

TEACHER PERCEPTIONS OF THE NEEDS OF PRESCHOOL
STUDENTS WITH AUTISM

by

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ABSTRACT

In a report published in January 2005, the General Accounting Office reported a more than 500 percent increase in the number of children diagnosed with autism and receiving services under IDEA. This veritable explosion of students identified as having some form of Autism Spectrum Disorder (ASD) has merited attention from parents, teachers, educational administrators, researchers and many other interested parties. This rapid influx of students with autism into the school system has presented challenges for special and general educators alike (Boyle, 1996).

The purpose of this study was to examine the perceptions of preschool special education teachers regarding the needs of their young students with ASD within the classroom. The qualitative case study of preschool teachers in one school system yielded helpful information to those who are responsible for providing training and support to the self-contained Preschool Program for Children with Disability (PPCD) teachers and PPCD Head Start inclusion specialists within the public school systems. The perceptions examined included student characteristics within the classroom setting, how well prepared the teachers feel to provide appropriate programming for young students with autism, and what supports they feel are, or would be, helpful to them.

The overriding themes emerging from the research were very similar to the information that was addressed in the current literature. The prevailing themes regarding the needs of young students with ASD within the classroom setting were: Language and Communication; Behavior; Sensory issues; Need for Structure and Predictability; Individualized Attention and Instruction; Social and Self-Help skills and, Inclusion

Opportunities. Four themes emerged from the questions regarding the challenges that the teachers face in meeting the needs of the students in their classrooms. These issues included: Time; Behaviors; Staffing; and, Teacher Stress – with the potential for burn-out. Three overriding themes emerged from the interviews regarding supports that the teachers felt they needed to meet the needs of young student with ASD: the need for additional training, including access to the training; the need for more and better classroom technology, and the need for various types of systematic support from educational specialists and administrators.

CHAPTER I

INTRODUCTION

In a report published in January 2005, the General Accounting Office reported a more than 500 percent increase in the number of children diagnosed with autism and receiving services under IDEA. This veritable explosion of students identified as having some form of Autism Spectrum Disorder (ASD) has merited attention from parents, teachers, educational administrators, researchers and many other interested parties. This rapid influx of students with autism into the school system has presented challenges for special and general educators alike (Boyle, 1996). The increasing numbers of students with autism included preschool students served by Head Start and Preschool Special Education programs within the public school system. The characteristics of ASD can make these young students both unique and challenging to manage in both general education classrooms and within self-contained special education programs.

This study examined the perceptions of preschool special education teachers regarding the needs of their young students with autism within the classroom. The study yielded helpful information to those who are responsible for providing training and support to the self-contained Preschool Program for Children with Disability (PPCD) teachers and PPCD Head Start inclusion specialists within the public school systems. The study examined perceptions about student characteristics within the classroom setting, how well prepared the teachers feel to provide appropriate programming for young students with autism, and what supports they feel are, or would be, helpful to

them. The results provided valuable, enlightening information from the “field” regarding the perceptions of teachers about their young students with autism.

Statement of the Problem

The increase in numbers of students identified with Autism (ASD) included preschool students served by Head Start and Preschool Special Education programs within the school system. The characteristics of ASD can make these young students both unique and challenging to manage in general classrooms and within self-contained programs. There are a number of challenges associated with providing appropriate services for this population. These include: adequate preparation of early intervention practitioners (Able-Boone, Crais & Downing, 2003); diagnosis (Marchand, 2002); appropriate and effective educational assessment (Wolf-Schein, 1998); behavioral issues (Gomez & Baird, 2005); communication issues (Hancock & Kaiser, 2002); social delays (Zanolli & Daggett); and, the identification of research-based best practices for young children with autism (Massey & Wheeler, 2000).

Purpose of the Study

The purpose of this study was to examine the perceptions of preschool teachers regarding the needs of their young students with ASD within the classroom. The study yielded helpful information to those who are responsible for providing training and support to the self-contained Preschool Program for Children with Disabilities (PPCD) teachers and PPCD Head Start inclusion specialists. The study was limited to preschool special educators within the Lubbock (Texas) Independent School District. The perceptions examined included student characteristics within the classroom setting; how

well prepared these teachers felt to provide appropriate programming for young students with ASD; and what supports they felt are, or would be, helpful to them. This study provided potentially valuable, enlightening information from the “field” to those who are responsible for making decisions regarding the scope and content of training and supports for in-service teachers, as well as providing input for those developing courses for pre-service teachers. Although the study was limited to Lubbock ISD, the results may be transferable to other situations and settings. The research findings may also serve as a foundation for a broader investigation into the lived experiences of teachers of students with ASD.

Review of Literature

The rate of autism and ASD has risen sharply in the past decade. The federal General Accounting Office found more than a 500 percent increase in those identified with autism during the years between 1993 and 2002. A review of current literature reflected researchers attempting to respond to this situation. The focus of this study was young students with ASD. The research showed that the characteristics of young students with ASD have been examined and discussed in the literature. Some of the information seemed to have been extrapolated from research with older students with ASD, however the information seemed sound and reasonably helpful.

One challenge noted was the need for early identification and early intervention. The literature indicated that many positive steps were occurring in early identification by physicians and other specialists, however there are still many misconceptions and a lack of understanding about the identification and subsequent service provision for young

students with ASD. The literature pointed to a need for better and more extensive training for doctors and other professionals in being able to identify the early signs of autism.

Various authors within the current literature also reflected the search for school based best practices and highlighted the variety of approaches being commonly utilized. Applied Behavioral Analysis and its accompanying techniques have been recognized as being effective with most students. The literature did support, however, the notion that programs for young students with autism must be individualized and must take each student's strengths and challenges into consideration. There was a resounding call for scientifically based and research supported interventions. Several programs and approaches were described and examined.

Teacher needs and challenges were discussed, primarily in terms of teacher training programs that seemed to hold promise. Finally, a single case study describing the experiences of a first year teacher of young students with autism was highlighted. Although her experiences may not be entirely representative of every practicing teacher in the field, the information was valuable and helped to set a framework for further research.

Research Questions

The research questions were developed to address preschool teacher's perceptions about the needs of young students with autism. The questions supporting this topic were:

1) What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?; 2) What special challenges do

teachers face in meeting these needs?; and, 3) What supports do teachers feel are necessary in order for them to meet the needs of these students? The focus of the study was the teacher's perceptions regarding their preparation and feelings of efficacy with their young students with ASD.

Question One ("What do preschool special education teachers perceive to be the needs of young children with autism within the classroom setting?) addressed the educational needs and goals of the PPCD classroom in general; how the needs and goals of students with autism correlated or differed from their PPCD peers; special interventions the teachers felt they needed to utilize; inclusion opportunities for students with ASD; and classroom materials utilized for PPCD students. Question Two (What special challenges do teachers face in meeting these needs?) looked at the amount of time that PPCD teachers devoted to planning and providing specialized services to the students within the PPCD classroom in general and the students with ASD in particular. Question Three (What supports do the teachers feel are necessary in order for them to meet the needs of these students?) examined teacher access to supplies and materials for producing specialized activities and supports, teacher and student access to technology, teacher access to training opportunities, and teacher access to systemic supports and specialists.

Theoretical/Conceptual Framework

In the state of Texas, students aged three through five are offered access to Head Start and other early education programs (Head Start in Texas). Young students who qualify for special education services may be identified as eligible under the rules of "Non-categorical Early Childhood." The criteria for this label includes students who

have been “assessed by a multidisciplinary educational team conducting a Full and Individual Evaluation; documentation that the student is between the ages of 3 – 5; and documentation that the student is evaluated as having one of the following: Mental Retardation; Emotional Disturbance; Specific Learning Disability, or Autism” (Framework for Special Education in Texas).

An ARD (Admission, Review and Dismissal) committee, which includes the student’s parents, discusses appropriate educational placement options and an Individualized Educational Plan (IEP) is developed. The ARD committee is a multidisciplinary team must include a licensed specialist in school psychology (LSSP), or an educational diagnostician, or other appropriately certified or licensed practitioner with experience and training in the disability (Framework for Special Education in Texas). The committee members determine what educational options will best be able to implement the student’s IEP and makes a placement decision based on the “Least Restrictive Environment” (LRE) that can implement the student’s IEP. “Each student with a disability has the right to an education in a setting with non-disabled peers, with access to the general curriculum. The term ‘least restrictive environment’ is used to describe a student’s right to be educated to the maximum extent appropriate with students who are not disabled” (Beyond ECI, 2004). The members of the ARD committee may then recommend placement of students who meet the non-categorical early childhood criteria in a Preschool Program for Children with Disabilities (PPCD).

PPCD programs may include a variety of options. Some programs are self-contained and are housed on elementary or head start campuses, others may include full

inclusion within a head start program, still others may include providing services to a student who is enrolled in a private pre-school or day care, or who is cared for at home. “PPCD programs are not limited to a self-contained room on an elementary or early childhood campus in which students with disabilities are cared for all day. Districts should offer a full continuum of services to educate young children with disabilities” (Preschool Programs for Children with Disabilities Program Description, ESC 20). The ARD committee considers the needs of the student and determines the placement that will best implement the child’s IEP.

The self-contained classroom programs are staffed by certified teachers and teaching assistants, typically with a low student-teacher ratio. The daily activities, as described by one Texas district, incorporate “motor activities, cognitive games and puzzles, intense language activities, self-help training, technology training and gross motor activities” (Preschool Programs for Children with Disabilities in Sherman ISD). Students may receive specialized services from a number of related services providers, including Occupational Therapy, Physical Therapy, Speech Therapy, Behavior Specialists, Autism Specialists, Counseling, and Music Therapy. Therapy and related services may occur within the classroom individually, within the classroom as a group, or may be provided individually or in small groups in a setting other than the classroom. These therapies are provided in accordance with each student’s IEP and are designed to support the student’s classroom goals and activities. These activities ensure that the student is receiving a “Free Appropriate Education” (FAPE). “Federal law mandates that students have the right to a free appropriate public education, including special education

and related services. The public school provides these services at no cost to the parents” (Beyond ECI, 2004). Each school system adopts PPCD models to address the needs of young special education students within their school system.

PPCD programs within Lubbock Independent School District (Lubbock ISD) were the focus of this study. “The Lubbock Independent School District covers 85.5 square miles and contains nearly 900 acres of school properties that are owned by the local taxpayers. Those properties include 58 campuses including 40 elementary (4 of which are designated as early childhood schools) 9 middle/junior highs, 4 high schools, 2 special purpose, and three alternative campuses”(Lubbock ISD Demographics). During the school year 2005/06, there were 1,647 students enrolled in EE/Head Start/Four-year old programs. The total student enrollment in Lubbock ISD was 28,847. The ethnic background of the student population included: 47% Hispanic, 37.9% Anglo/Other, 15.1% African-American. (Lubbock ISD Demographics). During the 2005/2006 school year, there were a total of ten PPCD self-contained classrooms. Five of these classrooms were housed on elementary campuses and the remaining five were located on Head Start campuses. Additionally, one program existed within the “Homebound” program to provide services to medically fragile preschool students. Each Head Start campus also had two teachers designated as PPCD “Inclusion Specialists” who helped to facilitate students who were eligible for special education services and were being served in partial or full inclusion within the head start classes. Students who required only speech and language services were provided speech therapy in the “Communication Application

Preschool Program” (CAPP) that was located on one of the Head Start campuses (Ward, G., Personal communication, 2005)

Methodology

In addressing the research questions, it was necessary for the researcher to consider research methodology. It was felt that this line of research lent itself to a qualitative line of inquiry. Taylor and Bogden (1998) stated, “What is important is the potential of each case to aid the researcher in developing theoretic insights into the arena of social life being studied” (p. 93). In considering teacher perceptions, it was vital to engage in research that allowed a person’s story to be told. Berg (2004) described qualitative research as being capable of describing an individual’s life-world. “In the case of life worlds, researchers focus on naturally emerging languages and meanings individuals assign to experience. Life worlds include emotions, motivations, symbols and their meanings, empathy, and other subjective aspects associated with naturally evolving lives of individuals and groups” (p.11). The research questions, seeking to understand the perceptions of teachers about the needs of their students with autism, readily lent themselves to this approach.

Data Collection

The bulk of the information for the study was gathered through interviews and site observations with preschool special education teachers. Taylor and Bogdan (1998) supported the ability of interviews to answer the research questions. They stated that

interviewing is appropriate when “The research interests are relatively clear and well defined; Settings or people are not otherwise accessible; The researcher has time constraints; and The researcher is interested in understanding a broad range of settings or people” (pp. 90-91). The research questions were clear and defined in terms of the information being sought; they were specific to the teachers’ experiences with one population of students. The settings and people were not accessible in terms of being able to demonstrate outwardly, or through researcher observation, the answers to questions about their perceptions of student and teacher needs. These were not directly observable behaviors; they were thoughts that must be accessed in a manner other than overt observation. The research targeted understanding of this phenomenon across several classrooms within the school system. Key players interviewed included two gatekeepers (the school system autism specialists), six preschool special education teachers who currently have students identified with autism in their classrooms, and two campus inclusion specialists.

Population

The study was limited to PPCD teachers within the Lubbock ISD. The decision was made to conduct the qualitative research as a case study of a mid-sized school district and how its teachers perceive the needs of and supports available to their young students with autism. Berg (2004) described “patchwork case studies” as “A set of multiple case studies of the same research entity, using snapshot, longitudinal and/or pre-post designs. This multi-design approach is intended to provide a more holistic view of the dynamics

of the research subject” (p.258). Essentially, each PPCD classroom or teacher studied constituted an individual case study and the information was compiled into an integrated “case study” of the PPCD programs within the Lubbock ISD. Mendaglio (2003) spoke of utilizing qualitative case studies in gifted education, but his observations might be generalized to other qualitative case studies. He described qualitative case studies as being able to uncover findings that were not available with other methods. “While quantitative research makes its own contributions to our understanding of gifted students and their education, it cannot access the lived experience of being gifted. Use of qualitative case study enables researchers to let others hear their participants’ voices” (163). The research focused on teacher perceptions; therefore this approach seemed well suited for uncovering the “lived experiences” of PPCD teachers.

Data Management

The anticipated time frame spanned the second semester of the 2005/06 school year, including research and data analysis. Permission had been sought and granted from the Texas Tech Institutional Review Board, and key stakeholders and gate-keepers in the Lubbock Independent School District for the pilot study which was conducted during May 2005, as well as for the remainder of the research during January to May 2006. Pilot study interviews were conducted during late May, 2005. The bulk of the interviews and observations for the full study took place between March 2006 and the end of May 2006. Data analysis was ongoing and began as soon as the interviews started and were transcribed. The data interpretation occurred during the summer months of 2006.

Data Analysis

It was important for the qualitative researcher to determine the interpretive approach to be utilized in interpreting the data collected. “How one interprets such text depends in part on the theoretical orientation taken by the researcher...Researchers with a more general interpretive orientation (dramaturgists, symbolic interactionists, etc) are likely to organize or reduce data in order to uncover patterns of human activity, action, and meaning” (p. 266). This research study sought to find patterns and commonalities among the experiences and perceptions of the PPCD teachers who participated in this case study. Thus, the researcher utilized a reflective, interactionist approach in interpreting gathered data. “Interpreting is the reflective, integrative, and explanatory aspect of dealing with a study’s data” (Gay & Airasian, 2003, p. 245). It was incumbent upon the qualitative researcher to visit and revisit the data looking for commonalities and themes that emerged. It was also important to identify outlying data that would serve to disprove the categories and themes. “Data interpretation is based heavily on the connections, common aspects, and linkages among the data, especially the identified categories and patterns. One cannot classify data into categories without thinking about the meaning of the categories. Thus, implicitly or explicitly, the researcher is interpreting data whenever she or he uses some conceptual basis or understanding to cluster a variety of data pieces into a category” (Gay & Airasian, 2003, p. 245). The data collected as a result of this research was treated reflectively and interpreted to determine common themes and concepts. This was an ongoing process as data was collected and added to the body of knowledge and information gathered.

Definition of Terms

When approaching any research study, it is important to define the terms that are utilized throughout the text of the study. This study focused specifically on the perceptions of Preschool Program for Children with Disabilities teachers about their young students with Autism. A number terms utilized throughout this text appear below.

Autism Spectrum Disorder

“Autism is a severe form of a group of disorders termed pervasive developmental disorders. PDDs are characterized by impairments in social relatedness and communication skills and by the presence of unusual activities and interests such as rituals, stereotypies, and poor play skills” (Batshaw, 1997, p. 425). Autism is diagnosed by observation of behavioral characteristics of the individual. “The essential features necessary for the diagnosis of autistic disorder include ‘the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests’” (Scott, Clark & Brady, 2000, p. 66). In order for an individual to receive the diagnosis of autism, six of the characteristics must be present. This includes at least two social, one behavioral and one communication characteristic. “If fewer than six total characteristics are evident, or if the required number of indicators is not present in the areas of social, behavior, and communication, a diagnosis of PDD-NOS (pervasive developmental disorder/not otherwise specified) is likely to be considered appropriate” (Scott, Clark, & Brady, 2000, p. 3, 6). Further diagnostic criterion include:

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1) and one each from (2) and (3):

(1) qualitative impairment in social interaction, as manifested by at least two of the following:

- (a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
- (b) failure to develop peer relationships appropriate to developmental level
- (c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by lack of showing, bringing, or pointing out objects of interest)
- (d) a lack of social or emotional reciprocity

(2) qualitative impairments in communication as manifested by at least one of the following:

- (a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
- (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
- (c) stereotyped and repetitive use of language or idiosyncratic language
- (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) restricted repetitive and stereotyped patterns of behavior, interests, and activities as manifested by at least one of the following:

- (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
- (b) apparently inflexible adherence to specific, nonfunctional routines or rituals
- (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
- (d) persistent preoccupations with parts of objects.

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett Disorder or Childhood Disintegrative Disorder. (Diagnostic and Statistical Manual of Mental Disorders (4th Edition), by American Psychiatric Association, 1994, pp. 70-71 as cited in Scott, Clark & Brady, 2000, p. 4).

Certified Teachers

According to the Texas Education Code, "Classroom teacher means an educator who is employed by a school district and who, not less than an average of four hours each day, teaches in an academic instructional setting or a career and technology instructional setting. The term does not include a teacher's aide or a full-time administrator." The code also states that "Educator means a person who is required to hold a certificate issued under Subchapter B, Chapter 21" (Texas Education Code).

Preschool Programs for Children with Disabilities (PPCD)

"PPCD programs are not limited to a self-contained room on an elementary or early childhood campus in which students with disabilities are cared for all day. Districts should offer a full continuum of services to educate young children with disabilities" (Preschool Program for Children with Disabilities Program Description). In the Lubbock ISD, PPCD programs include the "Communication Application Preschool Program (CAPP)" which provides speech therapy to students ages three to five; Self-Contained PPCD classrooms housed on elementary campuses and on Head Start campuses; Facilitated inclusion into Head Start classrooms; and, Homebound PPCD services for medically fragile students ages three to five. (Ward, G., Personal Communication, October 16, 2005).

Perceptions

People become aware of information through their senses of sight, hearing, taste, smell or feeling. They may also take in, grasp mentally or comprehend information from their environment. This act of perceiving what is occurring in one's environment results

in personal perceptions of the circumstances of one's surroundings. For the purposes of this study, "perception" refers to the individual's internal interpretation of the information gathered from personal experience within their immediate environment. One forms conclusions about, and reacts to, those around them based upon their perceptions of the situations at hand. This depends upon how people actually see and interpret the world around them. "This 'subjective reality' includes the individual's perceptions, thoughts, feelings, values, beliefs, convictions and conclusion. Behavior is understood from the vantage point of this subjective perspective. How life is in reality is less important than how the individual believes life to be" (Corey, 2001, p.109). One purpose of this study was to seek to understand the subjective reality of teachers of young students with autism, how they perceived their experiences and the realities of their particular classroom situations.

Limitations of the Study

This study was limited due to the small number of participants meeting the criterion to be involved in the research. The qualitative case study approach was selected to help to minimize this limitation. The case study focused on the experiences of preschool special education teachers in a large west-Texas city (population 200,000). The results of the study may be taken to be specific to this particular population and may or may not be viewed as being able to be generalized to other preschool special educators. Every effort was made to triangulate the information by utilizing a variety of sources of information.

Study of one's perceptions may also be considered to be somewhat self-limiting. Those who examined the results and interpretations of the data collected have born in mind that the information was based upon the teacher's subjective reality and his or her interpretation of their respective environments and students. Again, precautions have been taken in presenting the gathered data as a representation of teacher's feelings and perceptions about their personal experiences with preschool students with ASD.

Significance of the Study

A preliminary examination of the literature revealed information available regarding identification and "diagnosis" of ASD. The emphasis in the literature seemed to be early identification, prior to age three. This trend, coupled with the 500 percent increase in individuals being diagnosed with some form of autism over the past 10 years (GAO,2005), presented a very significant need for research regarding effective programming and educational strategies for preschool aged children with ASD. Much of the information in the literature seemed fairly general in nature and the real-life applications and "how-to" information that preschool teachers need was somewhat hard to find.

There was dearth in the literature regarding how in-service preschool teachers viewed or perceived their experiences with, and the needs of, their young students with autism. This information would be valuable to those who are responsible for designing and implementing teacher education and in-service programs. Most literature seemed to concentrate on older and higher functioning students, rather than the younger and more severely involved students. The results of this research may be utilized to facilitate

development of training modules targeted toward those practitioners in the field who need information and assistance with their day-to-day classroom challenges.

Interviewing and engaging in research activities with teachers of young students with autism has yielded valuable perspectives and information that may contribute to the body of knowledge regarding young students with ASD and their educational needs.

Organization of the Study

The study was organized into five chapters. Chapter One provided an introduction and overview to the study. The problem was stated and research questions were discussed. The conceptual framework described pertinent background information. Terms have been defined and study limitations delineated. The significance of the study was discussed. Chapter Two reviewed relevant literature as it related to the research questions. The literature has been summarized and tied to the research questions for the study. Chapter Three covered the methodology. Research questions were restated and research rationale was described in detail. The contexts of the study and data sources have been provided. Data collection methods were discussed and connected to the results of the pilot study. The implementations of data analysis and data management were covered. The validity and transferability of the study were provided. Chapter Four examined the results of the study. Chapter Five discussed the implications of the findings, provided suggestions for action and further research, and summarized the information gained.

Summary

The rate of Autism Spectrum Disorders rose sharply in the past decade. The General Accounting Office reported more than a 500 percent increase in those identified with ASD during the years between 1993 and 2002. This dramatic increase of individuals identified with ASD included preschool students who are educated in Head Start programs and Preschool Special Education programs within local school systems. The characteristics of ASD have provided preschool teachers with unique and difficult challenges within the classroom. The purpose of this study was to examine the unique challenges that preschool special educators faced as they endeavored to meet the daily challenges of their students with ASD. Research questions investigated included: (1) What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?; (2) What special challenges do teachers face in meeting these needs?; and, (3) What supports do teachers feel are necessary in order for them to meet the needs of these students?

The study was conducted as a qualitative case study of Preschool Program for Children with Disabilities teachers within the Lubbock, Texas Independent School District. Teachers were interviewed regarding their perceptions about teaching young students with ASD. Photographs were taken of the classroom arrangements and materials. Classroom observations were conducted to assist the researcher in understanding the teachers' classroom settings and also to provide triangulation within the research. Data was interpreted utilizing a reflective, interactive approach. The study was limited due to the number of participants available within the school system.

Numerous efforts to provide triangulation of results helped to ameliorate this limitation.

Current literature was examined to assist with triangulation of the results of the study and to provide greater insight into the area being examined.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

In a report published in January, 2005, the General Accounting Office of the United States Government reported that “The number of children ages 6 through 21 diagnosed with ASD receiving services under IDEA has increased more than 500 percent over the past 10 years, from under 20,000 in 1993 to almost 120,000 in 2002, according to data collected for the Department of Education” (p. 17). The report cited possible reasons for the increase, including, “The advent of better diagnoses; A wider range of conditions being categorized as ASD; A higher incidence of autism in the general population” (p. 17). This veritable explosion of students identified as having some form of Autistic Spectrum Disorder (ASD) merited attention from parents, teachers, educational administrators, physicians, researchers, and many other interested parties.

The focus of this study was the teachers of preschoolers diagnosed with ASD, aged three to six, who were typically served in inclusive Head Start classrooms or in self-contained special education classrooms. The necessity for early intervention was well established in the literature (GAO, 2005; California Departments of Education and Developmental Services, 1997; Smith, Groen & Wynn, 2000; Graziano, 2002). The rapid influx of students with these disorders into preschool classrooms presented challenges for special and general educators alike (Boyle, 1996). The characteristics of ASD made these young students both unique and challenging to manage in the general

classrooms and within self-contained programs. An examination of current literature showed that some of the challenges and issues associated with providing effective and appropriate programming for young students with ASD included: (a) Diagnosis by medical or ASD specialists (Marchand, 2002; Prater & Zylstra, 2002; Szatmari, Merette, Bryson, et al., 2002; Scambler, Rogers & Wehner, 2001; Lord & Volkmar, 2002; Landa, 2003; Stevens, Fein, Dunn, Allen, et al, 2000); (b) Appropriate and effective educational assessment (Wolf-Schein, 1998; Shriver, Allen & Mathews, 1999; Woods & Wetherby, 2003; Palmer, Blanchard, Jean & Mandell, 2005); (c) Adequate preparation of early intervention practitioners (Able-Boone, Crais & Downing, 2003); (d) Behavioral issues (Gomez & Baird, 2005; Reinecke, Newman & Meinberg, 1999; Kennedy, Meyer, Knowles & Shukla, 2000); (e) Communication issues (Hancock & Kaiser, 2002; Tanguay, 2000); Social delays (Zanolli & Daggett, 1998; Garfinkle & Schwartz, 2002); and, (f) the myriad of, and often vastly different, approaches to “best practices” for young children with autism (Massey & Wheeler, 2000; Smith, Groen & Wynn, 2000; Marks, Shaw-Hegwer, Scharder, et al, 2003; Mirenda, Wilk & Carson, 2000; Agran, Blanchard, Wehmeyer & Hughes, 2002).

What is Autism?

