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Teacher Perception of Preparedness for Teaching Students With Autism Spectrum Disorder in Mainstream Classrooms

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Teacher Perception of Preparedness for Teaching Students With Autism Spectrum
Disorder in Mainstream Classrooms

by
Cynthia D. Edwards

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
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Approval Page

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Statement of Original Work

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Cynthia D. Edwards
Name

October 9, 2017
Date

Acknowledgments

Growing up, my mother would always tell me, “The race is not given to the swift nor to the strong, but to the one who endures to the end.” Never did these words ring truer than at the culmination of this journey.

I would like to thank my family, Johnny, Jessie, Marsha, Vanessa, Natasha, and their children, for being my support system throughout this journey. I appreciate their encouragement and understanding, as I missed countless family gatherings.

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Abstract

Teacher Perception of Preparedness for Teaching Students With Autism Spectrum Disorder in a Mainstream Classroom. Cynthia D. Edwards, 2017: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education. Keywords: elementary teacher perception, preparedness, ASD, inclusion, mainstream classroom

The research problem for the current study was that many general education teachers feel unprepared to teach students with ASD in their general education classrooms. The purpose of this quantitative study was to describe teachers' perceptions of their preparedness for teaching students with ASD in mainstream elementary classrooms. Three research questions guided the study, focusing on perceived levels of preparedness of knowledge and skills in the areas of (a) instructional content and practice, (b) planning and managing the teaching and learning environment, and (c) managing student behavior and social interaction skills.

A quantitative method with a survey design was used. The Scale of Knowledge and Skills for Instruction and Management of Students With Disabilities was the instrument used. Participants who met the criteria for the study were mainstream classroom teachers at 8 elementary schools who taught students identified as having ASD in their mainstream classrooms during the 2015-2016 school year.

The results from the data for all research questions indicated that teachers perceived their knowledge and skills in all 3 content areas to be at the "moderately" prepared level, which was less prepared than the "adequately" prepared level. A limitation to the study was that of the estimated 51 potential participants who met the inclusion criteria for the study, only 20 chose to participate by completing the survey. An implication of the study based on the findings is that participants need to have and take advantage of opportunities to better prepare them for working with ASD students in mainstream classrooms. Recommendations for future studies include using a larger sample and extending the study to secondary level teachers.

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Chapter 1: Introduction

Statement of the Problem

The research problem is that many general education teachers feel that neither college nor their school district has adequately prepared them to teach students with autism spectrum disorder (ASD) in their general education classrooms. Research has suggested teachers do “not feel prepared to teach the diversity of students in their classrooms, effectively. . . . Teachers understand the need for more robust pre-service experiences to prepare them for their work in increasingly challenging classrooms” (Blanton, Pugach, & Florian, 2011, p. 17).

The practice of including students with disabilities in mainstream classrooms has caused much debate within public school systems. Many mainstream teachers feel they lack training on best practices for implementing an appropriate educational curriculum for teaching students with ASD. One concern is in comparison to their mainstream peers, students with ASD “can develop low self-esteem issues, which can hinder them socially” (Lamport, Graves, & Ward, 2012). Research (Ntshangase, Mdikana, & Cronk, as cited in Lamport et al., 2012) has suggested students with disabilities experience repeated academic failures and are likely to feel that positive academic outcomes are beyond their control. The concerns of academic success in students with disabilities may become more challenging if the teacher feels he or she is unprepared and unskilled to manage students with various disabilities.

Researchers have documented a critical shortage of well-prepared educators to support students with ASD (West, Jones, Chambers, & Whitehurst, 2012). A shortage of qualified educators can create a greater need for educational institutes to provide effective

and specialized training for teachers who teach these students (West et al., 2012). Therefore, examining teachers' perception of their preparedness for teaching students with ASD in their mainstream elementary classrooms may be essential to improving teachers' ability to have a positive impact on the academic achievement of all students.

