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Delphi Study of Ecosystem Characteristics and Inclusion of Elementary Children With Autism Spectrum Disorders

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Abstract

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Dissertation Submitted in Partial Fulfillment

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Doctor of Philosophy

Special Education

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Abstract

Recognizing characteristics that improve inclusion in general education classrooms allows educators and parents to make conscious decisions regarding how students with Autism Spectrum Disorder (ASD) can be included most appropriately. The purpose of this qualitative Delphi study was to understand the opinions of individuals with expertise in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support or inhibit inclusion of elementary students with ASD. The conceptual framework was based on tenets of applied behavior analysis, multiple intelligences, and ecosystem characteristics. Research questions addressed characteristics and behaviors of general and special education teachers, other school personnel, students, and their families. Sixteen international experts responded to semistructured interviews and follow-up questions. Data were coded and distilled across three rounds. *Knowledge of disabilities* and *effective behavior management* were agreed to be important for all adults, and *a sense of humor* and *willingness to collaborate* were agreed to be important for students and adults. Participants agreed that *cognitive abilities* were important for students. There was no consensus on the unconditional inclusion of all students. Specific types of support and training for adults and more research by educators, parents, and professionals who work with students with ASD were recommended. Specific characteristics and behaviors of all involved are important in the development of the child. A suggested resource was created as part of this study. Being knowledgeable of how to work together support children in the general education classroom is a start for those students to become more included in the larger world.

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Dedication

I dedicate this dissertation to my aunt Eoline who was always there when I needed help, encouraged me to get finished, and supported me in whatever decisions I made. She has been a blessing in my life.

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I would like to acknowledge Dr. Christina Dawson for being my committee Chair and for helping me get through the dissertation process. I am grateful for her continued support. I would also like to thank Dr. Phyllis LeDosquet for coming on board when I was in desperate need of forming a committee. I would like to recognize the comfort that my two dogs, Jean Paul and Malcolm, provided as they would sit under my feet at the computer during long hours of finalizing KAMs.

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Chapter 1: Introduction to the Study

As part of the social movement toward accessibility for including students with disabilities, there has been an increased emphasis on educating students with special needs in the same classroom as their general education peers. This movement has come to be known as inclusion. While inclusion is often operationally defined as an educational process, it is also a philosophy or frame of mind for different communities of learning (Kilanowski-Press et al., 2010). In school settings, inclusion is used to discuss students with disabilities who previously had limited interactions with general education students and are now spending the majority of their class day with peers without disabilities.

The changing view of children who display characteristics of autism has mirrored social change in which individuals with disabilities are educated in public schools. There has been an emergence of several successful high functioning individuals with autism spectrum disorders (ASD), such as Grandin (2011), who have argued for an acceptance of autism as simply as those who may look at the world in a different way. There has also been a broad diagnostic movement to recognize levels of autistic dysfunction, and the term autism introduced 50 years ago to describe only individuals with very serious behavioral and social issues has now been widened to include those with much less serious dysfunction. Atwood (2007) remarked that the landmark decision to include Asperger's disorder within the DSM-IV was encouraged by the medical profession. At the same time, the inclusive terminology of pervasive developmental disorders was moved from Axis II, meaning that long-term improvements were unlikely, to Axis I, indicating that improvements can be made through early intervention and treatment. This

combination of improved public perception, led by high profile individuals, such as Grandin, and development of a differential diagnostic system has led to autism being seen as a spectrum disorder in which the most severe might require institutionalization or full time care, while the least affected have important roles in the culture.

Increasing numbers of students with disabilities are included in general education settings, so the need to include those with ASD is also on the rise (Osborne & Reed, 2011). Because different educational systems have inconsistent definitions for inclusion and programs vary in educational structure and services provided, it is difficult to label programs into specific types (Hilbert, 2014). Accommodation of the increased social pressures for educating students with disabilities in the general education setting and the rising incidence of the diagnosis of ASD have served to create a situation in which general education professionals, often with limited training and prior experience, are required to provide appropriate behavioral and academic accommodations for students whose behavior and academic performance are different from those of their grade level peers.

The study of ecosystem characteristics supporting inclusion of students with autism in general education classrooms is important because more and more students with autism are being diagnosed. Finding the right place in general education settings that promotes the most positive and successful learning environment is critical. Identification of students with ASD and recognizing the characteristics that improve their inclusion in general education classrooms allows educators and parents to make conscious decisions regarding which students can be successfully included. A gap in the current literature has

failed to address the specific characteristics of parent, child, and educator that improve success. The social implications of this study involve understanding the long-term development and future welfare of those with ASD. Their relative success or failure in inclusive placements impacts a number of societal variables, including independent living, medical costs, and utilization of talents. In this chapter I address differing viewpoints of autism and inclusion in the background, the problem statement and purpose and nature of the study as well as the research questions that guided the study. The conceptual framework, operational definitions, assumptions, and limitations are also included. The significance and social impact are described in hopes that this study will lead to a better understanding of ecosystem characteristics that lead to inclusion and better understanding of those with ASD.

At least two differing viewpoints have been offered regarding the value of inclusion for students with ASD. According to Hart and Whalon (2011), children with special needs integrated into general education are more likely to have better test scores, better communication skills, and fewer symptoms characteristic of those with autism. Students with ASD are thought to increase social awareness and tolerance of other students who are also included (Osborne & Reed, 2011). Finally, the positive effects of inclusion have been posited to include a beneficial impact on those without ASD, including improved understanding of and tolerance for disabilities (Simpson, 2004). A concise view of the proinclusive viewpoint is offered by Jordan (2008): Inclusion is an effective way for students with ASD to learn from their peers, build relationships, and make connections. Conversely, Frederickson, Jones, and Lang (2010) noted that those

with ASD are rejected by peers and sometimes bullied, while parents in these studies also expressed concerns of the skills of teachers in inclusive settings. Barned, Flanagan-Knapp, and Neuharth-Pritchett (2011) conducted a study on the knowledge and attitudes of 15 pre-service teachers using the Autism Inclusion Questionnaire. They found that 90% agreed that children with ASD should be included in general education settings, but the severity depended on the amount of time students should be included, and only 53% agreed that all students with ASD should be included in general education settings without considering the severity of the disability. The viewpoint that students with ASD and their peers without disabilities benefit is optimistic and perhaps a positive perspective that has produced controversy within the field of autism.

Humphrey (2008) argued that inclusion, at least full inclusion of students with ASD, is harmful to the students themselves as well as the students without disabilities in the classroom. Humphrey also indicated that some researchers have found inclusive settings to more stressful for individuals with ASD, while still others have argued that the inclusion of some individuals with ASD is too chaotic, and the inclusive environment produces anxiety. Additionally, general education teachers must be willing to work with those with disabilities, and in some cases, according to Eldar, Talmor, and Wolf-Zukerman (2010) educators who have a bad attitude and poor management skills are will be ineffective. There are incidences of disruptive behavior as well as inappropriate angry behaviors from those with ASD (Eldar et al., 2010). Emam (2014) found that tensions permeated the school ecosystem involving teachers and support staff regarding ASD related difficulties. Differing viewpoints regarding the extent of inclusion for students

with ASD within the context of the most appropriate placements should be considered when addressing inclusion.

Background

The social skills of students with ASD have been noted as critical elements in the practicability of inclusion. Even at the less severe end of the spectrum, such as Asperger's, individuals struggle with language, social skills, maintaining eye contact, initiating and ending conversations, and picking up and social and language cues (Denning, 2007). Although autism is a spectrum disorder, the social constraints are often similar, and according to Baron-Cohen (2009), autism and Asperger's syndrome are similar in that both share social and communication difficulties. Several theoretical perspectives have been suggested to account for the social difficulties of individuals with autism. Until recently, the dominant theory has provided a viewpoint that individuals with ASD do not possess or are delayed in Baron-Cohen's definition of Theory of Mind (TOM). This is the ability to put oneself into someone's shoes; to imagine their thoughts and feelings (Baron-Cohen). Not only did this perspective provide a certain real world truth for those working with students with ASD, functional neuroimaging studies found that a typically socially functioning brain may be activated during mind reading activities, but alternatively the brain of those with autism may be underactive. More recently, the social short-comings of individuals with ASD have been explained by the empathizing systemizing theory that accounts for these disabilities by references to delays and deficits in empathy, while explaining the areas of strength by references to intact or even superior skill in systemizing (Baron-Cohen). Neurocognitive impairments

in the ability to understand thoughts and feelings of self and others are unique with those with ASD and their personality profile is different from those of other individuals (Schriber, Robins & Solomon, 2014). This new theoretical perspective emphasized a critical point for successful inclusion, the teacher's ability to recognize both strengths and deficits of students with ASD.

The other component for successful inclusion for students with ASD is their academic competence relative to students without disabilities. As might be expected given the spectrum range of the disorder, the degree of intervention needed to facilitate academic supports for students with ASD in general education classrooms varies from setting to setting and individual to individual (Moores-Abdul, 2010). The nature of the instructional accommodations necessary for successful inclusion varies from child to child and from grade to grade, but the vast majority of elementary teachers believe that they require substantial levels of training and staff support to provide successful academic accommodations (Moores-Abdul). She found that most educators did not believe that were properly trained or adequately prepared to work with students with ASD. As the difficulty of the curriculum increased, classroom teachers had even greater difficulty in providing appropriate accommodations for students with ASD. Classroom observations by Merchlinsky et al. (2009) in Moores-Abdul (2010) found that only 27% of sixth grade and 23% of seventh grade general education teachers were using a variety of teaching strategies to differentiate learning in order to help those with ASD be included. The academic viability of including students with ASD varied both with the degree of disability of the individual student and the degree of training and confidence of

the individual teachers. Some students on the less severe end of the autism spectrum have been found to have specific disabilities in the classroom setting. As Atwood (2007) indicated some children with ASD have severe difficulties even learning basic mathematical concepts. While ASD is often thought of as a behavioral emotional disorder with primary symptoms in language deficits, other areas of the academic arena may be impacted and require accommodation.

Studies such as the one by Taylor and Ringlaben (2012) focused on the need for appropriate teacher training as a critical link in the successful inclusion model, while Brackenreed (2011) focused on the importance of establishing good home school communication routes in the inclusion process. However, at the time of this proposed study, there were a limited number of studies focusing on elements within schools, families, teachers, and students who enable a productive inclusive environment and none that obtained data specifically from experts. I found one study (Yanni-Coudrier et al., 2008) that examined the systemic variables impacting the inclusion of young children in France, but since both special education law and school dynamics differ in the French system, generalization to the U.S. system is limited. In studies that addressed systemic variables in the United States, Osborne and Reed (2011) stood out in addressing the school variables that influenced the success of inclusion. However, this study was limited to secondary students and noted high levels of behavioral difficulty. Both Osborne and Reed and Humphrey (2008) focused entirely on variables within the school that impact successful inclusion and did not address parental and home environmental variables and their importance.

Eldar et al. (2010) addressed home variables, including the involvement of parents in the students' educational process that were seen as important. This research was limited by the fact that data were gathered only through inclusion coordinators and did not include other representatives of the inclusion process or the parents. I found no available studies in the research literature of the systemic variables of inclusion employing the Delphi method. This methodology of using responses from experts in the field is important.

Problem Statement

Autism is an intricate and difficult-to-understand disability. The inclusion of students with ASD engages curricular, legal, political, and emotional issues. There are varying opinions and suggestions as to what ASD is and how children with ASD might be best served. In the meantime, inclusion is becoming more and more a reality in school systems. Busby, Ingram, Bowron, Oliver, & Lyons, (2012) indicated that new graduates entering the teaching profession will more than likely teach a child with autism. School system personnel face problems including students with ASD effectively in general elementary educational settings. According to Taylor and Ringlaben (2012), teachers are faced with the challenge of making significant changes in their classrooms. Educators struggle to meet the needs of those included, and to balance all the needs in the classrooms, students have a variety of characteristics related to autism that can vary in ability to maintain success in an inclusive setting. Parents also struggle with identifying the most successful placements for their child with ASD. With the increased numbers of students being diagnosed and the varying degrees of abilities included under the

diagnosis, it is increasingly difficult to find solutions that meet the needs of the many. Zablotsky and Bradshaw (2012) described students with ASD as relying on parents and teachers for support more often than peers, since they may often have difficulty making friends. Although it is important to place students with ASD in their least restrictive environments, inclusion without the right combination of home, school, and professional elements might not prove beneficial. Empirically conducted studies on the efficacy of treatments are limited (Bowker, D'Angelo, Hicks, & Wells, 2011). Researchers have investigated elements of the combination in various ways, and I could not locate research in which all of these elements were investigated in total. I could not locate research that drew from experts who come from across the spectrum of beliefs about ASD and inclusion. Through this study, I plan to engage educators, family members, adults with ASD, and others who have expertise in the areas of inclusion and best practices related to services for students with ASD in order to identify those elements.

Purpose of the Study

The purpose of this qualitative Delphi study is to understand the opinions of individuals with many years of experience in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support and that inhibit inclusion of elementary children with ASD. Identifying areas of agreement and disagreement and working toward an understanding of the areas of agreement across differing opinions will help identify behaviors and characteristics that can support families and educators in creating appropriate inclusion placements. By investigating and identifying characteristics and behaviors of general education and special education

teachers, school leadership personnel, and students and their families, I hope to create a common tool through which the elements can be considered.

Research Questions

- What do experts identify as characteristics and behaviors of elementary general and special education teachers that facilitate or inhibit inclusion for students with ASD?
- What do experts identify as characteristics and behaviors of other school personnel that facilitate or inhibit inclusion for students with ASD?
- What do experts identify as characteristics and behaviors of families that facilitate or inhibit inclusion for their children with ASD?
- What do experts identify as characteristics and behaviors of elementary students with ASD that facilitate or inhibit inclusion?

Nature of the Study

Since autism is a group of developmental brain disorders collectively referred to ASD (www.nimh.nih.gov.), in this research, I focus on the particular behaviors and characteristics surrounding the spectrum of ASD and the possibility of appropriate inclusion and elementary classrooms. A modified Delphi technique focusing on the use of qualitative data was used. I used sets of interviews and questionnaires to allow experts to share their knowledge and opinions in a systematic manner. By searching for themes and patterns and attempting to reach consensus from the experts, I was able to uncover elements that supported and did not support the inclusion of elementary students with ASD.

Developed by Dalkey and Helmer (1963) at the Rand Corporation, Delphi is "aimed as a group communication process with detail and examination of a specific issue," and it is based on the rationale that "two heads are better than one" (Chien Hsu & Sandford, 2007, p. 1). The communication and feedback obtained during the initial stages of the research were used to guide the direction of later stages of the research project. Yousuf (2007) indicated that the Delphi technique is a group process with controlled feedback from members dispersed in location and opinion. The use of this method was particularly well-suited for research questions involving complex systems and in emerging fields.

The Delphi approach was important in this study in that it relied on expert opinions of professionals in the field regarding the appropriate inclusion of those with ASD. It offered a means of gathering and processing diverse information and narrowing this information of what experts believe. The issue addressed was based on professional opinions and did not lend itself to precise analytical techniques, but benefited from subjective judgment on a collective wisdom (Yousuf, 2007). In this study I sought to examine what those involved in a real-world understanding of autism and inclusion can provide.

In the use of the Delphi method of inquiry, I began with an open-ended interview protocol based on the research questions. Based on responses to the initial inquiries, more questionnaire and interview items were developed for use with a minimum of 15 individuals who had professional experience and recognized expertise in the field of

autism and inclusion. It was hoped that final refinement of this questioning process would lead to a distinct set of elements that would be predictive of inclusion success.

Conceptual Framework

For the conceptual framework for this study, I combined the psychological theories of Skinner (1974), Gardner (1993), and Bronfenbrenner (1979, 1995). Most educational and behavioral research regarding children with ASD has been centered on applied behavior analysis (ABA), an in situ application of the theoretical work of Skinner. However, the inclusion of students with disabilities requires an overlay of a more holistic perspective, the multiple intelligence theories of Gardner. That is, predicting inclusion success based on Skinnerian theory alone is misplaced; general education teachers have not received adequate training in the utilization of ABA, and it has limited generalizability for the whole classroom setting. Bronfenbrenner's ecological systems theory (1979) was used to organize the discussion of elements that could be identified as important.