Autism Spectrum Disorder (ASD) represents a severe form of a pervasive developmental disorder which is characterized by impairments in social relationships and communication skills and which often is accompanied by the “presence of unusual activities and interests such as rituals, stereotypies, and poor play skills” (Batshaw, 1997, p. 425). ASD is often referred to as a “spectrum disorder,” which describes the variety of

symptoms and severity that may be present within the individual (Tanguay, 2000).

Neurologists, neuropsychologists, and other qualified professionals utilize the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) of the American Psychiatric Association to diagnose ASD. “The essential features necessary for the diagnosis of autistic disorder include ‘the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests’” (Scott, Clark & Brady, 2000, p.66).

By definition, symptoms of autism appear prior to age 3, however some children may not be diagnosed until they are school age (Batshaw, 1997). Autism is included as one of the educational categories that may qualify students, who present an educational need, for special education services under the federal IDEA law. “This definition, and every other definition of autism is a description of symptoms. As such, autism is recognized as a syndrome, not a disease in the traditional sense of the word. Although autism is defined and assessed by observing behavioral characteristics, it is not considered a behavioral, an emotional, or a conduct disorder, or a mental illness” (Shriver, Allen & Mathews, 1999, p. 539).

Historical Perspective

Dr. Leo Kanner, a child psychiatrist, first described autism in the early 1940’s. He referred to “what he called ‘autistic disturbances of affective contact’ (1943, p. 217). In the 1990’s his description remains as apt as when it was written a half a century ago” (Batshaw, 1997). Kanner described children who had symptoms that distinguished them from any previously established diagnoses. “The overwhelming characteristic that

Kanner noted was the ‘inability to relate themselves ... to people and situations.’ They appeared to be isolated from other people, to always be alone and self-directed in their activities” (Scott, Clark & Brady, 2000, p. 2). He also noted that these children did not prefer to be held as infants, tended to ignore social approaches, treated people as objects in their environment and did not make eye contact. He described the children flying into rages when minor changes occurred in their environments. These children tended to be delayed in their language or exhibit repetitive speech. Play was also repetitive and lacked imagination. (Scott, Clark & Brady, 2000; Batshaw, 1997). Variations on the criteria Kanner described and established are still utilized today in the diagnosis of autism.

Kanner noted that the parents of these children “tended to be cold and formal in their interpersonal relationships, but speculated that the disorder was an ‘inborn disturbance’ (p.250)” (Batshaw, 1997). He also speculated that ASD might be caused by environmental factors or genetic or innate components (Scott, Clark & Brady, 2000). In the 1960’s, Bettelheim considered autism to be connected to cold, unfeeling parents and gave birth to the concept of the refrigerator mother. (Scott, Clark & Brady, 2000). This theory has since been disproved, however it remains part of the common misconceptions surrounding ASD. “Today, consensus among researchers is that (a) autism is probably caused by biological factors; (b) the exact causes remain unknown, but might be due to multiple etiologies; and (c) numerous environmental, social, and familial factors can minimize or exacerbate the symptoms of autism” (Scott, Clark & Brady, 2000, p. 3).

Diagnosis of Autism

Autism is one of twelve disability categories identified in the IDEA (Individuals with Disabilities Education Act, 1997) and the most recent IDEIA (Individuals with Disabilities Improvement Act, 2004). The IDEA definition describes the characteristics of autism.

Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects educational performance. Characteristics of autism include – irregularities and impairments in communication, engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences” (IDEA, 34 C.F.R. 300.7[b][1][1992].” (McDonnell, Hardman, & McDonnell, 2003)

Physicians, psychologists, neuropsychologists or others who are trained in the use of the DSM-IV may make diagnosis of autism. A multi-disciplinary team that typically includes a psychologist, a speech therapist, and other professionals who are trained in the identification of autism makes identification for educational purposes (Shriver, Allen, & Mathews, 1999).

In order for a diagnosis of autism to be made the signs of autism must be present prior to age three, however many children are not identified that early. Even though symptoms may appear as early as 18 months of age, “a large majority of these children are not identified until they are of school age. Unless parents exhibit distress or proactively discuss their concerns with pediatricians, physicians are often slow to recognize disorders in children or miss them altogether, even when signs and symptoms are apparent” (Palmer, Blanchard, Jean & Mandell, 2005, p. 125).

Gomez & Baird (2005) pointed out that the diagnosis of autism is made in relationship to the child's developmental level. It is not unusual for the early signs of autism to be missed by professionals because some of the diagnostic criteria, such as expressive language and make believe play, are not fully developed in very young children. They also stated that many infants and toddlers may receive early intervention services for their developmental delays, however most are not identified with a specific label or diagnosis of autism. "In question is whether appropriate services have been provided in such cases, as researchers have noted the need for specialized and more intensive educational services for children with autism" (p.107). Palmer, et al, (2005) cited statistics that indicate that professionals within the school system, rather than the health care system, identify 70% - 80% of students with ASDs. School systems, then, may carry a heavy burden in assuring that students with autism are correctly identified and provided appropriate services.

The literature pointed to increasing evidence that early intervention is beneficial for children with ASDs. "For these children, research indicates that intervention provided before age 3 has a much greater impact than intervention provided after age 5" (Woods & Wetherby, 2003, p. 180). It followed, then, that early identification is of critical importance. "Early assessment and enrollment in therapy is very important for the child suspected of having autism. This is because brain development is very active during the first several years of life, and can be influenced by the amount of type of input that the child received" (Landa, 2003, p. 61). There are diagnostic instruments that make early identification possible and conform to the DSM-IV criteria. Chakrabarti, Haubus,

Dugmore, Orgill & Devine (2005) list a number of instruments which may be utilized in early identification of ASDs: (a) the Autism Diagnostic Interview – Revised (ADI-R; Lord, Rutter & Le Couter, 1994), (b) Autism Diagnostic Observation Schedule – Generic (Lord et al., 2000), and (c) the Diagnostic Interview for Social and Communication Disorders (Wing, Leekam, Libby, Gould & Larcombe, 2002). They also recommended screening instruments that are useful for very young children. These included: (a) CHAT (Checklist for Autism in Toddlers; Baron-Cohen, Allen & Gillberg, 1992), (b) Pervasive Developmental Disorder Screening Test (PDDST; Seigel, 1998), (c) Screening Tool for Autism in Two-year-olds (STAT; Stone, Coonrod & Ousley, 2000), and (d) the Modified CHAT (M-CHAT; Robins, Fein, Barton & Green, 2001). Chakrabarti, et al., stated, “Of these screening tools, CHAT is the most rigorously researched and validated tool for use in very young children. CHAT is designed to screen for autism in children at 18 months of age” (p. 201). It appeared that, perhaps, early identification might be improving. Mandlawitz (2002) reported:

Since 1990, educational programming for children with autism has surfaced as an issue across the country for a number of reasons. Those reasons include, first and foremost, the increase in identification of children with autism, including reclassification of children previously reported under other disability categories. (p. 495)

Prevalence of Autism in the Population

Autism is considered to be a “low-incidence disability,” meaning that it occurs in a small segment of the population. According to Batshaw (1997), “The overall prevalence of the PDDs is about 22 per 10,000 births. Autistic disorder occurs in 10 per 10,000 live births” (p. 432). Schriver, Allen & Mathews (1999) reported similar

incidence statistics to Batshaw. Prater & Zylstra (2002) quoted statistics that indicated that PDDs are present in 63 of 10,000 persons and that autism occurs in between five per 10,000 to 20 per 10,000 persons, with a median rate of seven per 10,000. “Male-to-female ratios vary with IQ scores from 2:1 in severely handicapped persons to 4:1 in moderately handicapped persons. The occurrence rate in siblings is suspected to be from 3 to 7 percent, representing a 50- to 100-fold increase in risk” (p. 1668).

Some sources referred to an “epidemic” as a seemingly increasing number of individuals had been identified with autism over the past several years. Boyle (1996) stated, “The figures are certainly frightening. There are now half a million people in the UK said to be suffering from autism, up 1,000 percent among children in the space of 10 years” (p. 27). Fombonne (2001), however, pointed out that “No psychiatric case register study has ever allowed for estimating and monitoring the incidence of autistic conditions over time” (p.411), and further stated that “The only epidemiological study where case definition and identification could be held constant failed to detect an increase in rates of autism in successive birth cohorts from 1972 to 1985” (p. 411). He concluded, though, “Prevalence data nevertheless point to the magnitude of the problem, which had clearly been underestimated in the past” (p. 412). What did seem certain, however, is that the numbers of students being served in special education programs under IDEA had increased. The General Accounting Office report of January 2005 stated, “The number of children diagnosed with autism served under IDEA has increased by more than 500 percent in the last decade. In 2002, data collected for the Department of Education indicated that nearly 120,000 children diagnosed with autism were being served under

IDEA. This substantial increase may be due to a number of factors, including better diagnoses and a broader definition of autism” (p.2). Put succinctly, “The increase in children with autism or autistic-like disorders--no matter whose statistics or definitions you use--appears real and here to stay” (Blacher, 2002, p. 94). Statistics seemed to support the influx of students identified with autistic disorder into the school system, which has presented, and will continue to present, unique and sometimes difficult challenges.

Characteristics of Autism

Inherent within the diagnostic criteria for autism were several prominent characteristics that were most commonly associated with individuals with the disability. “ASD is currently understood to involve a triad of symptoms: (a) impairments of social interaction; (b) impairments of verbal and nonverbal communication; and (c) restricted, repetitive, and stereotyped patterns of behavior, interests, and activities” (Woods & Wetherby, 2003, p. 180). The three major areas of communication, social interactions and behavior were described in the literature and merited close examination. Each area was multifaceted and was interconnected with one another. Delays or absence of skills in each area seemed to be contributory the unique challenges associated with autism. Woods & Wetherby (2003) described the interconnectedness of three areas. “Communicative competence may be the primary factor determining the extent to which individuals with ASD can develop relationships with others and participate in daily activities and routines at school, at home, and in the community” (p.180). They went on to state that “Moreover, improvements in receptive and expressive communication have

been found to prevent problem behaviors and maintain reductions of these behaviors” (p. 181).

Communication Skills

Individuals with ASD “exhibit difficulties in both expressive and receptive communication. Qualitative impairment in verbal and nonverbal communication is one of the core deficits of autism”(Scott, Clark & Brady, 2000, p. 206). It was estimated that without appropriate intervention 28% to 61% of individuals with autism would not develop any functional speech skills (Scott, Clark & Brady, 2000). Joint attention skills were listed among the nonverbal communication skills most often missing in the individual with autism. Joint attention involves deficits in:

(a) orienting and attending to a social partner, (b) shifting gaze between people and objects, (c) sharing affect or emotional states with another person, (d) following the gaze and point of another person, and (e) being able to draw another person’s attention to objects or events for the purpose of sharing experiences (Woods & Wetherby, 2003, p.181).

When speech was present, it was described as often lacking in pragmatic skills. “They do not know the social (pragmatic) rules of interpersonal communication (e.g. how do you start a conversation, choose a topic of discourse, take turns or end a conversation, etc.)” (Tanguay, 2000, p. 1083). They also lack understanding about the non-verbal components of communication (Tanguay, 2000). Idioms were also cited as being problematic for some individuals. “The phrase, ‘What’s up?’ for example, might cause a student with autism to look up to see what is up in the air” (Scott, Clark & Brady, 2000, p. 207). Echolalia was noted as common in children with autism. Echolalia is a repetition of something that the child has heard and it often serves a purpose or function

in communication such as requesting items, objects or actions; protesting; indicating fear, pain or anxiety; self-stimulation; regulating the person's own actions, etc. (Scott, Clark, & Brady, 2000).

Social Skills

Closely related to the speech and language characteristics of people with autism were their social characteristics. "For most people the acquisition of social skills begins at home, where language, turn taking, and play are taught incidentally by parents to young children. This process continues through visits from friends and family, venturing out into the community, and later by going to school" (Scott, Clark & Brady, 2000, p. 248). However, this did not hold true for children with autism. Social interaction was problematic. "Unable to relate to others, these children typically reject close physical and psychological contact and appear to remain alone and aloof. Infants and young children often violently struggle to get away and to remain away from others" (Graziano, 2002, p. 271). The unresponsiveness to social interaction was so intense in some children that they even appeared to have severe hearing impairments where none actually existed. In some cases, as children aged, the social isolation appeared to lessen. Many think that "children with autism cannot be affectionate and do not develop any attachment with parents. However, many of these children do show affection for and attachment to their mothers, but on their own terms and without the [normal] joy and reciprocity" (Graziano, 2002, p. 271).

Batshaw (2000) described three types of social interaction impairments: "impaired social recognition, communication, and understanding or imagining" (p.248).

He defined impaired social recognition as ranging from a lack of empathy, absence of eye contact to aloofness and indifference to others and inability to form friendships. Impaired communication included “a lack of desire to communicate with others or communication that is limited to expression of needs” (p.428). Social imagination or understanding referred to the individual’s inability to “imitate others, to engage in pretend play, or to imagine another’s thoughts and feelings. For example, infants with this impairment do not copy their mothers’ facial expressions, a trait that has been termed mind blindness. Other social impairments include not seeking comfort when hurt and lacking interest in forming friendships” (p. 248). These deficits, then, contributed to behavior differences that are often present in individuals with autism.

Behavior

Personal and social behavioral disorders were described as quite common in students with autism. These behaviors often had their root in the desire for sameness within the environment and resistance to change (Batshaw, 2000; Scott, Clark & Brady, 2000). “This is marked by restricted, perseverative, and stereotyped patterns of behaviors, interests, and activities and lack of representational or pretend play. Obsessive rituals and strict adherence to routines are common, including, for example, rigid insistence on eating at the same time each day or eating a restricted menu of foods” (Batshaw, 2000). Children exhibited tantrums or distress during transitions or when routines were interrupted. They might have exhibited a preoccupation with a limited number of items or interests. They may have been preoccupied with body movements such as hand flapping. Students sometimes engaged in behaviors “over longer durations

or at a higher frequency or rate than would be considered normal in students without autism. Perseveration on particular topics or with specific parts of objects is considered a behavioral excess” (Scott, Clark & Brady, 2000, p. 166). Students with autism often engaged in stereotyped play such as always lining up objects in the same order. They sometimes formed strong attachments to objects such as string, foil or pieces of toys (Graziano, 2002).

It was described as very common for individuals with autism to become upset and have temper tantrums for a variety of reasons. They demonstrated difficulty with transitions from one activity to another, or if familiar routines are changed. Individuals with autism often experience difficulty with a variety of sensory experiences within their environment, including, “insensitivity to pain or heat and overreaction to environmental noises, touch, or odors. For example, although the child may appear ‘deaf’ to parental questions or commands, he or she may cover the ears and scream when close to a vacuum cleaner. Food selectivity, food refusal or resistance to certain food textures” is not uncommon. (Batshaw, 2000, p.429). These tantrums appeared to be either very short in nature or long and seemingly out of control (Scott, Clark & Brady, 2000, Batshaw, 2000).

Learning Characteristics

Students with autism manifested many of the characteristics of their autism within the school setting. They often possessed characteristics that made them challenging within the general education and special education classrooms. Scott, Clark & Brady (2000) described six learning characteristics that contribute to the challenges for teachers in educating their students with autism. These learning characteristics may not be present

in all students with autism, but represented characteristics that were frequently encountered in these students.

Students with autism often had difficulty “generalizing skills and knowledge from one set of conditions to another” (p.273). This lack of generalization skills also applied to social development, language skills, self-help skills and community skills. These students also potentially became “prompt dependent” (p.273). Students were inadvertently taught to be prompt dependent, as they relied on teachers and others to provide reinforcement. This dependence was suggested as being connected to students failing to initiate social encounters or self-care activities.

A third typical learning characteristic involved “stimulus overselectivity,” defined as, “attending to a particular aspect of a task (e.g., shaper or color) to the exclusion of more salient parts of the task” (p.273). This characteristic may also present itself as a student responding only to directions from one particular person or working only in one special area. Closely connected to over-selectivity was “difficulty prioritizing incoming stimuli or differentiating relevant from irrelevant information” (p. 273). This learning characteristic was cited as causing difficulty with generalization of skills, integrating information, sequencing and organizing information.

Scott, Clark & Brady (2000) also pointed out, “Many authors have written that students with autism do not respond well to change in routine” (p. 274). These authors preferred to couch this characteristic in terms of “the students’ need to *understand* what is asked of them and *predict* the changes they face in their daily lives” (p. 274). No matter which way it was viewed, flexibility and the ability to deal with interruptions and

changes in schedules were considered important skills to develop and use in school and in daily life. The final characteristic described by Scott, et al., was “the most paradoxical challenge involving students with autism is the impact they have on many teachers. Their lack of social reciprocity and the presence of problem behavior in many students with autism lessens the willingness of many teachers to persist in interacting with them” (p. 274). Teachers tend to react to students who screamed, were aggressive, or seemed to ignore their instructions by avoiding placing demands on the student. This was considered unfortunate for the student with autism because it meant that they may miss out on having an enriched educational environment due to behaviors that they were either not able to control or needed intervention to help them control.

The Search for “Best Practices”

There was no doubt that autism is an important topic in both medical and educational research and literature. “It would be hard to imagine anyone involved in the area of autism – whether as an educator, administrator, clinician, researcher, or family member – who is not aware of the controversy and debate that exists relating to the delivery of education programs for young children with autism” (Brown & Bambara, 199, p. 131). Tanguay (2000) stated, “A review of the National Library of Medicine database indicates that more than 2,000 articles about autism and Asperger’s disorder have been published over the past 10 years” (p. 1079). Searches on various educational oriented databases yielded similar results, including entire journals devoted to topics salient to educating students with autism. Anderson & Romancyk (1999) described a literature search for an article. They stated, “Five hundred articles specific to both ABA

and autism were found” (p. 169). There seemed to be many, and very different, approaches as to what constituted “best practices” for students with autism found in current literature. There were also many challenges facing researchers in formulating and defending opinions regarding educational best practices for students with autism (Brown & Bambara, 1999).

One challenge was the fact that autism is a spectrum disorder. This meant that, although students with autism do share many characteristics, their needs and manifestations of the disorder vary considerably among individuals (Simpson, 1999). The literature indicated that what worked well with one student served to exacerbate problems with another student. Autism is a developmental disorder and the needs of very young students with autism varied considerably from those of older elementary or secondary students. Students with autism often were found to have co-morbid diagnoses that could complicate the development of effective educational plans. One young student with autism, for example, may have been able to read and another student the same age was non-verbal and had an IQ in the Mentally Retarded range.(Batshaw, 2000; Scott, Clark & Brady, 2000). Both students manifested similar behaviors, but likely needed very different educational interventions to maximize their success in school.

Students were found to exhibit splinter skills, having highly developed abilities in one or more areas and significant delays in many others (Anderson & Romanczyk, 1999). It was no wonder that attempting to distill one set of “best practices” was nearly impossible. Educational programs needed to be individualized to each student’s needs

while addressing a set of characteristics, components and interventions that were scientifically based and well supported by research (Simpson, 2005).

Legal Issues

The discussion of best practices also incorporated legal issues. Parents often became aware of programs or methodologies proven successful for certain students or within certain settings. There have been numerous lawsuits in the past few decades concerning best practices for students with autism. Mandlawitz (2002) stated that since 1990, educational programming for children with autism had become a major issue in lawsuits filed. She cited increased identification of children with autism, reclassification of children as having autism, “publicity around and competition among various methodologies; parental advocacy for specific methodologies; shortages of qualified personnel; and, finally, the demand for due process to ensure appropriate services” (pp.495-496).

Methodology was often a focus of the lawsuits, especially those concerning young children with autism. Typically, the resolutions of these cases did not prescribe a particular methodology. It must be understood that “The Supreme Court stated that the goal of the IDEA is to provide ‘appropriate, not optimal,’ special education, and to that end courts may not substitute their notions of sound educational policy for those of the school authorities” (p. 496). He added, “to date, close to 150 cases with issues centering on educational programming for young children with autism (children under age 3) have been reported in *Individuals with Disabilities Education Law Report* (IDELR) and the *Early Childhood Education Law and Policy Reporter* (ECLPR)” (p. 497). These, of

course, only reflected cases that had been tried and reported. Many cases were settled at the mediation level or may have been filed and settled out of court. It was, however, obvious that the issue of identification of best practices had far reaching implications and will likely be debated for years to come.

Early Intervention

Many researchers mentioned early intervention as a critical component of planning for students with autism (Simpson, 1999). “It is generally accepted that early intervention, tailored to the child’s individual patterns of strengths and handicaps, can enable a child to develop better social skills and emotional relationships, learn better communication skills, and decrease the intensity of stereotypic and bizarre behaviors” (Tanguay, 2000, p. 1088).

Smith, Groen & Wynn (2000) agreed that early intervention is helpful, however gains may be limited. Their findings indicated, “Results confirm that some children with pervasive developmental disorder may make large gains with early intervention” (p. 279). Levy & Hyman (2002) found that “The emphasis on early diagnosis and referral for treatment is based on studies that suggest that intensive services begun before age 3 might be associated with better academic and behavioral outcome at school age” (p.33).

Blacher (2002) endorsed early intervention as well. “Autism is usually diagnosed by the time an affected child is two or three years old and there is convincing evidence that the next two or three years provide a window wherein intervention must be carried out to be maximally successful” (p.94). Definitive research regarding early intervention is, by nature, difficult to conduct. However it seemed well supported and

logical that the earlier the intervention can begin with students with developmental delays, the better the results are likely to be. (Woods & Wetherby, 2003).

The 2004 IDEIA legislation supported early intervention and guaranteed that young students would be provided services through their school systems. A new model had been proposed that would provide services for students Birth – through – Six.

According to the CEC's "Summary of Significant Issues (2004):

If a State elects to apply for this program, parents of children eligible for preschool services under section 619, who were previously receiving services under Part C, may choose to continue early intervention services under Part C until their children enter, or are eligible under State law, to enter kindergarten. The State policy must ensure that these Part C services for preschoolers with disabilities include an educational component that promotes school readiness and incorporates preliteracy, language and numeracy skills. (p.24)

Families could also choose to transition their preschool child into Part B preschool and receive FAPE (Free Appropriate Public Education). Either way, the law seemed clear that early services must be made available to families with preschoolers with special needs.

Program Characteristics

Many researchers seemed to tout one program or approach as being the most effective, based on their specific programs and research interests. As noted earlier, the law, as represented by the findings of legal cases, requires school systems to provide appropriate special education. The discussion of what is appropriate for students with autism could occupy multiple volumes and still not reach a complete consensus regarding which program or approach is most effective or appropriate. Fortunately, most

researchers seemed to agree on several common elements that represented successful comprehensive treatment and educational programs.

A focus group, “Best Practices for Designing and Delivering Effective Programs for Individuals with Autistic Spectrum Disorders,” sponsored by the California Departments of Education and Developmental Services and authored by Lyons & Hickman (1997), produced a list of program characteristics that seemed to “result in growth in areas such as social engagement, language, coping, and reduction of difficult behaviors” (p.10). The list included:

- Applied behavioral Analysis to help the students gain skills and “reduce negative or undesirable behaviors” (Lyons & Hickman, 1997, p.10). The intervention should acknowledge the communicative intent of the behavior, utilize positive behavioral reinforcement to reduce negative behaviors, and replacement behaviors should be taught.
- Programming should be individualized and developmentally appropriate. IEP committees should consider many intervention methods (discrete trial, environmental modifications, naturalistic teaching, inclusion). It should be acknowledged that one single approach will not work for every child and that information should be collected to support which interventions work well with the individual child.
- The curriculum is “organized around normal developmental expectations” (Ibid, p.10). The child’s developmental level is measured in the area of “cognitive skills, adaptive behavior, language skills, fine and gross motor skills, and socialization

and play domains. Activities are planned at that child's level"(Ibid, p.10). The curriculum should emphasize language and communication skill development, as well as socialization and play skills. Task analysis techniques should be utilized to teach more complex skills and only functional and meaningful tasks should be offered.

- The environment should be highly structured, organized and controlled. Routines should be predictable and understandable for the children. Concrete clues and visual schedules should be utilized to increase independence and to help the children understand what is occurring in the environment. Work schedules and work systems should provide the student with information about: "What work is to be done; How much work is to be done; How the student will know he/she is finished; and, What happens after the work is completed" (Lyons & Hickman, 1997, p.11). The room should have visually clear areas and boundaries. Work areas should be appropriate for the activity (reading in an area with adequate natural light). Boundaries should be provided to designate work areas (such as a carpeted area for certain activities). Data should be kept to monitor progress and to troubleshoot the programming.
- Student skills should be evaluated at regular intervals and the results should be utilized for individualized planning.
- Generalization and skill maintenance should be built into the program.
- Mainstreaming opportunities with typical peers are an important part of the program.

- Team members should work collaboratively, including teachers, parents and related services (Speech, Occupational Therapy, Physical Therapy, etc).
- Teachers and therapists should be provided with ongoing opportunities for training.

Gresham, Beebe-Frankenberger & McMillan (1999) described common elements as:

- Curriculum should include five basic skill domains: “Ability to selectively attend to stimuli in the environment,...imitative ability including both verbal and motor imitation, receptive and expressive language ability, appropriate toy play, and social interaction skills” (p. 13).
- The environment should be highly structured and supportive. The program must be aware of the possibility of students having difficulty generalizing skills and developing “prompt dependency” (p.13). Strategies should be in place to fade prompts, “use incidental teaching strategies, and changing only one aspect of the environment during generalization training” (p.13).
- Programs should be predictable and have well established and obvious routines. “All of the treatment programs reviewed are highly structured and contain set routines each day” (p. 13). These may be supplemented and supported by written or picture schedules or predictable “prompt-response-reinforcer” routines (p.13).
- The programs are based on “a functional approach to problem behaviors” (p.13). This includes providing opportunities for the student to make choices. Applied behavioral analysis techniques may also used, focusing on the

“functions or causes of behavior, such as task escape/avoidance, social attention, access to tangible reinforcers, and automatic or sensory reinforcement” (p.14).