The topic. The current research topic involved collecting data from teachers in eight elementary schools in Florida and examining the degree to which teachers felt prepared to teach students identified with ASD in their mainstream elementary classrooms. Mainstream teachers play an essential role in educating students with disabilities so these students may achieve a sound education in an inclusive classroom. However, as reported by Blanton et al. (2011), the content and structure of preservice preparation programs in preparing teachers to teach students with various disabilities, such as ASD, need reassessing.

Blanton et al. (2011) stated resources should offer "professional preparation programs to provide [teacher] candidates the rich, guided . . . practice required to develop the knowledge, skills, and attitudes they need to improve academic outcomes for all students" (p. 5). Therefore, they suggested preservice programs should offer diversity in a field experience for teachers that includes both general education settings and special education settings. Combining both general education settings and special education settings experiences may allow for a more active perceptive experience by teachers in teaching students with disabilities, such as ASD, in their mainstream classrooms (Busby, Ingram, Bowron, Oliver, & Lyons, 2012).

The quantitative descriptive study used a survey design. The survey for the study was the Scale of Knowledge and Skills for Instruction and Management of Students With

Disabilities (SKSIMSD; Daniels & Vaughn, 1999). The SKSIMSD survey offered data for describing the preparedness level of mainstream classroom teachers for working with students diagnosed with ASD. Using the SKSIMSD as a teacher survey also allowed the researcher to gather data from teachers in eight elementary schools in Florida who had one or more students with ASD enrolled in their classrooms during the 2015-2016 school year.

The research problem. When teachers lack guidelines and proper training, they may use non-evidence-based practices to teach students with special needs in their classrooms (Lindsay, Proulx, Scott, & Thomson, 2014). The research problem for the current study was that many general education teachers felt unprepared to teach students with ASD in their general education classrooms. When including these identified students in mainstream classrooms, “educators are expected to create an inclusive educational environment, often with few to no guidelines on how to do so” (Lindsay, Proulx, Thomson, & Scott, 2013, p. 347). In Lindsay et al.’s (2013) study, “many teachers felt unprepared to support ASD students socially, academically, and behaviorally” (p. 348). Cameron and Cook (2013) added that many mainstream classroom teachers who teach students with ASD in today’s classrooms face the following challenges:

determining (a) which aspects of the general education curriculum is appropriate for which students; (b) how and when to provide instruction in the general education curriculum to different students; and (c) how and when to address the functional, behavioral, and social goals of their included students [with disabilities]. (p. 18)

Although including students with ASD in a mainstream elementary classroom

setting may be beneficial for the student, it can become problematic for an untrained and inexperienced teacher. For example, a student with autism can pose multiple challenges within the classroom, as the student may lack problem-solving skills, which can impact the student's interactions with others (Cote et al., 2014). Also, teachers may lack problem-solving skills and question the benefit of redirecting a student identified with a neurodevelopmental disorder (Cote et al., 2014).

Shifting to a more inclusive educational setting has had a global impact on research regarding teacher self-efficacy, their judgment of their capability to execute a performance (Malinen et al., 2013). The “stronger the self-efficacy beliefs are . . . [the more likely the outcome will] result in greater efforts by teachers, which in turn leads to better performances” (Malinen et al., 2013, p. 35) from the students. A well-prepared teacher may be more favorable to teaching students with ASD and result in better outcomes. For example, a well-prepared and well-trained teacher knows the multiple characteristics of students with ASD: problems in communication (i.e., difficulty in using or understanding), delayed social development (i.e., trouble making friends, making eye contact, and reading facial expressions), and repetitive movements and behaviors (American Psychiatric Association, 2016). Understanding and describing teacher perceptions about their preparedness for teaching students with ASD in a mainstream classroom are essential, as ASD is a common, lifelong, multifaceted developmental disorder that affects each person diagnosed differently. In fact, the American Psychiatric Association (2016) reported no two children with ASD appear or behave the same way, and the disorder can change over time from mild to severe.