A different perspective from Gardner (1993) implies that autism involves a specific failure of social skill development and that behaviors of those with autism do not resemble normal social development at any age or stage. In contrast, a Skinnerian view suggests that autism is representative of primitive, ritualized stimulus-response social interaction, not unlike the response patterns of infancy. The concept of selective intelligence helps us understand why children with autism are able to display competence, and sometimes even giftedness, in one area and profound disability in another. The Skinnerian principles of behavioral modification have come to dominate

behavior therapies for those with ASD and the understanding and application of these principles are critical in regulating the behavior of some children with ASD and teaching behavioral control.

Bronfenbrenner (1979) believed that the appropriate study of human development could be conducted only in settings that were ecologically valid, that is those that were representative of their actual world. This fundamental shift of research perspective opened the world of naturalistic observation and minimized the importance of years of research that had been conducted in university laboratory settings. Bronfenbrenner (1995) emphasized the role of early schooling in producing success in high-risk children both in academic and social contexts. As Bronfenbrenner has analyzed, American culture gives precedence to the school, as opposed to the family, as the primary socializing agent in high risk children. The professionals surveyed in my Delphi methodology were directly involved in the "actual world" of students with ASD. These theorists provide a better understanding of when it is and is not appropriate to include students with ASD.

Operational Definitions

Autism spectrum disorder: Persistent deficits in social communication across multiple contexts as manifested in social emotional reciprocity, deficits in nonverbal communicative behaviors used for social interactions, and deficits in maintaining and understanding relationships (DSM-V, 2013).

Ecosystem: Ecosystem in Bronfenbrenner's (1979) perspective is the environment with which the developing learner interacts. The layers of the environment are best conceptualized in concentric rings of interaction from the most direct (the

microsystem) to the most generalized (the macrosystem). For the young student, the microsystem may include the family, the teachers, and the school community.

Inclusion: Education in which students with disabilities are supported in chronologically age appropriate general education in their home schools and receive the specialized instruction delineated by their specialized individual education program within the context of their core curriculum and general class activities (Halvorsen & Neary, 2001).

Assumptions

The selections of the participants were based on a combination of academic qualifications, publications, administrative positions, and years of experience, and so I assumed those participants were in fact experts in the fields of autism and inclusion. In addition, I assumed that participants would provide answers to the best of their ability, while being comprehensive and honest.

Scope, Delimitations, and Limitations

The scope of expert opinions sought from a relatively small number of participants did produce some limitations. First the study data were opinions based on experiences and life situations. Experts brought opinions that were limited to some extent, perhaps by specific geographic areas or by the specific school system or universities with which they had experience. Other limitations included the quality of the experts, researcher preconceptions, and the possibility that consensus might not be reached.

The study was not intended to provide the characteristics of inclusion in specialized private settings such as hospitals or schools specifically designed for those

with ASD. This study was also focused on understanding the characteristics of inclusion of the elementary setting; some characteristics may vary based on the age of the child.

Significance and Social Impact of the Study

According Hwang and Evans (2011), inclusion is happening globally and requires collaboration between many educational professionals. In addressing the issue of students with ASD, this study is important because it focused on a disorder that is on the rise in countries around the world and effects many different communities and cultures (Grandin, 2010). By searching for commonalities among the expert participants' I attempt to balance the idea that those with autism display differing characteristics and behaviors, and educators, school personnel and families need a pragmatic unified approach to inclusion. Individuals and characteristics and behaviors can vary. The formation of a referable set of conditions that are most likely to lead to appropriate inclusion provide a common resource for making educational decisions for individual students with ASD.

Summary

Chapter 1 included an introduction that offered an overview of the growing issue of how to serve those with ASD in the general education setting and an understanding of the basis of the inclusion movement. The problem statement solidified the specific need for research that addresses the characteristics of inclusion for each component of the inclusion model, that is, teachers, parents, and students. Unlike existing research, I sought to rely on the vast body of knowledge accumulated by experts who have spent many

years working in the fields of autism and inclusion soliciting expertise through the Delphi method.

The research questions addressed include a determination of the characteristics of both the general and special education teachers in elementary settings necessary for inclusion. The questions also address the critical role of the parent and the parent's characteristics that lead to inclusion as well as those of the student. The purpose then was to establish the characteristics of each component of the inclusion model in a way that might be used by both educational and medical professionals to ascertain the likelihood of inclusion of students with ASD.

This research uses a balance of three theoretical perspectives. Successful behavior modification of students with ASD is focused on applied behavioral analysis, almost entirely based on the theoretical work of Skinner (1974). Successful inclusive practices rely on understanding the relative strengths and weaknesses of the individual student, in particular recognizing areas of intelligence that may compensate for areas of disability, a perspective based on the multiple intelligence theory of Gardner (1993). Finally, this research was designed around understanding inclusion as complex ecological phenomena with various interactive components, a conceptual framework enriched by the perspectives of Bronfenbrenner (1979). As part of a broad global movement to include individuals with disabilities and relative to the very specific legal and social pressures toward inclusion in our school systems, the study provides a significant tool in helping parents, educators, and professionals determine when inclusion is or is not the best educational option.

In Chapter 2, I provide a review of the current literature related to autism and inclusion, particularly addressing implications of autism and inclusion. In Chapter 3, I present the methodology for the study and summarize the Delphi technique and its specific application to this study.

Chapter 2: Literature Review

The purpose of this qualitative Delphi study was to understand the opinions of individuals with many years of experience in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support and that inhibit inclusion of elementary children with ASD. At the time of the study, there was limited research as to the combination of characteristics and behaviors of parents, educators, parents/families, and children needed to facilitate the most appropriate and meaningful inclusive environment for the elementary child with ASD. While some authors, such as Simpson, Mundschenk, and Heflin (2008) addressed who, what, where, and when regarding students with ASD, teachers, and inclusion, they did not address the specific behaviors and characteristics that should be present to effectively answer these questions. Additionally, Bowker et al. (2011) indicated the efficacy of working with students with autism was limited in particular in treatment options but did not indicate what behaviors and characteristics effect those options. Furthermore, Busby et al. (2012) found the level of specializations needed by educators to teach those with ASD was not readily available. Moreover, Strain, Schwartz, and Barton (2011) noted that several themes have emerged in the research with ASD, including inclusion, instruction, and social skills; they also indicated that given these themes, there is more to learn about how to support those with ASD in schools. Although it is important to place students in their least restrictive environments, knowledge of these characteristics and behaviors is an important issue and one that has not been considered on those specific levels.

The sources I used to access information regarding autism and inclusion were Education Research Complete, Academic Research Complete, Education Research Center (ERIC), ProQuest Central, SAGE Full text publications, books written by specific theorists, and dissertations from the Walden Library. Key terms I used to find information were *inclusion, autism, pervasive developmental disorders, prevalence of ASD, inclusive schools, mainstreaming, special needs students, educational environment, student characteristics, applied behavior analysis, direct instruction, co-teaching, elementary education, curriculum development, federal legislation, intervention,* and *general and special education relationships.* This research was conducted almost solely using the Walden library database system. When information was lacking, a Google search on peer-reviewed articles was attempted. In some cases, websites of organizations, such as Autism Speaks, Autism Society, Council for Exceptional Children, National Autism Council as well as the National Center for Educational Statistics were used.

This literature review is divided into the following sections:

- A review of the theoretical perspectives of Skinner (1974), Gardner (1983), and Bronfenbrenner (1979) in that each have important ideas in relation to inclusion and those with ASD.
- A brief history of inclusion as well as definitions, trends, and challenges.
- A clinical definition of ASD, diagnosis, and prevalence.
- Implications of autism and inclusion focusing on factors affecting autism and inclusion, how schools have worked with students with ASD in the past and present, curriculum, planning, training, and

- Attitudes of parents and teachers
- Research addressing characteristics, behaviors, and environmental variables relative to successful inclusion of elementary students with ASD.
- Areas of research that are still needed.

Conceptual Framework

This research is based on a synthesis of the theoretical perspectives of Skinner (1974), Gardner (1983), and Bronfenbrenner (1979) in the belief that each theorist holds important keys in understanding aspects of the role of inclusion for students with ASD. To achieve successful inclusion for those with ASD, severe behaviors must be under control or not present at all, so a clear understanding of the stimulus and response models of Skinner and how they might be applied in contingent reinforcement systems in the classrooms is necessary. An equally important aspect of inclusion is the recognition that some included students are not just disabled but also gifted. This is a viewpoint that derives some from the multiple intelligence theories of Gardner (1983). Gardner (1999) described the uneven profile of those with autism as an individual with exceptional needs as one of the eight criteria forming his theory of intelligence. This research is also in the direct theoretical traditions of Bronfenbrenner, the belief that any behavioral system must be studied as the complex interaction of multiple participants where no one perspective provides the truth. This accumulation of wisdom and perspective is a central component of the Delphi method of inquiry and its unique utilization as a study method for the successful inclusion of students with ASD.

Through the wide ranging application of applied behavior analysis in school systems, the treatment of autism from an educational perspective has come to be dominated by the theoretical perspectives of Skinner (1974). Skinner focused on the premise that the world can only be improved through a thorough understanding of behavior in relationship to environment. He followed the conceptual view that behavioral phenomena must be measurable in a replicable manner. Since inclusion also involves a social perspective and the inclusion system (parent, child, school, educator), it requires an interaction of powerful social forces. According to Skinner, the probability of a behavior depended upon the frequency of similar situations in the past. Based on this perspective, the Skinnerian view of autism suggested that the dysfunctional behaviors are representative of a primitive, ritualized, stimulus response interaction. Therefore, successful inclusion requires critical efforts by all involved to break established stimulus response patterns and to create more successful ones for use in the general education classroom.

Since a cardinal characteristic of students with ASD is their unique and exaggerated pattern of strengths and weaknesses, the multiple intelligence theories of Gardner provides important insight for successful inclusion. As Gardner (1983) summarized his thinking, the nature of intelligence is not unified but fragmented, and as a result, children can display many widely differing types of intellect. He also believed that the degree to which intelligences were expressed had a strong environmental component. Thus, in Gardner's view, a child might possess an enormous degree of intellect in one or more of the multiple intelligences, but the ability to express that intellect is largely

determined by individual experiences and cultural norms (Gardner). Gardner's theories are directly relevant to an understanding of ASD, the difficulties these students face in our schools systems, and the difficulties our school systems face in successfully.

Since my research is focused on understanding the complex interactions of three already complex systems, the home environment, the school environment, and the characteristics and behaviors of educators and the child, Bronfenbrenner (1979) provided a critical theoretical perspective. He viewed human development as the complex interaction between the individual and the ecological environment that he compared to a set of Russian dolls. He argued that the appropriate research setting for the microsystem is the home, the classroom, and the immediate social setting of the child. In addition to the environmental settings with which the child or the individual is intimately familiar, he believed that the child is also influenced by one or more settings that do not involve the developing person as an active participate, but in which events occur that effect or are effected by what happens in that setting. In recognizing that active participants in these complex systems have diverse and equally important viewpoints a Delphi method of inquiry is uniquely suited to understanding this phenomenon from a bioecological perspective.

Inclusion

Before the Disability Rights Movement gained momentum in the 1970s, students with disabilities were faced with barriers that limited their participation in regular education classrooms. According to Horrocks, White, and Roberts (2008), inclusion began in 1971 when a federal court ruled in Pennsylvania versus Pennsylvania

Association of Retarded Children that children with mental retardation must be allowed a free appropriate education, and they should be served in regular education classrooms when possible. Horrocks et al. also noted that additional cases were to follow: In 1975, The Education for All Handicapped Children Act (EAHCA), in 1990, the Individuals with Disabilities Education Act (IDEA), and in 2002, the No Child Left Behind Act all resulted in legislation requiring services in the least restrictive environment. According to Marks and Kurth (2014), research and policy analysis questioned the assumption that students with disabilities during this time had to earn their way into a general education classroom. The inclusion movement led to ideas that education was a right and all students were entitled to it.

The definition of inclusion or inclusive education is a topic of debate. According to Humphrey, (2008), the term has been used to refer to where a child was educated. Vakil, Welton, O'Connor, and Kline (2009) defined inclusion as a supportive teaching environment where those with disabilities can learn beside their peers. Humphrey also noted that inclusion is an ongoing process, and although it is students with special needs being included alongside their general education peers, the process continually needs to be reevaluated, thus making it on-going. According to Eldar et al. (2010), the idea behind inclusion is that every child should be an equally valued member of the school culture, and students with disabilities benefit from learning in regular classrooms while their peers benefit from being around them. These authors conducted research on 37 inclusion coordinators who had participated in prior training and spent 1 year integrating students with ASD in regular kindergarten classrooms. Interviews were conducted with the

coordinators to discuss instances of success and difficulties. Incidences of success indicated that those with ASD became more social around their peers. Behavioral difficulties were also noted with inflexibility of routines. Vakil et al. (2009) argued that inclusion should not be considered a placement or a method for assigning students to a classroom, but should instead be considered a process for delivering practices that are developmentally age appropriate and culturally suited for the child. Their review of the literature included a scenario of a fictitious preschooler with ASD. As the student in engaged in various routines and behaviors, the authors discovered that everyone is defined in the inclusion process and it takes a team of educators, specialists, and administrators to fully support the child. In addition, Baglieri, Bejoian, Broderick, Connor & Valle (2011), referred to inclusion as being such a frequently used term that assumptions were made that inclusion has long been automatically associated with students who were labeled disabled. Marks and Kurth (2014) noted that inclusion has gone through phases, beginning with determining if students with ASD should be included, and then providing access to the general education curriculum. The second phase relied on the outcomes of inclusion and looked at its benefits. Marks and Kurth believed we are in the third phase of inclusion, which involves the how for making it work. For example, understanding what features at the classroom and district levels are necessary to make inclusion effective. Although there have been conceptually varying differences in the history of inclusion as well as the construct of inclusion, and despite the emergence of inclusion in education, there continues to be discussion over the term

(Baglieri et al.). If developmentally appropriate inclusive practices are to be effective, interventions must be adjusted, and families as well as educators must be involved.

Greater and greater numbers of students with disabilities are being included in general education settings. According to Hart and Whalon (2011), children receiving their education in general education classrooms often scored higher on IQ tests, displayed fewer symptoms of autism, and reached higher communication ratings than their peers with ASD in self-contained settings. The inclusion of those with ASD has been thought to increase social awareness and tolerance of other students who are also included (Osborne & Reed, 2011). The positive effects of peer mediation for autistic behaviors indicated strongly that a reciprocal relationship existed in which peers without disabilities improve the behavior of students with ASD, while they also improved their understanding and tolerance of disabilities (Simpson, 2004). Their quality of life, educational performance, and social development are expanded in the inclusive setting, and performance that could be generalized to other settings is able to be practiced.

The trend for including students with disabilities in general education classrooms continues to rise. According to Loiacono and Valenti (2010), the U.S. Department of Education's Annual 2006 report to Congress indicated that 24.7% of children with autism were included in general education classrooms 79% of their day. According to Guldberg (2010), nearly 70% of students with autism in England were included. Turnbull, Turnbull, and Wehmeyer (2006) assessed that general education classes for students with autism was now the expected norm. Frederickson et al. (2010) indicated that the Office of National Statistics in England in 2009 found that the number of students with ASD in

mainstream classrooms had increased 17%, which was also more than any other category of disabilities. Similarly, Jones and Frederickson (2010) summarized the cognitive, academic, and behavioral characteristics of students with ASD based on the provisions made available to the through interviews with staff in 26 schools and concluded that the inclusion outcomes were not monitored effectively and few schools tested the effectiveness inclusion in regards to the monetary outcomes as well. In addition, students with ASD are expected to meet the demands of a general education curriculum that often includes high stakes testing (Spencer, Evmenova, Boon, & Hayes-Harris, 2014). Inclusion can be broadly defined and implemented in many ways, while the student with ASD is placed in inclusive environments often under the same expectations as their peers.