- Effective preschool programs focus attention on transition between preschool and kindergarten or first grade. Program components may focus on students being provided opportunities to learn social skills needed for “functioning in integrated settings” (p.14). Students are also helped to learn essential transition skills such as “following adults’ directions, requesting access to activities, working under conditions of delayed reinforcement, and the like” (p.14).
- Parental involvement is emphasized in most effective treatment programs. Programs such as TEACCH and the Princeton program utilize parents as “co-therapists” or involve parents heavily in the treatment activities. (p.14)

Schwartz, Sandall, Garfinkle & Bauer (1998) supported the findings that the curriculum should include attending to the environment, imitation, emphasis on language, appropriate play, social interaction. They also found that teaching environments should be geared toward generalization of skills; classroom environments should be routine and predictable; a functional approach to behavior should be utilized; and school transition and family involvement should be emphasized.

Schwartz, Sandall, McBride & Boulware (2004) described Project DATA (Developmentally Appropriate Treatment for Autism) as consisting of “five components: a high-quality early childhood environment, extended instructional time, social and

technical support for families, collaboration and cooperation across services, and transition support” (p.156).

Legislated Guidelines

Under the Federal IDEA guidelines, special education students of all ages should have access to the “general curriculum.” The Texas Education Agency developed Prekindergarten Curriculum Guidelines that represent the concepts and subjects to which young children should have access. The Guidelines endorsed the value of early education and intervention. “Prekindergarten programs that support effective teaching practices have been shown to lead to important growth in children’s intellectual and social development, which is critical to their future academic success” (p.1). The guidelines suggest that successful programs should “engage children in thinking, reasoning, and communicating with others” (p.1). The guidelines reflected the fact that children have a great diversity of knowledge and experiences. “Some children, regardless of their age level, will be at the beginning of the learning continuum, while others will be further along. Children with disabilities may need accommodations and modifications of the guidelines in order to benefit from them” (p.1).

The curriculum guidelines emphasized implementing a comprehensive curriculum that helps “build connections between subject matter disciplines by organizing the large amounts of information into a meaningful set of concepts” (p.1). It was interesting, and encouraging, that the recommendations for general education students reflected similar guidelines and components as the special education programs described earlier. Teachers may need to make accommodations and adaptations to the curriculum guidelines, but it

was considered important that young students with special needs are presented with as many concepts from the general curriculum as possible.

The Texas Pre-kindergarten Curriculum included the content areas: Language and Early Literacy; Mathematics; Science; Social Studies; Fine Arts; Health and Safety; Personal and Social Development; Physical Development; and, Technology Applications. The guidelines took into account appropriate developmental expectations for three and four year old children. (Texas Education Agency, 1999). “A good curriculum should have a conceptual structure (we suggest a developmental sequence), offer great detail (operationalization), and be used in a child specific manner (nonlinear branching)” (Anderson & Romanczyk, 1999, p. 177). This applies to the general curriculum as well as to curriculum for young students with ASD.

Intervention Techniques

Closely connected to program characteristics, yet distinct enough to be considered separately, were the intervention techniques considered to be effective according to the literature. Anderson and Romanczyk (1999) stated,

From a clinical perspective selection of intervention techniques has two components. The first is to ascertain controlled research evidence concerning specific skills, behaviors or conditions for individuals with a similar diagnosis/characteristics that appear in peer reviewed journals and that meet generally accepted criteria for well controlled clinical studies.....Second, the selected intervention must meet the boundary conditions of the original research parameters. Sadly, interventions are often implemented in name only, that is terms are used to label what is being offered, but the specifics of the intervention as actually applied are not consistent with the specifics of the original intervention research. (p.168)

In other words, it was considered important for those making decisions about what intervention techniques to use with students to be familiar with current research and to understand how to implement the recommendations correctly.

Schwartz, Sandall, McBride & Boulware (2004) described teaching strategies that have proven effective in the previously mentioned DATA program. These included:

(a) Using explicit instruction to teach communicative and social competence, such as requesting preferred materials and activities, requesting not to participate, asking peers to play and responding to social interactions; (b) Using strategies that maintain the natural flow of the classroom, including imbedding instructional interventions into regular classroom routines rather than isolating students to provide instruction; (c) Providing opportunities for independence during the school day, including making choices, taking care of personal items and materials, and developing problems solving skills; (d) Building a classroom community that provided all students an opportunity to lead and to follow; and, (e) Incorporating generalization and maintenance of skills into all activities by using common materials, multiple examples, and adequate personnel to assist each child.

Volkmar, Cook, Pomeroy, Realmuto, & Tanguay (1999) advocated using high degrees of structure and using behavior modification and applied behavior analysis techniques within the program. They recommended “careful behavioral assessment of the child and conditions in the environment which can be used to help the child acquire higher levels of skills through behavioral procedures” (p. 40S). They also discussed the fact that techniques must be matched to each student’s individual strengths and needs. “Many children with autism have difficulty sustaining attention and learning in over-

stimulating classroom settings and work best in smaller, highly structured settings. Other children may be able to learn in a more traditional classroom environment if appropriate supports, such as trained aides, are provided” (p.39S). Blacher (2002), and many others, supported the use of behavioral training techniques in the education of young students with autism.

Massey and Wheeler (2000) described children with ASD as having “greater difficulty in attempting to process auditory symbols due to the presence of neurological processing disorders. However, when visuospatial symbols are used, they facilitate more expedient processing using a gestalt style of processing in that they store graphic information in unanalyzed wholes” (p.326). They strongly advocated utilizing photo activity schedules and other visually based techniques to educate children with autism. They explained, “Visual cues can be represented in the form of individualized activity schedules comprised of objects, photographs, pic/syms, and/or words. Often words are paired with photos or pic/syms depending on the abilities of the learner” (p.326). It was important for teachers to understand the unique learning characteristics of their students with autism and to utilize teaching techniques and strategies that play to the students’ strengths rather than accentuating their weaknesses.

Kluth (2004) provided a tremendous amount of insight regarding effective teaching methods and classroom techniques through the eyes of persons with autism and Asperger’s syndrome. She utilized autobiographical accounts of people with autism and Asperger’s syndrome to formulate a number of suggestions for classroom teaching techniques and environmental suggestions that were very helpful for teachers.

Suggestions for the classroom included “(a) Consider the lighting and sounds of the classroom.; (b) Experiment with using music as a tool for instruction and support.; (c) Allow students with autism to have a ‘safe place’ in the classroom or building” (p.43).

Some students may have extreme sensitivity to light and may find it “annoying, distracting, and even painful” (p.43). Teachers might need to consider “using lower levels of lights in the classroom or use upward rather than downward-projecting lights... One teacher placed lamps around the room to make the lighting less severe for all her students” (p.43). Regarding classroom noise, students with autism may be “troubled by sounds others don’t often notice, such as the buzz of a heater, the voices of students in the neighboring classroom, or the soft scratching of pencils across papers” (p.43), as well as screeching chalk or fire alarms. Suggestions for classroom interventions included reducing classroom noise, moving the students away from the sounds, using a soft voice, or allowing students to try using earplugs or headphones. There are times when students with autism may need to “retreat into a private space....to relax and regroup” (p.44). Teachers should provide spaces for all students who may need to get away. These spaces should not be used for, or viewed as, places of punishment.

Kluth (2004) also suggested that in the area of communication, teachers should “Help student understand language; Do not seek eye contact; Consider their own tone of voice” (p.44). Students with autism tend to be very literal in their understanding of language. Students may require help “interpreting figurative language like idioms, jokes or riddles, metaphors, phrases with double meaning, and sarcasm” (p.44). Eye contact

can be irritating or even painful for students with autism. Teachers should learn not to insist or expect for her students with autism to engage in eye contact. Teachers need to be aware of their voices during instruction. Suggestions included varying their volume, singing or talking in a silly voice or with a different accent. “These methods often work because they encourage expression in a way that allows some degree of personal distance” (p.45).

Kluth (2004) also pointed out that some teaching strategies may work for one student with autism and not for another. Students with autism have suggested that teachers “will be more effective in the classroom if they highlight student interests, use visuals, offer project-based instruction, and utilize a range of assessments...Students with autism often have interests that occupy their attention for long periods of time” (p.45). These interests could easily be incorporated into the classroom curriculum or into individual assignments.

While some students with autism may be able to benefit from verbal instruction, “many need more than one way to access content. Teachers can offer all students another avenue of learning by using a range of visuals including posters, photographs, diagrams, charts, and graphs as they conduct discussions and explain lessons” (Kluth, 2004, p.45). Students who are visual learners may need “number lines or fact sheets attached to their desks, picture or word schedules included in their daily planners, or graphic organizers to help them understand stories or plan essays”(Kluth, 2004, p.45).

Students with autism respond well to and may benefit from project-based instruction and independent work. They also may need alternative assessments, such as

portfolios, projects, journals, observation, work samples and adapted tests. Not every teacher will feel comfortable or competent in implementing all these suggestions, however, as a variety of teaching techniques are utilized successfully, teachers may find that all students may benefit from the strategies and techniques utilized for their students with autism.

Evaluation of Intervention Approaches

The literature described many established programs and approaches utilized for students with autism. There was considerable debate within the literature regarding which program best addresses the needs of these students. Each group seemed to be able to back up its specific methodologies with research showing positive results, however many of these claims must be viewed with a skeptical eye. As has been discussed, no one program or set of techniques provided the definitive answer for every student or individual with ASD. “It is also increasingly evident that there is no single best-suited and universally effective method for all children and youth with ASD. The best programs appear to be those that incorporate a variety of objectively verified practices and that are designed to address and support the needs of individual students and the professionals and families with whom they are linked” (Simpson, 2005, p. 145). Some methodologies and intervention programs have proven to be helpful and were referenced across the literature. This listing is by no means complete, however many of the commonly referenced interventions are described.

Applied Behavioral Analysis (ABA)

Applied Behavioral Analysis (ABA) techniques seemed to be well supported in the research. “There is a large base of research literature that addresses specific populations, ages, characteristics, and specific educational, clinical, social and physical emphases, as well as a substantial base of research specific to ABA and young children with autism (Anderson, Romanczyk, 1999, p. 169). ABA encompasses a broad range of ideas and techniques aimed at understanding the reasons for behaviors and helping to set the environment to change or increase target behaviors. Scott, Clark & Brady (2000) described six historical phases of ABA that have led to the current practices.

1. Definition of the field and demonstration of the power of interventions based on positive reinforcement in applied settings.
2. Recognition of the need for more effective generalization of newly learned skills, with an emphasis on the selection of relevant targets for intervention and systematic generalization programming.
3. Discovery of functions served by problem behavior and appreciation of the need for functional assessment prior to intervention.
4. Refinement of functional assessment procedures; attention to the social acceptability of interventions and the need to develop a positive orientation to behavior change in increasingly normalized settings.
5. Appreciation of the communicative functions of most, if not all, problem or challenging behaviors.
6. Movement toward teaching parents and primary caregivers to use proactive strategies to forestall the development of problem behaviors and to teach proactive behavior. (p.168)

Scott, Clark & Brady (2000) stated that early in ABA research, attention was focused on arranging positive and negative consequences for target behaviors. Over the years, however ABA evolved as researchers looked for more natural interventions. “An important element of the new understanding of problem behavior is the notion that *problem behavior often serves a communicative function* and that treatment will be effective when the person learns new and more efficient means of communicating”

(Scott, et al., p.169). Research on ABA techniques and interventions lead to the development of a “shift in the type, nature, and philosophy of interventions that target problem behavior has generally become known as *positive behavioral support* or PBS. To date, much of the PBS research has involved students and adults with autism” (Scott, et al., p.169). However, according to the literature, many special educators have continued to be taught principles of ABA rather than PBS.

Anderson & Romanczyk (1999) stated that ABA is “not a stagnate, single continuum of prescribed methods. It emphasizes the use of methods that change behavior in systematic and measurable ways” (p.170). Ivar Lovaas was a leader in research using Applied Behavioral Analysis techniques. According to Anderson & Romanczyk, “The most comprehensive study of home based intervention for children with autism was published by Lovaas (1987)” (p.169).

Lovaas used two groups of preschool aged children, “an intensive treatment group that received an average of 40 hours of one-on-one treatment per week or a minimal treatment control group that received 10 hours or less per week” (Anderson & Romanczyk, 1999, p.169). The intensive group received intensive intervention for 2 or more years from trained therapists. The participants in each group scored virtually the same on pre-intervention measures, however “posttreatment data indicated that 9 of 19 (47%) children in the experimental group recovered. These children were reported to have achieved normal intellectual functioning in the first grade. In contrast, only 2% of the children in the control group met this criterion” (Anderson & Romanczyk, 1999, p.

169). Follow-up studies showed that the changes persisted at age 13 in most of the intensive participants.

Many researchers have attempted to duplicate the results that Lovaas attained, however the studies typically had deviations from Lovaas's original standards. These deviations ranged from providing fewer hours per week of intensive therapy to not providing a control group. The research, however, seemed to "offer considerable support for the positive effects of intensive behavioral interventions for young children with autism" (Anderson & Romanczyk, 1999, p. 170).

Relatively recent research supported the effectiveness of the use of ABA techniques in multiple settings and with group instruction (Anderson & Romanczyk, 1999). It was no wonder that, given the strength of the research in support of ABA, that many educational lawsuits involved parents requesting intensive ABA. Mandalawitz (2002) stated, "the vast majority of decisions, especially those decided for the parents and child, provide for some ABA service. Provision of ABA is often integrated with services in a regular or specialized preschool program" (p.501).

The primary research associated with ABA supported extended and intensive therapy in terms of length of time per week and duration of provision of services.

Mandalawitz (2002) explained:

Intensity of services is a key issue in many of the ABA cases, with parents often requesting that the LEA fund 30 to 40 hours of therapy and the school district countering with fewer hours of ABA and a more intensive in-school component. While ABA services may be provided for as few as 10 hours a week, at least one ariter ordered Lovaas therapy be provided to the child 10 hours daily, 7 days a week, year round. The 'average' amount of ABA therapy ordered in these cases is in the range of 10 to 40 hours per week, again noting that decisions must be made based on what level of intensity is appropriate for the individual

child. The lesser amount is usually one component of an integrated program, while the high end is often an exclusive home-based program. (p.501)

Discrete Trial Teaching

Another approach closely connected to ABA, which was supported as being highly effective with students with autism, was Discrete Trial Teaching. Scott, Clark and Brady (2000) described discrete trial teaching as based on the research of Skinner. They also pointed out that Lovaas developed methodology that utilized Skinner's theories to benefit individuals with autism. "Since then it has been used in intensive behavioral home programs...and in classrooms and research sites world-wide" (Scott, Clark & Brady, 2000, p. 300). Discrete trial teaching was recommended for acquisition level skills. They described a sample of discrete trial teaching as:

In the discrete trial procedure, a cue is given to the student to engage in the behavior to be taught (e.g., giving the student the verbal cue 'Draw a circle around the right answer.')....Once the cue is provided, the student makes a response or is assisted in making a correct response. The student is also reinforced for responding correctly, although the criterion for reinforcement might require that the student respond correctly to several trials prior to obtaining reinforcement. (Scott, Clark & Brady, 2000, p. 300)

Anderson & Romanczyk (1999) felt that discrete trial methods were highly effective and may be utilized in a number of learning situations. They may be utilized, for example, to help students learn classroom limits and may also be used to teach a number of different academic and behavioral skills. Some researchers questioned the research techniques that had been utilized to "prove" the effectiveness of Lovaas's use of intensive discrete trial training.

Gresham, Beebe-Frankenberger & MacMillan (1999) stated that discrete trial training had been well-researched and had developed a strong reputation for successfully

teaching children a number of skills. They were dubious, however, that “such training can produce normative intellectual and social functioning in children with autism...Discrete trial training may be one, but not the only, component of any comprehensive treatment for children with autism” (p. 566).

The TEACCH Approach

The Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) approach was also prominent in much of the current literature. The TEACCH program was described as a developmental program that acknowledges differences among students. The main goal of the philosophy and teaching techniques associated with the TEACCH program is to foster independent functioning and to avoid behavior problems (Lyons & Hickman, 1997). According to the literature, TEACCH utilized a structured teaching approach that “caters to the child’s visual processing strengths by organizing the physical structure of the room and posting picture schedules for reminding the child when classroom activity takes place” (Ibid, p. 56).

In addition to addressing the visual strengths of individuals with autism, the TEACCH system provided learners with a system for “managing the tasks assigned to them” (Scott, Clark & Brady, 2000, p. 395). TEACCH advocates the use of structured, well-organized activities and instructional interventions. “Work systems establish visual clarity in tasks so that students can complete tasks accurately and with a minimum of verbal information or request for attention” (Scott, Clark & Brady, 2000, p. 395). The program was developed to serve the needs of non-verbal students with autism and to focus on each student’s strengths.

Other Interventions

There were many interventions and programs found in the literature about autism. Some were well supported by valid and thorough research, others were not. Simpson (2005) categorized many of the current interventions and treatments for learners with autism spectrum disorders into four different categories, based upon their validity and basis in research:

Scientifically based practices were recognized as those that have significant and empirical efficacy and support. *Promising practices* were those methods that emerged as having efficacy and utility with individuals with ASD even though the intervention requires additional objective verification. *Practices with limited supporting information* were those that lacked objective and convincing supporting evidence but had undecided, possible, or potential utility and efficacy. The classification *not recommended* was used for interventions and treatments that were perceived to lack efficacy and that might have the potential to be harmful. (p.145)

Simpson's list was extensive and included well-known interventions as well as lesser-known approaches. His "scientifically based practice" list included: "(a) Applied behavior analysis; (b) Discrete trial teaching; (c) Pivotal response training; and, (d) Learning Experiences: An Alternative Program for Preschoolers and Parents" (p. 146). He listed the following as Promising Practices:

(a) Play-oriented strategies; (b) Picture Exchange Communication System; (c) Incidental teaching; Structured teaching (e.g., TEACCH); (d) Augmentative alternative communication; (e) Assistive technology; (f) Joint action routines; (g) Cognitive behavioral modification; (h) Cognitive learning strategies; (i) Social stories; (j) Social decision making strategies; and, (k) Sensory integration. (Simpson, 2005, p.146)

Simpson (2005) categorized the following as "Limited supporting information for practice":

(a) Gentle teaching; (b) Option method (e.g. Son-Rise program); (c) Floor time; (d) Pet/animal therapy; (e) Relationship development intervention; (f) Van Dijk curricular approach; (g) Fast ForWord; (h) Cognitive Scripts; (i) Cartooning; (j) Power cards; (k) Scotopic sensitivity syndrome: Irlen lenses; (l) Auditory integration training; (m) Megavitamin therapy; (n) Feingold diet; (o) Herb, mineral and other supplements; (p) Music therapy; and, (q) Art therapy. (p.146)

He listed only two interventions as “Not recommended: (a) Holding therapy, and (b) Facilitated communication” (Simpson, 2005, p.146). It was interesting that Simpson seemed to give some credence to most of the interventions. He endorsed only a few as meeting the criteria of scientifically based interventions, however, he seemed to leave the door open for the proponents of the other interventions to engage in scientifically based research and to support their claims through empirical means.

Need for Research Based Interventions

Federal law, in the form of the 2004 revision of IDEA and the “No Child Left Behind” Act of 2001, has increased the emphasis placed upon using scientifically based practices. (Yell, Drasgow & Lowrey, 2005). A new agency has been formed to oversee and finance educational research for children with disabilities (CEC, 2004). According to Council for Exceptional Children literature, the purpose of the new National Center for Special Education Research is to sponsored research “to expand knowledge and understanding of the needs of infants, toddlers and children with disabilities in order to improve their developmental, educational and transitional outcomes; to sponsor research to improve services provided under IDEA; to evaluate the implementation and effectiveness of IDEA” (CEC, 2004, p.28). This increased emphasis on research seemed

to set higher standards for all special education programs and the necessity for the programs to be based on scientifically sound principles.

Brown and Bambara (1999) noted a debate concerning what specific intervention models were most effective. They acknowledged the fact that researchers desperately want to “demonstrate or believe that one particular model of educational intervention might be more effective and certain than others” (p. 131). They went on to point out that, it is not possible at this time to “experimentally conclude ‘effectiveness;’ but many feel compelled to at least demonstrate that one intervention might be more ‘appropriate’ and more promising (for a variety of reasons)” (p.131). The controversies concerning various approaches seemed to be fueled by the need for scientific research into a range of practices for students with autism. Research is difficult and expensive, but it was considered important that it was engaged in and made available to educators and policy-makers alike.

Blacher (2002) called for “More support for research on treatment effectiveness” (p.96). She stated that researchers needed to dismantle programs to determine how various components work and what made the programs effective. Similarly, Brown and Bambara (1999) theorized that “Rather than attempting to prove that one approach is more or less effective than another, we must focus our energy on determining those elements of any and all approaches that can contribute to providing an effective model for any one child” (p. 132). Woods & Wetherby (2003) felt that research is not yet available “to predict which specific intervention approaches or strategies work best with which children with ASD. No one approach is equally effective for all children, and not all

children in outcome studies have benefited to the same degree” (p. 185). They advocated the use of single-subject research in order to measure whether students are benefiting from one particular approach over another. The need for research was clear, as well as the need to utilize a variety of approaches to that research.

Simpson (2005) reminded us that individuals with ASD have a poor prognosis as compared to other students with disabilities. They have been the subjects of any number of intervention and treatment programs, some based in research, others not based in research. “Accordingly, there is an unmistakable need for objectively verifiable effective methods that can serve as the underpinning for every student’s program. This process will be complicated and at times tedious, it will be encumbered and affected by political and legislative actions, and it will likely never result in total consensus” (p. 147). They went on to point out that “the need to identify effective methods is so important that the field will not be able to move forward without significant progress in this area” (Simpson, 2005, p. 147). Various authors indicated that this generalized call for research may well involve people outside the traditional university based research core. Teachers, parents and others may be relied upon as active participants in research activities in order to truly ascertain the effectiveness of the various programs and their components for students with ASD.

Teacher Preparation and Classroom Demands

Highly Qualified Teachers

The No Child Left Behind Act of December 2001 required that “all teachers of core subjects be highly qualified by the end of the 2005-06 school year.....In general, the

act required that teachers have a bachelor's degree, meet full state certification, and demonstrate subject area knowledge for every core subject they teach" (GAO

Highlights). The Council for Exceptional Children further defined the requirements for Special Education Teachers:

When used with respect to any public elementary or secondary school special education teacher teaching in a State, such term means that

- (i) The teacher has obtained full State certification as a special education teacher (including certification obtained through alternative routes to certification), or passed the State special education teacher licensing examination, and holds a license to teach in the State as a special education teacher, except that when used with respect to any teacher teaching in a public charter school, the term means that the teacher meets the requirements set forth in the State's public charter school law;
- (ii.) The teacher has not had any special education certification or licensure requirements waived on an emergency, temporary, or provisional basis; and
- (iii) The teacher holds at least a bachelor's degree. (Council for Exceptional Children, 2004, p.3)

It was not within the scope of this examination to determine how many in-service special education teachers actually met the state and federal guidelines, however it seemed clear that the expectations were that teachers should be highly qualified to teach in their field.

Given the previous descriptions of the needs of students with autism, the question might be asked as to how well prepared even highly qualified special education teachers are to meet the demands and needs of their students with autism. Lerman, Vorndran, Addison & Kuhn (2004) found that "Most teachers receive relatively little, if any, formal instruction in evidence-based practices for children with autism (National Research Council, 2001). The scarcity of specialized preparation in autism at colleges of education may be attributable to the low incidence of the disorder relative to other disabilities" (p.510). The authors also noted the lack of training in behavioral techniques in education

programs, even though the research “over the past 40 years has shown that interventions based on the principles of behavior analysis are highly effective for remediating the deficits associated with autism” (National Research Council, 2001, p. 510). This research did not seem to bode well for teachers in the field, special educators and general educators alike, who may be encountering the needs of students with autism on a more frequent basis in their classrooms.

Lerman, et al, (2004) described a program that they developed to train special education teachers in a number of teaching skills that have been found to be effective with students with autism. The skills included Preference Assessment (Single Stimulus, Paired Choice & Multiple Stimulus); Direct Teaching (Least to Most, Most to Least, & Time Delay) and Incidental Teaching. The teachers participated in classroom instruction, demonstration based teaching and then were provided the opportunity to utilize their skills with six students in practice teaching sessions. All of the teachers mastered all of the skills adequately and were able to transfer their learning experiences to their own classrooms. This type of model showed promise for application in school systems for use with staff inservice trainings provided by the school system. (Lerman, et al, 2004).

Similarly, Able-Boone, Crais & Downing (2003) pointed to the shortage of “well prepared early intervention professionals to work with young children with low disabilities and their families” (p.79). They stated that those who work with this population are required to have a varied set of competencies, as well as “unique knowledge and skills particular to specific disabilities. Primary areas include the impact of specific disabilities on early childhood development, alternative assessment and

intervention approaches, and consultation and collaboration skills for working with parents and across disciplines” (p.79).

Able-Boone, Crais & Downing (2003) conceded that it is difficult to add courses or course content that focuses on low incidence disabilities to already “crowded curricula based on state and national licensure guidelines. For example, many states have adopted an inclusive teacher licensure encompassing knowledge and skills in early childhood education, child development, and early childhood special education” (p.79). They also found similar courses lacking in the preparation programs of the support service personnel, specifically speech-language pathologists, audiologists, and occupational therapists, who serve as members of the multi-disciplinary teams for young students with special needs.

Able-Boone, Crais & Downing (2003), described a government grant-funded program in which they participated at the University of North Carolina at Chapel Hill designed to provide “interdisciplinary academic and field based experiences” for students in three graduate programs: “early childhood intervention and family support (blended early childhood education and special education program), speech-language pathology and audiology, and occupational therapy” (p.80). The steering group identified courses and course content that would help to provide skills and knowledge specific to young students with low incidence disabilities. “The first competency area related to the unique characteristics of the child as a learner....The second needed area of expertise is performing alternative assessment and intervention strategies....the third area of expertise relates to working with families, caregivers, other professionals, and agencies” (p.80).

Two specialized courses were developed to address the specific needs of young students with autism and children with severe physical impairments. These were offered in conjunction with a third existing course dealing with aural rehabilitation in children.