Ashburner, Ziviani, and Rodger (2010) reported when teachers feel unprepared,

they may lack the self-confidence and ability needed to develop a favorable attitude towards teaching students with ASD. Therefore, a teacher with a negative attitude towards the inclusion of students may dread teaching students who “exhibit significantly higher levels of behavioral and emotional difficulties . . . than their typically developing peers, [in] a wide range of areas including attention difficulties” (Ashburner et al., 2010, p. 23). This study addressed the problem of teachers’ lack of preparedness for teaching students with ASD in a mainstream inclusion classroom. The study contributed to addressing the problem by providing information about the perceived level of preparedness in particular areas for teachers in eight elementary schools. This information can be used to plan professional development that could help to address the research problem.

Background and justification. Before the 1980s, students with a variety of learning disabilities, such as ASD, were thought of as being “neither educable nor trainable” (Ferraioli & Harris, 2011, p. 19). Since then, an educational trend has begun “towards less restrictive environments for students with . . . disabilities” (Ferraioli & Harris, 2011, p. 20). This growing trend affects mainstream teachers as they see an increased presence of students with ASD enrolling in their classrooms. The present challenges in teaching students with ASD in the mainstream classroom has become a multifaceted undertaking for the teacher.

A typical class may consist of gifted children, slow learners, English language learners, mentally retarded children, hyperactive children, emotionally challenged children, and low socioeconomic status children. With such a diverse combination, classroom management, along with focusing on delivering a

differentiated instruction that targets each student individually in the classroom, has made a regular education teacher's job beyond difficult. (Lampton et al., 2012, p. 55)

Including students with disabilities in mainstream elementary classrooms was due in part to the passage of the Education for All Handicapped Children Act (1975), which led to the Individuals With Disabilities Education Act (IDEA) of 1990 and the Individuals With Disabilities Education Improvement Act (IDEA) of 2004. The basis of IDEA is to limit educational problems by providing services to children with disabilities, associated with lowered expectations and limited focus (Saleh, 2016). IDEA is governed by states and public agencies to “provide early intervention, special education, and related services to over 6.5 million eligible infants, toddlers, children and youth with disabilities” (U.S. Department of Education, 2017, para. 1).

The mandates for IDEA are beneficial to disabled students and their parents, but for teachers, working with students who have disabilities, such as those with ASD, in mainstream classrooms comes with a unique set of challenges. Mainstream classroom teachers have explained working with students with ASD in inclusion classrooms can become problematic (Lindsay et al., 2013). Teachers have expressed frustration with inadequate knowledge regarding ASD and the lack of access to support and advice (Lindsay et al., 2013). One challenge facing mainstream classroom teachers is that a child with ASD may display a range of explicit distinctiveness. This distinctiveness can manifest “in the classroom, causing the child to have difficulties relating socially, making transitions, managing changes in their routine, and identifying and processing information from their environments” (Deris & Di Carlo, 2013, p. 52).

Through training, mainstream teachers may receive instruction on best practices for implementing an educational environment for teaching students with ASD. ASD is a neurodevelopmental disorder that affects a person via social impairments, cognitive impairments, and communication difficulties, which can manifest in repetitive behaviors. Repetitive or stereotypic behaviors may include unusual physical movements of rocking and flicking fingers in front of one's eyes. Two co-occurring conditions identified in ASD students are intellectual disabilities and social anxiety, which sometimes lead to nondirected tantrums (Odom & Wong, 2015).

Because ASD affects the brain's normal function, a teacher needs specialized skills to recognize that these students may lack the ability to adjust to a general education classroom environment. Goldstein, Warde, and Rody (2013) suggested teachers with specialized skills in teaching students with ASD in their mainstream classrooms should be able to adapt the curriculum and material for differentiated instruction, which includes visual strategies and a structured environment. Also, a skilled teacher should have social skills training that includes the ability to offer classroom accommodations to meet students' needs for individualized behavior supports and to have contingency plans available for immediate behavior intervention. A skilled teacher should collaborate with parents and other professionals for successful classroom management that consists of rituals and routines involving verbal and nonverbal communication development directives; all the while, the teacher must be able to maintain a professional and positive attitude towards students with disabilities (Goldstein et al., 2013). A well-trained teacher also should be able to use instructional strategies to support their needs, while addressing a myriad of complexities with students with ASD (Deris & Di Carlo, 2013).