Usually students with ASD receive varying kinds of support. Eldar et al. (2010) emphasized inclusion is suitable only when the students with autism and their peers can benefit. Vakil et al. (2009) also found that placing students with ASD in inclusive classrooms for the sake of inclusion did not translate into earning. Vakil et al. emphasized that if learning was to take place, an interdisciplinary team should be formed to include general and special education teachers, administrators, parents, and other professionals. Mcallister and Hadjri (2013) indicated there are opportunities for reverse learning in which some students come into a class placement referred to as a resourced based setting where specialists work with students with and without disabilities. The benefits of this specialized placement provide opportunities in which acceptance and tolerance of others can be shared. All of this suggests that evaluation of characteristics and behaviors are

important when making inclusion for students with ASD a meaningful learning experience.

Inclusion can be challenging for those with autism. Inclusionary models of service can vary in design and delivery. Godek (2008) indicated that there is such a variety in the strengths and weaknesses of those with ASD that no single program can address every child's needs. She looked at a Vermont school districts commitment to an early intervention program. A consistent coordinated curriculum is fundamental. Von der Embse, Brown, and Fortain (2011) who conducted a literature review of psychological and educational electronic databases in order to find articles within the last 10 years focusing on facilitated inclusion and reducing behavior problems in those with ASD found that measuring inclusion is important to evaluating interventions and research is lacking in measuring the efficacy of inclusion. There is no exact way of determining how inclusion should be implemented, and it will vary depending on student needs. Hilbert (2014) suggested that characteristics of the personnel, number of students, and varying disabilities all contributed to the success or failure of an inclusive setting. Godek also noted that each school should develop its own program that typically includes a team of experts who works with the child. In a review of the literature, Moores-Abdool (2010) found that students needed access to the general curriculum but degrees of interventions differed. Given the variety in manifestations of the disability, accommodations will vary and can be challenging depending on the child.

Inclusion, while complex in definition and integration, is now part of the everyday life of students with disabilities mainstreamed in general education classrooms. Although

the inclusion movement has grown and changed, it continues to evolve with newer strategies, varying co-taught environments, and differing placement opportunities for students with autism. A shift in attitudes and adjustments from school systems may be required to effectively include those with autism in general elementary education classrooms. Understanding those with autism and how to best meet their needs is important as those with autism can and will be included in the future.

Autism

The increase in students diagnosed with ASD has significant implications for how to educate those with ASD in public schools. According to Ryan, Hughes, Katsiyannis, McDaniel, & Sprinkle, (2011), autism is the fasting growing disability. According to the CDC (2012) rates are estimated as high as 1 in 88 children being diagnosed. Spencer et al. (2014) noted that the U.S. Department of Education found a dramatic increase in students being identified with ASD and numbers totaled 292,638 in 2009. According to Simpson et al. (2011), through a review of the literature summarized that autism related disorders are very distinctive and puzzling. The term Autism Spectrum Disorder was named because autism can be multiple types of similarly related disorders with symptoms ranging from mild to severe cognitive, social, or behavioral deficits. In current diagnostic terms, using the standards of the Diagnostic and Statistical Manual, a handbook used by health care professionals in the diagnosis of mental disorders. In the DSM-V, autism is defined as having persistent deficits in social emotional reciprocity, non-verbal communicative behaviors used for social interaction, and in developing, maintaining, and understanding relationships (DSM-V, 2013).

It is important to note that the new edition of the DSM-V differs from the previous definition of autism included in the DSM-IV. Persons who had been previously been diagnosed with autism, Asperger's, or pervasive developmental disorders under the DSM-IV may now be given the diagnosis of autism. Individuals who have deficits in communication, but do not have the newly defined symptoms of autism would be evaluated for social pragmatic communication disorder. Additionally this new DSM-V definition explicitly defines autism disorders as occurring on a spectrum on which the symptomology may fall into Levels 1, 2, or 3. The DSM-V definition also establishes diagnoses in that autism may be associated with or without coexisting intellectual or language impairments. The autism diagnosis may also be associated with known medical or genetic disorders and can also occur along with another neurodevelopmental, mental, or behavioral disorders. The essential characteristics of autism include (Criterion A) persistent impairment in social communication and (Criterion B) restrictive, repetitive behaviors. Those primary symptoms must have been present since the early developmental period (Criterion C), and cause a clinically significant impairment in social, occupational, or other important areas of current functioning (Criterion D). Finally, in order to be diagnosed as autistic, the symptoms must not be better explained by intellectual disability or global developmental delay (Criterion E) (DSM-V, 2013). This new definition substantially clarifies and elaborates the autism diagnosis and attempts to differentiate this diagnosis from a variety of other symptomologically similar disorders.

Because autism has a number of different manifestations, the most current terminology is autism spectrum disorders (ASD) and includes characteristics previously referred to as early infantile autism, childhood autism, Kanner's autism, and Asperger's syndrome. The characteristics in the ASD spectrum include impairment in communication which affects both verbal and nonverbal skills, restricted, repetitive, and stereotyped patterns of behavior, and an interest in nonfunctional routines or rituals (DSM-IV, 1994). Thus, in current psychiatric terminology, autism is conceptualized in developmental terms and the presence of autism is determined in relation to normative behavior standards.

Among the characteristics focused on as primary in the diagnosis the most common of ASD is the presence of restrictive and repetitive behaviors. Restrictive, repetitive behaviors are accepted by those in the field as one characteristic of students with ASD (Stichter et al., 2012). Deficits in social cognition and interaction, such as in mentalizing (the ability to perceive one's own mental state or the mental state of others) and imitation behavior are another common features of autism. David et al. (2008) examined the sense of agency, meaning the child with autism's ability to be aware if he or she is causing or generating the behavior. Baron-Cohen (2009) argued that while components of the brain are being unraveled for those with ASD, further research is needed for how the brain systematizes. According to Stichter et al. individuals with ASD have deficits in domains of emotion recognition and executive functioning which create social challenges for them. Stichter et al. looked at behavioral strategies to find alternate behaviors in order to improve social competence in students with ASD between the ages

of 11 and 14. The researchers used a scaffolding approach to teaching. The study provided promising results in the areas of social competence for elementary students with ASD.

Federal mandates, such as No Child Left Behind (NCLB) in 2000 have led states and local schools to follow federal guidelines in including those with autism and providing the least restrictive environments for those students. According to Simpson et al. (2003), in spite of a dramatic increase in the study of those with ASD, autism related disabilities remain a mystery, and it is not surprising that otherwise skilled and competent educators and school-based professionals indicate they are less than capable of serving the needs of those identified with ASD. Locke, Kasari, and Wood (2013) developed a social skills measure known as the SSQ to assess paraprofessional and teachers reports on social skills for those with and without ASD. They found due to a lack of social skills most children will be diagnosed before they attend school, and while there are options for parents seeking help, most will turn to the schools for resources. Nijs and Maes (2014) indicated that bonding between peers, family, and school staff are important in the social development of those with ASD. Additionally, successful social interactions form the foundation for long lasting relationships. High quality relationships are necessary to understand the idiosyncratic behaviors exhibited by those with ASD. School personnel may be ill-equipped to provide screening and diagnostic services. Since those with ASD display a gamut of social skills and deficits, abilities are often difficult to measure and require a wide array of expertise.

The prevalence of ASD is defined by the number of cases affected with a given condition divided by the population and is usually expressed in a percentage or number of cases per 1,000 or 10,000. There is a widespread consensus that the prevalence of autism is increasing in the U.S. population (Rutter, 2005). Using this more exacting standard of prevalence, Rutter estimated that the rate of ASD has risen from 4 in 10,000 in 1966 to approximately 40 in 10,000 in 2005, a tenfold increase in a 40 year period. In another survey (Harvard Medical Letter, 2010) telephone data from a survey of 78,000 families were analyzed. This research concluded an even higher prevalence rate, 110 in 10,000, or a rate of greater than one percent. These data were based on parent reports of actual diagnoses of ASD, not simply on the appearance of symptoms. Manning et al. (2011) in Crosland and Dunlap (2012) indicated that rates in the United States have increased from 3% per 10,000 in the 1970s to between 34 and 93 per 10,000 in the 2000s. Since then Malhi and Singhi (2014) reviewed ASD epidemiological studies which reported higher estimates of prevalence and indicated the current estimate is about 62 in 10,000. The range of impairments and increase in prevalence is challenging.

In New York, Loiacono (2009) examined data available from the Office of Special Education Programs (OSEP) and the New York state education department to determine the current status of autism relative to its recognition as a low or high incidence disability. In this quantitative study, Loiacono concluded that the current diagnostic rates in the state of New York were under 2% of the school age population and that by definition autism should still be considered a low incidence disability. Lociacono did not mention that with

trends in educational diagnoses, autism was well on the way to becoming a high incidence disability, an increase with important implications for school systems.

As noted in the DSM-IV R categories there is a considerable range for subjective interpretation of symptoms and many of the behaviors which constitute autism may not be qualitatively different from behavior patterns occurring in children without disabilities. Rutter (2005) summarized these difficulties and concluded that it is not possible to determine a precise figure for the current prevalence of ASD because of uncertainty over the boundaries of the syndrome. Both the medical and psychological communities appear to be adopting a gradually broadening definition of the term autism, including not only what was once considered pure autism symptoms but also identifiable symptoms such as Aspergers and Retts (Humphrey, 2008).

As such, even with a careful review of the best current prevalence literature, it is difficult to untangle these variables sufficiently to be absolutely certain whether autism itself is an increasing condition or whether the broadening of the term is primarily reason for its rise. The diagnosis of autism is increasing and the implications for inclusion are there. School districts must address the inclusion possibilities for students with autism and be prepared to serve students with ASD in their least restrictive environments.

Implications of Inclusion

Inclusion of students with ASD is a developing topic with parents, educators, and school personnel. Originally, specialized techniques for working with those with ASD were taking place in segregated classrooms (Jordan, 2008). The techniques used in these private settings were typically based on a therapeutic model, that is, they helped those

with ASD overcome the problems arising from their autistic behaviors. These original methods became problematic as the broadening of the definition continued and more and more individuals were being diagnosed with ASD (Jordan). Additionally, most of the students were in mainstream schools, had not been identified, and thus became part of the growing inclusion movement (Jordan). Inclusion came to be seen as the right and socially appropriate way to educate, and those with ASD were also entitled to such an education.

In some cases school system personnel changed or modified the curriculum to work with those with ASD, similarly to how they would modify the curriculum for those with learning disabilities. However, the techniques for working with those with ASD were very different than those with learning disabilities, and not all strategies were appropriate for all students (Horrocks et al. 2008). Furthermore, the learning patterns and developmental abilities were very different for those with ASD. According to Humphrey (2008), the current state of inclusion indicates that just over half of students with ASD are educated in mainstream settings. However, Humphrey also indicated that a more progressive definition of inclusion including presence, participation, acceptance and achievement were necessary for clarification, and current practices in the mainstream may contribute to social exclusion. Horrocks et al. emphasized that IDEA requires multidisciplinary teams be involved and a continuum of services be available. Thus, in addition to presence, participation, and acceptance, providing appropriate inclusive practices for those with autism would seem necessary for successful inclusion.

Aside from the exact nature as well as the severity of the disability, children with ASD require careful individualized planning for educational success in inclusive settings

as well as resourced ones. According to Simpson et al. (2003), these debates related to the least restrictive environment provision of the 1997 IDEA act, stipulated that learners with disabilities, including those with ASD, are entitled to educational services in maximally normalized settings that offer the greatest opportunities for contact with typical peers. Unfortunately, in spite of these debates, few models have been appropriately put in place to facilitate the successful placement of those with ASD in regular education settings. In fact, educators and other professionals find themselves faced with the task of trying to include those with ASD in the absence of clear guidelines and procedural protocols. In looking at recent trends on interventions for those with ASD, Crosland and Dunlap (2012) reviewed research that had specifically addressed individualized systematic interventions for promoting inclusion and concluded that although there are numerous strategies that support inclusion of those with ADHD, there continues to be a need for more research in typical settings. This lack of clear guidelines and the tremendous variation in definition and placement standards among school districts has produced a situation that encourages aggressive advocacy by parents. This produces situations in which many children requiring service are not served, while others needing less service receive tens of thousands of dollars in additional support.

Parental and educator attitudes and skill level are an important component in best practices for inclusive education for students with ASD. Although definitions may vary, attitudes toward students, inclusion, disabilities, and curriculum have had an impact on what happens in a classroom as well as in a school district (Barnes 2008). To emphasize that humans are not born with attitudes; they are formed at later stages of development

and may be overlapping, such that positive experiences with inclusion will result in a better attitude toward it, just as a negative experience may negatively impact it are different ways of thinking about inclusion (Barnes). Research conducted by Leatherman and Niemeyer (2005) in Barnes described teachers' previous experiences with inclusion shaped their attitudes toward inclusion. According to Eldar et al. (2010), parents and teachers were concerned about the effectiveness of inclusion for students with autism. Attitudes toward school, inclusion, and autism are an important consideration. Sadioglu, Batu, Bilgin, and Oksal (2013) indicated that studies in general reveal that teachers have negative attitudes regarding inclusion. Hilbert (2014) indicated that parents who have children with disabilities believed inclusive settings to help prepare their children for the real world, learn from peers, and develop independence. Harding (2009) found that general and special education teachers, as well as paraprofessionals, reported feelings of inadequacy in working with students with ASD, and as educational leaders they needed additional training. The need for training is a consistent theme in regard to attitudes of educators and inclusion of students with ASD.

Parental attitudes have varied. Some parents have blamed themselves for their child's autism (Neely-Barnes, Hall, Robert, & Graff, 2011). According to Gray (2003), some fathers actually blamed their wives for their child's autism. Outside family members have blamed the parents (Goin-Kochel, 2009). Current research indicates that the mental health of the parent of the child with autism is also effected (Neely-Barnes et al). Perhaps more importantly despite the struggles of raising a child with autism and negative experiences, according to (Bayat, 2007) parents have remained resilient. The

attitude of parents, teachers, and the student are all important on a number of levels when addressing the possibilities for successful inclusion of students with ASD.

With increased knowledge of autism and inclusion, professionals who work with students with autism are also affected. Park and Chitiyo (2011) found that beliefs and perceptions are important because they affect how the professional will relate to the student with autism, as well as the selection of interventions they try. Park and Chitiyo also indicated that there is a lack of research on teacher's attitudes toward autism. Reiter and Vitani (2007) focused on the attitudes of persons outside the educational field. Park and Chitiyo conducted a study of 127 teachers from a small mid-western town using a teacher attitude instrument. Their research findings suggested that there was little difference between general and special education teacher attitudes, significant differences between those who had attended workshops, female teachers had more favorable attitudes, and overall positive attitudes were based on gender, age, school, and experience. Denning and Moody (2013) also found that a major concern in classroom practice is teachers are supporting the typical routine, the norm, the average regular education student and may be reluctant to modify instruction to effectively accommodate those with ASD. Diversity in the classroom is ever-changing and adaptions will be necessary for inclusion to be effective.

