C

Superintendent Request to Participate

The purpose of this e-mail is to request your participation in a study that will focus on the inclusion of students with Autism Spectrum Disorder (ASD). The study will be part of a doctoral project that is designed to identify the school principals' attitudes toward the inclusion of students with ASD in the general education setting. The study will be in the form of a survey questionnaire that will take approximately ten minutes to complete. The study will be conducted throughout region seven of southwest Virginia due to its' rural characteristics. If you are interested and willing to allow your school principals to participate, reply to this e-mail and a Letter of Consent and Confidentiality will be sent to you.

Thank you.

Appendix D

Permission to Use Instrument

Dr. Praisner,

My name is April Workman and I am interested in carrying out a study similar to the one you conducted in 2000. I live in Tazewell County, Virginia and am currently enrolled in the Curriculum and Instruction Ph.D. program at Virginia Polytechnic Institute and State University with an emphasis in Special Education. I would like to model your survey instrument to use in my own dissertation research that I am conducting for the purposes of investigating principals' attitudes towards the inclusion of students with autism in Region 7 of Southwest Virginia. I would, of course, cite you when appropriate in my research. If you have any questions, please feel free to ask. I look forward to your response.

Thank you,

April Workman

praisner@comcast.net

Attachments11/13/14

to me

Hi April-

Here you are!

Best Wishes,

Cindy

Appendix E

Principals Autism Inclusion Survey

The purpose of this survey is to determine the opinions of school based administrators in region 7 of Southwest Virginia toward the inclusion of students with autism in the general education curriculum and to gather information about the types of training and experience that school administrators have. There are no right or wrong answers so please address the questions to the best of your knowledge and provide responses that reflect what **you believe**.

SECTION I- Demographic Information

The following information will only be used to describe the population being studied.

1. Approximate number of all students in your building:

0-250 251-500 501-750 751-1000 1000 or more

2. Average class size for all students:

0-9 10-19 20-29 30-39 40 or more

3. Approximate percentage of students with IEP's in your building: (Do not include gifted)

0-5% 6-10% 11-15% 16-20% 21% or more

4. Approximate number of students with IEP's in your building that are included in regular education classrooms for at least 75% of their school day: (Do not include gifted)

0-20% 21-40% 41-60% 61-80% 81-100%

5. Approximate percentage of students with a diagnosis of an Autism Spectrum Disorder in your building:

0-5% 6-10% 11-15% 16-20% 21% or more

6. Approximate number of students with an Autism Spectrum Disorder in your building that are included in regular education classrooms for at least 75% of their school day:

0-20% 21-40% 41-60% 61-80% 81-100%

7. Your job title:

Principal Assistant Principal

8. Grade level of your school:

Elementary Secondary

9. Your age:

20-30 31-40 41-50 51-60 61 or more

10. Gender: Male Female

11. The county/city you are employed by:

Bland Buchanan Carroll Dickenson Giles Grayson Lee
 PulaskiRussell Scott Smyth Tazewell Washington Wise Wythe
 Bristol Galax Norton Radford

Section II- Training and Experience

1. Years of full-time regular education teaching experience:

0 1-6 7-12 13-18 19 or more

2. Years of full-time special education teaching experience:

0 1-6 7-12 13-18 19 or more

3. Years as a school administrator:

0-5 6-10 11-15 16-20 21 or more

4. Approximate number of special education credits in your formal training:

0 1-9 10-15 16-21 22 or more

5. Approximate number of in-service training hours in inclusive practices:

0 1-8 9-16 17-24 25 or more

6. Approximate number of in-service training hours in Autism practices:

0 1-8 9-16 17-24 25 or more

7. Most of your special education training has occurred within the last __ years:

1-5 6-10 11-20 21+

8. Are you certified in special education?

No Yes

9. Mark the areas below that were included in your formal training such as courses, workshops, and/or significant portions of courses (**10% of content or more**).

- 1 Academic programming for students with Autism Spectrum Disorder
- 2 Characteristics of students with Autism Spectrum Disorder
- 3 Behavior management class for working with students with Autism Spectrum Disorder
- 4 Special education law
- 5 Crisis interventions

10. Do you have personal experience with (an) individual(s) with a disability outside the school setting, i.e. family member, friend, etc.? No Yes

If yes, please indicate relationship to you.

Self Immediate family member Extended family member Friend Neighbor
Other: _____

11. In general, what has your experience been with the following levels of autism in the school setting? Mark one level of experience for each level.