Identified students with ASD may have a variety of disorders on the spectrum that can range in severity. The disorder can affect anyone; there is no distinction between ethnicity, socioeconomic status, and age group (Mishaal, Ben-Itzhak, & Zachor, 2014). Including students with ASD in the mainstream classrooms allows for a least restricted environment. Since the least restricted environment is a national mandate, teachers who teach these students should learn evidence-based practices. Evidence-based practices offer strategies or interventions designed “for use by special educators to support the education of individuals with exceptional learning needs” (West, McCollow, Umbarger, Kidwell, & Cote, 2013, p. 444). In many school districts, teachers do not receive such specialized training during teacher preparatory programs and must learn on the job (West et al., 2012). Also, “the demands on teachers are much more complex than any other area of special education, as they need to team with a variety of personnel” (West et al., 2012, p. 26). This study examined teacher perceptions about the extent teachers felt prepared to work with these students. The information provided by this study provided information that addressed issues associated with teacher preparedness for teaching students with ASD.

Deficiencies in the evidence. Much has been written in the literature regarding benefits of including students with disabilities in mainstream classrooms. However, much of the published literature has focused “on social acceptance and peer interactions” (Levenson, 2011, p. 7). Searches of databases included ERIC, ProQuest, EBSCOhost, and JSTOR, using the key term *the benefit of including students with disabilities in mainstream classrooms*, produced 152,315 sources. However, when narrowing the search to one database, an ERIC search of *teaching experiences* and *teaching students with*

disabilities in a general education classroom, the search produced 2,287 sources.

Another search using the same database, using the key terms *teacher preparedness* and *students with disabilities in general education classrooms* yielded 53 sources. A much-narrowed search using the same ERIC database of *teaching experiences* and the specific disability of ASD yielded 70 sources. When adding the term *teacher preparedness*, the search reduced the number to only four sources. The lack of literature using the term *teacher preparedness* showed a deficiency in the evidence related to studies focusing on teacher preparedness for teaching students with ASD in a mainstream classroom.

Audience. The audience who could benefit from the results of this applied research included school principals, school directors of professional development for teachers, administrators overseeing preservice program curricula, and educational program directors at colleges or universities. All of these audience groups could use the results to schedule and allocate resources for any identified teacher working with ASD students. These audiences also could use this study to help build teachers' confidence and provide them with the tools required to implement a more appropriate educational curriculum for teaching students with ASD. Upon reviewing the results, teachers may seek additional support to teach these identified students.

Setting of the Study

The research setting for this study was eight elementary schools in Florida. This school district is among the 25 largest school districts in the United States (Sable, Plotts, Mitchell, & Chen, 2010). The eight elementary schools for this research had 450 school-based instructional staff and 20 school-based administrators. All schools had a combined student enrollment of 6,884 students and 154 students identified with ASD, according to

2015 data from the student information system of the district.

Researcher's Role

The researcher's role in the school is that of a school counselor. The researcher provides services to all students in the areas of academic achievement, social growth, career development, and individual and group counseling. The researcher also maintains a database of all students at her site school and has access to data on all students in the school district. The researcher serves as the team leader for the exceptional student education department, working closely with inclusion teachers and paraprofessionals. The researcher's role made the study feasible, as the data needed were accessible.

Purpose of the Study

The purpose of this quantitative study was to describe teachers' perception of their preparedness for teaching students with ASD in their mainstream elementary classrooms. Mainstream teachers play an essential role in educating students with disabilities, who can achieve a sound education in inclusive classrooms. However, the content and structure of preservice preparation programs need reassessing and adequate resources for "professional preparation programs to provide candidates the rich, guided . . . practice required to develop the knowledge, skills, and attitudes . . . need[ed] to improve academic outcomes, for all students" (Blanton et al., 2011, p. 5), including those with moderate and severe disabilities. This study used a survey design. The instrument was the SKSIMSD (Daniels & Vaughn, 1999). Participants for the study were mainstream classroom teachers at eight elementary schools who taught students identified as having ASD in their mainstream classrooms during the 2015-2016 school year.