Teaching elementary children with autism can be a challenge. The attitudes of educators are critical in determining the success of those with ASD being effectively included, and in addition they face many challenges. Teachers' attitudes regarding inclusion are fundamental to its success. Busby et al. (2012) indicated that teacher's

confidence in their abilities to include students had an impact on their ability to work in the inclusive classroom. Sagioglu et al., (2013) studied the views of elementary education teachers in Turkey in particular regarding problems with inclusion. In 16 cities using 23 teachers, and in schools were inclusion was in place, semi-structured interviews were used to determine teacher opinions. Results of interviews indicated that elementary teachers generally had a negative opinion of inclusion, they felt inadequately trained, and they found the training to be insufficient. Problems with school and classroom conditions were also found. Teachers suggested self-contained settings, part-time inclusive settings, effective training, and support materials to improve educational outcomes were needed. Appropriate training is also critical for the success of including students with ASD in general elementary education settings. According to Loiacono and Valenti (2010), more than half of general education teachers reported that although willing to co-teach students with ASD, they advocated for proper training and the necessary tools to competently instruct their students. Teacher preparation, intensive early interventions, professional development, and staffing are decisions which schools must address with teachers and parents. Simpson et al. (2008) indicated that professionals working with those with ASD need specialized skills, but the trend has been toward non-categorical preparation. According to Godek (2008), strategic staffing is a vital ingredient for sustaining a successful inclusion model. Bhatnager & Das (2013) revealed that the general education teacher is the single most important component in successful inclusive education settings. Students respond differently to different treatments, and treatment options and strategies that vary with different levels of severity. Bowker et al. (2011) found that students with

Aspergers are more likely to need relationship based interventions and those with autism might need more ABA training. Leach and Duffy (2009) indicated that a variety of instructional formats, active engagement, and prompting/fading procedures were important for effective inclusion. Hart and Whalen (2011) proposed that the success of students with ASD in inclusive settings was highly dependent on teachers employing techniques reflecting student strengths, meaningful participation, and an ability to socially communicate. Alternately, Bhatnagar & Das (2014) indicated that teachers had concerns about their abilities to work with students, understand their strengths and weaknesses, and assist the student with ASD socially while meeting the demands of inclusion. Additionally, federal and state legislation calls for evidence based intervention strategies to be used in teaching those with autism (Loiacono & Valenti, 2010). Corkum et al. (2014) revealed that despite evidence based practices, educators continued to feel tension when delivering research based strategies. Three focus groups were developed to understand these challenges. Based on a questionnaire of 175 teachers and 50 teaching assistants from 13 schools in which 49% were elementary and 51% were middle and high school, survey results indicated that although teachers appreciated staff development and training, a (hands on) approach was more beneficial. Having a school coordinator with whom to work and personnel to demonstrate classroom techniques were considered most useful. If educators lack appropriate training, it cannot be expected that the learning outcomes will show much improvement (Loiacono & Valenti). Corkum et al also mentioned that it was critical that training focus on academic and non-academic skills in

the inclusive setting. As schools become more inclusive, having and implementing the necessary skills to work with those with ASD in an inclusive setting is important.

Parents and educators are aware that if local school districts are not already under pressure to effectively accommodate those with ASD they may soon be with the increased numbers being diagnosed. According to Hwang and Evans (2011), inclusion is a global trend and schools are going to be required to restructure how students may be included. School systems will be held accountable for implementing effective curricula and behavioral management techniques which facilitate the learning of those with ASD, and with this comes increased accountability (Lingo, Barton-Arwood, & Jolivette, 2011). According to Odom (2003) school personnel are going to be under pressure to show that whatever they are doing with those with ASD is working. Hart and Whalen (2011) emphasized that whatever is working will most likely be a result of the teachers employing appropriate strategies. Despite barriers, schools and families are going to become compelled to work together to effectively accommodate those with ASD.

Spurred in part by the sociopolitical context, the National Academy of Sciences (NAS) created a committee to identify educational practices for children with autism that had scientific evidence of effectiveness (Odom, 2003). The committee found that comprehensive program models and individual interventions techniques were two classifications which were shown to be effective. Supportive environments were based on developmentally appropriate practices and according Vakil et al. (2009) children felt accepted, cared for, and supported in not only their learning, but also in their physical, emotional, and social well-being. Horrocks et al. (2008) indicated that socialization was

an important area in autism, and inclusion and should be considered of importance if successful inclusion of students with ASD is to take place.

Autism and inclusion are and will continue to be topics of interest relating parents, educators, and school districts. While research continues to be growing, the numbers of students with autism is also growing. Answers to how to help those with ASD find success in inclusive settings is broad and diverse. Since the characteristics of students with autism can be so varied, areas of research regarding how they can best be included continues to need to be addressed.

Areas of Research Still to Be Addressed

While there is evidence that including those with disabilities into mainstream classrooms is beneficial, there continues to be concerns over a lack of evidence supporting those with autism in inclusive settings. According to Osborne and Reed (2011), the sources of evidence included philosophical concerns over agenda, empirical findings of inclusion, and qualitative investigations. Humphrey (2008) outlined factors which may help the inclusion process. Several of these factors related to preparing the student with ASD for inclusion. This particular preparation has been investigated according to Osborne and Reed, and included that preparing the student with social skills training, as well as working on improving language and communication were keys for success. However, according to Osborne and Reed, the lack of data for school based factors was connected to the substantial difficulties in measuring, and thus the data were lacking. Some studies are trying to address this issue, and Osborne and Reed investigated the school factors associated with mainstream progress in secondary settings for those

with ASD who were included. The results of this study indicated that the size of the school and class size had a positive impact on those with ASD, as well as the support provided by school personnel. They emphasized support teachers and assistants helped to reduce the emotional and behavioral difficulties, but they also reduced improvements in pro-social behavior. To clarify, the authors found that social emotional behaviors were better addressed in inclusive classes with larger numbers of students with disabilities and individual support, but this did not facilitate good social behaviors. Additionally, this study focused on students in secondary settings and not elementary settings.

Although much progress has been made in research over the last 25 years on autism and inclusion, more research is needed in maximizing the potential for including students with ASD in general elementary education settings. Not only is inclusion becoming a cornerstone of legislation, but there is a powerful belief in the importance of social integration. According to Simpson et al. (2008), the most cited reasons for litigation in special education were based on placement. There are several things that have been learned from inclusive education. According to Strain et al. (2011), children with ASD have been shown to make gains in language, social skills, cognition, routines, and reduction of symptoms of ASD in inclusive settings. However, some children with ASD who were in close contact with other children with ASD displayed increased autistic behaviors. Serious and varying types of behavior problems have been addressed successfully in inclusive environments. Strain et al. also emphasized that it is not true that only high functioning children with ASD have benefited from inclusion. Vakel et al. (2009) also noted that functional skills, such as language, self-help, and social behaviors,

were acquired as they engaged in activities similar to other children. Vakel et al. emphasized these activities should focus on a deliberate, constructive, activity based positive relationships with adults and other children. McLaughlin & Rafferty (2014) found that students with ASD can communicate their needs if provided the right forum, and that school psychologists and counselors can facilitate forums in which students with ASD and their families can be advocates for themselves. This avenue to advocacy is a means to encouraging parent involvement and student participation.

The inclusion movement led to ideas that education was a right and all students were entitled to it. According to Jordan (2008) most programs for inclusion were not truly inclusion, but they were a form of integration. In addition, some variables, such as parent income and education level, which do affect the degree to which students with ASD receive services, are politically sensitive and poorly researched. As a final issue it should be noted that the relative degree of service provided by wealthy verses impoverished school districts is also as yet un-researched. For those with ASD and in particular the parents of those with ASD dealing with the endless frustrations and efforts in order to understand the disability and advocate for a better understanding is mentally and perhaps even physically draining. Exploring and attempting numerous alternatives to meet the needs of those with ASD may often lead to contempt for mental health professionals and a negative attitude toward professionals who possess little knowledge and may confuse or worsen the problem altogether. Therefore, it is important to recognize that autism can no longer be considered a low incidence disability, and the condition occurs with a greater frequency than what some might even consider imaginable. With this increase it becomes

a “daunting challenge for schools and communities worldwide relative to developing an infrastructure to serve a far greater number of individuals” (Simpson, 2004, p.138). This challenge will continue as more and more students are diagnosed with ASD.

In the context of broader issues of social change and rights for individuals with disabilities autism has become an important focal point. The implications for how to train teachers to deal with such students in self-contained, much less inclusive settings is overwhelming, and it would appear that training alone is insufficient unless the teachers already possess tremendous levels of emotional depth and strategic competence. Jordan (2008) emphasized that treating children with ASD is not educating them, and in order for them to become community participants they need the knowledge and skills to do so. Every dollar expended on one student is a dollar less expended on another. The current level of advocacy and public excitement regarding the autism issue has at least temporarily tilted the scaled in many districts in favor of enormous expenditure of funds on such students. The long term implications and financial consequences for the broader school population and for the culture as a whole are still largely unknown.

Studies on variables, such as characteristics and behaviors of those involved with the child with ASD, have not been fully researched. A substantial number of potentially important variables in the success of autism and inclusion are yet unstudied. For example at this time, there appears to be little or no attention given to the role of school leadership and the climate which is produced by such leadership as an important determinant in inclusion success. Osborne and Reed (2011) found that students with ASD in secondary schools who were mainstreamed exhibited more behavior problems. This research did not

address behavior problems in elementary inclusive settings and does not specifically look at individual students in particular. While there is evidence according to Osborne and Reed that gains are made in smaller schools, there is a lack of data on particular elementary school based factors which promote effective inclusion. More research is needed to determine specific factors in elementary schools that positively impact inclusion of those with ASD. This study is intended to help address this research gap.

Summary

Students with ASD and their inclusion are just a few components of educational reform and progressive education. Federal education policies ask us to leave no child left behind. Imagining schools where all children feel as if they belong might be an idea that has been taken for granted. According to Baglieri et al. (2011), "democracy is posed as the political ideal of our culture, and inclusion has been distinguished as an ideological position in that culture" (p.1). Inclusion becomes a means to cohesion in educational reform. With reform and progression, traditional educational structures will be re-evaluated and typical practices will be revised. With increasing numbers of students with ASD not only in self-contained settings, but inclusive settings, pressure to conform to what is normal or reform to what is possible must be considered.

The sustained increase of the number of children being diagnosed has become a concern for all stakeholders (Loiacono & Valenti, 2010). No Child Left Behind (NCLB) has put in place mandates requiring that students with disabilities be served in the least restrictive environments. Since inclusive classrooms have been seen at the least restrictive environment possible, successful inclusive strategies have come to take on

even greater importance. Godeck (2008) described the importance of a team of professionals working with the individual with ASD to facilitate an effective inclusive program. Yet according to Frederickson et al. (2010), there is little research on the specific setting for students with ASD; that is, an accurate compilation of the placements for all students with ASD in the public educational system has not taken place. Godeck did not specifically address the importance of the particular characteristics and behaviors of this team, especially in regard to their abilities in working together and with the child to maximize learning potential in the inclusive setting. Strategic staffing is one way of thinking of improved possibilities of learning between educators, parents, and the child.

It is not only important to recognize the characteristics and behaviors of the parents and educators who are working with the elementary child with ASD, but also look at the individual characteristics and behaviors of the child. Osborne and Reed (2011) described the behavioral and emotional functioning of the child as a critically important variable in inclusive school placement. Yianni-Coudurier et al. (2008) studied the interventional programs of 77 children with ASD and concluded students were included based on their adaptive and behavioral characteristics. Because behaviors can be exacerbated in certain settings and unpredictable from day to day, understanding the particular child's strengths and weaknesses in relation to the home and school environment is an essential component of successful inclusion. As a consequence, having an established program of behavioral control for students with ASD in place prior to placement in the inclusive setting is important.

Despite an abundance of popular discussion and dozens of peer-reviewed studies concerning students with ASD, the field of autism remains filled with unanswered questions. Because definitional issues have plagued the entire field, it is difficult to compare data on diagnosis and incidence across time, and to a certain extent, even within the same basic time period. The legislative and judicial imperatives for more inclusive education have put increasing pressure on schools to provide such settings and a lack of an established protocol for making decisions about which students with ASD are most likely to be successful in the general education setting has produced both uncertainty and controversy. While many acknowledge a lack of training and expertise among educators, no real methodology has been established for providing such training, and no consensus about what skills are necessary for these educators has yet emerged. This research is designed to take a beginning, but much needed, first step towards understanding the complex ecology of parents, educators, and students that are necessary for inclusion. It relies on the assumption that the expertise of individuals with years of experience in the fields of autism and inclusion can provide the foundation for a broader understanding of this phenomenon.

In the next chapter, I provide a detailed discussion of the Delphi method of inquiry, a methodology so far not applied to the fields of autism and inclusion, and how it might provide a new insight. This research is offered in the belief that many of the uncertainties and ambiguities which surround the issue of autism and inclusion, not to mention the political and social controversy, can be best resolved by attempting to find consensus among those who are most closely linked to it.

Chapter 3: Research Method

The purpose of this study was to understand the opinions of individuals with expertise in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support and that inhibit inclusion of elementary children with ASD. In this chapter, I describe the research design and rationale; the research questions are described, central concepts are defined, and the rationale for selecting the Delphi method of inquiry is examined. My role as a researcher is also described. The methodology is described beginning with participant selection, justification of the participants, rationale of the Delphi method, procedures, questions, data collection, and follow-up. Finally, issues of trustworthiness appropriate to a qualitative study are addressed, focusing on models of credibility and transferability.

Research Questions

The central phenomenon under consideration was inclusion of elementary students with ASD. Experts were asked to address three domains related to the central phenomenon: educator characteristics and behaviors, family characteristics and behaviors, and student characteristics and behaviors.

- What do experts identify as characteristics and behaviors of elementary general and special education teachers that facilitate or inhibit inclusion for students with ASD?
- What do experts identify as characteristics and behaviors of other school personnel that facilitate or inhibit inclusion for students with ASD?

- What do experts identify as characteristics and behaviors of families that facilitate or inhibit inclusion for their children with ASD?
- What do experts identify as characteristics and behaviors of elementary students with ASD that facilitate or inhibit inclusion?

Design and Rationale

A modified Delphi technique focusing on the use of qualitative data was used in this study. Since autism is group of developmental brain disorders collectively referred to ASD (www.nimh.nih.gov.), I focused on the particular issues surrounding the spectrum of ASD and the possibility of inclusion into general elementary education classrooms.

The Delphi method of inquiry provided an innovative alternative to traditional survey methodologies. Developed by Dalkey and Helmer (1963) at the Rand Corporation it is "aimed as a group communication process with detail and examination of a specific issue," and it is based on the rationale that "two heads are better than one" (as cited in Chien Hsu & Sandford, 2007, p. 1). The communication and feedback obtained during the initial stages of the research were used to guide the direction of later stages of the research project. According to Yousuf (2007), Delphi technique uses a group process within which the researcher asks identified experts to respond to multiple iterations of a series of questions about a specific topic. The use of this method was particularly well-suited for research questions involving complex systems and in emerging fields.

Delphi was particularly important to this study in that I relied on expert opinions of professionals in the field regarding inclusion of elementary students with ASD. Using the Delphi technique gave me a way to gather and process diverse information and

narrow the information down to a potential consensus of what the identified experts believed. The issue addressed was based on professional opinions and did not lend itself to precise analytical techniques but allowed a number of individual opinions to be resolved into a statement of consensus (Yousuf, 2007). Seeking to verify and understand what those involved in the topic can provide in applicable knowledge was important since real-world experience in working with those with ASD can only enhance the understanding and ability to help them succeed (Chien Hsu & Sandford, 2007).

The Delphi method of inquiry was selected as a primary option for this study because it is designed to facilitate the exploration of ideas and to generate information for decision-making. Delphi involves an iterative process of checking and rechecking data. The purpose of the subsequent rounds was to refine responses, determine common themes, and establish importance. It was a process that allowed groups of anonymous individuals to deal with a complex problem (Linstone & Turoff, 2002). Successive rounds provided opportunities to validate and provide feedback, and further continued efforts lead to a consensus. The methodology was based on the premise that the range of responses would decrease in each successive round and, according to Vazquez-Ramos, Leahy, and Hernandez (2007), should end when results either become redundant or a final agreement cannot be reached. Hejblum et al. (2008) indicated that the researcher can miss valuable information if consensus is the only focus and disagreements between participants are ignored. I worked to clearly document the areas of agreement and disagreement among panel members.

The Delphi typically involves three or more rounds. In this particular study, a minimum of three rounds was presented with the possibility of additional rounds if necessary. The participant panel members were anonymous to one another, and data were collected using interviews, questions, and other forms of feedback from participants (Skulmoski & Hartman, 2007). The data were ranked by importance, and while precise answers may not be derived, subjective judgments could be determined. This was an interactive process in which participant data were evaluated and reevaluated. Once the rounds were started, the process was refined by determining possible themes and commonalities among the responses from participants.

Round 1 of the Delphi method is important because it is the initial question(s) that guided the study. According to Delbeq et al. (1975; as cited in in Skulmoski et al., 2007), the initial questions should be broad and carefully selected in order for participants to completely understand what is being asked; otherwise questions may be misunderstood and answered inappropriately. After receiving the answers from Round 1, questions for Round 2 were developed (see Appendix C). At this time, I chose the direction to take on the next set of questions. Similarly, round three responses were developed from answers in Round 2 and were used to focus on more specifics. Participants had opportunities to comment on the emerging consensus, change answers, or form a collective perspective in which consensus could be reached, theoretical saturation could be achieved, or sufficient information had been exchanged. This process could then be used to develop, evaluate, or identify a variety of research areas.