“The courses were taught by interdisciplinary faculty-practitioner teams as well as parent consultants. Interdisciplinary student teams were linked to a family of a young child with the particular disability they were studying and engaged in several interviews, visits with the mentor family, and resource gathering. In addition, students were required to take a course entitled ‘Working with Families and Teams: Interdisciplinary Perspectives’.” (Able-Boone, Crais & Downing, 2003, p.81)

At the time of the writing of the article, 39 students had graduated from the program. Of those, 17 were working with young students with low incidence disabilities in public or private schools, four were employed in clinics and six were working in clinical or research settings. The remaining were pursuing higher education degrees or had not yet become employed (Able-Boone, Crais & Downing, 2003).

All participants provided positive feedback about their participation in the program, most citing the benefit of the “specialized course work, made even more beneficial because it was provided in small, interdisciplinary settings” (Able-Boone, Crais & Downing, 2003, p.81). They also reported a higher level of comfort and professional confidence in working with children with low incidence disabilities and were often viewed by peers as experts to be consulted. The major barrier reported was the additional course-work time and scheduling difficulties within their respective programs. The authors concluded that “Until departments, university systems, and national organizations more readily embrace the importance of interdisciplinary preparation, then specialized efforts will continue to be a partial solution” (Able-Boone,

Crais & Downing, 2003, p.82). They reaffirmed the need for adequate and specialized pre-service training for those practitioners who may have responsibility for students with low incidence disabilities.

Challenges faced by Teachers

The literature referred to the fact that teachers of young students with disabilities were often faced with many challenges within their classrooms as well as on their campuses. Marvin, LaCost, Grady & Mooney (2003) surveyed teachers employed in pre-kindergarten programs in Nebraska public schools to assess the level of administrative support and challenges they faced on their campuses. Their findings showed that most administrators did advocate for “quality programs and support teachers’ unique budgetary requests and work-hour schedules” (p.217). Interestingly, the teachers also indicated “their supervisor (principal or other type of administrator) relied on them for knowledge about recommended practices in early childhood programs” (p.217).

The Marvin, LaCost, Grady & Mooney (2003) study was somewhat narrow in focus, concentrating on administrative support, but the findings were salient to the current discussion in that the teachers were viewed as, and relied upon as, the resident expert about all things surrounding special education for young students with disabilities. These findings supported, and pointed to the dire need for, teachers in preschool programs that serve students with disabilities to be well grounded in current research, promising practices and appropriate interventions for their students. Unfortunately, the current literature did not seem to support the notion that teachers were fully prepared to take on that “expert” role.

Single Case Study Article

Schwartz, Sandall, McBride & Boulware (2004) referred to providing school services to young students with ASD, “as ‘where the rubber hits the road’ for early childhood special education personnel who believe in the importance of inclusive programs, developmentally appropriate practices, embedded instruction, and the use of instructional strategies that are evidence based” (p.156). Their “Project DATA” was presented as “an inclusive school-based approach to educating young children with autism” (p.156). The authors desired to develop a program that utilized research based interventions that could be utilized in school settings.

While the information presented was well-supported and contained many usable components, the authors seemed to have overlooked the fact that most school system classrooms do not have anywhere near the same resources that were available and utilized within the university based project. For example:

All of the study participants attended one of three preschool classrooms, each with a morning and afternoon session at the center. Each preschool class had 16 students, 9 with disabilities and 7 without identified disabilities. Each classroom had a head teacher, an assistant teacher, and two classroom aides. Speech, occupational, and physical therapy services were provided in the classroom. Family support activities were held at the school, the child’s home, or another location chosen by the parent (e.g. childcare program, grocery store, religious school, in the family car). (Schwartz, Sandall, McBride & Boulware, 2004, p.158)

The program also provided an extended day program that was staffed at a “one-teacher-to-two-children ratio and used small group and individual instruction to teach relevant skills” (Schwartz, Sandall, McBride & Boulware ,2004, p.160).

The long and short about this excellent program seemed to be that it was well funded, well staffed, well located and well supported by parents and other community participants. Although there was real merit to the results and suggestions offered by these authors, this program did not seem to represent the “where the rubber meets the road” reality that most public school special educators face in their classrooms, on their campuses or within their school districts. Unfortunately, much of the research that presented promising practices for preschool students with disabilities were more reflective of the idealized setting described in Project DATA than the real-life situation most teachers have. (Anderson & Romanczyk, 1999; Gresham, Beebe-Frankenberger, & MacMillan, 1999; Reinecke, Newman & Meinberg, 1999).

Experiences of a First Year Teacher

Boyer & Lee (2001) described a single case study chronicling one first year teacher’s experience in a self-contained special education classroom for six kindergarten aged students with autism. The teacher, Christine Lee, had an educational background in nursing, psychology and held a Master’s degree with teaching certifications in early childhood special education, early childhood education and English as a Second Language. Before being employed as a teacher, she had worked as an instructional assistant for two years in a high school classroom for students with autism. The article described her feelings and experiences during her first year of teaching and provided recommendations for supporting first year teachers, described components of an induction and support program for new special educators, and also provided recommendations for special education teacher preparation programs.

The campus in which Christine's classroom was housed had 607 students in kindergarten through sixth grade. In addition to the usual complement of general education teachers, there was a full time principal, an assistant principal and a school counselor. The campus also had a half-time school counselor, school psychologist and school social worker. The campus had specialists in reading and technology, a librarian, a gifted and talented program teacher, as well as teachers for physical education, art, band, choral music and strings. There was a speech and language therapist, one other teacher of students with autism and four other special education teachers for students with learning disabilities. The district provided itinerant teachers for students with emotional disabilities, hearing impairments and mild autism. Occupational therapists and physical therapists also came to the campus to provide services according to student IEP goals. The school had a very active parent volunteer program. The district had a "very active special education parent advocacy culture. Therefore, many parents of our special education students are strong advocates for their child's program placement and participate significantly in the IEP process" (Boyer & Lee, 2001, p. 76). The school year described in the article was also the first school year that students with autism or autism-like behaviors were taught on that campus, so Christine was faced with the challenges of being a first year teacher who was establishing a new program on a campus.

Students

Christine described her students as:

One student had a medical diagnosis of epilepsy as well as extreme hyperactivity and distractibility: one exhibited frequent seizure activity (i.e. once or twice a week); three students were not toilet-trained and had accidents. One

student came to the program with a history of biting staff, family members, and peers; and several students were runners. (Boyer & Lee, 2001,p.78)

Christine had a full time teaching assistant and had been assigned an experienced teacher as a mentor to help her work through the challenges of her first year of school.

The mentorship program included a series of classes about autism that Christine attended during the school year. In Christine's own words:

It was a very hard first quarter; it was beyond what I had heard first –year teaching would be like. I experienced the scrutiny from parents and advocates as a crisis that shook my fragile confidence, and I found myself in tears at night anticipating their observations and the IEP meetings that followed. My mentor was there for me, though, and because she understood the issues of the parents and had taught in the district autism program for so long, she was able to help me with every question, with every fear, and with every crisis. (Boyer & Lee, 2001, p.78)

Challenges

The Boyer & Lee (2001) article described the challenges faced by new special educator, encompassing “not only those of all new teachers, but also those that are unique to the field” (p.78). According to the article, new special education teachers were expected to:

- Take responsibility for understanding the Individuals with Disabilities Education Act Amendments of 1997 (IDEA97) and their implications for classroom teachers and special education teachers;
- Acquire knowledge of special education forms, state and district accommodations for instruction and testing, the district's special education resources, the district's modified curricula for specific populations, and the district's alternate assessment system;
- Collaborate with general educators and with occupational, speech, and physical therapists in planning and providing for services required by students;
- Develop effective professional relationships with paraprofessionals, who work as partners in providing services to students;
- Clarify the school culture around issues of inclusion and the role of special educators in advocating for their students;

- Acquire knowledge of curriculum content that allows effective adaptation to the general curriculum that students may be accessing;
- Determine the availability of assistive technology devices and of training to use them;
- Develop a schedule that meets each student's needs for group and direct instruction based on assessments and the student's IEP;
- Apprise themselves of any complex medical procedures required by their students and their responsibility to provide or coordinate those procedures;
- Document each student's progress toward IEP goals;
- Collect data when working with students with challenging behaviors;
- Develop a daily communication system between school and home (Boyer & Lee, 2001, p.79)

Christine faced challenges concerning all of these issues, as do many special education teachers in many school systems. She felt especially frustrated with the issue of providing access to the general curriculum for all of her students. Since her classroom was new to the campus, many of the general educators had reservations about having Christine's students in their classrooms. Christine faced a yearlong struggle of being able to provide for each of her students to have opportunities in the general education setting. She also faced issues surrounding making sure that her classroom schedule accommodated the inclusion times so that each student received the services provided for in their IEP's. (Boyer & Lee, 2001)

Other challenges that Christine described included the challenge of accountability and assessing and documenting student progress. She had to decide what instruments to use, how to keep parents abreast of their child's school progress and document student progress in regards to IEP goals. Closely related to this was the frustration Christine felt with the seemingly never-ending, and often overwhelming, paperwork. "Across the research of the field, special education teachers report their frustration with what is

referred to as the paperwork of special education” (Boyer & Lee, 2001, p.80). This included not only daily documentation and parental correspondence, but the legal paperwork required through the IEP process.

The article also referred to the challenges of working with a paraprofessional. Christine was fortunate to have a highly qualified teaching assistant and did not have any difficulties with her assistant. This was not always the case in many special education settings. Special education teachers, with little to no formal training in supervision of personnel, were expected to supervise paraprofessionals who “perform multiple tasks under different titles, but primarily assist the teacher in providing the individualized instructional program outlined in each student’s IEP” (Boyer & Lee, 2001, p.80). There were no national standards or expectations regarding the training or ability level for classroom paraprofessionals and so these may vary widely from classroom to classroom. It was described as unfortunate that these positions are typically not highly paid so it is sometimes difficult to hire highly qualified individuals as teaching assistants.

Mentoring Program

Christine was fortunate to have available, and to be able to participate in, the district’s mentoring program. The availability of such a program spoke to her district’s apparent concern about supporting and maintaining quality teachers. Another area, in which Christine was fortunate, by her own admission, was having a very supportive principal and assistant principal. “No matter how much I loved my job, it was very, very draining physically, and it was tense. I felt many times that physically I could not handle the demand of my job, but my principal and assistant principal were there for me from

Day One” (Boyer & Lee, 2001, p. 81). She pointed to the financial support that her administrators provided her for classroom supplies, materials and resources. Christine admitted that her experience might not have been representative of many teachers who face an uphill battle with their respective campus administrators.

The article cited “four variables – current certification, perceived stress, perceived school climate, and age – are significant in distinguishing special education teachers who stay in the field of special education, leave the field, or transfer to a new school” (Boyer & Lee, 2001, p. 81). School climate was described as “the teachers’ perceptions of support, knowledge of what is expected of them, opportunities to improve their skills, and involvement in making important decisions about their classrooms and programs” (Boyer & Lee, 2001, p. 81). The authors reflected that school administrators have a strong influence on the climate of their particular campus.

Successes

Christine completed her first year with many successful experiences and ended the year on a positive note. She credited the fact that:

Her induction program provided continued professional development and the physical presence of a mentor who knew exactly what she was experiencing in a classroom for students with autism. The mentor provided tangible administrative help with IEPs and instructional support in adapting curricula and designing unique lessons to meet individual needs. Christine’s principal and assistant principal were supportive with their time, school resources, opportunities to be part of decision, and insight into the struggles she was facing each day. Her school district provided support with technology, program expertise, and administrative resources. Christine came to her first year of teaching exceptionally well prepared, yet acknowledges that she needed all the supports she got to convert her challenges into successes. (Boyer & Lee, 2001, p. 81)

Significance of Christine's Experiences

This article was important in that it depicted the “real world” that many teachers face each day in their special education classrooms with students with autism. The challenges that Christine faced were similar to those experienced daily by teachers in the field. Some school systems across the country provide systemic supports similar to those available to Christine while others do not. As the authors stated in conclusion,

Our training for special educators cannot replicate the real world classroom, but training programs do need to create, early in a preservice program, those situations that expose potential teachers to the experiences they will have. In addition, universities and local school districts must acknowledge that the new teacher is not a finished product and that the resources and expertise each has can be combined in ways that support teachers as they move from new teacher to accomplished educator. (Boyer & Lee, 2001, p. 81)

These comments were not applicable only to new teachers. Many experienced teachers were faced with similar challenges to the ones described. Special education teachers were responsible for the same list of duties described earlier, and many become overwhelmed with the daily tasks at hand. This article served as a commentary and an example of how teachers may be benefited by support from the school system and campus administrators alike. The authors emphasized the need for administrators and those in the school systems who are responsible for providing supports and programs to inservice teachers. They summed up the feelings that undoubtedly should reflect the sentiment of all who benefit from dedicated educators, “We cannot risk losing the Christines of our world” (Boyer & Lee, 2001, p. 81).

Research Questions

As has been shown through the review of literature, special education teachers face many responsibilities and challenges in their classrooms. Teachers whose primary responsibility is preschool students with disabilities face a unique subset of challenges, which often includes providing programming for young students with autism. Christine's experiences reflected the challenges and realities faced by many special educators. Her experiences also served as an example of the positive impact that systemic supports may have.

The literature provided clinical information and helped to delineate the characteristics of students with autism. It also indicated that perhaps teachers are not adequately prepared in their university courses for the realities that may face them in the classroom. Teachers often are not exposed to many specifics about the needs and best practices for students with autism. The research questions for this study were drawn from an examination of the current literature regarding the needs of young students with autism in the school setting. With the exception of the Boyer & Lee (2001) article, very little research addressed the specific needs and experiences of special educators and their experiences with young students with autism. With that in mind, the research questions to addressed were:

- What do preschool special education teachers perceive the needs of young students with autism to be within the classroom setting?
- What special challenges do teachers in meeting these needs face?

- What supports do the teachers feel are necessary in order for them to meet the needs of these students?

Summary

The rate of autism and autistic spectrum disorders has risen sharply in the past decade. The federal General Accounting Office has found more than a 500 percent increase in those identified with autism during the years between 1993 and 2002. A review of current literature reflected that researchers were attempting to respond to this situation. The focus of this study was on young students with autism and the research showed that the characteristics of young students with autism have been examined and discussed in the literature. Some of the information seemed to have been extrapolated from research with older students with autism, however the information seemed sound and reasonably helpful.

One challenge noted was the need for early identification and early intervention. The literature indicated that many positive steps were occurring in early identification by physicians and other specialists, however there are still many misconceptions and a lack of understanding about the identification and subsequent service provision for young students with autism. The literature pointed to a need for better and more extensive training for doctors and other professionals in being able to identify the early signs of autism.

The literature reflected the search for school based best practices and highlighted the variety of approaches being commonly utilized. Applied Behavioral Analysis and its accompanying techniques have been recognized as being effective with most students.

The literature did support, however, the notion that programs for young students with autism must be individualized and must take each student's strengths and challenges into consideration.

There was a resounding call for scientifically based and research supported interventions. Several programs and approaches were described and examined. Teacher needs and challenges were discussed, primarily in terms of teacher training programs that seemed to hold promise. Finally, a single case study describing the experiences of a first year teacher of young students with autism was highlighted. Although her experiences may not be entirely representative of every practicing teacher in the field, the information was valuable and helped to set a framework for further research.

CHAPTER III

METHODOLOGY

Introduction

An examination of current literature showed a lack of information presented from the point of view of teachers. The literature generally reflected university based or funded investigations into the needs of young students with special needs, however there was very little information that reflected the classroom climate and experiences of teachers in the field. This purpose of this study was to examine the perceptions that teachers have regarding the needs of preschool students with autism.

Research Questions

The research questions are:

- 1) What do preschool special education teachers perceive the needs of young students with autism to be within the classroom setting?
- 2) What special challenges do teachers in meeting these needs face?
- 3) What supports do the teachers feel are necessary in order for them to meet the needs of these students?

Rationale

A qualitative approach was determined to best fit the research questions for this study. It was conducted from a phenomenological perspective as a case study of one school district's teachers' perceptions about teaching young children with autism.

Phenomenology refers to the meanings that people make of their lived experiences

(Bratlinger, Jimenez, et al, 2005, Gay & Airasian, 2003; Berg, 2004). The research was interpreted using a reflective, interactionist approach. “Interpreting is the reflective, integrative, and explanatory aspect of dealing with a study’s data” (Gay & Airasian, 2003, p.245). The research was handled as a phenomenological case study because it described the perceptions of preschool special educators from one particular school district. A case study, according to Bratlinger, Jimenez, et al, 2005) is an “exploration of a bounded system (group, individual, setting, event, phenomenon, process)” (p. 197). The study also encompassed an element of action research because the results may stand to benefit some of the key stakeholders: the Lubbock Independent School District and the Texas Tech University College of Education Burkhart Project. Berg (2004) stated, “the practice of action research has been a fairly common mode of investigation in educational research, especially among those researchers interested in classroom teaching practices” (p. 195). The results may potentially provide valuable information regarding the design and dissemination of training for teachers who have students with autism in their classrooms.

Pilot Study

A limited pilot study was conducted to field test interview questions. The pilot study included interviews with 4 teachers. Data was assessed and interview questions seemed to yield adequate and helpful answers to the research questions. The information gathered from the pilot study was expanded and utilized within the scope of the larger research project. Participants from the Pilot Study were enlisted to participate in the

larger project. Classroom visits and photographs of classrooms were added to their interview data and incorporated into the final body of research.

Phenomenological Case Study

The phenomenological case study approach seemed best suited to address the research questions in the study. Cresswell (1989) offered several pertinent definitions that were relevant to this study. The definitions of various aspects of phenomenological research closely correlated with, and supported the ability of this approach to answer, the research questions. Phenomenological research includes: “Lived Experiences: This term emphasizes in phenomenological studies the importance of individual experiences of people as conscious human beings” (p. 236) Also pertinent is, “Phenomenological study: this type of study describes the meaning of experiences of a phenomenon (or topic or concept) for several individuals. In this study, the researcher reduced the experiences to a central meaning or the ‘essence’ of the experiences” (p. 236). This study sought to reflect the perceptions and essence of experiences that preschool teachers within a school system have had with students with autism.

Interviews

The bulk of the information for the study was gathered through interviews and site observations with preschool special education teachers. Taylor and Bogdan (1998) supported the ability of interviews to answer the proposed research questions. They stated that interviewing is appropriate when “The research interests are relatively clear and well defined; Settings or people are not otherwise accessible; The researcher has time constraints; and The researcher is interested in understanding a broad range of settings or

people” (pp. 90-91). The research questions were clear and defined in terms of the information being sought; they were specific to the teachers’ experiences with one population of students. The settings and people were not accessible in terms of being able to demonstrate outwardly, or through researcher observation, the answers to questions about their perceptions of student and teacher needs. These were not directly observable behaviors; they were thoughts that must be accessed in a manner other than overt observation.

The research targeted understanding of this phenomenon across several classrooms within the school system. Key players interviewed included two gatekeepers (the school system autism specialists), preschool special education teachers who currently have students identified with autism in their classrooms, and campus inclusion specialists.

The advantages to this type of research included the fact that interviews help to directly answer the research questions having to do with teacher perceptions. The information sought, perceptions, was not readily observable because it was an internal thought process within the individual. Dilley (2004) stated, “Comprehension and understanding – key components of qualitative research – are conditional, philosophical considerations that are necessarily individualistic” (p. 130). He went on to indicate that interviews were research tools that supported this comprehension and understanding. Interviews were also conducted with the school system “experts” regarding the specific information about autism. This helped to provide a comparison between what the experts

felt was important for children with autism as compared to the perceptions of the actual “front line” teachers.

Classroom Observations

Classroom observations helped to confirm or deny the information gathered from the teachers regarding what strategies they were utilizing in their classrooms. Taylor and Bogdan (1998) pointed out, “if researchers do not directly observe people in their everyday lives, they will be deprived of the context necessary to understand many of the perspectives in which they are interested” (p. 93). Pictures of the classroom environment helped to show that the teachers were utilizing visual strategies or picture schedules, or at least have them present within the environment. The observations shed light on how these strategies were used with the students. The inclusion of a number of teachers in the study helped to show a pattern of effectiveness of the current means of disseminating information from the Burkhart Center to inservice classroom teachers.

Disadvantages of this type of research included issues documented to be weaknesses of interviews:

Two main threats to the validity of observation and interview studies are observer bias and the observer effect. For example, the very presence of the researcher in the setting may create potential problems. The situation may be ‘seen’ differently than it would have been through the eyes of a different researcher (observer bias) or may be a somewhat different situation than it would have been if the researcher were not present (observer effect). Although these problems are not unique to qualitative research, they are potentially more serious because of the more intimate involvement of researcher and participants. (Gay & Airasian, 2003)

Other disadvantages of utilizing interviews included the fact that interviewees may have said what they thought the interviewer wanted to hear rather than directly answering the

posed questions. Time constraints could be a stumbling block of using interviews, both for the interviewer and the interviewees, however this did not seem to affect the interviews in this research study. Enough information was gathered from the interviews to gain saturation and to provide thick descriptions of the information being sought. This was accomplished using interviews with each participant and extended time being spent with the teachers during classroom observations (Berg, 2004; Gay & Airasian, 2003; Creswell & Miller, 2000).

Context of the Study

The interviews were conducted by providing the participants with a copy of the questions in advance. The teachers chose to fill them out in writing and the interviews were discussed and clarified during the classroom observation time and subsequent contacts. Permission was gained from building administrators to conduct classroom observations, which took place during school hours in the classrooms. Taylor and Bogdan (1998) stated that it is important for observers to conduct their research activities in the field. They pointed out that the setting for interviews should be arranged for the convenience of the participants and to support the purposes of the research. Observational researchers gain “firsthand knowledge of what people say and do in their everyday life. The interviewer relies extensively on verbal accounts of how people act and what they feel” (p. 88). Observation sites in the classroom were logically connected to the information being gathered and helped to provide additional information about how teachers work with young students with autism.

Ferguson (2000) stated “Qualitative research can empower participants often simply by letting them tell their story” (p. 184). Similarly, Gregson (1998) pointed out, “Qualitative researchers use natural settings as sites of study, place more emphasis on meaning and process, are more concerned with a holistic understanding of phenomena, and try to make the familiar strange or the strange familiar” (p. 265). So, the setting for the interviews was not as important to answering the research questions, as was the setting for the classroom observations. “Qualitative and participatory action research methodologies share a deep appreciation of the subjective experiences, perspectives, and views of people who traditionally have been the ‘subjects’ of research” (Giangreco and Taylor, 2003, p. 136). It was important for interviewees to feel free to tell their stories, feelings and perceptions in a comfortable environment that assured confidentiality.

Data Sources

A number of data sources were utilized in this study. Primary data sources were the Preschool Program for Children with Disability teachers (PPCD) within the Lubbock Independent School District who had students with autism in their classrooms during the time period of the study. These teachers were selected to reflect professional teachers active in dealing with the needs of children with autism, rather than relying on their memory of previous students or theory about students they had not yet had an opportunity to teach. The teachers also provided a broad perspective regarding what they had experienced in the classroom. McCracken (1988) encouraged researchers to take advantage of their interviewee’s unique perspective to examine the negative cases by asking, “What was most striking about the incident? Why, precisely, was it surprising?

What, exactly, did it contradict? Questions of these kinds give the respondent an opportunity to glimpse expectations that are normally concealed from them. They also create new opportunities for the investigator” (p. 36). The teachers were literally on the “front lines” and were able to comment on the reality of the classroom situations they faced daily.

According to Taylor and Bogden (1998), “Qualitative interviewing calls for a flexible research design. Neither the number nor the type of informants needs to be specified beforehand. The researcher starts out with a general idea of which people to interview and how to find them, but is willing to change course after the initial interviews” (p. 92). The interviews were conducted utilizing a set of open-ended questions that were provided to the teachers in advance of the interview. The interviews were conducted with the teachers first, to be followed by classroom observations and taking pictures of the classrooms.

The teacher’s perceptions about the needs of these students was considered important in the development of teacher training and provision of appropriate levels of systematic support in order to implement appropriate programming. Taylor and Bogden (1998) also stated, “What is important is the potential of each case to aid the researcher in developing theoretic insights into the area of social life being studied. After completing interviews with several informants, you consciously vary the type of people interviewed until you uncover a broad range of perspectives held by the people in whom you are interested” (p. 93).

In-depth interviews helped to shed light on attitudes, perceptions and thought processes that were not directly observable and helped us to understand phenomenon from the participant's perspective (Gregson, 1998). Interviews gave participants a voice. (Hiller & Diluzio, 2004). The interviews provided information to those responsible for supporting the teachers to understand their needs within the classrooms. This research model allowed research to be conducted with a broad range of settings and people. Taylor and Bogdan (1998) found that "Interviewing multiple informants lends itself to building general theories about the nature of social phenomena" (p. 91). It was important to select multiple participants, each of who were able contribute to the overall body of information being sought.

Other data sources, for triangulation purposes, included classroom observations, interviews with autism experts from the local school district, taking pictures of the classroom arrangement and teaching materials, and a thorough literature review. This combination of approaches allowed most of the primary data to be gathered directly from the source, namely the preschool special education teachers who teach students with autism, supported by information across other sources.

Some disadvantages to this approach included the fact that those being interviewed may have said what they thought needed to be said rather than what they actually felt. They may have been reluctant to participate if they felt judged in any way. Interviews alone could not provide the entire context to answer the research questions. Causal relationships may have been assumed or implied by the interviewees where no causal relationship actually exists. "For the social sciences, the social and cultural

contexts of the phenomenon studies are crucial for understanding the operation of causal mechanisms” (Maxwell, 2004, p. 6). The collection of other supporting data served to ameliorate potential misunderstanding or misinterpretation of data gathered through the interviews.

Data Collection Methods

Teacher Interviews

The primary data was collected utilizing paper based in-depth interviews, as this was chosen by the participants over audio-taped interviews. (Metzler; McCracken, 1988). “The record of talk that is accumulated through the qualitative interview allows the researcher to describe the complex discursive activities through which respondents produce meaning” (Hiller and Diluzio, 2004, p. 3). Permission to conduct the interviews was cleared with the Texas Tech University Human Subjects Committee and in accordance with Lubbock Independent School District’s research protocol. Interviewees were given the opportunity to participate or to choose not to participate and proper assurances were provided that confidentiality would be maintained in regards to their interviews. Interviews were conducted and transcribed.