Three research questions guided the study focusing on the preparedness areas of

(a) instructional content and practice, (b) planning and managing the teaching and learning environment, and (c) managing student behavior and social interaction skills.

The data underwent descriptive statistical analysis. Achieving the purpose of describing teachers' perceived preparedness for teaching students with ASD in their mainstream elementary classrooms can help in addressing the problem of teachers' lack of preparedness for this task. The information can assist education decision makers in developing, planning, and implementing programs and activities to prepare teachers better.

Definition of Terms

Autism spectrum disorder (ASD). ASD is a developmental disability that can cause significant social, communication, and behavioral challenges. Students with ASD often have problems with social, emotional, and communication skills. They also may show compulsive behaviors and may be resistant to changes in their daily routine. These students may have unique learning skills and find staying engaged difficult (Centers for Disease Control and Prevention, 2015).

Evidence-based practice. In the context of this study, evidence-based practices are strategies or interventions designed for use by special educators to support the education of individuals with exceptional learning needs (West et al., 2013).

Exceptional student education. According to study district documents, exceptional student education is the name given to educational programs and services for students in Florida with special learning needs (including those who have disabilities and those identified as gifted).

Individuals With Disabilities Education Act (IDEA). States and public

agencies govern IDEA (2004). Its intent is to “provide early intervention, special education, and related services to over 6.5 million eligible infants, toddlers, children and youth with disabilities” (U.S. Department of Education, 2013).

Inclusion. Inclusion is the practice of including exceptional students, such as students with ASD, into a mainstream educational environment with a regular curriculum (“Inclusion,” 2017).

Mainstreaming. Mainstreaming students into general education means progressively including special-needs students, such as those with disabilities or ASD, in classes with nondisabled students in mainstream classrooms, with additional steps taken to meet their needs within this arrangement (“Mainstreaming,” 2017).

Self-efficacy. Self-efficacy is one’s judgment of the capacity to execute a type of performance (Malinen et al., 2013).

Special education. According to study district documents, special education is the name given to educational programs and services for students in Florida with special learning needs (including those who have disabilities).

Teacher preparedness programs. These are programs responsible for preparing preservice teachers to teach in general education classrooms. These programs also include unifying general and special education curricula (Goldstein et al., 2013).

Chapter 2: Literature Review

The purpose of this quantitative study was to describe teachers' perception of their preparedness for teaching students with ASD in their mainstream elementary classrooms. This chapter presents key elements from research literature relevant to the current quantitative research. The preparedness of the teacher in teaching students with ASD in the general education classroom is vital to the success of the student, because a prepared teacher will have the fundamental insight of the unique learning characteristics that many students with ASD possess (Ferraioli & Harris, 2011). The topics discussed in this review of the literature include theoretical framework, teacher preparation, ASD, inclusion education, inclusion challenges, teacher attitude, and teacher self-efficacy.

Theoretical Framework

The theoretical framework for this quantitative research was Bloom's taxonomy. Benjamin Bloom, in collaboration with other researchers, developed Bloom's taxonomy of educational objectives, a framework of objectives, classifications, and grouping of educational goals created for teachers to use to facilitate thinking and problem solving (Bloom, 1956). Bloom (1956) proposed multiple ways to achieve educational outcomes; one is a set of guidelines for identifying preferred educational results, known as guiding principles. These guiding principles assist teachers in recognizing how to apply the information they have learned to a particular task, such as the job of teaching students with ASD in their mainstream classroom. One guiding principle is educational differentiation (Bloom, 1956). This principle supports this study because it can help determine the teachers' attitude regarding preparedness for teaching students with ASD in their inclusive classrooms.