A qualitative design was selected because of the flexibility of the inquiry process and the ability to refine the data collection selectively as the research progresses. This particular form of qualitative research, a Delphi study, relies on the use of judgments of professionals with established experience in the field. The Delphi method of qualitative research allowed me to determine an overall collection of themes (Creswell, 2007), which allowed each successive set of questions to investigate the central phenomenon more fully. The inclusion question with these diverse components was well-suited to investigation through a defined, qualitative method. For example, when determining what characteristics the students with ASD must have to be successfully included, such as ability to work independently, a number cannot be put on such a task. Quantitative research is a way to test theories by examining relationships through numbered data using statistical analysis, and qualitative research is a way to explore data analysis through particular themes and questions (Creswell, 2009).

Ethnography was not chosen because I was not studying a cultural group over a long period of time. Case study was not chosen because I was not exploring specific individuals, groups, or activities. Phenomenological research is directly related to a particular phenomenon, which is not part of this study. Narrative research would not apply because I was not studying the lives of individuals. Grounded theory has a close similarity to the Delphi method in that it involves stages of data collection and refinement of information; however, grounded theory was not selected because trying to develop or to expand theory was not what I was trying to do in this study.

In order to examine what experts believe to be the most appropriate ecosystem characteristics to promote inclusion of students with ASD, the Delphi method was selected. Additionally, I found no existing Delphi study using experienced professionals in autism and inclusion in order to determine appropriate characteristics for inclusion of students with ASD. Using the Delphi method allows knowledgeable experts in diverse settings with expertise in autism and inclusion to answer questions and discuss appropriate characteristics necessary for inclusion.

Role of the Researcher

My role as the researcher in this Delphi study was to find a qualified panel of experts, pose questions based on the research questions guiding the study, and organize interviews in order to analyze the data and narrow down participant responses toward a consensus. As Creswell (2007) emphasized, the qualitative researcher is obligated to make an interpretation of the information provided by participants and establish patterns and emerging themes. I made every effort to critically determine overarching themes and compile the participant answers in an understandable way in which others can use the results to bridge the gap between autism and inclusion in general elementary education classrooms.

According to Maxwell (2005), two important threats to validity should be addressed--research bias and reactivity. The researcher's theory, beliefs, and values can lead to bias. In this particular research, I relied on the answers from experts. I did not have particular expectations of results. Any values I had regarding autism and inclusion were not involved in the questions and answers given and received from the expert panel

as part of the Delphi study. I kept notes during the study to record my reactions and interpretations and attempted to identify biases that appeared. The influence of the researcher on the setting or individuals studied, referred to as reactivity was minimal since I did not influence a particular setting nor acted as a distant interviewer. After the study was concluded, I sent an executive summary to the participants.

Participant Selection and Recruitment

Researchers, medical doctors, psychologists, consultants, educators, and parents in the fields of autism and inclusion were selected. Finding a minimum of 20 experts in the fields of autism and inclusion was the goal. More experts were contacted in order to provide for elimination or attrition. I identified potential participants from faculty, authors, international consultants, and medical doctors who were held in high esteem by colleagues and published in the fields of autism and inclusion through the internet, via current peer-reviewed publications and suggested by other experts. Participants were contacted via email with a description of the study (See Appendix A). A consent form (See Appendix B) was mailed once a participant expressed interest. Return of the consent form documented acceptance to participate.

Sample size for Delphi methods of inquiry have not been held to strict guidelines for participant selection. According to du Plessis and Human (2009), these have been developed on the scope of the individual research, type of inquiry, and availability of participants. Qualifications of the participants are more important that the number of participants. Generally the size should not be smaller than 10 but in a range of 20 (du Plessis & Human). The strategy to further elicit participation began with a description of

the study, its importance to benefiting those with ASD in an inclusive setting, and an attempt to instill a sense of responsibility to participate. This was emphasized in how their contribution to the study would benefit not only those with ASD but others working with those with ASD. This was accomplished through the direct input of experts in these fields. By respectfully asking for input from the participants, there was a hope these individuals would help fulfill a necessary gap in inclusion and autism and would feel a responsibility in doing so by sharing their insights. Additionally, experts agreeing to participate were asked to recommend others. This strategy provided the potential to yield additional numbers of participants. If attrition occurred, a minimum of three alternates were contacted similarly to the original participants by email with information about the study and consent to participate.

Instrumentation and Data Collection

A combination of interviews and questions were used. For the first round and subsequent rounds, I used the initial research questions with refined answers each round sent via e-mail. Upon suggestion or request, face to face interviews occurred with two participants. Questions were derived from issues raised in the existing research base so that various characteristics of inclusion of students with ASD would be examined. Answers were narrowed down and additional structured and semistructured questions were created.

A three-round Delphi was established with additional rounds to be conducted if necessary. Experts were identified in the criteria set by the study. Data collection took place primarily over the Internet. Participants were unaware of names and contact

information from other participants and answered questions anonymously from one another.

Round 1 included the use of questions shown in Appendix C, which were sent to the participants via email. Each participant was asked to review the compilation of answers and make suggestions, additions, or changes if necessary. Approximately 1 month was allowed for all of questions to be answered and reviewed.

Round 2 queries were developed based on the information provided by the participants in Round 1 and from the common themes derived (potential queries are shown in Appendix C and Round 2 queries are in Appendix D). Round 2 allowed participants opportunities to evaluate, change, or reconfirm their responses. I sent these queries via email and offered participants the choice of interview or questionnaire-type responses. Participants opted to answer questions via e-mail for simplicity and time constraints. I anticipated the process for each round to take approximately a month.

Round 3 included queries as indicated from analyses of Rounds and 2 (see Appendix E for examples). It was not necessary to complete additional rounds; however, e-mail correspondence was used for clarifications and explanations of agreements or disagreements. Consensus was attained as to the characteristics and behaviors that facilitate or inhibit inclusion of elementary students with ASD in general elementary education settings. Two months was allotted for the completion of all rounds. I hoped that allowing a month or so for each round would give participants time to reflect on the information, change opinions, and construct thoughtful responses.

Data Analysis

A combination of a priori and open coding was used to support constant comparative analyses for each round. I used Microsoft Word to organize data. Data from each round were reviewed for words, ideas, and relationships. Once responses were identified as similar or dissimilar, all categories were developed and maintained through use of a spreadsheet by entering the data similar to transcript based or note based. Identification codes and face sheet codes were added to each entry. Long responses were separated into meaningful units. When exclusive categories emerged, they were color-coded by round and category. Adjustments were made in the coding categories as necessary to accommodate new insights. Each time the data were evaluated, the category coding became more precise. Categories were compared to determine redundancy of new information, and distillation was used to create potential areas for consensus. The sort phase was used to make comparisons of the data and cross tabulate responses. I tried to obtain saturation and consensus. I was open to consensus not being reached and reported all data, including discrepant cases. Discrepant responses were not used as common themes in subsequent rounds.

Issues of Trustworthiness

In order to establish credibility, Creswell (2007) emphasized that qualitative researchers should engage in two of the eight research strategies for validation of findings in order to document the accuracy of the study. For the purposes of this study validation was determined through member checking and triangulation. Member checking can be used in the Delphi method as a means of assessing consensus throughout each round

(Cornish, 1977). I asked participants to check for verification of answers and look for consistency in the consensus. Corrections or changes were made by the participants after results of each round. Saturation was the goal with consensus as the target.

Confirmability was established as direct interpretation. Creswell (2007) indicated that this process is a form of taking apart and putting back together the data being evaluated, and thus the patterns are established and the researcher can look for similarities and differences between categories. Since the Delphi method is an interpretative approach to qualitative research, Angen's (2000) definition in Creswell (2007) of validation as "a judgment of the trustworthiness or goodness of a piece of research applies (p.387). The final validation of the research lied in its utility in determining future standards for successful inclusion and relies on a critical interpretation of the data which would be reviewed.

Credibility required adequate submersion into the data in order to identify and verify reoccurring patterns. An important strategy was to adequately correspond with the participants or those informing the information. This was considered prolonged contact, which allowed me to check the perspectives of each respondent. Peer examination between experts in the field who submitted responses through the Delphi method of inquiry were part of the study. Participants were asked to reflect on peer responses and change or modify their own answers.

Transferability in the study was addressed in the form of a panel of judges, such as the dissertation committee to help in selection of panel of experts, as well as the colleagues in the field who had expertise in the areas of autism and inclusion. Extensive

background information of the experts selected was identified and used in the selection. Thick descriptions of data, analysis, and interpretation were used. Such dense descriptions provided information on how repeatable the study would be.

Dependability was addressed by the consistency of findings. Audit trails provided other researchers means to follow the data collection procedures and decisions I made. Audit trails enhanced the dependability and confirmability. The use of colleagues as peer reviewers to check the research plan and implementation was another means of ensuring dependability. These peer reviewers, colleagues from the university near me, were asked to participate based on expertise and experience. A confidentiality agreement was signed by each reviewer (see Appendix F). Confirmability was viewed as neutrality of the researcher in gathering and analyzing data. Reflexive analysis was useful to ensure an awareness of personal influence on the data. Personal biases were stated. Characteristics of the participants, as well as distance between researcher and participants are discussed.

Ethical Procedures

Participation in the study was voluntary, and participants could end their participation at any time for any reason. Participants were provided an informed consent which identified me as a student completing research toward partial fulfillment of the requirements for a doctoral degree in Special Education at Walden University (Appendix B). Identities were not shared between participants, but summaries of responses between participants were shared in order to better approach consensus. No one had access the raw data except me, and I shared identified data with my peer reviewers. Data were stored in a password locked computer and will be destroyed as indicated by the IRB (5

years). There were no outside ethical considerations, no data collected from the workplace, no conflict of interest, and no use of incentives to entice participation. An agreement to gain access to participants and data was included in the IRB application. The IRB approval number for this study was 07-21-14-0164777.

Summary

Chapter 3 included an in-depth review of the research design and rationale, role of the researcher, instrumentation, procedures, participants, data collection, issues of trustworthiness, and ethical procedures. Delphi data collection plans were outlined and follow-up plans with participants presented. In Chapter 4 I present the findings of the study.

Chapter 4: Results

The purpose of this study was to understand the opinions of individuals with many years of experience in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support and that inhibit inclusion of elementary children with ASD. The central phenomenon under consideration was inclusion of elementary students with ASD. Experts were asked to address three domains related to the central phenomenon: educator characteristics and behaviors, school personnel characteristics and behaviors, family characteristics and behaviors, and student characteristics and behaviors. Below are the research questions that guided the study.

Research Questions

- What do experts identify as characteristics and behaviors of elementary general and special teachers that facilitate or inhibit inclusion for students with ASD?
- What do experts identify as characteristics and behaviors of other school personnel that facilitate or inhibit inclusion for students with ASD?
- What do experts identify as characteristics and behaviors of families that facilitate or inhibit inclusion for their children with ASD?
- What do experts identify as characteristics and behaviors of elementary students with ASD that facilitate or inhibit inclusion?

In this chapter, I describe the setting, such as the personal or organizational conditions that could have influenced participants or their experiences at the time of the

study. I review the participants' characteristics and demographics. Data collection methods including number of participants, location, frequency, how data were recorded, and any variations or unusual circumstances will be discussed. Data analysis in the forms of reporting progress and emerging themes will be described. Evidence of trustworthiness, including credibility, transferability, dependability, and confirmability–in relation to strategies stated in Chapter 3--will be addressed. Results of research questions by themes and patterns developed as well as data to support the findings will be included as well as any data which is nonconfirming. Finally, a constant comparative process to refine data will be summarized, which lead to answers to research questions.

Setting

There were no personal or organizational conditions that influenced participants or their experiences at the time of the study. Participants were located in various parts of the United States and in the United Kingdom. Correspondence was made by e-mail, and in two instances face-to-face interviews were conducted. One interview was conducted in a restaurant; another interview was conducted in a school classroom.

Participant Demographics and Characteristics

Participants were recruited from a variety of states within the United States, Canada, and England. Locale was not a primary condition relevant to the study; however, a few international experts were sought. Expertise in their fields was the guiding force for recruitment. The 16 participants in the study came from Florida, Georgia, North Carolina, South Carolina, Texas, Pennsylvania, California, and Indiana in the United States and from England. The ratio of male to female was 2 to 1 with the

majority being female. There were 11 people with doctorates, five with other graduate degrees, and one medical doctor in the final group of participants.

Participant recruitment spanned 3 months, beginning with 78 invitations to professionals in the fields of autism and inclusion. A strategic internet search for contacts, current authors in the fields of autism and inclusion, and recommendations from other professionals and colleagues in the fields of autism and inclusion led to the initial invitations for participation. Professionals in the medical, psychological, and educational fields were contacted as were parent educators. Those actively involved in the assessment, treatment, and research of autism and inclusion were contacted.

Data Collection

Data were collected according to the Delphi methodology. Since the Delphi method comprises a small number of experts (i.e., 15-20) as an average, numerous experts from national and international locations were contacted due to an assumed difficulty in attaining such experts to participate. Seventy-eight contacts were made via e-mail in which some declined to participate. Others agreed at a later date in which correspondence was made and participation was declined. Sixteen agreed to participate. The data collection was qualitative in that it explored the research questions with free responses to discussion prompts. Further opportunities were given for participants to review other participant responses and change or amend the data, and invitations for clarity were provided.

Invitations were sent via e-mail. Sixteen participants confirmed agreement by returning a consent form along with the first round of questions for the Delphi study.

Data collections were electronically based with responses returned in word form, bulleted lists, short sentences, phrases, or paragraphs. One participant requested a phone conference for clarification. Two participants who lived within driving distance preferred face-to-face interviews. Approximately 1 month passed between rounds while some responses were sent immediately by e-mail and others took 2 to 3 weeks to receive. When responses from participants were not received within 2 weeks from the beginning round, I sent reminders via e-mail with a request to complete the round, or a willingness to review answers compiled for the next round.

Answers to questions from the initial round were sent by e-mail. Unfortunately, hour long interviews of a potential participant prior to sending questions, as planned in Chapter 3, could not be accomplished. Many participants did not respond quickly, some questioned the length of time it would take to participate prior to agreement, and others indicated apologies in that they did not have time. After consideration, similar questions could be answered by e-mail as shown in Appendix C, and the initial questions for Round 1 were sent via e-mail in order to secure participation in the most user-friendly convenient manner. Answers were printed and recorded in a Word document. Except for the unavailability of participants for extended interviews, there were no unusual circumstances encountered in the data collection overall. There were varying levels of participation in the study, however. The final pool included 16 who agreed to full participation. Pseudonyms are used to replace participant names. Ten participants (Whit, Ben, Deb, Jill, Phil, Mike, Amelia, Sheila, Lisa, and Gerry), participated in Rounds 1 and 2, and one participant (Reeny) who completed Round 1 only. Participant (Marian) opted

to wait until all responses were received and look at the final consensus for agreement. Another participant (Lee) who had time constraints asked to also review final round consensus answers to check for agreement.

Data Analysis

Due to the underlying theme of the Delphi study, participation at the beginning of the study influenced remaining rounds of data collection as contributions and deletions were used in the constant comparative method that was progressive in nature. Samples of participant responses from each round are provided throughout this chapter.

Follow-ups were made with two individuals who had moved from university to university and this search led to no avail. From the 78 original contact attempts, 20 appeared to be a distinct possibility. These 20 later lessened to 16 who actually responded. Four of the 20 who agreed to participate did not respond to answers when Round 1 questions and consent were e-mailed, nor did they respond when second e-mail requests were made. Disappointedly, one of these individuals was from my own school district, two were in Canada, and one was in London. Of the 16 participants remaining, answers were received by e-mail with response or attachment consenting to participate.

Initially I was hopeful that 20 people would participate. Each individual who responded with interest was listed in order of responses received from numbers 1 to 20. Coding was selected as numbers from (001 through 020). Individuals (003, 006, 008, and 010) did not respond or consent after indicating interest. The answers from Round 1 were compiled and used as a guide for Round 2.