A semi-standardized interview model, as described by Berg (2004) was utilized. A list of predetermined, open-ended questions was prepared and provided to the participants prior to the in person portion of the interview. Respondents were allowed, and encouraged, to provide information outside of the strict scope of the questions. McCracken pointed out the objectives of qualitative questioning as beginning with allowing “respondents to tell their own story in their own terms.... In the case of question

formulation, it is crucially important that questions be phrased in a general and nondirective manner....In no instance may a question supply the terms of the answer it solicits” (p. 34). Additionally, Dilley (2000) stated “Research protocols must be revisited and revised as we conduct interviews, obtain new information, and crystallize our understanding of the lives and issues we investigate” (p. 134). Research questions were imbedded within the open-ended interview questions. Classroom teachers were contacted, interview and observation times and places were arranged, and the hand written interviews from each participant were later transcribed.

Classroom Observations

Site visits or classroom observations helped to compare what had been said in the interviews with evidences in the classroom, such as picture schedules, structured teaching activities and use of other “best practice” strategies. As part of the interview process, teachers were asked for permission for the researcher to make a classroom visit for observation of the environment to aid in understanding the challenges in the classroom. Observations lasted about half an hour each and field notes were kept. This data was utilized, along with that from the teacher interviews, to help address the research questions. Giangreco and Taylor (2003) stated, “Education research is not like laboratory research. Unlike human organs, plants or cells, human beings are social actors who exist in complex and multifaceted social and cultural environments. People are not passive objects that can be understood in sterile laboratory or controlled conditions” (p. 134). Classroom observations helped to shed light on the experiences of each teacher in their “complex and multifaceted environments.”

Photographs

With teacher permission, pictures were taken of the classroom environment and teaching activities, not of the students or the teacher, to support the information from the interviews and the site visit observations (Schwartz, 1989). Photographs were taken in areas where students are not present, so as to produce a visual record of different ways that strategies are present in the classroom. This included photographing different ways that picture schedules are displayed, how the classroom is divided into different activity areas, samples of structured teaching activities, and so on. Pictures contributed to the thick data collected from the research project.

Giangreco and Taylor (2003) pointed out, “Educational research doesn’t so much prove anything or establish ultimate truth as much as it reduces our uncertainty and hopefully helps us to better understand our world so that we can strive to improve it” (p. 134). The goal of the data collection procedures was to put together enough information to meet that standard of reducing uncertainty and helping in understanding the experiences and perceptions of teachers of students with autism.

Data Analysis

Interviews were transcribed and compiled into one document. Open coding procedures were utilized to develop categories and themes from the interview transcripts (McCracken, 1988). Field notes were kept of each classroom observation. These notes were written up as soon as possible following each visit and were included in the data analysis. Pictures provided a third form of supporting information and were examined in connection with the information from each teacher’s interview.

Qualitative Analysis

Gay and Airasian (2003) described initial qualitative analysis:

This process focuses on (1) becoming familiar with the data and identifying potential themes in it (reading/memoing); (2) examining the data in depth to provide detailed descriptions of the setting, participants, and activity (describing); (3) categorizing and coding pieces of data and grouping them into themes (classifying); and (4) interpreting and synthesizing the organized data into general written conclusions or understandings based on the data (interpreting). (p. 229)

Berg (2004) described content analysis in terms of the levels and units of analysis.

“Sampling may occur at any or all of the following levels: words, phrases, sentences, paragraphs, sections, chapters, books, writers, ideological stance, subject topic, or similar elements relevant to the context” (p. 271). Open coding of the current research involved looking for themes using all or most of these units of sampling.

Open Coding

Initially, data analysis was conducted “by hand,” utilizing open coding procedures. Information was examined and marked for emerging themes and categories (Maxwell, 2004; Gay & Airasian, 2003; Ferguson & Ferguson, 2000). Berg (2004) described this procedure as, “typically, a systematic indexing process begins as researchers set up several sheets of paper with major topics of interest listed separately. Below these major interest topics are usually several other subtopics or themes” (p. 115). Este, Sieppert and Barsky (1998) described this hand coding process using similar methods with cards, cutting and pasting the information into various categories.

In accordance with the accepted practices described, the research data was divided up and coded. It was examined again and again. Ely (1991) referred to qualitative

research as a “reflective and recursive process,” (p. 179) indicating the need for thoughtful examination and re-examination of collected data. Themes and sub-themes were identified and verified by multiple examinations of the data. Outliers and negative cases were identified and coded along with the emerging themes. (Creswell & Miller, 2000; La Copmte, 2000). Dilley (2004), quoting Seidman, 1998, pointed out:

Researchers must ask themselves what they have learned from doing the interviews, studying the transcripts, marking and labeling them, crafting profiles and organizing categories of excerpts. What connective threads are there among the experiences of the participants they interviewed?...What surprises have there been?...How have their interviews been consistent with the literature? How inconsistent? How have they gone beyond? (p. 128)

These questions were helpful as guidelines in processing the information from all of the sources. Computer analysis was not utilized to aid in the open coding process. It was felt that the information was clear and had yielded consistent information through the hand coding procedures.

Third Party Analysis of Data

An additional source was utilized in order to provide skeptical input regarding the emerging themes. The Low Incidence specialist at Education Service Center 17 participated in this capacity. Magnuson, Wilcoxon and Norem (2000), described the process they utilized in data analysis. “The third author assumed and maintained a skeptical attitude toward the classification system and any hypotheses that were generated during the early phases of inquiring, thereby decreasing the likelihood of imposing a priori assumptions on the data” (p. 192). This step took some extra time, however it was considered quite valuable in verifying the themes and conclusions. This appeared to be a valid component to include in the analysis process. Sometimes those

who are vested in the research and outcomes become too close to the data and it was invaluable to have a set of eyes that are “once removed” to help to fine tune, or refocus, the process.

Member Checking

Member checking was also utilized as themes emerge. Magnuson, et al. (2000) supported this process as well. “The reviewers used member checking strategies by summarizing, clarifying, and requesting verification of information provided during the interviews and asking for additional clarification during the analysis” (p. 193). It only made sense to seek out the input of the contributing parties when seeking clarification or verification of their own stories. These strategies were utilized to assure that the developing themes and sub-themes could be considered valid and reasonable.

Advantages of utilizing these data analysis techniques were well documented (Berg, 2004; Gay & Airasian, 2003; Giangreco & Taylor, 2003; Miles & Huberman, 1994; Ely, 1991). Adequate input from others and handling of data helped to discover and avoid biases or selectivity on the part of the researcher. Discovery of the “tacit theories” held by research participants in relation to young children with autism helped to reduce the potential of bias (LeCompte, 2000). Member checks helped the researcher clarify information during the analysis phase of data analysis. (Magnuson, et al., 2000; Gay & Airasian, 2003). Disadvantages of this approach included potential biases or preconceived notions on the part of the researcher/data analyzer.

The above-described procedures were well supported in current qualitative research literature (Berg, 2004; LeCompte, 2000; Creswell & Miller, 2000; Trifonas,

1995). As recommended by multiple authors, measures were taken to ensure and support transferability of information during data collection and in data analysis. Information was well documented and a data trail was created. Interviews were transcribed, field notes typed up, a research journal was maintained, pictures were taken and electronically stored, and other supporting documentation was kept and filed as the data was gathered, distilled and interpreted.

Data Management Plan

The time frame for the data collection spanned the second semester of the 2005/06 school year. Permission was granted from the key stakeholders and gatekeepers in the Lubbock Independent School District for the pilot study, which was conducted during May 2005, as well as for the remainder of the research during January to May 2006. Pilot study interviews were conducted during May 2005, during the 2004/2005 school year. The bulk of the interviews and observations for the full study took place between in the spring of 2006. Data analysis was ongoing and began as soon as the interviews started and were transcribed. The data interpretation occurred during the summer months of 2006.

Swenson (1996) stated that

Many traditional research projects fail because of overlooked logistical details, but this observation is doubly true for qualitative studies. Qualitative inquiries occur in natural, local contexts over which the investigator typically has little if any control. The proposer should think through (while not forgetting the implications of likely shifts in focus and design) the myriad details necessary to mount the project successfully. Such details include time schedules, research budget, identification of a local liaison, components of a field kit of supplies and materials, and arrangements for the various trustworthiness/authenticity techniques employed. (p. 189)

In keeping with Swenson's suggestions, a number of potential details that could cause delays or problems were identified. Potential roadblocks to this plan were felt to include: (a) availability of those who will be interviewed and observed; (b) researcher scheduling obstacles; (c) possible objections from building administrators; (d) ensuring confidentiality for classroom observations; (e) providing teachers with reassurances regarding the confidentiality of their interviews; and, (f) other unforeseen circumstances. The data management plan and time frame for the study proved workable and allowed for potential roadblocks. All of these plans received approval through the Lubbock Independent School District and the Human Subjects Board at Texas Tech University.

Validity and Transferability

A variety of methods were utilized to ensure validity and transferability of the information gathered from this study. Brantlinger, Jimenez, Klinger, Pugach & Richardson (2005) described a number of methods to increase the credibility of qualitative research. It was a well-researched and helpful list, so each method has been defined and supported by additional literature.

Triangulation was defined by Brantlinger, et al. (2005) as the "search for convergence of, or consistency among, evidence from multiple and varied data sources (observations/interviews; one participant & another; interviews/documents)" (p. 201). They described and defined four types of triangulation: "Data triangulation – use of varied data sources in a study; Investigator triangulation – use of several researchers, evaluators, peer debriefers; Theory triangulation – use of multiple perspectives to interpret a single set of data; Methodological triangulation – use of multiple methods to

study a single problem” (p. 201). Many of the described triangulation methods were utilized, including outside evaluators, multiple interviews, classroom observations, pictures of classrooms and literature review. Each participant was interviewed or contacted as many times as needed so that the participant felt that their story had been heard. Multiple participants were interviewed. There were also participants who had a variety of roles (special education teachers, campus inclusion specialists, and autism “experts”). Methodological triangulation was addressed by utilizing multiple methods of data collection, including interviews, classroom site visits, photographs of classrooms and literature review. These triangulation methods were supported across the literature (Berg, 2004; Gay & Airasian, 2003; Giangreco & Taylor, 2003; Miles & Huberman, 1994; Ely, 1991, McGroaty & Zhu, 1997).

Disconfirming evidence was sought and documented. Brantlinger, et al (2005) defined this as, “after establishing preliminary themes/categories, the researcher looks for evidence inconsistent with these themes (outliers); also known as negative or discrepant case analysis” (p. 201). Trifanos stated, “The law of generalizability needs to be rewritten in the discourse of empirico-inductive analysis to account for the undecidable effects of nonabsolute phenomena upon perceptions of reality” (p. 96). In other words, sometimes phenomena were discovered during research that did not fit with the rest of the data set. These cases helped researchers to establish the parameters of the findings.

Researcher reflexivity, as defined by Brantlinger, et al (2005) involved the researcher acknowledging potential biases, assumptions and possible preconceived notions. This researcher has been a PPCD teacher in the past and has had several

students with autism in various classroom settings. These experiences, and the possibilities of biases that they may have caused, were taken into account during the data analysis.

“Member checks” referred to having study participants “review and confirm the accuracy (or inaccuracy) of interview transcriptions or observational field notes” (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005, p. 201). These checks involved having participants review interview transcriptions and field notes prior to analysis, as well as seeking member input during the data analysis phase. Creswell and Miller (2000) suggested “the importance of checking how accurately participants’ realities have been represented in the final account. Those who employ this lens seek to actively involve participants in assessing whether the interpretations accurately represent them” (p. 125). Both types of member checking were helpful and increased the credibility of the information and data analysis. Member checks were conducted by having the participants check the interview transcripts. Participants were also asked for input regarding the interpretation of their interviews. Participants were provided with opportunities to expand information during the classroom observations as well.

As suggested by Bratlinger, et al. (2005), an external auditor was utilized to check data and theme development. Creswell and Miller (2000) supported this notion as being an important way to establish credibility. “Reviewers not affiliated with the project may help establish validity as well as various readers for whom the account is written” (p. 125). This involved locating an outsider to the research to examine and confirm the

researcher's logical interpretation of the data. The Low Incidence Specialist at the Region 17 Service Center served as the external auditor.

An audit trail was kept. It was important to maintain a good paper trail with any serious research undertaking. This audit trail included all original documents, which were filed and stored for further reference. Transcripts of interviews were stored electronically on the computer, on a back up disk, as well as in hard copy form. Photographs were digital and were saved on the computer, to a disk, as well as in printed form. Classroom observation field notes were stored in their original form, transcribed to computer and saved in disk and printed form. A filing system was set up to correlate and organize the printed information.

Thick, detailed descriptions of participant contacts and all research activities were written up and included within the data. Giangreco & Taylor (2003) stated, "We support the notion that studies should be presented in sufficient detail and clarity to allow for replication or, at minimum, offer the opportunity to build systematically on their findings" (p. 133). Quotes and descriptive notes were used to support the conclusions reached. All of these measures helped to make the study more likely to be transferable for the consumer of the research. Bratlinger, et al (2005) included "Particularizability – documenting cases with thick description so that readers can determine the degree of transferability to their own situations" (p. 201) as an important component in establishing credibility in qualitative research.

Summary

This study was conducted as a qualitative phenomenological case study of the special educators within one school system. Research questions were based on literature review and on a previously conducted pilot study. Preschool special educators participated in in-depth paper interviews; follow up interviews; classroom observations; and providing access for photographic information gathering regarding their classroom settings and experiences. The school system autism specialist participated in the study both as a gatekeeper and as an interview participant.

The data was examined in a reflexive manner and examined for emerging themes. An outside auditor was enlisted to ensure that the themes were valid and connected to the research data. Member checks were also utilized to ensure that the data interpretation represented the views and perceptions of the participants accurately. Data was also examined for consistence between the various data collection methods. It was found that the follow-up interviews, classroom observations, and photographic evidences were consistent with each other. Implications and recommendations have been gleaned from the research findings.

CHAPTER IV

PRESENTATION, ANALYSIS, AND CONCLUSIONS OF DATA

Restatement of the Problem

The increased numbers of students identified with ASD includes preschool students served by Head Start and Preschool Special Education programs within the school system. The characteristics of ASD can make these young students both unique and challenging to manage in general classrooms and within self-contained programs. There are a number of challenges associated with providing appropriate services for this population. These include: (a) adequate preparation of early intervention practitioners (Able-Boone, Crais & Downing, 2003); (b) diagnosis (Marchand, 2002); (c) appropriate and effective educational assessment (Wolf-Schein, 1998); (d) behavioral issues (Gomez & Baird, 2005); (e) communication issues (Hancock & Kaiser, 2002); (f) social delays (Zanolli & Daggett); and, (g) the identification of research-based best practices for young children with autism (Massey & Wheeler, 2000).

The purpose of this study was to examine the perceptions of preschool teachers regarding the needs of their young students with autism within the classroom. The study provided helpful information to those who are responsible for providing training and support to the self-contained Preschool Program for Children with Disabilities (PPCD) teachers and PPCD Head Start inclusion specialists. The study was limited to preschool special educators within the Lubbock (Texas) Independent School District. The perceptions examined included student characteristics within the classroom setting, how

well prepared these teachers felt to provide appropriate programming for young students with ASD and what supports they felt are, or would be, helpful to them. This study provided potentially valuable, enlightening information from the “field” to those who are responsible for making decisions regarding the scope and content of training and supports for in-service teachers, as well as providing input for those developing courses for pre-service teachers. Although the study was limited to Lubbock ISD, some generalizations could be made from the information gathered. It may also serve as a foundation for a broader investigation the lived experiences of teachers of students with ASD.

Restatement of the Research Questions

Research questions were developed to address preschool teachers’ perceptions about the needs of young students with ASD. The research questions supporting this topic were: 1) What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?; 2) What special challenges do teachers face in meeting these needs?; and, 3) What supports do the teachers feel are necessary in order for them to meet the needs of these students? Supporting questions have been discussed individually as part of the data analysis. A sample interview form has been included in Appendix A.

Analysis

Interviews were conducted with eight preschool special education teachers regarding their perceptions about the needs of young students with autism within the preschool classroom. A paper interview was also conducted with one of the autism specialists for the school system, and a follow up interview was conducted with two

school autism specialists present. Six of the preschool teachers interviewed taught in self-contained special education classrooms and two served as inclusion facilitators on a head start campus. Each teacher had at least one student with autism in their classroom during the school year preceding the interviews. The interviews were transcribed and the information was coded for common themes. Themes were developed and were included if they appeared in at least half of the teachers' responses to each research question.

Demographic Information

Teaching experience

Question: How long have you taught school? How long have you been a PPCD teacher?

The participants in the study had somewhat varied backgrounds in preschool special education. Years of teaching experience ranged from one to 33 years, and years teaching PPCD ranged from one to 33 years. The average for numbers of years taught was 16.25 years. The range for teaching in a PPCD setting was from one year to 31 years. The average number of years teaching PPCD was 10.6 years. The school district autism specialist had five years of classroom experience in general education in Kindergarten through 2nd grade and had not taught PPCD.

Teaching Certifications

Question: Describe your teaching certifications.

One teacher had a Master's Degree and seven held Bachelor's degrees. Five held general education certifications in elementary education, and one in Home Economics. Seven had all-level generic special education certifications, and three had certifications in early childhood special education. The autism specialist held certifications in elementary

education, elementary early childhood, all level generic special education, all level educational diagnostician and EC-12 administrative certification.

Location of teaching experiences

Question: Have you taught in school districts other than LISD? Did you teach PPCD there?

Five of the teachers had experience teaching districts other than their current placement, four had taught PPCD in other districts.

Number of identified students

Questions: In your classroom during the school year 2004/2005, how many students were identified as having autism or other pervasive developmental disorders? How many for the school year 2005/2006?

The number of students identified with ASD or other pervasive developmental disorder for the school year 2004/2005 ranged from one to four per class, with three classrooms having one student, one classroom having two, one with three, and two with four students, for an average of two identified students per classroom. The number identified during the year 2005/2006 ranged from one to six, with three classrooms having one student, one classroom having six students identified with ASD or other pervasive developmental disorder, for an average of 2.75 identified students per classroom.

Classroom Size

Question: How many students total are in your PPCD classroom for the same school years?

Classroom size for the school year 2004/2005 ranged from five to 11 PPCD students, with one class having five, one class having 7, three classes having 8, one class having 9, and two classes having 11 students, for an average of eight students per class. Classroom size for the school year 2005/2006 ranged from six to nine, with one class having six, two classes having seven, three classes having eight, and two classes having nine PPCD students, for an average of 7.75 students per classroom. It is interesting to note that while the average size of the PPCD classes decreased slightly between the two school years, the average number of students identified as either having autism or other pervasive developmental disorder actually increased slightly.

Teaching Staff

Questions: What is the make-up of your teaching staff? (number of teachers, teaching assistants, inclusion specialists). Please discuss their availability to you during the school day. (Are they in your classroom full time, as needed, so many hours a day?)

The classroom staffing in each of the self-contained rooms included one full time certified teacher and two or three full time teaching assistants. The inclusion facilitators each had a teaching assistant who provided services to students under the supervision and direction of the inclusion facilitator. One teacher noted the addition of a student teacher for a semester and another stated that one of her teaching assistants was pulled about once a month to cover other classrooms when substitutes were not available.

Inclusion Opportunities

Questions: Please describe any inclusion with non-disabled peers that your classroom is involved with on a regular or planned basis (e.g. school library, meals, playground or

P.E., music, other out-classes – specify). Do students go individually or as a group?

What adults are involved in facilitating these inclusion activities?

Inclusion activities of the PPCD students fell into three types of inclusion: Large group, Small group, and Individual inclusion. Large group inclusion activities included participation in library time, lunch, physical education and music class. Across the participants, large group inclusion varied from none at all to total inclusion for the facilitators' PPCD students. Generally when the class members were involved in large group inclusion activities, the teacher and all the teaching assistants accompanied the group and stayed with them during the activities. Small group inclusion typically consisted of two to three students at a time attending "out" class activities. This usually took place for short periods of time, from less than an hour up to two hours, as tolerated by the students and as dictated by the student's Individualized Educational Plan (IEP).

In most cases, at least one teaching assistant accompanied students to their small group activities. One teacher acknowledged that two students attend kindergarten for Physical Education with a teaching assistant and one of those students remains in kindergarten for the afternoon without the teaching assistant present. Individual inclusion included individual students participating with general education classes during physical education, music, recess, centers and special events. The amount of inclusion time was dictated by the IEP and a teaching assistant typically accompanied the individual student. Selected Head Start students were fully included on an individual basis with support from the inclusion specialist and/or teaching assistant as needed. The students participating in this full inclusion model had times in the general classroom when a special education

staff member was not present. All of the PPCD classrooms ate breakfast and lunch in the cafeteria on a regular basis, but not all the teachers viewed this time as inclusion since they tended to sit separately from the general education students.

Conclusions

The eight PPCD teachers who participated in the study all had bachelor's degrees and one had a master's degree. Years of teaching experience varied greatly, both in PPCD classrooms and in other settings, ranging from one to 33 years in both categories. Some teachers had taught in other settings and others had spent most of their careers teaching PPCD students. Average teaching experience in the PPCD classroom was 10.6 years. All the participants had some form of all level special education certification, and all but two had some form of preschool or preschool special education certification. Five of the teachers had taught in other school districts, four of them had taught PPCD in those other districts.

PPCD classroom size for the two school years ranged from five to 11 in 2004/2005 and from seven to nine in 2005/2006. Numbers of students identified with autism or other pervasive developmental disorder in the PPCD classrooms ranged from one to four in 2004/2005 and from one to six in 2005/2006. The average class size for the school year 2004/2005 was eight, and 7.75 in 2005/2006. During the school year 2004/2005, the average number of students identified with ASD or pervasive developmental disorder in the PPCD setting was two per classroom. During the school year 2005/2006, the average was 2.75 per classroom. One teacher and two full time teaching assistants staffed the typical PPCD classroom; while the inclusion facilitators

typically worked with up to six Head Start teachers and each had a full time teaching assistant.

Most of the PPCD teachers described some inclusion with non-disabled peers. It appeared that this inclusion generally occurred as a class group and was during cafeteria and library time. The students were typically accompanied by their teachers and teaching assistants when they attended these inclusion opportunities. Two teachers stated that their classes attended inclusion opportunities as a group, but that there was typically not much contact with non-disabled peers during these “inclusion” activities.

Research Questions

Question One: What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?

Teacher Interviews

Educational Needs of PPCD students in general

Question: Please describe, in general, the educational needs and goals that most of your PPCD students have. Are there specific areas that most PPCD students have needs in (such as self-help, language, motor, behavior, etc.)?

All eight teachers stated that most of their PPCD students have goals in the areas of (a) communication (or language) and (b) behavior. Also prevalent in the responses were: (c) self-help (particularly potty training); (d) social skills; and (e) fine motor concerns. Four of the teachers mentioned that their PPCD students often had difficulty “sustaining attention and completing tasks.” The school autism specialist listed:

(a) Communication: Expressive, receptive, non-verbal & social language. (b) Increased ability to attend to age appropriate activities including work and play; (c) Sensory regulation through the implementation of a sensory diet; (d) Self-Help, including skills for increased independence, age appropriate skills, such as brushing teeth, toileting, etc; (e) Fine and gross motor, though fine tends to be more delayed; (f) Behavior issues are usually tied back into communication and sensory regulation challenges, though not all. Replacement behaviors need to be taught. (g) Parent support and training, including language and self-help.

The responses from the autism specialist were similar to the responses from all eight PPCD teachers.

Needs of Students with Autism

Question: How do the needs of students with autism vary from their peers?

The teachers' responses indicated students with autism seem to have similar needs to the general PPCD population. One teacher stated, "Their needs are similar but more intense." The students with autism seemed to have more involved language and social needs, as well as "more abnormal behavior." "They lack the social skills to interact with their peers without adult help, they have trouble expressing how they feel to their peers and adults and will become aggressive and tantrum." "They have considerably more 'sensory' issues and needs." The teachers also pointed out that it was critical to utilize visuals with the students with autism. One teacher commented on the social skills of her students with autism, "Our friends with the autism label tend to play with each other more than the 'AU' students. We still work with non-autistic students on self-help, fine

motor and language.” The autism specialist replied, “Though I believe that many of the strategies that we use for students with autism work well with all students, we know that students with autism respond to and increase in skills when specific strategies are utilized consistently.” She felt that the teachers needed to have a basic understanding about autism. “The professional needs more than facts and information, the professional must be able to step back and look at the world from the perspective of their students with autism.” She also made the point that “behavior is communication and as the behaviors occur they need to be able to determine the function of the behavior.” Students with autism need direct instruction in social skills.

Differentiation of Teaching

Question: Are there specific areas that you address differently for students with autism?

Please describe these areas.

The eight teachers consistently cited their use of structured scheduling and picture cues with their students with autism. They also utilized sensory diets, as prescribed by the occupational therapists, and incorporate the sensory activities throughout the school day. The teachers recognized that behavior outbursts were to be expected from their students with autism. “Their behaviors are usually related to language, social or sensory issues.” One teacher described her approach. “Most work at the beginning of the year is individualized. We work toward small group activities as they year progresses. Sensory needs have to be met first before they have recognition of schedule cues and activities.” One teacher identified a challenge, “Social behavior is the main one. We also try to get them to use their words instead of throwing a fit.” According to the school autism

specialist, “It is not so much that the needs of students with autism vary from their peers, it is more the level of intervention that may vary. They need: Structure; Routine, Predictability; Warning for changes; Visual supports; Direct instruction in social language; Regular sensory diet implementation; and a Classroom environment that takes into account sensory differences.” Again, the descriptions from the teachers and the autism specialist supported one another in terms of identifying the specialized needs of the PPCD students with autism.

Addressing Needs

Question: How do you address these areas of need within the classroom?

All of the teachers expressed the importance of, “lots of visuals,” and, “detailed picture schedules.” The teachers also provided a very structured environment for their students with autism. Some responses included, “Extremely routine in everything we do;” “We have a very structured classroom with adults playing in the centers with the students;” “Provide many visuals for schedules, routines, field trip behaviors.” The teachers also mentioned the need to work in small groups with their students. “More one to one teacher/student interaction;” “We work with students in small groups.”