Level of Autism	Negative Experience	Somewhat Negative Experience	No Experience	Somewhat Positive Experience	Positive Experience
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Level 1
(requiring support)

Level 2
(requiring substantial support)

Level 3
(requiring very substantial support)

Section III- Attitudes Toward Inclusion of Students with Autism

Please answer the following 10 questions regarding students who exhibit mild characteristics of autism. These students require minimal amounts of support within the general education setting. (Level 1)

Please mark your response to each item using the following scale:

Strongly	Strongly	Agree	Uncertain	Disagree
	Agree			
Disagree				

1. Only teachers with extensive special education experience can be expected to deal with students with autism in a school setting.
2. Schools with both students with autism and students without disabilities enhance the learning experiences of students with severe/profound disabilities.
3. Students with autism are too impaired to benefit from the activities of a regular school.
4. A good regular educator can do a lot to help a student with autism.
5. In general, students with autism should be placed in special classes /schools specifically designed for them.
6. Students without disabilities can profit from contact with students with autism.
7. Regular education should be modified to meet the needs of all students including students with autism.
8. It is unfair to ask/expect regular teachers to accept students with autism.

9. No discretionary financial resources should be allocated for the integration of students with autism.

10. It should be policy and/or law that students with autism are integrated into regular educational programs and activities.

Please answer the same 10 questions regarding students who exhibit moderate characteristics of autism. These students may require more substantial support within the general education setting. (Level 2)

Please mark your response to each item using the following scale:

	Strongly	Agree	Uncertain	Disagree
Strongly				
	Agree			
Disagree				

1. Only teachers with extensive special education experience can be expected to deal with students with autism in a school setting.

2. Schools with both students with autism and students without disabilities enhance the learning experiences of students with severe/profound disabilities.

3. Students with autism are too impaired to benefit from the activities of a regular school.

4. A good regular educator can do a lot to help a student with

autism.

5. In general, students with autism should be placed in special classes /schools specifically designed for them.

6. Students without disabilities can profit from contact with students with autism.

7. Regular education should be modified to meet the needs of all students including students with autism.

8. It is unfair to ask/expect regular teachers to accept students with autism.

9. No discretionary financial resources should be allocated for the integration of students with autism.

10. It should be policy and/or law that students with autism are integrated into regular educational programs and activities.

Please answer the following 10 questions regarding students who exhibit severe characteristics of autism. These students may require very substantial support within the general education setting. (Level 3)

Please mark your response to each item using the following scale:

	Strongly	Agree	Uncertain	Disagree
Strongly				
	Agree			
Disagree				

1. Only teachers with extensive special education experience can be expected to deal with students with autism in a school setting.

2. Schools with both students with autism and students without disabilities enhance the learning experiences of students with severe/profound disabilities.

3. Students with autism are too impaired to benefit from the activities of a regular school.

4. A good regular educator can do a lot to help a student with autism.

5. In general, students with autism should be placed in special classes /schools specifically designed for them.

6. Students without disabilities can profit from contact with students with autism.

7. Regular education should be modified to meet the needs of all students including students with autism.

8. It is unfair to ask/expect regular teachers to accept students with autism.

9. No discretionary financial resources should be allocated for the integration of students with autism.

10. It should be policy and/or law that students with autism are integrated into regular educational programs and activities.

SECTION IV- Most Appropriate Placements for Students with Autism

Although individual characteristics would need to be considered, please mark the placement that, in general, **you**

believe is most appropriate for students with the following levels of autism:

1. Level 1 (requiring support)

- 1 Special education services outside regular school
- 2 Special class for most or all of the school day
- 3 Part-time special education class
- 4 Regular classroom instruction and resource room
- 5 Regular classroom instruction for most of day
- 6 Full-time regular education with support

2. Level 2 (requiring substantial support)

- 1 Special education services outside regular school
- 2 Special class for most or all of the school day
- 3 Part-time special education class
- 4 Regular classroom instruction and resource room
- 5 Regular classroom instruction for most of day
- 6 Full-time regular education with support

3. Level 3 (requiring very substantial support)

- 1 Special education services outside regular school
- 2 Special class for most or all of the school day
- 3 Part-time special education class
- 4 Regular classroom instruction and resource room
- 5 Regular classroom instruction for most of day
- 6 Full-time regular education with support

Thank you for taking the time to answer all of the questions on this survey. Your assistance with this study is appreciated!!