Round 1

The research questions guided the first round. Responses from 14 participants were received via e-mail and two were direct interviews. Round 1 was completed within 8 weeks. The questions were as follows:

- What characteristics and behaviors of elementary general education and special teachers facilitate or inhibit inclusion of students with ASD?
- What characteristics and behaviors of other school personnel facilitate or inhibit inclusion of students with ASD?
- What characteristics and behaviors of families with students with ASD facilitate or inhibit inclusion?
- What characteristics and behaviors of the elementary student with ASD facilitate or inhibit inclusion?

I prepared a spreadsheet with four columns representative of each response and an additional column for the name, location, and assigned number of each participate. A consolidated summary of responses, including many answers, were similar as well as others that were completely unique were comprised together. Each participant answered questions regarding what characteristics and behaviors of teachers, personnel, families, and students facilitates instruction, but Jill, Mike, Gerry, Phil, Reeny, and Dia did not respond at all to what inhibits inclusion.

Many of the answers to what inhibits were the exact opposite of what facilitates. For example, if the participant indicated that the student must be able to demonstrate self-control in order to be effectively included, then under the category of inhibits, the

participant might have responded does not show self-control. I did not probe because it made sense that in order to maintain a positive behavior to be included, it would be logical that if the positive behavior could not be maintained (as in inhibits), then the student would not be included. In many ways, the answers were redundant and not unique to what was answered under facilitates. On two occasions, answers to inhibits were unique. For example, when asked what inhibits teachers from being effective, one participant responded "negative past experiences with students with disabilities." Another interesting comment of what inhibits teachers is the initiative to tie teacher salaries to high test scores and that poor pay rates of personnel inhibits motivation. Answers were highlighted through color-coding to note distinctly different responses. Initially, common words or ideas were evaluated. These were compiled into a list of answers for each question. Next, similar ideas were listed, and finally the unique responses were made concise and outlined as answers for Round 1 and returned to participants via e-mail for Round 2 as a review of agreement, disagreement, changes, or amendments.

Round 2

Round 2 participants were asked to review a summary of all responses from the entire participant pool and add additional information or remove anything with which they did not agree. If participants did not make changes or additions, they were asked to reply to the e-mail with no changes. For those who had changes, they either replied with a comment via e-mail or reattached the document with their additions or deletions highlighted in the text. Round 2 responses were requested back within 2 weeks.

There were very few changes. Of the four participants who had changes, one comment from Whit led to an additional question in Round 3. Although the goal of the study was to determine what characteristics and behaviors promoted effective inclusion of elementary students with ASD, Deb indicated in Round 1 that all students should be included to some degree. Whit indicated that she did not believe all students should be included to some degree. While this phrase would be removed from the final consensus, what led primarily from curiosity was an additional question being added in Round 3 as to the opinion these experts had in relation to inclusion. This also led to the notion of gaining an additional understanding of the mindset of what experts in the fields of autism and inclusion beliefs were on the value of inclusion for all. Interestingly, only a couple of participants had extreme comments for and against, which will be discussed in more detail in Round 3 data analysis.

Three participants who had changes, additions, or comments revised the following: (a) adding to the idea that teacher salaries being tied to high test scores inhibits educators, (b) removing sensory outlets for facilitation of inclusion of students, (c) noting that educators, personnel, and families should have an overall knowledge of disabilities in general, and (d) the importance of collaboration with all school personnel who serve the child, even those perhaps not typically mentioned, such as cafeteria workers and media specialists. The overall findings were then distributed for Round 3. Interestingly, Reeny answered questions in Round 1 but discontinued communication for Rounds 2 and 3. While the answers were short, it is important to note that this participant held a Ph.D. of which I was aware, but in her correspondence to me with initial answers, she indicated

that she was on the ASD spectrum. Her contributions, while brief, were of importance because she was a successful adult with ASD, and the ideas she stressed were primarily the importance of finding strengths in the child, teaching coping skills, and recognizing that a diagnosis of ASD does not equate to an unfulfilling future.

Round 3

Round 3 included the additions from the four participants with comments from Round 2, summarized into the list of categories of initial questions. This information was updated and sent in e-mail format as what hoped to be a final review, since the changes were minimal. I did indicate that I was hopeful that agreement could be reached with these additions but to please again make changes or additions if necessary. I also added the final question posed from the comment in Round 2 in the context of the e-mail by phrasing the question if conditions were in place which facilitates inclusion: Do you believe or not believe that all elementary students with ASD should or could be included in a general education classroom to some degree? Thirteen participants responded in consensus to the final list of agreement relative the study and research questions as well as the additional question regarding inclusion of all. Three participants did not respond at all to the Round 3 question. In speculation, I believe this was because they were busy and had previously responded to Round 2 (which was primarily almost at consensus). Jill responded by e-mail after agreeing with Round 2 that she believed everything looked good and good luck with the study, which appeared to be an underlying message of completion of her part in this study. The multiple rounds of data collection through the Delphi study incorporated the basic member checking of constant comparative with

repeated review and comparison from the process. Similar words from narrative responses were compiled and put in bulleted format. A compilation of the final consensus is listed in Appendix G.

In relation to the additional question which was added to round 3 regarding inclusion of all elementary students to some degree, participants varied in answers with the majority believing not all should be included. Whit, Deb, Jan, Phil, Amelia, Sheila, Reeny, Marian, Lisa, and Lee answered the questions. Eight of these participants believed not all should be included, while two agreed all could be with the right conditions. Deb believed all should be included no matter what the circumstances. Comments ranged from there were too many variables at places, in particular with students who have severe behavior problems. Most indicated that it was a case by case basis depending on cognitive and behavior strengths and weaknesses. Jan, a parent participant, believed there should be some small amount of inclusion with correct supports, if only for socialization purposes. Lee indicated that the instruction taking place in general education would probably not be relative to the student with ASD with co-occurring disabilities. Finally, Phil summarized his thoughts while indicating there is no social or moral imperative for the wholesale inclusion of children with ASD just because the features of the setting thought to be necessary for successful inclusion. This is a decision that must be based on the individual child's needs and the evidence about what is likely to benefit the child the most. Participants are listed in Appendix H.

Evidence of Trustworthiness

In order to establish credibility, Creswell (2007) emphasized that qualitative researchers should engage in two of the eight research strategies for validation of findings in order to document the accuracy of the study. For the purposes of this study validation was determined through member checking and triangulation. Member checking was used in the Delphi method as a means of assessing consensus throughout each round (Cornish, 1977). Participants were asked to review answers in each round for verification and agreement. Corrections or changes were made by the participants after results of each round.

Credibility required adequate submersion into the data in order to identify and verify reoccurring patterns. Peer examination between experts in the fields of autism and inclusion were submitted through the Delphi method of inquiry. Participants were asked to reflect on peer responses and to agree or to modify answers. Each participant had the opportunity to reflect anonymously on other responses.

Transferability was addressed in the form of a panel of judges, such as the dissertation committee to help in selection of panel of experts, as well as the colleagues in the field who had expertise in the areas of autism and inclusion. Extensive background information of the experts selected were identified and used in the selection. Descriptions of data, analysis, and interpretation were used. These descriptions provided information on how repeatable the study will be.

Dependability was addressed by the consistency of findings. Intellectual audit trails enabled me to think through the research process step by step to determine the best

choices for compilation of information regarding similar responses. The use of colleagues as peer reviewers to check the research plan and implementation was another means of ensuring dependability. A peer debriefer was used to review the information. As responses were received and recorded. The peer debriefer checked the summary of results for each round. A confidentiality agreement is included in Appendix D.

Confirmability was viewed as neutrality of the researcher in gathering and analyzing data. Reflexive analysis was used to ensure an awareness of personal influence on the data. Personal biases were stated; characteristics of the interviewees and distance between researcher and interviewees were discussed. The final validation of the research is in its utility in determining future standards for successful inclusion and on a critical interpretation of the data.

Member checking was inherent as each participant had the opportunity to respond or challenge the data provided by other participants. Inter-participatory anonymity was maintained throughout the study in order to elicit honest responses and direct opinions of the participants.

Findings

Results of the study were derived from the qualitative perspective, with review of relevant themes, patterns, and relationships discovered from participant responses. The results indicated that basic personality characteristics, primarily in adjectives, such as *friendly, flexible, caring, patient, creative, consistent*, and *intuitive* were important in educators and personnel. The importance of *training and knowledge* echoed throughout all responses. The qualitative data have been presented from a variety of perspectives

from those with expertise in fields of autism and inclusion. As information was compiled emerging themes developed in addition to the primary adjectives, ideas such as *attention to social and communication needs of the child*, *effective collaboration*, and numerous other positive suggestions. Exclusive categories which emerged were highlighted. Adjustments were made in coding to accommodate new insights. Interestingly, having a *sense of humor* appeared important across the board from teachers, paraprofessionals, other staff, families, as well as the student. Another common idea was the importance of *knowledge of the child's disability* and for educators, administrators, and staff knowledge *of a variety of disabilities in general*. This was referenced as important because many children with ASD may have co-occurring disabilities. Table 1 gives the summary of characteristics.

Table 1

Summary of Characteristics That Facilitate Inclusion

Table 1

Summary of Characteristics That Facilitate Inclusion

Educators	Other personnel	Families	Students
Collaborative	Collaborative	Collaborative	Can Collaborate With Peers
Knowledgeable	Knowledgeable	Knowledgeable	Can acquire skills and learn from group formats
Humorous	Humorous	Humorous	
Friendly	Friendly	Empathetic	
Positive	Tolerate	Positive	Require less supportive services
Patient	Supportive	Patient	

Research Question 1 – What characteristics and behaviors of general and special education teachers facilitates or inhibits inclusion of elementary students with ASD?

When asked what characteristics and behaviors facilitates inclusion, a concise list of characteristics including *friendly*, *flexible*, *caring*, *creative*, *consistent*, *intuitive,* and *up-to-date* were initially found in consensus from participants. Others added ideas such as a *positive mindset*, an *ability to think outside the box*. Others noted that educators must have an *ability to take charge*, *provide organization*, *structure*, and *schedules* in the classroom, but they should also *take time to plan* and *differentiate instructions*. It was encouraged that educators should incorporate *visual*, *tactile*, and *kinesthetic activities* and

use *multiple forms of instruction* to work with the student with ASD. Educators should also pay attention to the *social and communication needs* of the student. Every participant in round one suggested that *teacher must be trained in behavior management strategies*. Others indicated there should be knowledge *of Applied Behavior Analysis (ABA) techniques*. It was determined that educators should be able to *collaborate* with parents and teachers, as well as have an *effective use of paraprofessionals*. Finally, it was noted that educators should have a *love of children* and a *sense of humor*.

When asked what characteristics and behaviors of educators inhibits inclusion, a list of negative traits, such as *inconsistent*, *punitive*, *disorganized*, *inflexible*, *reactive*, *self-centered*, and *pessimistic* were observed. An *unwillingness to collaborate*, being *untrained*, or *stuck in one's own ways* were also mentioned. The *initiative to tie teacher salaries to high test scores* was added in Round 2.

Jill from Round 1 noted that teachers should facilitate opportunities for children to socially engage in partnered or group work with peer buddies, including appropriate games inside the classroom as well as at recess. Reed indicated in Round 1 that teachers needed to be trained in the characteristics of pupils with ASD and have an ability to organize the classroom. More importantly, this training impacts the teacher's own self-efficacy in terms of coping with the pupil. Gerry encouraged teachers to have familiarity and comfort with the student with ASD. He stated, "I have seen too many teachers, including special education teachers who are afraid of students with ASD or hesitant to engage with the children because they lack confidence and a take charge style."

Round 1 encompassed a variety of positive adjectives that educators, school personnel, and parents should exhibit when working with an inclusive environment with the student with ASD. Additionally, comments regarding training of educators and staff, as well as a general knowledge of how to work with those with ASD were important. Maintenance of a positive organized classroom was also noted, as well as an ability to collaborate with others. Moreover, a sense of humor among educators, staff, and parents was needed.

Research Question 2 – What characteristics and behaviors of other school personnel facilitates or inhibits inclusion of elementary students with ASD?

When asked what characteristics and behaviors of school personnel facilitate or inhibits inclusion of students with ASD, answers were divided into categories with administrators being an important model. Participants found that administrators should be *friendly*, *empathetic*, and *knowledgeable*. They must also *support teachers* in the inclusion process, *allow for planning* time, while *providing strong leadership*. They should have an *ability to work different personalities*. Unique responses included *putting a process in place with regard to grading students in different settings* to *collaborating with the special education director when hiring special education teachers*. Ben felt it was important that an administrator be willing to allow teachers latitude in teaching those with ASD, in particular if they implement effective, but unique teaching styles.

Paraprofessionals were another category of school personnel who were found by participants to be *friendly*, *flexible*, *trained*, *and humorous* in order for inclusion to be facilitated effectively. Additionally, paraprofessionals should *tolerate differences*, have

an *ability to work with others*, a *willingness to learn new things*, and perhaps most importantly have a *love of children*. Some comments included the following: Whit expressed the importance of the notion that teachers must understand if a child with ASD is in their class, it is their student, and it is not the job of the paraprofessional to educate the student with ASD. Sheila indicated that acceptance of feedback from supervisors was important, and having an ability to enhance peer relationships was important. Furthermore, if poor pay rates lead to a lack of motivation, then there is a lack of properly doing the job.

Occupational and speech therapists were another category of school personnel involved in the facilitation of effective inclusion for those with ASD. These individuals were recommended by participants to be able to *work with others*, *follow the least restrictive environment*, *provide more than pull-out*, *collaborate with all school personnel, not just teachers*, as well as have a *working knowledge of all disabilities*. Interestingly, Mari, a participant, is an occupational therapist. She had the following comment, "Regardless of position, anyone who works with the child with ASD, including, P.E. teachers, lunchroom staff, media specialist, etc… should have a knowledge of that student."

When asked what inhibits school personnel, these answers were not divided into categories of school personnel but instead were general in nature. These included the characteristics of *negativity*, *lack of motivation*, and *rigid*. A *lack of training* and *not being current on the latest research* were also inhibitors. Overall conclusions from Round 2 involved multiple positive adjectives similar to those discussed with teacher

characteristics. For administrators it was important to establish a positive school climate, while allowing planning time, and flexibility for staff members. Paraprofessionals should not only be trained, but have an ability to collaborate and a tolerance for others. Finally, it was important that speech and occupational therapists do more than just pull out, know their students, and work with teachers.

Research Question 3 – What characteristics and behaviors of families of elementary students with ASD facilitates or inhibits inclusion?

When asked what characteristics and behaviors of families of elementary students with ASD facilitates or inhibits inclusion, answers included adjectives such as *patient*, *persistent*, *creative*, *motivated*, *appreciative*, *positive*, and *empathetic*. An ability to *collaborate* with teacher, including explaining the child's behaviors and talents was important. Having an *understanding of the child's disabilities and parental rights* was necessary. Additionally, *keeping an open dialogue and having an ability to request help* when needed was important. A *sense of humor* was suggested, along with *realistic expectations*.

Inhibiting factors of families with children with ASD included *making unreasonable demands on the teacher and school*, *requesting too much observation time*, *being emotionally reactive*, *refusing to share information*, *having a lack of appreciation*, as well as *requesting full-time paraprofessional help*. Responses that were unique include the following: Reeny, a participant who identified herself as being on the spectrum, reiterated that parents, like other adults, can focus too much on limitations and not enough on strengths, and that having a child with ASD does not equate to an

unfulfilling future. Jan, a parent/teacher participant, indicated that from a parental perspective sometimes the "squeaky wheel gets the oil"- in other words if the school is ignoring the needs of her child, she believes it to be in the parent's best interest to advocate.

Responses for parental characteristics included knowledge of their child, knowledge of parental rights, collaboration with teachers and staff, and recognition of strengths and weaknesses of the child. Understanding peers in relation to the child was also mentioned. It was also noted that having an appreciation of what was available regarding school supports was an asset. Being able to laugh in the face of adversity was seen as important.

Research Question 4 – What characteristics and behaviors of the elementary student with ASD facilitates or inhibits inclusion?