Teachers saw the need for preventative measures within their student interactions, “extra attention and visuals at transition times and at other times when the student may be agitated;” “Focus on language – they don’t always understand what is going on around them;” “We model how to play in centers, and when they become aggressive we model what to say to their peers – we use visuals.” Sensory issues were also addressed, “we provide joint compression, deep pressure, a sensory-motor area where we can work on

sensory needs with a swing, trampoline, tactile materials, etc.” The district autism specialist responded with following important areas: “(a) Staff training; (b) Heavy emphasis on visual supports; (c) Essential components of structure and routine; (d) In-home and parent training.” The emphasis across all answers seemed to be the utilization of effective visual supports and establishing a classroom structure and routine.

Inclusion of Students with Autism

Question: Do you have any students with autism who are involved in inclusion with other classrooms? Are they able to participate independently? How do you address providing staff to accompany them to their inclusion classroom?

This question was specific to the PPCD students with ASD and the inclusion opportunities afforded to them. The inclusion specialists responded that their situation differed from the self-contained PPCD classrooms. They had students who participated in full inclusion within the Head Start classrooms. Their students received support from either the inclusion specialist or a teaching assistant for varying amounts of times throughout the day. This time is initially determined by the ARD committee and often is decreased over the course of the year as the student becomes accustomed to participating in the general education classroom. “In the inclusive program, students with autism spend all day in the regular classroom. They are fairly independent. Teachers are selected who are willing to give extra attention and/or modifications. The inclusion specialist goes to the classroom daily to assist the child and staff.”

The PPCD teachers generally had one or no students participating in inclusion opportunities. In the situations where students left the classroom to participate in the

general education setting, a teaching assistant typically accompanied them. In describing her experiences with inclusion for her students, one teacher reported, “I have one in kindergarten inclusion. I have had others in the past in an ‘inclusion setting.’ The students will be or are accompanied by an assistant who will modify activities as needed. The inclusion students are not students with severe autistic behaviors that could not function in a typical classroom.” One teacher shared that she had, “no students involved in inclusion. I don’t have any that can participate independently.” With regards to staffing issues, one teacher commented, “I had one student in regular kindergarten. An assistant went with him. When the assistant leaves with the student, that only leaves two adults in the PPCD room” (with up to nine other students). The autism specialist felt that inclusion time and participation varies and, “Classroom teachers should be scheduling all staff.”

Specialized Learning Activities

Question: Do you provide or produce specialized learning activities for your students with autism, such as structured teaching activities?

Most all of the teachers reported providing structured, visual activities for their students. “We do many structured activities with these students. For ‘severe’ students, most all instruction is individual because that is what they are able to tolerate.” “We do individual tasks, one to one teaching, and structured group time.” In many of the classrooms, teachers utilized workstations, teaching tasks and folder activities. The emphasis seemed to be on “very, very structured schedule – all day!” The autism specialist reported, “The district has provided materials for PPCD teachers who work

with students with autism. This includes a complete set of Shoebox tasks. In addition, the autism library has books, which describe additional tasks, which can be prepared, and how they can be extended. Additional materials were provided to address the sensory needs of these students such as ‘body sox,’ swings, etc.” The teachers seemed to address the needs of their students in an individualized manner, utilizing appropriate materials and activities.

Specialized Classroom Management

Question: Do you provide or produce specialized classroom management materials for your students with autism, such as schedules or classroom arrangements? Please describe what you do.

Each of the eight teachers mentioned utilizing picture or object schedules with their students. We use “picture and word schedules for every activity;” “We use schedules and many visuals;” “There are visuals for choices of areas of activities at work-time. There are visuals for parts of the day for transition. We discuss being finished with parts of the day and sign ‘finished.’”

They also structured their classrooms by providing defined boundaries within the classroom. “We have a very structured environment. Our centers have ‘walls’ to show physical boundaries;” “We have structured centers with walls and tape on the floor (where to stand or sit).” According to the autism specialist, “Every teacher who has a student with autism in PPCD has received extensive training and support in how to meet the unique needs of students with autism in their classroom setting.”

Classroom Observations

One thirty-minute classroom observation was conducted with each teacher who participated in the interviews. Field notes were kept and the data was included in the formulation of themes to answer each research question. In addressing the first research question, “What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?”, observations showed that the classroom setting reflected teacher reports regarding the needs of their young students with autism. Observations of classroom interactions confirmed the teachers’ assessment of delayed language skills and behavioral differences. During the observation time in one classroom, two of the students experienced “melt-downs” that occupied the attention of the teacher and one teaching assistant. All of the classrooms contained “lots of visuals,” as was stated in the teacher interviews. One classroom was observed during their sensory activity time, while the teacher and assistants worked with students individually and in small groups. The inclusion specialists demonstrated the use of visuals and social stories within the general education head start setting.

The classrooms all had evidence of a structured environment. Many had clear boundary divisions, utilizing short shelves or other structures to divide the classroom space. Spaces were also defined using rugs, tapelines, tables and other materials. Many of the classrooms assigned each student a “symbol” as a means of providing visual structure. The symbols helped the student recognize where they should sit or which learning activity they would be using during that time. The classroom observations

seemed to support, and were consistent with, the information provided by the teachers during their interviews.

Photographs

The participating teachers allowed photographs to be taken within their classrooms to illustrate various aspects of the research questions. Pictures to support the conclusions for the first research question are found in Appendix B. The pictures addressed the needs for: Visuals, Sensory Motor Activities, Variety of Learning Activities, and Structured Classroom Arrangement.

Visuals

The teacher interviews and current literature supported the use of visuals with students with autism. The classrooms evidenced the use of visual schedules. Figure 1.1 illustrates a picture schedule using real photographs of various people and objects in the classroom, indicating what came “next.” Figure 1.2 exhibits a student schedule generated using the “Boardmaker” computer software. Figure 1.3 demonstrates a photographic daily schedule that has been coupled with words for each activity. Figure 1.4 is an example of a sample schedule, which used objects and pictures to represent the various daily activities for that particular student. Figure 1.5 shows a sample Social Story Book that was used to help a student with ASD understand why his teacher would be away from school for a time. Figure 1.6 provides a sample social story page that supports potty training with a student.

Sensory Motor Activities

The participating teachers cited sensory motor needs as important for their students with ASD. Some classrooms had separate sensory rooms, which were unable to be photographed because students were present and utilizing the equipment. However, some teachers stored and used sensory equipment within their classrooms. Figure 1.7 depicts a trampoline, a sensory rubber ball, and other sensory-based equipment stored within the classroom. Figure 1.8 illustrates a sensory motor area that utilizes blocks of various texture and size.

Variety of Learning Activities

Teachers described the need to use structured teaching activities with their young students with ASD. These were found within each classroom. Figure 1.9 portrays structured teaching activities, including both teacher produced materials and materials that had been purchased. Figure 1.10 depicts a variety of preschool toys and sensory learning activities.

Structured Classroom Arrangement

Prominent within the literature and in the teacher responses to the interviews was the need for a structured, predictable environment. Students with autism need to have predictable, understandable, and well-defined spaces and structured environments. Figure 1.11 pictures a “housekeeping” area within a classroom that is set apart by the presence of a “house” fascia. Figure 1.12 depicts a circle time area, with the boundaries represented by a circular rug. The students’ spaces were further defined by the use of student symbols on the rug to show each student where they are expected to sit. Figures

1.13 and 1.14 show learning areas within a classroom divided by using moveable low walls. Each area has a definite use and can be easily identified by the contents within the space. Figure 1.15 pictures the use of existing flooring within the classroom to separate learning areas. The “line” formed where the carpeting met the tile served to divide two centers. The areas were further clarified by the use of an area rug. Figure 1.16 indicates a learning circle area that is defined by using student cube chairs. Figure 1.17 portrays a table area that provides visual support to the students. They knew where they were expected to sit at the table by finding their personal symbol.

Data Analysis and Discussion

The first research question addressed was: “What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting? The prevailing themes, based on the participant’s responses, regarding the needs of young students with autism within the classroom setting were: (a) Language and Communication; (b) Behavior; (c) Sensory needs; (d) Need for Structure and Predictability; (e) Individualized attention and instruction; (f) Social and Self-Help skills and, (g) Inclusion opportunities. These issues were consistent with those found in the literature as concerns for providing appropriate services for all students with autism.

Language and Communication

All eight teachers, and the local autism specialist, felt that language and communication were primary areas of need for young students with autism. The teachers were concerned about the students’ ability to receptively understand classroom instructions, as well as to expressively communicate their basic needs. One teacher

related, “The typical peers can communicate their wants and needs and can understand classroom activities. The students with autism often seem to lack that ability.” Another teacher found that she needed to “word requests differently” in order to be understood.

Behavior

All the teachers also listed behavior as an area of great concern. They saw the communication as contributory to the behavioral concerns. “Melt-downs” required individualized attention and often disrupted the classroom routine for other students. These episodes posed a difficult challenge in educating young students with autism. One teacher explained that she had to be aware of the triggers for one student’s meltdowns and to try to keep the classroom atmosphere calm and quiet to avoid student meltdowns. Another teacher utilized a “sensory diet” to help ameliorate and prevent behavioral outbursts. Transition times seemed problematic according to several teachers, with many behavioral outbursts occurring during classroom transition times. Teachers used picture and object schedules to intervene in these situations.

Sensory Needs

All the teachers mentioned sensory issues, such as hypersensitivity to sounds, tactile defensiveness, sensitivity to scents, and the need for a “sensory diet,” as an area of concern. They felt that the sensory issues contributed to the students’ behavioral challenges. In describing how the needs of the students with autism differed from their typical peers, one teacher stated, “They have considerably more sensory issues and needs.” Another described her students’ “sensory diet,” prescribed by the Occupational Therapist, which they followed “all day every day” in the classroom.

Need for Structure and Predictability

All the teachers identified structure and predictable schedules as crucial components. Visual schedules and well-defined boundaries played a big role in classroom structure. One teacher described the need to be “extremely routine in everything we do,” and provided “less freedom to choose activities.” One stated that her students participated in a “very, very structured schedule all day.” Another said that in her classroom, “Everything is structured and visual.”

Individualized Attention and Instruction

All teachers mentioned providing individualized instruction, often in a one to one setting. Structured, individualized instruction was viewed as important. “We do many structured teaching activities with these students. For the more severe students, most all instruction is individualized because that is what they are able to tolerate.” Several teachers revealed the need for workstations with individualized work projects. For the inclusion students, “Some students are pulled to work individually with the inclusion teacher or teaching assistant during large group activities, some are able to handle group work.”

Social and Self-Help Skills

All teachers cited social issues as being an area of great need among their students with autism. Six of the eight teachers articulated self-help skills as an area of concern within their groups, with the most concern expressed for potty training. Potty training was an issue considered to interfere with inclusion activities for the students as well. It seemed to be something that the teachers felt pressure from parents to address within the

classroom setting. In regards to social skills, one teacher said that the students with ASD seemed to “learn through inclusion to communicate and get along with others.” Most of the teachers considered providing social opportunities with typical peers a challenge.

Inclusion

The six classroom PPCD teachers discussed the challenges they faced surrounding inclusion for their students, such as staffing, both for the inclusion experience and within the classroom. “When a student attend inclusion opportunities, a teaching assistant attends as well. That leaves the classroom short-handed.” One also felt frustrated that students with “severe” behaviors were excluded from inclusion settings.

The six teachers who taught in a self-contained setting mentioned the need for their young students with autism to be included with typical peers. The inclusion specialists facilitated inclusion daily and felt “students learn through inclusion to communicate and get along with others.” One inclusion specialist indicated that her students were fairly independent and the “inclusion teachers are selected who are willing to give extra attention and modifications. The inclusion specialists go to the classroom daily to assist the child and classroom staff.” One of the self-contained teachers said, “The inclusion students are not students with severe behaviors that could not function within a typical classroom.” The six self-contained teachers all mentioned limited campus opportunities and staffing concerns in regards to inclusion for their students.

Question 2: What special challenges do teachers face in meeting these needs?

Teacher Interviews

Teacher Time Commitment

Question: How much time does it take in your day to address the special needs of your students with autism?

Each of the six classroom teachers commented that their students with autism seemed to consume a good portion of their time during the school day. One teacher commented, “It takes all day every day to address the needs of students with autism. You usually know the precursors but there is always an unforeseen event that will cause a behavior to occur.” Another teacher revealed, “In the teaching day, the students with autism are basically worked with on an individual basis.” One teacher lamented, “I was one-on-one with him the entire day and every activity was planned around him.” And another teacher felt that it took at least one-third of her instructional day to address the needs, with the student needing an adult available to them most of the day. The inclusion teachers indicated that their interventions ranged from 30 minutes to three hours a day, depending on the individual needs of the students and the recommendations of the ARD committee.

Lesson Planning

Question: How do you address these needs in your lesson planning?

Three of the teachers addressed the needs of their student with autism by planning which adult would work with the individual student during particular activities. The teachers also addressed the individual needs by planning “to present most material

individually according to the needs and abilities of each student.” One teacher incorporated sensory activities within her lesson plans. “I provide small group activities that are very visual with manipulatives. Pictures, glue, cut, playdough, paint...we do weekly themes and try to include fun activities that the general ed peers are involved in.” One teacher related that she did not directly address these needs within her lesson planning. The two inclusion facilitators revealed that they worked off of the classroom teacher’s lesson plans, but addressed needs as they arise within the classroom. One facilitator coordinated with the general educators to address the specialized needs. “As a facilitator, I follow classroom teachers’ lesson plans. I try to emphasize considering the needs of the student with autism when making plans.”

Behavioral Needs

Question: How do you address the behavioral needs of your students with autism, such as melt-downs or sensory overload? How does this behavior affect the other students in the classroom?

Four of the teachers specifically mentioned using sensory activities, such as body socks, workout balls, sit and spins, swings, bean bag chairs or pillows as a means to help the student gain control of themselves. Three used visuals, such as social stories, in conjunction with sensory activities to help the student work through their behavior. Two of the teachers relied on staff members to monitor the student or assist with behavioral needs. “She has to have total involvement from a staff member to keep her from running away or hurting another child. At circle time, small group, etc. she must be removed if others are going to be able to listen and pay attention.”

When asked about how the behaviors affected other students in the classroom, one teacher shared, “This behavior affects the other students by making ‘large group’ or ‘small group’ activities very difficult to maintain or even attempt, however, each assistant is aware of the needs and methods of working with the individual students and is mediating in an ongoing manner – meeting these needs.” Another teacher theorized that when some students need more attention from the teacher the other students get jealous. One inclusion facilitator observed, “The other students tolerate behavior outbursts. They learn to continue their own activity while the teacher deals with the behavior outbursts.” A self-contained teacher indicated, “Once the student begins to melt-down – the others ‘feed’ off of them and will sometimes start screaming.” Another stated that behavioral outbursts “usually cause the rest of the class to get upset.” The teachers’ descriptions of the impact to their classroom varied, but overall it seemed that behavioral outbursts disrupted the classroom routine.

Needs of all students

Question: What special challenges do you face as you address the needs of all your students?

Overall, the teachers seemed to face challenges with having enough time and staff to meet the varied needs of their students. Comments included, “It is stressful on the staff trying to continue the schedule while one adult is dealing with one student with autism. It takes a well-trained and cooperative team to make it work.” Another felt that “The others get pushed aside. They are not given as much attention as they need.” Several teachers mentioned the challenges to them personally and to their teaching assistants.

“Having so many autistic students in one room is challenging. They tend to set each other off. I also have some issues with losing my patience, but I just have to not react to the situation, step back and evaluate what needs to be done.” Another teacher felt frustrated in “Explaining to the other students about the oddities the child with autism may express and why the child with autism may have modifications that look like special privileges.” Time, staffing and stress seemed to be the primary themes that were expressed by the teachers as they addressed this issue.

Needs of students with Autism

Question: What challenges do you face as you address the needs of your students with Autism?

The teachers felt that the challenges they faced as they addressed the needs of their students with autism were very similar to those of the general PPCD population, but the intensity level seemed increased. One teacher felt, “Burn-out; exhaustion; frustration in not knowing how to help.” Another cited staffing and time issues. Additionally, “sensory issues which are very prominent and predominate in certain students.” Five of the teachers described student behavior as “a difficult challenge.” “I have one student who self-stims almost constantly. It has been difficult working with him and showing him appropriate activities.” There seemed to be a certain level of frustration among the teachers, showing signs of the “burn-out” referred to by one of the respondents.

Effective Techniques

Question: Please briefly describe any techniques or approaches that you have found work well in your classroom with these students.

The teachers found that most of the techniques and approaches in place seemed to be somewhat helpful. All responded that visuals were very effective. Teachers described attending to sensory needs as a priority. “I try to do sensory activities, particularly related to movement (vestibular and proprioceptive) and she seems to enjoy them, but it doesn’t always seem to carry over.” Maintaining daily routines appeared effective. One cited music as a useful tool, “Music is a big motivator for my kids. If we sing a song, it calms them down. I also usually have classical music playing during center time.” Two teachers described using simple language and positive reinforcement. “If you give lots of smiles and use a sweet tone of voice, these interactions may help her keep from getting mad.”

Added Structure

Question: Have you found that utilizing techniques, such as TEACCH structured teaching activities, provides you with added structure or “control” within the classroom? How?

The teachers noted a lack of benefit from independent structured teaching activities. “Not necessarily. We do table time activities that are ‘start to finish.’ Everything we do is routine so the students know what to expect and where to go. We use the philosophy of TEACCH rather than just the tasks.” One teacher responded that the students understood the rules about the divisions of the room. “Our classroom has many barriers and specific places for certain activities. The students know that if they go to the block center, they may not go to sensory or puzzles.” Another teacher replied, “I

have not really used these techniques because I usually can't get her to concentrate and follow me for as much as three minutes.”

Classroom Observations

Classroom observations with special attention to the research question, “What special challenges do teachers face in meeting these needs?” supported the general themes and conclusions expressed in the teacher interviews. The classrooms were generally orderly and seemed very structured. The students seemed to know what was expected of them and there was evidence that the students were relying on visual and object schedules. The teachers seemed engaged with their students and all of the adults in the rooms seemed well utilized. Some students required one-to-one assistance and additional attention from the adults in the room. It appeared that the teachers and assistants worked well, seeming to send signals to one another as they handled different situations with students.

Photographs

Appendix C contains pictures from various classrooms, which represented the concerns expressed by teachers as they described, “What special challenges do teachers face in meeting these needs?” Prominent among the challenges expressed by the teachers were sensory issues, the need for visual structure within the classroom, and the need to provide structured teaching activities for their students. Photographs of a variety of classroom areas and adaptations showed that teachers were addressing these challenges within their classrooms.

Addressing Sensory Issues

As has been previously mentioned, some participant campuses had separate sensory rooms utilized for student calming and sensory-motor activities. Some had areas designated within their rooms for these issues. Figure 2.1 depicts two soft chairs that have been placed in a self-calming area. Figure 2.2 shows a double rocker chair used for student calming. The rocking chair was allowed an adult to stay close to a student without placing them in their lap or appearing to restrain the student. Figure 2.3 pictures a center with multi-sensory toys and activities to meet a variety of sensory needs of students.

The Need for Visual Structure

The participating teachers expressed the need for visual structure with their students with ASD. Figure 2.4 displays a student schedule with both photographs and symbols. Figure 2.5 shows a visual poster of classroom rules produced with computer software that couples words and picture symbols.

Structured Teaching Activities

Teachers used both “purchased” and “teacher produced” activities to help them in their classroom instructional activities. Figure 2.6 gives samples of purchased structured teaching activities. Figures 2.7 and 2.8 depict an innovative use of teacher produced materials and purchased materials to help reinforce potty training activities. The teacher had constructed a “jungle” within the restroom, complete with a “talking parrot.” The parrot was programmed to tell the student, “good job” or to remind them to “Wash hands!” The teacher reported that this approach made potty training a little more fun for .

Data Analysis and Discussion

Four themes emerged from the questions regarding the challenges teachers faced in meeting the needs of the students in their classrooms. These issues included: Time; Behaviors; Staffing; and, Teacher Stress, with the potential for teacher burn-out. At least six of the teachers responded about each issue.

Time

Time represents one overriding challenge faced by the teachers. They described their young students needing one-to-one attention from an adult. “I was one-on-one with him the entire day and every activity was planned around him.” One teacher depicted her students with ASD as “all day, every day” students. The teachers highlighted the need for time to do more detailed planning. One teacher revealed spending an inordinate amount of time developing detailed instructions for each student and teaching assistant in her lesson plans. Learning materials and activities had to be introduced individually to each student. The teachers spent a great deal of time in material preparation and development. They spent time documenting student behaviors, progress, and other activities.

Behaviors

The teachers described behaviors as challenging. When students with autism had behavioral issues, “it usually caused the rest of the class to get upset.” The behaviors impacted classroom activities. “This behavior affects the other students by making large group or small group activities very difficult to maintain or even attempt.” One teacher was concerned about “students picking up and imitating negative behaviors.” The

teachers generally employed sensory interventions and re-direction to deal with most behavior. According to an inclusion specialist, “We often have a cool off area in the room with a bean bag chair or pillows for children who need to get away. We also have a motor area in the cafeteria for a varied sensory diet as needed.” A classroom teacher observed, “We used a swing, deep pressure, removal from the classroom, etc. to deal with behaviors.” These interventions required professional and paraprofessional time in order to be effective. Behaviors also affected the student’s ability to participate with typical peers. One teacher felt frustrated that students with “severe” behaviors were often not able, or invited, to participate in inclusion activities.

Staffing

Staffing was a concern for the teachers in meeting the needs of their students. One teacher faced a challenge in “having the time and staff to meet their needs individually since most activities and instruction is individualized and individual.” One expressed frustration that often, due to limited staffing, “other students are pushed aside to meet the needs of ‘one’.” The teachers needed to provide detailed plans for their teaching assistants. They also mentioned the importance of “well coordinated team work” within both the PPCD classrooms and the inclusion settings. “Each assistant is aware of the needs and methods of working with the individual students and is mediating or in an on-going manner meeting these needs.” Another teacher reflected, “It is stressful on the staff trying to continue the schedule while one adult is dealing with one student with autism. It takes a well-trained and cooperative team to make it work.” The six self-contained teachers described their staffing challenges surrounding inclusion for their

students. “When a student attends inclusion opportunities, a teaching assistant attends as well. That leaves the classroom short-handed.”

Teacher Stress

Stress, and the potential for burn-out, concerned the teachers. Generally, the combination of the demands of the students within the classroom, coupled with the lack of time to get everything done, seemed to be contributory to the feelings of stress for these preschool special education teachers. One teacher wished for “somebody to help me out during the day so I can have time away from that student.” The teachers sometimes found it difficult to maintain the energy and focus necessary to meet the demands of their students with severe needs.

Question 3: What supports do the teachers feel are necessary in order for them to meet the needs of these students?

Teacher Interviews

Access to office supplies

Questions: Do you feel that you have access to all the necessary basic office supplies (such as poster board, laminating film, Velcro, etc) that you need to produce classroom materials to meet the needs of your students, particularly those with autism? What materials you help you meet these needs better? How much, or how often, do you purchase these materials yourself? What needs do you have in this area?

All eight of the teachers indicated adequate access to office supplies. “In this area our needs are met due to generous funds from ‘Title One’ allotted by the principal.” Others revealed adequate access to poster board, laminators, pocket-books, and many other office supplies. One teacher was concerned “the ink for our color printer is very

expensive. With budget cuts, we worry about ink for the color laser printer.” One needed a digital camera because she has to borrow the campus camera frequently to produce her visuals. Another explained, “I tend to buy a lot of cardstock and Velcro dots for my classroom. I choose to buy these items myself so I leave more funds for items the children enjoy playing with or need for structure and routine. More availability of materials would be nice.” Another teacher admitted purchasing craft materials twice a month, but didn’t mind the “minimal expense.”

Access to Learning Activities

Questions: Do you feel you have access to all the necessary materials or pre-manufactured learning activities to meet the needs of the students in your classroom, particularly those with autism? (This includes “materials to produce structured teaching activities, pre-made or “store bought” play materials such as blocks, sand, etc..). How much, or how often, do you purchase these materials yourself? What needs do you have in this area?

The answers to this question seemed to vary by campus and program. One teacher felt that these needs were “not a problem,” while another revealed that she spends “\$1,000 to \$3,000 a year in my room of my own money.” One teacher frequently bought, “sensory-type materials to use in the motor areas such as sleeping bags, squishy toys, etc. Just depends on the child and what I need. If the school can’t provide it, (which they often do), I go get it myself.” Another teacher purchased “some sensory materials to be used in the water table – such as coffee grounds, jello, rice, macaroni, etc.” Another teacher indicated, “No, if I needed to make tasks, I would have to purchase the materials

on my own.” There did not seem to be a consensus among the respondents regarding their access to teaching materials, with some having almost all of their needs and wants met and some choosing to spend personal funds to “outfit” their classroom.

Access to Technology

Questions: Do you feel you have access to the technology equipment you need to meet the needs of your students, particularly those with autism? (This includes numbers of computers, student computer software, software such as “Boardmaker©” for producing classroom materials, etc; as well as communication devices for student use). How much or how often do you purchase these materials? What needs do you have in this area?

Technology needs seemed to vary from campus to campus. Three teachers felt that their needs were met in the area of technology, with access to computers, programs and other technology. The remaining five teachers indicated a need for more or newer computers within their classrooms. One teacher described her classroom equipment; “I only have two student computers in my classroom. They are old and need to be replaced. It is difficult to play any type of game on them. I also only have two preschool software items. Better computers and more software are needed.” Another lamented, “I have a bad computer that is hard to depend on. I have a hard time justifying communication devices for students in general when I contact the assistive technology department.” One teacher shared the start-up disk for “Boardmaker©” with all the teachers on campus. She had “one computer and I hardly know how to use it. My students have no access to it.” The general consensus seemed to be polarized with this issue. Either the teachers had

sufficient access to technology equipment and no great needs, or they experienced minimal or inadequate equipment availability.

Access to Training

Questions: Do you feel you have access to adequate training to help you with the specific needs of students with autism? Please describe the training that you feel is available to you – such as school sponsored training, service center training, outside workshops or conferences, etc. Are you able to take time out of your classroom to attend these training opportunities? Does the school system provide financial support for you to attend outside training or conferences? What are your needs in regards to training?