Using Bloom's taxonomy as the framework for the current study emphasized teacher preparedness for teaching all learners, including those with disabilities. Using Bloom's taxonomy can help the teachers gain a perspective for identifying certain behaviors consistent with students identified as having ASD. In addition to the guiding principles, Bloom and his colleagues (as cited in Armstrong, 2016) created a six-objective hierarchy approach for categorizing educational goals. Bloom's taxonomy of educational objectives is based on educational behaviors, from simple to complex. These educational behaviors differentiate into three educational domains: cognitive, affective, and psychomotor. The cognitive domain of knowledge and intellectual abilities was most applicable to this study.

Bloom's (1956) framework of objectives classification levels includes knowledge, comprehension, application, analysis, synthesis, and evaluation. Each classification builds on the previous classifications. These classifications provide the theoretical framework for this study because the higher the level of teacher's functionality in the classroom, the greater the preparedness the teacher has for teaching students with ASD. Regarding the current study, teachers gain comprehension through skills learned in colleges and universities. These skills show mastery in a particular subject, which allows the teachers to make sense of ideas and strategies used to prepare for teaching all students (Bloom, 1956). Using the application level of the taxonomy of educational objectives can be useful in how the teacher applies what he or she knows and comprehends to the classroom setting, thus making the teacher more prepared for working with students with ASD.

Bloom's taxonomy highlights educational objectives as being a conscious choice

of educators, based on their previous educational experience. Perhaps the most common educational objective in the United States is the acquisition of knowledge from an educational experience. When a person gains knowledge, he or she gives evidence of that knowledge by recalling that which he or she has experienced during the educational process; with knowledge, a person will transform based on the amount of knowledge retained (Bloom, 1956). Knowledge is the lowest level objective yet is most essential, because the conscious awareness of the teacher determines his or her ability to recall facts and have a basic concept of understanding (University of North Carolina at Charlotte, 2017). Attaining knowledge is the purpose of education, and knowledge becomes evident when a person remembers and recalls previous learned material or ideas (Bloom, 1956). Perceptive knowledge helps to ensure competence in teachers to teach all students in a diverse school population (Daniels & Vaughn, 1999).

According to Bloom (1956), the highest taxonomy of educational objectives level is evaluation; it is the highest level because it requires all other objectives categories. A person at the evaluation level is making judgments regarding the value, purpose, or idea of the material. Evaluation can be quantitative or qualitative (Bloom, 1956). Using the evaluation classification allows teachers to present and preserve opinions by enabling them to decide based on obtained information or ideas regarding a particular set of criteria (University of North Carolina at Charlotte, 2016). Evaluation represents the end stage of cognitive behaviors and may become a prelude to a new cycle of educational objectives (Bloom, 1956). Using the evaluation level allows teachers to make judgments regarding methods used for a particular purpose (Armstrong, 2016). This level may assist the teacher in determining best practices for the inclusive classroom or particular

students. Evaluation can serve as an information-gathering tool to provide formative and summative evaluations about levels of proficiency for teachers who provide instruction to students with disabilities in an inclusive setting (Daniels & Vaughn, 1999).

Bloom's taxonomy has assisted kindergarten through Grade 12 educators and college instructors for generations in describing teacher perception, as it allows the participants to reflect on skills levels, knowledge, attitudes, and personal interests, in recognizing their levels of preparedness for inclusive teaching (Daniels & Vaughn, 1999). Having well-prepared teachers in inclusive classrooms allows for the use of critical thinking skills, problem-solving skills, and other cognitive strategies at the higher end of Bloom's taxonomy. Bloom's taxonomy is an appropriate theoretical framework for this study because most teachers operate at the knowledge through evaluation levels in their work with students diagnosed with ASD. The more proficient a teacher feels in working with these students at the application level and above, the more likely the teacher will feel prepared for working with students diagnosed with ASD.