Answers to the child with ASD being included in a general elementary education for any portion of the day needed the following ideas in place for effective inclusion to be facilitated. These ideas included that child's *ability to control behaviors and follow routines*. The child's *intellectual ability* was also of primary importance and almost consensus from Round 1. The student should be *able to participate in group instruction formats*, *acquire new skills without intensive instruction*, and overall *require less supportive skills*. Unique answers included the importance of the student with ASD being involved in social skills groups.

When asked what inhibits inclusion for the elementary student with ASD, answers included the child exhibiting *frequent outbursts*, *elopement*, *disrobing, biting*, *self-injury*,

and *aggression*. Students who often got up and *ran around the classroom* and had *a lack of social awareness* should not be included. Those who were *non-toileted* and had *difficulty with changes* were also noted as inhibiting factors.

Ashley, a behaviors specialist, indicated that most of her students with ASD would be such a distraction in the general education classroom that the students themselves would not benefit from it, because the instruction would not be relevant to them. Alternatively, Mike expressed his belief that students with ASD do not need specific behaviors or characteristics to be successful, as the student will rise to the expectations of the teachers, school personnel, and parents.

Keeping with a similar approach, Reeny, the participant who is on the ASD spectrum, shared that as a child with ASD matures, he or she can be taught to deal with increasingly more complex social situations while still coping, and more accommodations may be necessary. This coping ability stems from how a child learns to cope at home and thus is transferred into the classroom. Parents, teachers, and adults must have confidence in the child.

Most participants agreed that intellectual ability played a role in an inclusive placement and students should have an ability to control behaviors and follow routines. Students who required less supportive skills and those who can learn in group instruction formats would be most likely to be successful in an inclusive setting. It was not recommended that those who displayed frequent outbursts, self-injurious behaviors, running, or independence in the bathroom be included. However, many believed that all could be included depending on the appropriate supports and length of time.

Summary

While most answers to the research questions were common characteristics, such as friendly, kind, knowledgeable, and such, it is important to note that these characteristics apply to all adults in the constellation and apply to students as important in not only affecting inclusion, but working with others and maintaining a positive environment. While some answers were typical and redundant, most answers were timely and bear reflection on what expectations should be in place for educators, families, and students in order for inclusion to be effective in the elementary classroom for students with ASD. Interestingly, intellectual ability was mentioned more than once. While I thought some participants would ignore intellectual ability on the premise of socialization, the consensus was intellectual ability played a role in the inclusive process. I also found that professionals working in the field on a daily basis with students with ASD offered more indepth answers, and they expressed opinions with emotion.

In Chapter 5, I discuss interpretation of findings, limitations, recommendation, and implications of the study. The importance of this study in future research, classroom, and social change are reflected.

Chapter 5: Discussion, Conclusion, and Recommendations

The purpose of this qualitative Delphi study was to understand the opinions of individuals with many years of experience in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support and that inhibit inclusion of elementary children with ASD. Since autism is group of developmental brain disorders collectively referred to ASD (www.nimh.nih.gov.), this research focused on the particular behaviors and characteristics surrounding the spectrum of ASD and the possibility of appropriate inclusion and elementary classrooms. A modified Delphi technique focusing on the use of qualitative data was used. Questionnaires were incorporated to allow experts to share their knowledge and opinions in a systematic manner. By searching for themes and patterns and attempting to reach consensus from the experts, I uncovered elements that do and do not support the inclusion of elementary students with ASD.

Interpretations of Findings

At the time of the study, there was limited research as to the combination of characteristics and behaviors of parents, educators, parents/families, and children needed to facilitate the most appropriate and meaningful inclusive environment for the elementary child with ASD. While some studies, such as Simpson et al. (2008) addressed who, what, where, and when regarding students with ASD, teachers, and inclusion, they did not address the specific behaviors and characteristics that should be present to effectively answer these questions. In this study, the characteristics and behaviors that facilitate or inhibit inclusion are addressed. Characteristics of general and education

teachers ranged from a variety of adjectives such as friendly, flexible, caring, patient, creative, consistent, intuitive, and humorous. Similarly, adjectives such as friendly, empathetic, positive, flexible, tolerate, and humorous defined other school personnel. Families who were thought to be patient, persistent, creative, motivated, appreciate, positive, and humorous would support the inclusive process.

Strain et al. (2011) noted that several themes have emerged in the research with ASD, including inclusion, instruction, and social skills; they also indicated that given these themes, there is more to learn about how to support those with ASD in schools. The most common themes that emerged from this research were the importance of training, knowledge of disabilities, effective behavior management, and a willingness to collaborate.

This research was based on a synthesis of the theoretical perspectives of Skinner (1974), Gardner (1983), and Bronfenbrenner (1979) in the belief that each theorist holds important keys in understanding aspects of the role of inclusion for students with ASD. To achieve successful inclusion for those with ASD, severe behaviors must be under control or not present at all, so a clear understanding of the stimulus and response models of Skinner and how they might be applied in contingent reinforcement systems in the classrooms is necessary. This was particularly evident in Round 3 when the characteristics and behaviors were agreed. A final question arose when one participant mentioned adamantly that all elementary students with ASD should be included to a degree. This led to an additional question out of curiosity to determine if other participants agreed with that statement. The question was phrased as follows: If

characteristics and behaviors were in place that were agreed upon, should all elementary students with ASD be included in elementary general education classrooms to some degree? Of the responses 16 received, 11 believed that although characteristics and behaviors that facilitate inclusion were in place, there were too many variables with elementary students with ASD, and a direct answer cannot be stated for including all. Instead, students must be evaluated on an individual basis for what best meets their needs. Although the majority agreed that not everyone should be included, there was one particular participant who solely said all should be included, and another two who agreed that it would be ideal if all could be included, if even for a small amount of time under the right circumstances, and one parent educator who wanted her son included for socialization. Most believed as in Skinner's research that the behaviors of the individual child had the greatest impact on his or her ability to participate. A parent/teacher participant argued that her son with ASD mimicked inappropriate behaviors and needed to be included with general education peers to have a positive role model. She also agreed that in order to avoid class disruption, if behaviors are severe, appropriate supports need to be in place and the time in general education would be limited.

As Gardner (1983) summarized his thinking, the nature of intelligence is not unified but fragmented, and, as a result, children can display many widely differing types of intellect. He also believed that the degree to which intelligences were expressed had a strong environmental component. Participants in this study believed that cognitive abilities were necessary for students with ASD to be included successfully. There was not a discussion of the variety of gifts that students with ASD bring to a classroom per

say. Although, interestingly, the participant who identified herself as a college professor on the spectrum stressed the importance of focusing on the strengths of the child, no matter what they are as well as understanding that many students with ASD may learn differently, have a different understanding of a concept, and may actually be able to solve a problem or figure out an in a unique quicker fashion than their typical peers if given the opportunity.

This research is also in the direct theoretical traditions of Bronfenbrenner (1979), the belief that any behavioral system must be studied as the complex interaction of multiple participants where no one perspective provides the truth. As with the Delphi study, multiple participants provided opinions based on educational beliefs and their own research and experiences to determine what characteristics and behaviors should be in place for inclusion to be effective. There was no consensus on the absolute of all being included, and each individual must be evaluated on an individual basis. Also was the recognition that this research is a guide to find effective inclusive possibilities for the elementary student with ASD, and similar to Bronfenbrenner's theory, there is a complex interaction between classroom variables, student variables, and teacher variables as well as numerous other circumstances that truly effect inclusion. When this complexity is examined and evaluated, the results provide the student with the most appropriate placement beneficial to meet their needs.

Through the wide ranging application of applied behavior analysis in school systems, the treatment of autism from an educational perspective has come to be dominated by the theoretical perspectives of Skinner (1974). Every participant agreed

that general and special education teachers as well as any support personnel should be trained in behavioral techniques, such as Applied Behavior Analysis, in order to effectively work with the elementary student with ASD. Providing structure, routines, schedules, and consistency was echoed throughout numerous responses. The theoretical basis of this research guided the selection of questions. Answers evolved through the discussion of ideas relevant to agreement.

Limitations of the Study

The scope of expert opinions sought from a relatively small number of participants did produce some limitations. First, the study data were based on opinions, experiences, and life situations. Experts who brought opinions might have been limited to some extent, perhaps by specific geographic areas or by the specific school system or the universities with which they had experience. Other limitations included the number of experts and researcher preconceptions. There were 78 participants contacted, and some who are very well known in the field of autism either did not respond or declined to participate, so the selection of experts was limited to professionals in the fields of medicine, psychology, and education. Well-known authors who have been recognized nationally and internationally did not respond.

Recommendations

Additional research should continue as more information is found relevant to the environmental or genetic causes of autism. As the DSM-V definition changed, so did the requirements and guidelines for not only including students with ASD but finding students with ASD eligible for special education services. While the outcome of this

research study was needed, so are the continued research efforts of educators, parents, and professionals who work with students with ASD. More specific, research regarding recommendations for practice, professional development training including hands on activities, and understanding what schools need to have in place in order to make inclusion successful is needed. Those who have had success including students with ASD and how he or she arranged the classroom, conducted the lessons, or implemented accommodations are needed.

Another important focus for future research would be to research additional supports for families. How they can advocate for themselves, understand the inclusion process, and work together for the success of their child. Studies are needed that involve hands on training of what to do when collaborating, selecting, and putting together a group of parents, educators, and other professionals. With the increased use of visual technologies, specific training studies that show the use of technology in an inclusive setting, perhaps with peers in relation to the student with ASD, would be interesting.

Implications

In addressing the issue of students with ASD, this study is important because it focused on a disorder that continues to rise at alarming rates. By searching for commonalities among the expert participants' responses, through this research, I hoped to find a set of common characteristics and behaviors which would be a starting point for establishing a positive inclusive experience for the elementary student with ASD. An establishment of a referable set of conditions that are most likely to lead to appropriate inclusion would provide a common resource for making educational decisions for individual students with

ASD. This referable set of conditions could be created in the form of a checklist for educators in order to better understand what educators should know in order to include elementary students with ASD. An informal checklist has been included in Appendix I.

In the context of broader issues of social change and rights for individuals with disabilities, autism has become an important focal point. The implications for how to train teachers to deal with such students in self-contained, much less inclusive settings is overwhelming, and it would appear that training alone is insufficient unless the teachers already possess tremendous levels of emotional depth and strategic competence. Jordan (2008) emphasized that treating children with ASD is not educating them, and in order for them to become community participants they need the knowledge and skills to do so. Every dollar expended on one student is a dollar less expended on another. The current level of advocacy and public excitement regarding the autism issue has at least temporarily tilted the scale in many districts in favor of enormous expenditure of funds on such students. The long term implications and financial consequences for the broader school population and for the culture as a whole are still largely unknown.

Researcher Reflection

I became interested in this research while taking a 6-month teaching position in an elementary classroom for students with autism. At that time almost 7 years ago, there was less research than today and little known about inclusion of students with ASD. In fact, the relatively small caseload that I had included five students and two full-time paraprofessionals that relegated us to a small self-contained classroom with no outdoor lighting and no mention of inclusion from administrators or special education directors as

an option for any of my students for any length of time. While most of my students were better served in a self-contained classroom, the need for socialization and interaction with others would have been beneficial if the appropriate supports had been in place, and the student(s) could have been included for short periods.

At the time of this study, I found no information indicating what factors should be in place to include students with ASD in elementary settings, nor did I find any studies making suggestions for who should or should not be included. After conducting this research, I feel comfortable suggesting characteristics and behaviors of teachers, school personnel, parents, and students that should make the inclusion process more effective. However, this research does not provide a definitive answer or absolutes to who should or should not be included in a general elementary classroom for all students with ASD. The results of this research outline a guide for schools, teachers, parents, and others interested in determining if the right characteristics and behaviors are in place that can create a positive inclusive environment that benefits not only the student with ASD but his or her peers.

One thing I have learned from the number of years and extensive research put into finalizing this dissertation is that while there are numerous articles, centers, organizations, and advocates trying to gain a better understanding of autism and those with ASD, it is bewildering there continues to be a lack of evidence pinpointing the exact cause. In addition, the broadening definition that resulted in more and more students being diagnosed brought concern and possible fear to teachers who were already under accountability pressures and would be faced with accommodating additional students

with ASD. Furthermore, these fears were compounded by the lack of knowledge and training that most teachers lacked as the increased numbers of students being diagnosed appeared to be alarmingly high. With that increase, there has now been a reflection on the differences in abilities, traits, and characteristics, and, in particular, language strengths and weaknesses that characterize those on the spectrum of autism. Most recently, the definition has changed, reducing the numbers being diagnosed with ASD, including primarily those with language disabilities who do not exhibit more typical recognizable traits of autism. This should result in a decrease of student placements, but it does not make those who have language barriers go away, nor does it fix the problems that have already arisen from the current numbers of students being served.

In communicating with experts in the fields of autism and inclusion, I have reaffirmed my own beliefs and gained a better understanding of agreement between professionals, loved ones, and others who know or work with a student with ASD in the elementary school setting as to what is important in helping him or her be successful and what makes inclusion of students with ASD become beneficial. While the typical adjectives, such as helpful, kind, and friendly, were obvious, the more interesting comments and feedback from the different perspectives of different professionals, including one who considered herself on the spectrum, provided a broader understanding and confirmation of what schools and teachers not only could be doing but should be doing.

Sadly, in numerous articles regarding training of teachers, almost no article indicated that the majority of teachers were well-equipped to work with students with

ASD. Almost all the research I found regarding training of educators indicated that it was needed and requested. I believe a pertinent summarization from Corkum et al. (2014) indicated that just sending a teacher to a training or providing staff development was not enough. In this study, I looked at the professional development needs and found that teachers preferred help in the classroom, with specific examples and demonstrations of what to do. In other words, they did not want to sit in a class or session, they wanted to be shown. I think that is an important example of how teachers across categories and academics can be more effective. Not only do teachers improve when they can visually see something working, but students need to be shown what to do in order to master and exemplify their own skills.

If I had this research to do over, or if I could go back and change something about it, I would find more participants. This seemed to be very difficult. There were several individuals I attempted to contact from University to University from where they had moved. It was difficult getting responses back from initial contacts made. I believe that certainly out of all the professionals working with students with ASD I could have reached out to more Centers or Organizations for insight. I have learned that research while interesting and informative can be very time-consuming. However, once the data collection was in process I found myself anticipating e-mails, looking forward to responses, and becoming excited to receive feedback from participants across the country and internationally. I enjoyed the dialogue and found the comments to be interesting. It was also fun to compare locations, jobs, and opinions in relation to the topic of ASD. Furthermore, I found this research to be interesting in regard to the beliefs of inclusion in

general. While there was a consensus to characteristics and behaviors which would enable effective inclusion, there were varying opinions as to whether all should be included to some degree. This may be an argument which will never be resolved, but it is certainly enlightening and informative to share information and learn from one another.

Conclusion

All children are unique. However, the child with ASD can create challenges, as well as joyful experiences, for all who are involved in their lives. Children with ASD have many gifts and talents which can be unexposed, expressed, or exhibited in wonderful ways. The quality of life and learning of students with ASD is significantly influenced by those around them including families, teachers, school personnel, and peers. The knowledge, training, teaching styles, personality, and interactions of those greatly impacts the success or failures of students with ASD. Specific characteristics and behaviors of those involved all play a role in the growth and development of the child. With the right characteristics and behaviors in place, the road to inclusion is paved more easily.

This research has identified specifically some characteristics and behaviors of teachers, school personnel, families, as well as the elementary student with ASD that can lead to a more positive inclusive experience. Since the spectrum of ASD changes and the diversity of those on the spectrum are continuously exhibited in new and interesting ways, continued exploration of how to effectively include students with ASD is a must for those working with the child. In order for individuals with ASD to become successful and function independently in an increasingly competitive world, being knowledgeable of

how to work together to effectively include them is a must. Striving to understand the appropriate characteristics and behaviors for successful inclusion is a start for students with ASD becoming included in the larger world.

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Appendix A: Participant recruitment email

Dear _____,

You have been identified as an expert in the field of autism and inclusion based on your publication record, presentation record, and/or personal experience in the field. I am a student at Walden University working on a dissertation regarding students with ASD and inclusion.