Four of the eight teachers identified adequate available training; three of them felt able to access the training fairly easily. Four teachers mentioned the ESC-17 PPCD support group meetings as being helpful. The teachers who felt that the training was adequate mentioned their ability to attend training locally through the school system or through the educational service center. Two stated that they had been able to travel to attend workshops. One mentioned that the “Burkhart Teaching Academy has also been very helpful. I am able to take the time to go to such trainings.”

Four of the teachers felt that helpful training was available, but they experienced difficulty in attending training. Their answers included: “No, not adequate access to training. Yes, time away, although there is a lot of training available.” “There is probably lots of training out there, but I can’t get away very often to go.” One teacher described her situation:

I attend workshops at the service center and the school district sponsored events. I have attended most of my training in the summer or in special

workshops after school. I don't like to take time out of the classroom for workshops. My assistants are then left with the very difficult task of controlling behavior, especially that associated with autism – made more difficult by any changes. The school system has provided coverage for service center training during the school year. I prefer summer training or ones presented on staff development days.

Several teachers indicated that the training topics were helpful, but that they could use additional training in several areas. “I have never been trained in the TEACCH program.” One teacher found that there has been a lot of training available, but “Most of it dealt with older, higher functioning students.” She requested training on, “How to deal with very young children on the spectrum.” Similarly, another teacher suggested, “the needs overall are workshops focusing on little ones and low-functioning autism.”

According to the district autism specialist:

There have been more than sufficient training opportunities for teachers to avail themselves of within the region both during the school year and during summer months. Internationally known speakers in the field of autism such as Michelle Winner, Dr. Cathy Pratt, Marilyn Montiero, Tony Attwood, Carol Gray, Maria Bird Wheeler, Brenda Batts, Melissa Olive, Jo Webber, Carol Krandowitz, TEACCH, as well as annual training by the LISD Autism Staff. In addition, new staff have had the opportunity to receive training from the Burkhart Training Center at Texas Tech. The special Education Department has offered stipends for summer training, paid for substitutes and registration for many of these opportunities.

Access to Systemic Specialists

Questions: Do you feel you have adequate systemic support from your campus and from Central Office personnel? Are you able to ask for, and receive, assistance from school specialists (such as behavioral specialists, autism team members, school counselor, school diagnostician, therapists)? How would you improve or increase supports in this area?

Four of the eight teachers described adequate access to support from campus and central office personnel. “Yes, we are very fortunate.” “LISD behavior specialist and autism specialist have been very helpful as resource people.” “I have enjoyed good support from all the people named in the past several years.” “I have a lot of support from my campus and some from central office.” The rest felt that the need for additional supports. “Sometimes I feel alone. I have asked for help from specialists and they don’t seem to understand the need or they choose to do nothing about it.” “No, it is slow and untimely and usually not anything new provided.” “If you need anything from CO, it is just hard to find the right people to contact. For the behavior specialists and the autism team members, I think they could visit or observe more often.” “No. It is as if no one knows what to do. Behavior and autism specialists might come observe, but could not offer any useful advice.” These comments seemed to tie back to the teacher responses regarding teacher stress and the specific needs of students with autism within the classroom, such as behavioral issues.

Ideal World

Question: In an ideal world, describe the supports that would be available to teachers who have young students with autism in their classrooms.

The answer to this question varied, but seemed to be based in the need for having support from “experts,” or “mentors,” who understood the needs of very young children with autism. “Having a mentor who is very knowledgeable in autism to ask questions. Having persons whose degree is in autism on staff to help with issues raised by autism.” “I would like to have a person who is an autism specialist read all material about a

student and maybe observe for a day. After that I would like to see that person interact with the student a whole day, showing ways and materials to use with the students.

Afterwards, I would like to meet with the autism specialist about specifics that would appear to work and materials that would be appropriate.” “People who could come and observe and not just tell me, but show me how to deal with certain behaviors.” Similarly, another teacher wished for, “Adult assistants who are trained in autism and know what to expect. Behavior specialists that come and observe the whole day and step in and show you how to correct behaviors.”

Other “ideal world” wishes included, (a) smaller class sizes, (b) better-trained teaching assistants, (c) larger rooms with more storage space, (d) more time to share ideas with other teachers, (d) time to develop and make learning materials. One teacher described her ideal world:

The support of specialists and administration in realizing that with some of these young students who have never been to school or lived in a structured environment, that even with using all of the suggestions and methods and supports, program will, or can, be very slow. The methods for teaching children with such delays are very individual and require a certain amount of ‘trial and error’ to find out what will work successfully. There is no book written on how some of the progress will be achieved, even when every effort is being made to move forward.

Another teacher summed up the feelings of many of the teachers when she “wished” she could have “some type of device that would help teachers know what triggers were going to set an autistic child off at any given time. Some type of crystal ball that would help us to understand exactly how these kids think and see the world so we could better teach them the skills they need to get along in our social world!”

Classroom Observations

Classroom observations provided evidences of the availability of materials within the classrooms. The teachers all seemed to have learning activities – either teacher produced or commercially produced – to address student needs. These included picture schedules, structured teaching activities, play materials, etc. The teachers described their need for more adequate computers within their classrooms. They also pointed to the need for more space, especially for storing the larger pieces of equipment used for sensory and motor activities. One classroom also had students with physical and motor needs, so storage space for several fairly large items used with that student’s physical therapy programming became critical.

Photographs

The photographic support for research the research question, “What supports do the teachers feel are necessary in order for them to meet the needs of these students?” are contained in Appendix D. Teachers expressed concerns about needing additional technology within their classroom. For various reasons, the classroom computers could not be photographed during the classroom visits. The photographs addressed one issue mentioned by most teachers in the “ideal world” question. Teachers needed additional space within their classrooms. The photographs seemed to support the teachers’ feelings of being “crowded.” Figure 3.1 shows a play area that contains many different activities within a small space. The area contained sensory activities stored on the wall, as well as blocks, kitchen items and other play materials. The classroom had a number of defined centers, but the overall space was very limited due to the amount of equipment needed for

the various students in the class. Figure 3.2 depicts specialized therapy equipment being stored for use with a student with physical needs. Figure 3.3 illustrates motor equipment storage within the classroom. Figure 3.4 reveals a “crowded” kitchen play area. Figure 3.5 pictures another crowded play area. Chairs were stored on top of the table and therapy balls were also stored in the play area.

Data Analysis and Discussion

Three overriding themes emerged from the interviews and other data regarding supports teachers needed to meet the needs of young student with ASD. Half the teachers desired additional training, including better access to the training. Five of the teachers requested more and updated technology. Four of the eight teachers identified a need for additional systematic support from educational specialists and administrators.

Training

Teachers strongly expressed the desire for training specific to “low-functioning young students with autism.” One teacher mentioned, “Although there is a lot of training available, I have found that most of it dealt with older higher-functioning kids. I need the opposite. I would have benefited from training for younger, low-functioning students.” The teachers felt satisfied with many of the training opportunities available through both Educational Service Center 17 and Lubbock Independent School District, however described inadequate access to the training. “There is probably lots of training out there, but I can’t get away very often to go.” Teachers revealed encouragement from their administrators to attend trainings, however, “I don’t like to take time out of the classroom for workshops. My assistants are then left with the very difficult task of

controlling behavior, especially that associated with autism, that has difficulty with any changes (such as the teacher being absent).” Several teachers identified training during the summer or during school staff development as more beneficial to them.

Most of the teachers described the training accessible to them as helpful. They particularly mentioned the summer workshops, school district trainings, and the PPCD study groups sponsored by the Educational Service Center as being very helpful. Some mentioned specific trainings they found helpful or that they would like to attend. One teacher found a workshop on “Adapting the High Scope Curriculum to students with Autism” very helpful. Another mentioned the need for training in the TEACCH techniques and philosophy. Several were pleased with the opportunity to attend the summer-time early childhood conferences sponsored by the local service centers. They also appreciated the monthly “PPCD study group” meetings, although they sometimes had difficulty with the timing of the meetings. The teachers mentioned the need for training that dealt with providing more “tools” to deal with the specific needs of young students with autism, such as communication, behavior and structured teaching methods and activities.

Technology

The second over-riding theme emerging from the data identified the need for better access to updated technology within the classroom. Several teachers reported inadequate computers for either student use or to meet their classroom needs. They cited “old” computers and lack of appropriate preschool software as problematic. These needs seemed to vary from program to program, however, the overall responses seemed to

indicate that the PPCD students were not being afforded many opportunities to interact with computer technology within their classrooms.

Administrative and Systemic Support

The third over-riding theme emerging indicated teacher need for administrative and systemic support. Administrative supports included issues such as providing the teachers with the time to engage in planning, gathering and producing materials; adequate classroom staffing; and, a more generalized understanding of the needs of the PPCD population. Additional suggestions included: (a) the need for better trained, or more, teaching assistants; (b) the strains placed upon classroom personnel in meeting the one-to-one needs of their students with ASD; and, (c) the desire of the teachers for smaller class sizes in PPCD classrooms.

The teachers revealed the need for the campus administrators to have a better understanding of and special training about, the PPCD population, especially young children “on the spectrum.” The teachers lamented the need for more storage space in their rooms due to the amount of “motor lab” and other “sensory diet” equipment that often had to be stored in the classroom. Furthermore, administrators must understand the unique circumstances of PPCD students with developmental delays in their “first time away from home or in a very structured environment.” Campus administrators should understand that “even when using all of the suggestions and methods and supports, progress is often slow” when dealing with this particular population.

Systemic supports included school system specialists aware of the needs of very young students. School system behavior specialists, autism specialists and other

therapists had been very helpful in providing support and suggestions. One teacher was concerned, however, that “we seem to change diagnosticians frequently and have to help the new ones learn how preschool is somewhat different.” Three teachers expressed concern that some of the systemic support they had received had not been as applicable to their young students as they had hoped. Having more assistance in translating the theory based “advice” into more practical “reality” based applications remained critical. A “mentoring” program with those who were experienced or highly trained in young students with autism might prove beneficial. More, or lengthier, contact with the district support personnel to receive training specific to their particular classroom and student needs surfaced as a concern.

Summary of Data Presentation and Analysis

Demographic Information

Eight PPCD teachers from one school district participated in this study. Two of the teachers were “inclusion facilitators,” who helped support young students with disabilities in full inclusion placements on Head Start campuses. Six of the teachers taught in self-contained preschool special education classrooms. Each teacher participated in an open-ended written interview, a classroom observation and in-person follow up interview, and they allowed pictures to be taken of their classroom environments. The district autism specialist acted as a gatekeeper for the research and also participated in an open-ended written interview. She and another member of the autism team participated in an in-person follow up interview. Permission was obtained

from the school district and the Texas Tech Institutional Review Board to conduct the research activities and teachers were given a choice whether to participate in the research.

The eight PPCD teachers who participated in the study all had Bachelor's degrees, and one also had a Master's degree. The experience level of the teachers ranged from one to 33 years, both in PPCD and other settings. The average for numbers of years taught was 16.25 years. The average for number of years teaching PPCD was 10.6 years. The PPCD classrooms ranged in size from five to 11 students in the 2004/2005 school year, and from seven to nine in the 2005/2006 school year. Numbers of students identified on the "autism spectrum" per classroom for the same years ranged from one to four in 2004/2005 and from one to six in 2005/2006. During 2004/2005, the average number of students with ASD was two per classroom. That average rose to 2.75 per classroom in 2005/2006, even though the average class size decreased slightly. Each classroom had a minimum of one full time certified teacher and two teaching assistants. Some classrooms had more than two teaching assistants and at least one classroom had a full-time student teacher for part of the school year. The inclusion facilitators each had a teaching assistant and worked with from up to six Head Start students in a full inclusion setting. The PPCD teachers reported some opportunities for their students to be included in activities on campus with their regular education peers, although this was limited and varied greatly by campus setting.

Question # 1: What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?

A total of seven themes emerged regarding what the participants felt were the needs of young students with autism within their classrooms. The themes were taken from the information gathered through the teacher interviews and classroom visits. The themes appeared in at least half of the eight teacher's answers in order to be included in the list. These included: 1) Language and communication; 2) Behavior; 3) Sensory needs; 4) Need for structure and predictability; 5) Individualized attention and instruction; 6) Social and self-help skills; and, 7) Inclusion opportunities. It was noted that current literature supported the teacher's perception of these important issues for students with ASD. Additionally, the school district's autism specialists included all of these issues on their lists of needs of young students with ASD in a classroom setting.

Question #2: What special challenges do teachers face in meeting these needs?

When asked about the special challenges they, as teachers, faced when meeting the needs of their young students with autism, the teachers' answers closely correlated with those experienced by Christine Lee in the "single case study" literature (Boyer & Lee, 2001). These issues included: (a) Time; (b) Behaviors; (c) Staffing; and, (d) Teacher Stress, with the potential for teacher burnout. Each of these challenges was mentioned by at least six of the teachers interviewed.

The issue of time dealt both with demands on teacher classroom time as they addressed the needs of their students, as well as the time demands of planning, material development and general classroom preparation activities. The issues of behaviors

primarily referenced student needs for sensory interventions to prevent or deal with student “melt-downs.” The staffing concerns cited inadequate classroom staff to meet all of the needs of each student. When students attended inclusion classes a teaching assistant typically accompanied the student, leaving the classroom “shorthanded.” The issue of teacher stress distilled the demands of the students within the classroom coupled with the lack of time for the teacher to accomplish instructional and preparatory tasks.

Question # 3: What supports do the teachers feel are necessary in order for them to meet the needs of these students?

Teachers were questioned about a variety of supports available to them on their campus or within the school system. Three overriding themes emerged from the interviews regarding adequate supports. The needs were reported by at least half of the teachers in order to appear on the list. These included: (a) Training; (b) Technology; and, (c) Systemic supports.

The training needs included the content of the training as well as teacher access to training. The teachers expressed the need for training specific to the needs of young, lower-functioning students with autism. They also felt that, at times, training was difficult to access. Many cited the timing of the training as problematic, explaining that training offered during campus in-service days or during the summer would be easier to attend.

Several teachers pointed out the need for updated, or adequate numbers of, computers both for teacher use and for student access. There was also a need for adequate

and appropriate preschool software. Some teachers lacked access to equipment needed for production of classroom materials.

In referring to systemic supports, many teachers cited positive assistance from various support personnel, but felt the need for more contact with them. They mentioned the need for more child-specific assistance from the autism specialists. Many requested additional help with their lower functioning students.

Summary

The overriding themes emerging from the teacher interviews were very similar to the information addressed in current literature. The prevailing themes regarding the needs of young students with autism within the classroom setting were: (a) Language and communication; (b) Behavior; (c) Sensory issues; (d) Need for structure and predictability; (e) Individualized attention and instruction; (f) Social and self-help skills and, (g) inclusion opportunities. Four themes emerged from the questions regarding the challenges that the teachers face in meeting the needs of the students in their classrooms: (a) Time; (b) Behaviors; (c) Staffing; and, (d) Teacher stress – with the potential for burn-out. Three overriding themes emerged from the interviews regarding teacher supports addressing the needs of young student with autism: (a) the need for additional training, including access to the training; (b) the need for more and better classroom technology, and (c) the need for various types of systematic support from educational specialists and administrators.

CHAPTER V

SUMMARY AND IMPLICATIONS

Summary of Study

This study was conducted as a case study of a large school system. The research focus was teacher perceptions of the needs of preschool students with ASD. Practicing teachers were interviewed and their responses were examined for common themes regarding three research questions: What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?; What special challenges do teachers face in meeting these needs?; and, What supports do the teachers feel are necessary in order for them to meet the needs of these students? Classroom observations and follow-up interviews were conducted with the participants. Classrooms were photographed to support the themes and to visually support the information gathered from the interviews and classroom observations. This was a qualitative investigation, which was limited to PPCD teachers within the Lubbock (Texas) Independent School District. Participants had at least one student with ASD within their classroom setting.

Rationale

According to the General Accounting Office, the incidence of autism among “children ages 6 through 21 ... receiving services under IDEA has increased more than 500 percent over the past 10 years, from under 20,000 in 1993 to almost 120,000 in 2002” (GAO, 2005, p. 17). The trend toward early identification of children having some

form of autism spectrum disorder significantly impacts the public schools. Teachers who provide preschool special education services for students ages three through six are major stakeholders in this trend of increasing incidence and early identification of children on the autism spectrum. The establishment of “best practices” for young students with autism is in the early stages of development and often seems based on information extrapolated from research with older students. One important, and inadequately addressed, component of provision of services is the teacher perceptions regarding the needs of these young students. Examination of these teachers’ perceptions may help shed some light on the needs of young students with autism within the school setting.

Methods and Procedures

Permission was obtained from Lubbock Independent School District to engage in this research with the PPCD teachers in the system. The Texas Tech University Institutional Review Board granted approval. The school district’s autism specialist served as a gatekeeper by suggesting possible participants for the study, as well as participating in an interview. Participants were contacted and agreed to participate in the research project. Eight PPCD teachers were interviewed using a semi-structured interview format. The participants were provided with the questions and all of them chose to participate in a written response interview. The teachers then participated in follow-up, in-person interviews and classroom observations. Member checks and an outside auditor were utilized to verify the information and conclusions drawn from the information.

Data Analysis Procedure

The written interviews were transcribed to an electronic format. The individual responses were then compiled into one document, with each participant's responses listed under each interview question. This document was examined for overriding themes to support each research question. Open coding procedures were utilized, with the responses examined and "distilled." Themes were listed for each research question. Themes were considered in the results if they appeared within at least half of the participants' responses. The participants and an outside auditor were consulted to verify the formation of the themes and to verify the conclusions drawn from the information.

Results

Most of the issues revealed by the PPCD teachers were well supported by the current literature. Concerns found in the literature about behavior, communication, social (self-help), adequate educator training, and best practices directly were similar to the findings of this study. Study results showed several themes emerging in relation to each of the three research questions. These themes seemed inter-related and were supported by the responses at least half of the teachers. The information provided valuable insight into the perceptions of the "reality" of the PPCD classroom and the challenges faced by the PPCD teachers.

In examining what preschool special education teachers' perceptions of the needs of young students with autism within the classroom setting, many themes emerged. Teachers reported student needs in the areas of: (a) language and communication; (b) behavior; (c) sensory issues; (d) need for structure and predictability; (e) individualized

attention and instruction; (f) social and self-help skills; and, (g) inclusion opportunities. These responses seemed to accurately represent the teachers' experiences within the classroom with young students with autism. The findings were supported by information in the literature. Young students with autism generally exhibited significant developmental delays challenging to the classroom teacher. Often these students had never been away from their parents and so these needs were accentuated and exacerbated within the classroom setting.

When asked what challenges the teachers faced in meeting the needs of their young students with autism, four common themes emerged: (a) time, (b) student behaviors, (c) classroom staffing, and (d) teacher stress were the primary challenges cited by at least half the teachers. These issues seemed connected to the needs of the young students in the classroom. Teachers saw the need for more time. They felt the need to spend more time in one-to-one instruction and contact with their students with autism. They also faced time challenges in terms of planning, material production and the various types of documentation demanded from them. Classroom staffing was an issue due to the demands of one-to-one teaching. Staffing was also a concern in providing teaching assistant support for students who participated in inclusion opportunities. The need for teamwork was well documented. Teachers also acknowledged the need they have for avoiding teacher stress. The PPCD setting can be stressful and teachers were concerned about becoming "burned out."

Teachers were asked what supports they felt were necessary for them to meet the needs of their young students with ASD. Three themes emerging from their answers

included: (a) adequate, appropriate training and more ready access to that training; (b) additional and updated technology equipment, and, (c) systematic support from educational specialists and administrators. Teachers requested training specific to young students with autism who have severe needs, as well as training that would provide them with a variety of skills and approaches to use with their students. They expressed their desire for training to be available during the summer or on staff development days rather than during the school day. The teachers cited inadequate numbers of computers within their classrooms. They also revealed their need for updated computers and additional software that was appropriate for preschool students. The respondents wished for understanding and support from educational specialists and administrators. The teachers described the needs of the PPCD classroom as unique and different from general education classes, especially elementary classrooms. They needed support that was geared toward the specialized needs of the PPCD classroom and population.

Limitations of the Study

This study was somewhat limited by the number of available qualified participants. It was intended to serve as a case study of the experiences of PPCD teachers within one school district. The interviews showed a good amount of internal consistency across participants and supporting evidences were sought by utilizing classroom observations, follow-up interviews and collection of photographic evidence from the classrooms. Limitations also included those inherent in the various research methods. Interviews may be flawed in that the participants may feel uncomfortable disclosing certain information. They may have said what they thought the researcher wanted to

hear. This does not appear to have been the case, however, since many of the participants were almost brutally honest in their responses about several topics.

Qualitative data analysis is subject to researcher bias. The current researcher has been a PPCD teacher and efforts were made to ensure that any bias was examined and accounted for. Participant checks were conducted to clarify the conclusions drawn from the information and an impartial third party was utilized to ensure that the conclusions were grounded in the respondents' responses and not interpreted based on the researcher's experiences.

Implications for Practice

There are several practical implications that may be drawn from this research. These include: (a) Classroom size and staffing considerations; (b) Demands on teacher time; (c) Specialized Training Needs; and, (d) Addressing Teacher Self-Care. The implications directly impact the teachers and, therefore, affect the classroom environment for their students.

Classroom Size and Staffing

The research showed that the size the PPCD classrooms and having adequate staff may have a tremendous impact on delivering the best possible education for PPCD students. The teachers reported the need to provide extensive one-to-one contact and interventions with their students. The teachers indicated that their students would benefit from a limited class size supported by adequate numbers and well-trained personnel. Adequate personnel should be available to support students in inclusion opportunities. PPCD teachers should not be faced with the dilemma of being short-handed in their

classrooms while providing personnel support for student inclusion. These factors directly impact the ability of the teacher to provide effective programming for all of their students.

The research indicated that class “make-up” might impact the service delivery within the PPCD programs. The teachers indicated varying needs among students with different disabilities. Students with ASD have the need for a structured and orderly environment, free from too many visual or auditory distractions. They require the presence of sensory-motor equipment within the room or on the campus to address their “sensory diet” needs. Students with physical disabilities have somewhat different needs within their classroom. Students in wheelchairs or on walkers require more open space. These students may also require specialized equipment, such as standers or positioning wedges, to address their physical therapy goals. All of these varying needs of various students may actually work to pit the needs of one set of students against the needs of other students as their equipment and educational goals effectively “compete” within the PPCD classroom.

Several teachers stated their desire for more or better trained paraprofessionals. One certified teacher staffs the typical PPCD classroom with two paraprofessionals. In many cases, the paraprofessionals have not any specialized training working within the classroom setting or with young students. The local district offers some training specifically for teaching assistants, however the training seems as difficult to access as the teacher training. The teachers also voiced concerns that their classrooms often feel understaffed. When students are provided with inclusion opportunities, very often a

teaching assistant accompanies them into the general education classroom. The teachers report feeling frustrated when they have to provide an adult to accompany one student into inclusion, leaving them shorthanded in the classroom setting. The overall staffing within PPCD classrooms directly impacts the programming available to each student. When the classroom is shorthanded, programs and interventions are adapted to accommodate adult availability. Teachers indicated that many of their students require one-on-one assistance in order to participate in some learning activities. The teachers must plan these activities so that they have adequate staff available to help the students.

Demands on Teacher Time

The teachers seemed concerned with the many and varied demands on their time. This seemed to be related to the number of students in their classrooms as well as the amount of individualized materials and planning required for their students with ASD. The PPCD classrooms also have the unique characteristic of “receiving” students throughout the school year. Students transition from the Early Childhood Intervention Program to the public school system on their third birthday. This “flexible” admission of new students presents a number of demands upon teacher and staff time.

Responses to the teacher interviews indicated that PPCD teachers spend a good deal of time planning and taking care of the paperwork specific to special education. Student Individualized Educational Plans (IEP’s) are updated every six-week grading period. Teachers maintain documentation of student progress on IEP goals. They also are required to provide Medicaid billing statements for qualified students in their classrooms. Additionally, the teachers indicated their need to have detailed lesson plans.

The lesson plans addressed not only learning activities, but also plans and instructions for their teaching assistants.

Coupled with the paperwork demands on PPCD teacher time are the time demands of this specialized group of students. They often need individualized attention and their behaviors may frequently require the specialized skills of the teacher. The students are young, beginning school on their third birthday, and have often not been away from home. As each new student enters the PPCD program, the teacher must plan and accommodate the classroom routine to take each student's needs into consideration. It takes time for students, both the new students entering and the "veteran" students, to adjust to having new "faces" and therefore new dynamics throughout the school year.

It would be helpful for campus administrators to ensure that PPCD teachers are provided with an opportunity for a conference period during the school day in order to regroup, work on paper work, prepare materials, etc. Many of the teachers reported that they do not have this time during the school day. They are engaged with students and their needs throughout the school day and often do not have time to stay current with their documentation and paperwork demands. The reported absence of adequate computers also impacts the teachers' ability to develop timesaving, efficient methods of addressing their paperwork.

Specialized Training Needs

The participants also felt the need for training specific to the needs of young, more severe, students with ASD. The timing of the training should be considered, perhaps being available during staff development days and/or during the summer. It

would also be advisable to include teaching assistants in all staff development opportunities.

Several teachers expressed their frustration with the topics of the available training. They felt that while much of information available to them was valuable, they needed additional training specific to the needs of their more “severe” students. The areas mentioned were behavior, language, sensory and self-help strategies that could be adapted to the more severe students. They felt that the training presented focused primarily on students with more developed verbal skills or higher level cognitive functioning than many of their students.

Several teachers requested more individualized availability of the school system’s support personnel. They were appreciative of the existence of these positions within the school system, but were frustrated that they did not always have ready, or lengthy, access to the autism specialists. Some stated that they would benefit from having an autism specialist come and observe particular students for a whole day and then provide the teacher with specific instructions and input regarding their more challenging students. The teachers seemed to understand the demands placed on the autism specialists’ time, however, they expressed their needs for better access to these individuals and their expertise.

It would seem that providing the teachers with the training that they request would help them provide better services to their students. They would feel more confident in their abilities to address the specialized needs of their young students.

Training should be made available for all classroom staff, and teaching assistants should be included in all the training in order to strengthen the classroom teams.

Addressing Teacher Self-Care

The participants in the study seemed aware of the needs of the students with ASD in their classrooms, but were concerned about being able to adequately address these needs in the classroom setting. Their responses indicated that these feelings are connected to feelings of stress and “burn-out.” Their observations were well supported with the needs discussed in current literature. These feelings of teacher stress have “global” implications for providing appropriate services for PPCD students.

The stressors within the PPCD classroom are fairly unique to the students’ age and classroom demands. The young students enter the PPCD program with a varied array of needs. For many, this classroom represents the first time they have been away from home or parents for extended periods of time. Many students have never been in structured environments. They have not been exposed to the concept of functioning in a group. All of these situations represent “stressors” for the young students and, by default, contribute to teacher stress as well. The young students respond to their “new,” presumably more stressful, environment with behavioral issues ranging from clinginess to outbursts and aggressiveness.

Many teachers shared that these demands are physically and emotionally “exhausting.” The teachers’ feelings of frustration and burnout may affect their performance and ability to adequately address the needs of their young students. The teachers expressed their need for training and “tools” to help them address these student

behaviors. They also felt that they needed more, and better trained, classroom staff. It seems important that systemic supports be available to these teachers to help to alleviate these feelings and provide them with real solutions to these feelings.

Recommendation #1: Administrative Awareness

Given the unique needs of young students with autism identified through this study, it is recommended that campus administrators receive training specific to the needs of PPCD students and their teachers. The teachers cited the need for additional support from their administrators regarding many issues connected to the education of young special education students, in particular young students with autism. Administrators who are well trained and aware of these needs could resolve some of the needs expressed by the teachers. These needs include: (a) providing adequate numbers of, and well-trained, teaching assistants; (b) assuring that teachers have adequate preparation time; (c) making sure that the PPCD classrooms are well-equipped with teaching supplies and technology; and, (d) assuring adequate classroom space for the classroom equipment and materials. Administrators who are aware of the unique needs and demands placed on teachers within the preschool special education programs would be better equipped to support their PPCD teachers.

Classroom Staffing

Administrative support might include such things as hiring enough teaching assistants and assuring that these assistants receive adequate training for their duties. Campus administrators hire support personnel and make decisions about the number of staff available in the classrooms. Administrators should also consider the demands of

providing inclusion opportunities for the PPCD students. Often the general education teacher requires or requests that a teaching assistant accompany the students into the inclusion setting. This means the PPCD teacher must “sacrifice” a staff member from the classroom as a whole to accompany one student into the inclusion setting. This may leave the PPCD classroom “short-handed” for periods of time during the day as the teacher tries to fulfill the legal requirements of providing inclusion opportunities for his or her students.

Teacher Preparation Time

Administrators should assure that PPCD teachers have adequate time within their day to take care of paperwork and lesson planning. Some of the teachers expressed feeling stressed at the amount of demands that are placed on their time. Teachers are expected to maintain lesson plans and other required paperwork, but they often do not have uninterrupted preparation time to accomplish the work that needs to be done. This might be accomplished by arranging for the PPCD teacher to have a planning period while the teaching assistants accompany the class to a scheduled inclusion opportunity such as a P.E. class, library, music class, or other setting (or combination of settings during the week) that is monitored by a certified teacher.

Teaching Supplies and Technology

Several PPCD teachers admitted to spending personal funds to equip their classrooms. One teacher related that she routinely spends \$1,000 to \$3,000 a year out of pocket for various classroom needs. It would be helpful for campus administrators to question PPCD teachers about whether, and how much, personal funds are used within

their classrooms. Administrators should be aware of what teachers need in their classrooms, why these needs exist and make efforts to meet these needs.

Classroom technology was cited as an area of need. The teachers would benefit from having access to a digital camera, adequate computer software and computers to enable them to produce classroom materials efficiently. It is an added stress for teachers to share the specialized software, track down the campus digital camera, and have to utilize old, outdated computers to accomplish these tasks. The teachers also revealed that their students do not have adequate access to classroom computers due to the condition or number of the computers and the lack of appropriate software available.

It is important for administrators to realize the correlation between teachers having adequate access to funds for classroom materials and the quality of the program provided to their students. The needs of these preschool students with disabilities are unique within the school system. Often, these students respond to materials that are appropriate for much younger students. The toys and teaching activities for “typical” students may be too complicated or not interesting for the PPCD students. The students with ASD require more “sensory” based activities, and there is often a need for many of the same item so that students may use them simultaneously.

Classroom Space

The photographs evidenced the demands placed on the space in the PPCD classrooms. This is a need that is specific to the PPCD setting. Because the needs of the students within the PPCD setting are so varied, each student’s IEP may be very different from each of the other students within the classroom setting. Students with ASD may

need access to many sensory and vestibular activities, such as swings, “sit and spins,” bean bag chairs, trampolines, etc. Students with physical disabilities may need equipment such as standers, walkers, adapted tricycles and positioning wedges. All of these pieces of adaptive equipment take up classroom space both for storage and when they are in use.

Administrators should help their PPCD teachers by providing them with access to additional storage space on the campus. The less-cluttered classrooms in this study were located on campuses where a separate “sensory-motor” area was available. The equipment needed to address the sensory needs of students with autism is often quite bulky and space intensive. When coupled with the specialized equipment needs of students with other disabilities, the demands on space in PPCD classrooms can be overwhelming. Students with autism also require well-defined spaces, requiring the teachers to be creative with their use of classroom dividers and with the arrangement of furniture and equipment. Administrators must be aware that PPCD teachers may need additional, or specialized, fixtures to meet of these demands.

Recommendation #2: Teacher Training

PPCD teachers and their classroom staff would benefit from more training. The teachers were generally satisfied with the some training they were able to access, however they noted that they still had some needs that were not being met. These included the timing of the training, the training topics, and access to system experts for situation specific, individualized training.

Timing of Training

According to the autism specialist, there are a number of trainings offered each year that are specific to students with autism. The teacher reports indicated that they have not always been able to adequately access the training for a number of reasons. Teachers reported that the training is often conducted during the school day and that they do not feel comfortable leaving substitutes and teaching assistants in charge of their classrooms in order to attend training. The teachers also noted that they would prefer training that is offered in the summer or during campus in-service days. The autism team members stated that many of the training opportunities do take place during the summer and that teachers are offered stipends to attend these sessions. It would appear that there is a difference in perceptions regarding the accessibility of training to all teachers, and this could be addressed by seeking feedback from the teachers about their needs and concerns about accessing training sessions.

Training Topics

For the most part, the teachers who were able to access the various training opportunities felt that they benefited from the information they received. The teachers responded that they could use information that is more specific to the wide array of needs of very young students with autism. They requested information specific to their more “severe” population with ASD. These requests from the teachers parallel the information found in current literature. It seems that much of the information available is geared toward “higher functioning” students or those with some verbal skills. The classroom observations showed that there is definitely a broad range of skill levels among the PPCD

students in the classroom. The teachers expressed more confidence in working with the less severely involved students. They felt that they could use more information and training about effective techniques and approaches to use with their students with more involved needs.

Access to System Support Personnel

Several teachers requested individualized input from various school system personnel. Some of the teachers went so far as to “wish” that a member of the autism team could spend the day in their classroom and demonstrate how to use various recommended techniques with specific students. Some teachers also commented that they understood how busy the autism team members are, but they felt concerned that the help was not as timely as they needed it to be. Many acknowledged that the support they had received was helpful, but regretted that it was sometimes limited in scope and immediate availability. They seem to feel that the answers to their challenges are “out there,” but they are not able to access the information they need to better serve their students.

Recommendation #3: Mentoring

There were references in the literature to school systems providing mentoring programs for their new special education teachers. In most cases, the mentoring programs were helpful for both the mentors and those being mentored (Boyer & Lee, 2001). The successful mentoring programs included new teacher access to an experienced teacher, as well as district training throughout the year. This model provided opportunities for teachers to network with one another and to provide support and ideas

to each other. The teachers involved seemed to feel that the additional training time was time well spent and that they were benefited from the overall mentoring program. This model might help address some of the needs expressed by the teachers in this study.

Only one teacher had participated in the Texas Tech sponsored Burkhardt training as a first year teacher. She acknowledged how helpful the training had been. Experienced teachers would benefit from the opportunity to participate in the Burkhardt training program.

Recommendation # 4: Teacher Compensation

Special education teachers of young students with disabilities are faced with unique and challenging circumstances in their self-contained classrooms. The study participants experienced demands on their time, financial and emotional resources. The findings of the study were well supported in the literature but some of the findings were somewhat unique and poignantly expressed by the participants in this study. The issues expressed by the teachers included: the needs for systemic supports; their feelings of stress; the demands on their time; and the overall intensity of the needs of their young students. These teachers seem to feel out of sync with other teachers on their campuses due to the specialized needs of their students. When other teachers are enjoying one or two conference periods a day, the PPCD teachers are struggling to have enough time to accomplish the demands of their jobs.

It is recommended, therefore, that self-contained PPCD teachers be considered for additional salary as compensation for the additional stress and unique demands placed upon them in their teaching positions. The additional pay could be provided in the form

of stipends for additional training. Stipends could be offered to reward teachers for participating in training to increase their knowledge base and technical skills. Teachers might also be compensated on a “per student” basis, with a fixed stipend paid based upon the number of students with ASD who are assigned to that teacher’s class. This would reflect and acknowledge the unique expectations and intense demands placed upon a teacher’s time when they have students with ASD in their classrooms. The incentive of additional pay might serve to alleviate some of the stressors felt by these teachers of young students with ASD.

Directions for Future Research

The field of young students with autism is relatively new and is open for many lines of inquiry. Based upon the current study, there are several areas that might lend themselves to investigation. These include research on (a) Inclusion; (b) Teacher self-care; (c) using Teachers as Researchers; and, (d) Dissemination of information to in-service teachers.

Inclusion

One area meriting further research is the issue of inclusion for young students with ASD. According to the perceptions of the participants in the current study, students with “mild” needs are more likely to be included in classrooms with their typical peers. Teachers were concerned about the lack of opportunities for students with more severe needs. It would be helpful to investigate effective supports that might facilitate greater inclusion opportunities for all students. Mixed method studies could be conducted to interpret the numbers of students with ASD being afforded full or partial inclusion.

Research efforts could target the amount of inclusion offered to students as it relates to the severity of their ASD characteristics, particularly their behavioral challenges.

Teacher Self-Care

Another area that merits investigation is the “self-care” for PPCD teachers. An underlying thread that seemed to run through this research was the feeling of exhaustion, stress and “burn-out” among the teachers interviewed. This was an understandable outcome, given the description of some of the student behaviors and the challenges that these teachers face daily. This burnout also seemed connected to the make-up of the PPCD classrooms, the fact that they receive new students throughout the school year, and the wide range of student needs within the classroom. It would be helpful to investigate the emotional demands placed on teachers of young students with disabilities and how they can be assisted in alleviating feelings of stress and burnout. The effectiveness of possibly providing teachers with monetary incentives and rewards for “high stress” teaching assignments should be investigated.

Teachers as Researchers

Teachers in the field are valuable, and under-addressed, resources for researchers as they develop and assess curriculum, techniques and interventions. Researchers would be well advised to utilize “real world” teachers as subjects of research inquiries about what works and what does not work in preschool classrooms, both special education and general education classrooms alike. It seemed that much of the current research was based on university-based programs and the information could be easily dismissed by in-service teachers as being based on circumstances very unlike their own. The research

might be much more applicable to teachers in the field if it was actually conducted “in the field.” This study is unique in that it focused on the lived experiences of in-service teachers of young students with disabilities. The findings are meaningful and suggest many implications for current practice. Studies such as this one would greatly contribute to the current body of knowledge available about provision of special education services for all students.

Dissemination of Information to Teachers

Similarly, the effectiveness and efficacy of the methods used to provide information to in-practice teachers should be investigated. The participants in this study expressed many demands on their time and expertise as teachers. They also expressed high levels of stress. If their feelings are representative of preschool special educators in general, it may be assumed that many teachers are not able to access adequate training. It would be an interesting line of inquiry to investigate how, and if, in-service teachers access current research findings and how comfortable they feel in applying the information in their classroom settings.

Conclusions

This study has examined the perceptions of preschool special educators regarding the needs of their young students with autism. The research questions addressed were:

- 1) What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?;
- 2) What special challenges do teachers face in meeting these needs?;
- and, 3) What supports do teachers feel are necessary in order for them to meet the needs of these students?

The qualitative approach

allowed teachers to provide input based upon their current experiences through open-ended interviews, classroom observations and photographic data from the classrooms. The data gathered indicated that young students with autism have needs in the areas of (a) language and communication, (b) behavior, (c) sensory issues, (d) the need for structure and predictability, (e) individualized attention and instruction, (f) social and self-help skills, and, (g) inclusion opportunities. The teachers felt that their challenges included (a) time, (b) student behaviors, (c) staffing, and (d) teacher stress. They felt that they needed (a) training, (b) improved and increased technology, and (c) systemic support from administrators and school system specialists in order to adequately meet the needs of the young students with autism in their classrooms.

Chapter One introduced the topic and provided an overview of the research. The stated purpose of the study was to examine the perceptions of preschool teachers regarding the needs of their young students with autism within the classroom. The research rationale and methodology were discussed. Terms were defined and the significance and limitations of the study were discussed. Chapter Two provided a thorough examination of current literature. Topics covered included: (a) What is autism; (b) Characteristics of autism; (c) The search for best practices; (d) Teacher preparation and classroom demands; and, (e) A single case study that described a first year teacher's experiences with a class of students with autism. Chapter Three examined Research Methodology. Topics covered in Chapter Three included (a) Research rationale; (b) Pilot Study; (c) Phenomenological Case Study; (d) Context of the study; (e) Data Sources; (f) Data Collection Methods; (g) Data Analysis; (h) Data Management Plan;

and, (i) Validity and Transferability. Chapter Four covered the Presentation, Analysis and Conclusions of the Data. Topics included (a) Restatement of the problem and research questions; (b) Analysis; (c) Demographic information questions; (d) Examination of each research question in terms of the teacher interviews, classroom observations and photographs; (e) Data Analysis and discussion; and, (f) Summary of data and analysis. Chapter Five addressed Summary and Implications of the study. These included: (a) Summary of the study; (b) Implications for practice; (c) Recommendations; (d) Implications for future research; and, (e) Conclusions.

It was hoped that undertaking this research project might be of direct benefit to teachers who have students with ASD in their classrooms. The results may influence the quality of education for the students as well. The research questions, “1) What do preschool special education teachers perceive the needs of young students with autism to be within the classroom setting?; 2) What special challenges do teachers in meeting these needs face?; and, 3) What supports do the teachers feel are necessary in order for them to meet the needs of these students?” served to drive this study. The information gleaned from this research may be helpful to the Lubbock Independent School District and the Texas Tech University Burkhart Project as they refine and improve their programming and information dissemination. It was intended that all of this information should be helpful and available to those teachers on the “front lines.” Qualitative research, by its very nature, should help to shed light on the issues that are important to those who work “where the rubber meets the road.”

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APPENDIX A
INTERVIEW QUESTIONS

Interview Questions

Teacher Perceptions of the Needs of Preschool Students with Autism

Donna Beth Brown
Texas Tech University

Interview Questions

(This interview is designed to be semi-structured. Each participant may not be asked every question, but all areas will be covered with each participant).

A. Background Information

- 1) How long have you taught school? How long have you been a PPCD teacher?
- 2) Describe your teaching certifications. (special education, early childhood, etc)
- 3) Have you taught in school districts other than LISD? Did you teach PPCD there?
- 4) In your classroom during the school year 2004/2005, how many students were identified as having autism or other pervasive developmental disorders? How many for the school year 2005/2006?
- 5) How many students total are in your PPCD classroom for the same school years?
- 6) What is the make-up of your teaching staff? (number of teachers, teaching assistants, inclusion specialists) Please discuss their availability to you during the school day. (are they in your classroom full time, as needed, so many hours a day)
- 7) Please describe any inclusion with non-disabled peers that your classroom is involved with on a regular or planned basis (e.g., school library, meals, playground or P.E., music, other out-classes – specify). Do students go individually or as a group? What adults are involved in facilitating these inclusion activities?

Interview Questions:

As you may know, I am pursuing a doctoral degree in Special Education from Texas Tech. I am very interested in teacher perceptions regarding young students with autism. This research stems from my early experiences with students in my PPCD classroom. Our interview today will involve questions that address these research questions.

My research questions are:

- **What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?**
- **What special challenges do teachers face in meeting these needs?**
- **What supports do the teachers feel are necessary in order for them to meet the needs of these students?**

- B. *What do preschool special education teachers perceive to be the needs of young students with autism within the classroom setting?***

- 1) Please describe, in general, the educational needs and goals that most of your PPCD students have. Are there specific areas that most PPCD students have needs in (such as self-help, language, motor, behavior, etc).?
- 2) How do the needs of students with autism vary from their peers?
- 3) Are there specific areas that you address differently for students with autism? Please describe these areas.
- 4) How do you address these areas of need within the classroom?
- 5) Do you have any students with autism who are involved in inclusion with other classrooms? Are they able to participate independently? How do you address providing staff to accompany them to their inclusion classroom?
- 6) Do you provide or produce specialized learning activities for your students with autism, such as structured teaching activities?
- 7) Do you provide or produce specialized classroom management materials for your students with autism, such as schedules or classroom arrangement? Please describe what you do.

C. *What special challenges do teachers face in meeting these needs?*

- 1) How much time does it take in your day to address the special needs of your students with autism?
- 2) How do you address these needs in your lesson planning?
- 3) How do you address the behavioral needs of your students with autism, such as melt-downs or sensory overload? How does this behavior affect the other students in the classroom?
- 4) What challenges do you face as you address the needs of all of your students?
- 5) What challenges do you face as you address the needs of your students with autism?
- 6) Please briefly describe any techniques or approaches that you have found work well in your classroom with these students
- 7) Have you found that utilizing techniques, such as TEACCH structured teaching activities, provides you with added structure or “control” within the classroom? How?

D. *What supports do the teachers feel are necessary in order for them to meet the needs of these students?*

- 1) Do you feel that you have access to all the necessary basic office supplies (such as poster board, laminating film, Velcro, etc) that you need to produce classroom materials to meet the needs of your students, particularly those with autism? What materials would help you meet these needs better? How much, or how often, do you purchase these materials yourself? What needs do you have in this area?
- 2) Do you feel you have access to the all the necessary materials or pre-manufactured learning activities to meet the needs of the students in your classroom, particularly those with autism? (this includes materials to

produce structured teaching activities, pre-made or “store bought” play materials such as blocks, sand, etc). How much, or how often, do you purchase these materials yourself? What needs do you have in this area?

- 3) Do you feel you have access to the technology equipment you need to meet the needs of your students, particularly those with autism. (this includes numbers of computers, student computer software, software such as “boardmaker” for producing classroom materials, etc; as well as communication devices for student use). How much or how often do you purchase these materials? What needs do you have in this area?
- 4) Do you feel you have access to adequate training to help you with the specific needs of students with autism? Please describe the training that you feel is available to you – such as school sponsored training, service center training, outside workshops or conferences, etc. Are you able to take time out of your classroom to attend these training opportunities? Does the school system provide financial support for you to attend outside training or conferences? What are your needs in regards to training?
- 5) Do you feel you have adequate systemic support from your campus and from Central Office personnel? Are you able to ask for, and receive, assistance from school specialists (such as behavioral specialists, autism team members, school counselor, school diagnostician, therapists)? How would you improve or increase supports in this area?
- 6) In an ideal world, describe the supports that would be available to teacher who have young students with autism in their classrooms.

APPENDIX B

PICTURE SUPPORT FOR RESEARCH QUESTION #1

Visuals

Samples of Student Schedules:



Figure 1.1 Sample photographic picture schedule



Figure 1.2 Sample “Boardmaker©” Student Schedule



Figure 1.3 Sample Photo and Word Schedule



Figure 1.4 Sample Object Schedule

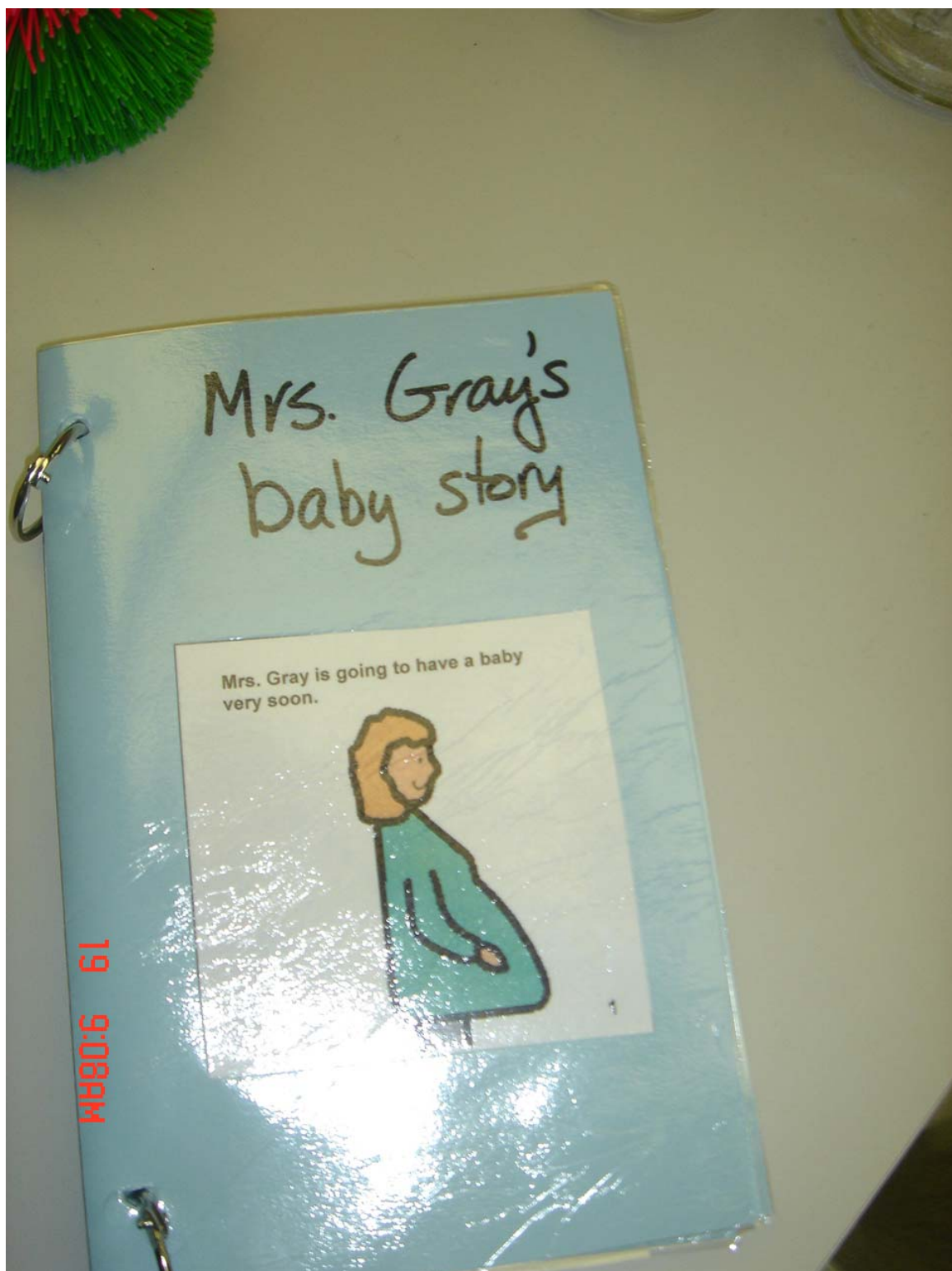
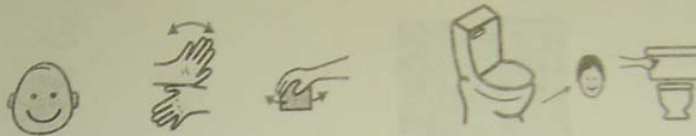


Figure 1.5 Sample Social Story Book

Flushing the Toliet



When _____ finishes using the toliet, he flushes it.



1

_____ only flushes one time



It sounds like "swish" and "gurgle."



It is okay. The noise will stop.



1

_____ only flushes one time.

19 9:10AM

Figure 1.6 Sample Social Story Sheet

Sensory Motor Activities



Figure 1.7 Trampoline and other Sensory Activities



Figure 1.8 Sensory Motor – Block play area

Learning activities



Figure 1.9 Sample Structured Teaching Activities – Teacher produced & “bought”



Figure 1.10 Preschool Toys and Sensory Learning Activities

Classroom Arrangement



Figure 1.11 Housekeeping Area defined by “House”



Figure 1.12 Circle Time area defined by rug and student picture labels



Figure 1.13 Classroom areas divided using low walls



Figure 1.14 Low walls used to define center areas



Figure 1.15 Classroom areas defined by flooring and carpeting



Figure 1.16 Circle area defined by cube chairs



Figure 1.17 Table area with student symbols

APPENDIX C

PICTURE SUPPORT FOR RESEARCH QUESTION #2

Addressing Sensory Issues



Figure 2.1 Soft chairs in self-calming area



Figure 2.2 Double rocker used for calming students



Figure 2.3 Multi-sensory toys and activities

The Need for Visual Structure



Figure 2.4 Sample student schedule using both pictures and “Boardmaker” symbols



Figure 2.5 Classroom Rules visual poster

Structured Teaching Activities



Figure 2.6 “Bought” structured teaching activities



Figure 2.7 Visuals used in classroom restroom to reinforce potty training activities



Figure 2.8 The parrot “talks” to reinforce potty training goals!

APPENDIX D

PICTURE SUPPORT FOR RESEARCH QUESTION #3

“What supports do the teachers feel are necessary in order for them to meet the needs of these students?”

Space Concerns



Figure 3.1 Play area with many different activities in a small space



Figure 3.2 Specialized therapy equipment stored in classroom for student with physical needs



Figure 3.3 Motor equipment stored in classroom



Figure 3.4 “Crowded” Kitchen play area



Figure 3.5 “Crowded” play area