I am conducting a research study to find out about your views on what characteristics do or do not support including students with Autism Spectrum Disorders (ASD) in general elementary education classrooms. In order to obtain results that are representative of national and international experts, it is important that your thoughts and opinions are included in this research.

I am using a modified Delphi technique in which a minimum of three rounds of questions will be sent to you. Your participation in the study will include a combination of interviews and questionnaire completion. I estimate that the study might require up to 5 hours of your time.

Confidentiality will be maintained, and in the presentation of results I will use pseudonyms or discuss group results. I believe there are no known risks associated with this study. A possible inconvenience may be the time it takes to complete the study.

If you are willing to participate in this study, please send me an email. I will then work with you to obtain your official consent and to proceed with the study.

I will be happy to answer any questions you have about this study before you agree to participate and while the study is underway. You may also contact my chairperson with questions before you agree to participate.

Thank you,

Kimberly Walker, M.Ed.
Candidate for PhD in Special Education
Department of Special Education
Walden University

Appendix B: Informed consent form

You are invited to participate in a research study being conducted by Kimberly Walker, Doctoral Candidate at Walden University. This study is being conducted to determine what characteristics do or do not support including students with Autism Spectrum Disorders (ASD) in general elementary education classroom. You were selected as a possible participant because of your knowledge and/or experience related to the topic. Please read this form and ask any questions you may have prior to consenting to participate.

Background Information:

The purpose of this qualitative Delphi study is to understand the perspectives of individuals with many years of expertise and experience in the fields of autism and inclusion as to the characteristics and behaviors within the environmental constellation that support and that inhibit inclusion of elementary children with ASD.

Procedures:

If you agree to participate you will be asked to participate in three or four phases.

- The first phase will be an interview that may take up to an hour. The interview will be recorded and transcribed. I will ask you to confirm the transcript accuracy by emailing you the transcript, and this review should take you 30 minutes.
- In the second phase you will be asked to respond to questions derived from themes in previous answers. This phase may take another hour. The exchange will happen via email, Skype, or phone, whichever you prefer.
- In the third phase you will be asked to answer a final round of questions which have been narrowed down from previous participant responses. This phase may take another hour, and you may respond via email, Skype, or phone, whichever you prefer.
- Follow up interviews or an additional round may be needed. These interviews would take approximately 30-60 minutes.

Sample questions include: *What characteristics and behaviors of elementary general education teachers facilitate inclusion for students with ASD? What characteristics and behaviors of elementary general education teachers inhibit inclusion for students with ASD? What characteristics and behaviors of school leadership personnel facilitate inclusion for students with ASD? What characteristics and behaviors of school leadership personnel inhibit inclusion for students with ASD?*

Voluntary Nature of the Study:

Your participation in this study is voluntary. If you decide to participate, you may also withdraw from participation at any time. Your continued participation is requested in order to ensure consistency to best support conclusions that may be determined throughout the study.

Risks and Benefits of Being in the Study:

There are no known risks of participating in this study. Potential benefits include personal fulfillment in contributing to an area of research important to the profession. To better understand the opinions of experts in the field can improve the development of strategies and implementation of techniques for successfully including those with ASD in general elementary education classrooms.

Confidentiality:

Your confidentiality will be maintained to the degree permitted by the technology used. In the presentation of results I will use pseudonyms or discuss group results. I will not use your personal information for any purposes outside of this research project. Also, I will not include your name or anything else that could identify you in the study reports. Data will be kept secure by locked computer with passcode. Data will be kept for a period of at least 5 years, as required by the university.

Conflicts of Interest:

There are no known conflicts of interest. No payment will be included.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210 (for US based participants) OR 001-612-312-1210 (for participants outside the US). Walden University's approval number for this study is **IRB will enter approval number here** and it expires on **IRB will enter expiration date.**
Statement of Consent:

I have read the above information, and I feel I understand the study well enough to make a decision about my involvement. By replying to this email with the words, "I consent", I understand that I am agreeing to the terms described.

Name: **Email** **Date**

Please Email this form to and retain a copy for your records.

Thank you for your participation!

Appendix C: First round interview questions

First Round

1) What characteristics and behaviors of elementary general and special education teachers facilitate or inhibit inclusion of students with ASD?
2) What characteristics and behaviors of school leadership personnel facilitate or inhibit inclusion of students with ASD?
3) What characteristics and behaviors of families facilitate or inhibit inclusion for their children with ASD?
4) What characteristics and behaviors of elementary students with ASD facilitate or inhibit inclusion?
5) Are there other experts you would recommend be asked to participate in this study?

Appendix D: Queries for Round 2

In the first round of this study, participants identified these characteristics and behaviors that facilitate appropriate inclusion of elementary school children with ASD. Combined answers from Round 1 provided as potential queries for Round 2.

1. Which of the behaviors and characteristics that were identified by the group can you support?
2. Which of these behaviors and characteristics do you think are inaccurate?
3. What other ideas would you add or delete?

Round 2 - Queries

Characteristics and Behaviors of General and Special Education Teachers that Facilitate Inclusion:	**Characteristics and Behaviors of School Personnel that Facilitate Inclusion:**	**Characteristics and Behaviors of Families that Facilitate Inclusion:**	**Characteristics and Behaviors of Students with ASD that Facilitate Inclusion:**
Friendly, Flexible, Caring, Patient, Creative, Consistent, Intuitive, Up to Date Positive Mindset Ability to think outside the box Ability to take charge	<u>Administration:</u> Friendly, Empathetic, Works well with people Establishes a positive school climate Supports teachers and allows planning time,	Patience, persistent, creative, motivated, appreciative, positive, empathetic Collaborates with teachers Explains child's behavior at home Focuses on the	Ability to control behavior Ability to follow routines Ability to interact with peers/ teachers Intellectual ability Those who require less

Provides organization, structure, and schedules in the classroom Pays attention to the social and communication needs of the student Trained in bullying, peer sensitivity, and sensory issues Knowledge of ABA and effective behavior management strategies Ability to collaborate with parents and teachers Effective use of paraprofessionals Sense of humor Love of children	Provides strong leadership Open to unique ideas of teaching <u>Paraprofessionals:</u> Friendly, Flexible, Ability to work with others Trained Willing to learn new things Tolerates differences Sense of humor Love of children <u>Occupational and Speech Therapists:</u> Ability to work with teachers	child's talents Helps the child learn about other successful individuals with ASD Helps the child learn to cope Knows parental rights Maintains realistic expectations Quick to act, but patient for a response Keeps an open dialogue Sense of humor	supportive services All to some degree
Characteristics and Behaviors of General and Special Education Teachers that Inhibit Inclusion: Inconsistent,	**Characteristics and Behaviors of School Personnel that Inhibit Inclusion:** Negativity	**Characteristics and Behaviors of Families that Inhibit Inclusion:** Unreasonable demands on the	**Characteristics of Behaviors of Students with ASD that Inhibit Inclusion:** Frequent outbursts

punitive, disorganized, inflexible, reactive, self-centered, and pessimistic Unwilling to collaborate Teachers who are "stuck in their ways" Untrained and unknowledgeable	Lack of motivation Lack of training	teacher and school Requests too much observation time at school Emotionally reactive Refuses to share information Lacks appreciation	Self-injury Elopement Disrobing Biting Aggression Running around the classroom Non-toileted Difficulty handling change

Appendix E: Queries for Round 3

Categories of characteristics and behaviors identified are and listed below with additions and deletions highlighted

1. Which of these behaviors or characteristics would you delete?

2. What others would you add?

Round 3 - Queries

Characteristics and Behaviors of General and Special Education Teachers that Facilitate Inclusion:	**Characteristics and Behaviors of School Personnel that Facilitate Inclusion:**	**Characteristics and Behaviors of Families that Facilitate Inclusion:**	**Characteristics and Behaviors of Students with ASD that Facilitate Inclusion:**
Friendly, Flexible, Caring, Patient, Creative, Consistent, Intuitive, Up to Date Positive Mindset Ability to think outside the box Ability to take charge Provides organization, structure, and schedules in the	<u>Administration:</u> Friendly, Empathetic, Works well with people Establishes a positive school climate Supports teachers and allows planning time, Provides strong leadership Open to unique ideas of teaching	Patience, persistent, creative, motivated, appreciative, positive, empathetic Collaborates with teachers Explains child's behavior at home Focuses on the child's talents Helps the child learn about other successful individuals with	Ability to control behavior Ability to follow routines Ability to interact with peers/ teachers Intellectual ability Those who require less supportive services All to some degree

classroom Pays attention to the social and communication needs of the student Trained in bullying, peer sensitivity, and sensory issues Knowledge of ABA and effective behavior management strategies Ability to collaborate with parents and teachers Effective use of paraprofessionals Sense of humor Love of children *Takes time to plan* *Able to differentiate instruction* *Incorporate visual, tactile, and kinesthetic activities* *Uses multiple forms of*	*Provides proper training to teachers and paraprofessionals* *Supports teachers within the inclusive process by looking at student placement and classroom ratios* *Puts a process in place with regard to students in a variety of settings and grading* *Knowledgeable of all disabilities* *Hiring of employees should be collaborative with the Special Education Director* <u>Paraprofessionals:</u> Friendly, Flexible, Ability to work with others Trained Willing to learn new things Tolerates differences Sense of humor Love of children	ASD Helps the child learn to cope Knows parental rights Maintains realistic expectations Quick to act, but patient for a response Keeps an open dialogue Sense of humor *Knowledgeable of child's disability* *Ability to request help when needed*	*Child has access to social skills groups* *Acquires new skills without intensive training* *Can learn in group instruction formats*

instruction *Knowledge of different disabilities*	<u>Occupational and Speech Therapists:</u> Ability to work with teachers *Follows the least restrictive environment* *Knowledgeable of all disabilities* *Provides more than pull out* *Collaborates with teachers, media, connections and other teachers*		
Characteristics and Behaviors of General and Special Education Teachers that Inhibit Inclusion: Inconsistent, punitive, disorganized, inflexible, reactive, self-centered, and pessimistic Unwilling to collaborate Teachers who are "stuck in their ways" Untrained and	**Characteristics and Behaviors of School Personnel that Inhibit Inclusion:** Negativity Lack of motivation Lack of training *for all personnel* *Not staying current on the latest research*	**Characteristics and Behaviors of Families that Inhibit Inclusion:** Unreasonable demands on the teacher and school Requests too much observation time at school Emotionally reactive Refuses to share information Lacks appreciation *Asking for a full-time*	**Characteristics of Behaviors of Students with ASD that Inhibit Inclusion:** Frequent outbursts Self-injury Elopement Disrobing Biting Aggression Running around the classroom Non-toileted

unknowledgeable *Initiative to tie teacher salaries to high test scores*		*paraprofessional* *Not understanding what inclusion means for their child* *Being able to consider the child's peers in relation to their child*	Difficulty handling change *Lack of social awareness*

Appendix F: Confidentiality agreement

Name of Signer:

During the course of my activity as a peer reviewer for the dissertation of Kimberly Walker, I will have access to information that is confidential and should not be disclosed. I acknowledge the information must remain confidential and improper disclosure of confidential information can be damaging to the participants.

By signing this Confidentiality Agreement I agree that:

I will not disclose or discuss any confidential information with others, including friends or family.

I will not in any way divulge, copy, release, sell, loan, alter, or destroy any confidential information except as properly authorized.

I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.

I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.

I agree that my obligations under this agreement will continue after termination of the job that I will perform.

I understand that violation of this agreement will have legal implications.

I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signed:_____

Date:_____

Appendix G: Final results summary

Characteristics and Behaviors of General and Special Education Teachers that Facilitate Inclusion:	**Characteristics and Behaviors of School Personnel that Facilitate Inclusion:**	**Characteristics and Behaviors of Families that Facilitate Inclusion:**	**Characteristics and Behaviors of Students with ASD that Facilitate Inclusion:**
Friendly, Flexible, Caring, Patient, Creative, Consistent, Intuitive, Up to Date	<u>Administration:</u> Friendly, Empathetic,	Patience, persistent, creative, motivated, appreciative, positive, empathetic	Ability to control behavior
Positive Mindset	Works well with people	Collaborates with teachers	Ability to follow routines
Ability to think outside the box	Establishes a positive school climate	Explains child's behavior at home	Ability to interact with peers/ teachers
Ability to take charge	Supports teachers and allows planning time,	Focuses on the child's talents	Intellectual ability
Provides organization, structure, and schedules in the classroom	Provides strong leadership	Helps the child learn about other successful individuals with ASD	Those who require less supportive services
Pays attention to the social and communication needs of the student	Open to unique ideas of teaching	Helps the child learn to cope	All to some degree
Trained in bullying, peer sensitivity, and sensory issues	Provides proper training to teachers and paraprofessionals	Knows parental rights	Child has access to social skills groups
Knowledge of ABA and effective	Supports teachers within the inclusive process by looking at student placement and classroom ratios	Maintains realistic expectations	Acquires new skills without intensive training
	Puts a process in place with regard	Quick to act, but patient for a response	Can learn in group instruction formats

behavior management strategies Ability to collaborate with parents and teachers Effective use of paraprofessionals Sense of humor Love of children Takes time to plan Able to differentiate instruction Incorporate visual, tactile, and kinesthetic activities Uses multiple forms of instruction Knowledge of different disabilities	to students in a variety of settings and grading Knowledgeable of all disabilities Hiring of employees should be collaborative with the Special Education Director <u>Paraprofessionals:</u> Friendly, Flexible, Ability to work with others Trained Willing to learn new things Tolerates differences Sense of humor Love of children <u>Occupational and Speech Therapists:</u> Ability to work with teachers Follows the least restrictive environment Knowledgeable of all disabilities Provides more than pull out	Keeps an open dialogue Sense of humor Knowledgeable of child's disability Ability to request help when needed	

	Collaborates with teachers, media, connections and other teachers		
Characteristics and Behaviors of General and Special Education Teachers that Inhibit Inclusion: Inconsistent, punitive, disorganized, inflexible, reactive, self-centered, and pessimistic Unwilling to collaborate Teachers who are "stuck in their ways" Untrained and unknowledgeable Initiative to tie teacher salaries to high test scores	**Characteristics and Behaviors of School Personnel that Inhibit Inclusion:** Negativity Lack of motivation Lack of training for all personnel Not staying current on the latest research	**Characteristics and Behaviors of Families that Inhibit Inclusion:** Unreasonable demands on the teacher and school Requests too much observation time at school Emotionally reactive Refuses to share information Lacks appreciation Asking for a full-time paraprofessional Not understanding what inclusion means for their child Being able to consider the child's peers in relation to their child	**Characteristics of Behaviors of Students with ASD that Inhibit Inclusion:** Frequent outbursts Self-injury Elopement Disrobing Biting Aggression Running around the classroom Non-toileted Difficulty handling change Lack of social awareness

Appendix H: Checklist for effective inclusion of elementary students with ASD

Do special and general education teachers possess the following characteristics or behaviors?

- ☐ A positive attitude regarding inclusion
- ☐ An organized classroom
- ☐ An ability to use a variety of strategies
- ☐ A willingness to adapt instruction when necessary
- ☐ An ability and willingness to collaborate with teachers and parents
- ☐ A knowledge of disabilities
- ☐ A sensitivity to student needs

Do school personnel have the following qualities?

Administrators:

- ☐ An ability to establish a positive school climate while supporting teachers
- ☐ A demonstration of strong leadership
- ☐ An ability to work with different personalities
- ☐ A willingness to provide training to school staff
- ☐ A knowledge of student disabilities and the inclusion process

Paraprofessionals:

- ☐ A tolerate attitude of those with disabilities

- An ability to collaborate effectively with teachers
- A willingness to learn to new things
- An enjoyment of working with students with disabilities

Do families of elementary students with ASD employ these characteristics to facilitate inclusion?

- A willingness to collaborate with teachers
- An understanding of the inclusion process
- A knowledge of their parental rights
- A knowledge of their child's disability
- A maintenance of reasonable expectations

Does the elementary student with ASD have the following characteristics which promote effective inclusion?

- An ability to control behavior
- An ability to follow routines
- An ability to interact with peers and teachers
- An ability to learn with group instruction formats
- An ability to acquire new skills without intensive training