Teacher Preparation

The educational system needs qualified classroom teachers. Initial teacher preparation programs prepare teacher candidates to become highly qualified educators, who hold a bachelor's or master's degree from an accredited institution. In Florida, the initial teacher preparation program also requires teachers to show mastery of preparedness for teaching by passing the required state assessments: General Knowledge Test, Professional Education Test, and Subject Area Exam (Florida Department of Education, 2016). Highly qualified educators show mastery in the knowledge of one or more specific subject areas (Florida Department of Education, 2015a).

All teacher preparation programs are competency based and approved and evaluated by the state. In keeping with state mandates, many colleges and universities offer educator preparation programs through alternative certification for prospective teachers with bachelor's degrees in other fields than education (Florida Department of Education, 2016). The initial teacher preparation program is complete when all state-required educational coursework is complete, therefore making the teacher candidate qualified to apply for a State Professional Educator's certificate. With a teaching certificate, the teacher candidate is eligible to teach in the school district of his or her choice. In many school districts, once hired, new teachers begin a 2-year induction program with a teacher development and support team. This support team offers consultation with school-based professional development facilitators and mentors to assist new teachers in completing the induction process. The induction process may include training in differentiated learning and small group workshops.

The expectation of many educators is to work with students of different cultures, nationalities, socioeconomic statuses, and ability levels. This expectation includes working with students with various disabilities. Scholars have suggested excluding children with disabilities from mainstream classrooms can be a detriment to their academic success, because children excluded from mainstream classrooms may lack the social experiences needed to access knowledge and to exert independence and personal responsibilities (Vashishtha & Priya, 2013). Advocates of preparing teachers for inclusive education believe the teacher and student share responsibility for a successful learning environment. Therefore, a call for more inclusive setting collaborations across institutions and professions has emerged; however, teachers need preparation to assist them in

teaching students with disabilities in their general education classrooms (Gillies, 2013).

Inclusive education has been a part of the educational system for decades; however, its effectiveness has been in question since 1990, as general education teachers have been apprehensive about having students with disabilities in their classrooms (Lamport et al., 2012). The basis of teacher apprehension may not be behavioral concerns, but rather concerns with differentiated instruction and the need to teach students with disabilities on the same academic level as their nondisabled peers (Lamport et al., 2012).

Razali, Toran, Kamaralzaman, Salleh, and Yasin (2013) reported that due to the increase of inclusive education, trained teachers are urgently needed to teach students with ASD in these classrooms. Therefore, identifying the strengths and weaknesses of teacher training is more relevant than ever before. In fact, according to the National Research Council (as cited in Razali et al., 2013), teacher training is one of the weakest elements in services provided to students with ASD. Teachers need proper training, which includes collaboration with an experienced teacher. Through effective collaboration with other inclusive teachers, many novice teachers become better prepared to teach in an inclusive environment (Hamilton-Jones & Vail, 2013). Research has suggested preservice education should include practical experiences and real-world experiences with diverse groups of children, including those with disabilities, and should include an emphasis on best practices for teaching in an inclusive environment (Able, Sreckovic, Schultz, Garwood, & Sherman, 2014).

When preparing teachers for inclusive education, training should include proficiency training before novice teachers enter the classrooms. Proficiency training

should help in preparing teachers by teaching them how to recognize, manage, and respond to behavior changes common in students with ASD (Gillies, 2013). Any preservice training should include information relevant to the inclusive environment, such as behavior management, collaboration, differentiated instruction, and lessons on best practice in teaching in an inclusive environment.

Hamilton-Jones and Vail (2013) explored preservice teacher training to determine teachers' beliefs and perceptions of inclusive education and collaboration with experienced teachers. Participants in the qualitative case study were all preservice special educators in their final year of an educational degree program. Participants included 11 women and one man, with ages ranging from 24 to 55. Data collected for the study included reflective journals, team meeting observations, assignments, and interviews. Data analysis used an inductive approach, created from participants' interviews. The study findings contained data analyzed from 84 assignments and interviews, which included themes related to collaboration and preparedness. Results of the research suggested inconsistencies in how the preservice training defined cooperation and preparedness. Hamilton-Jones and Vail also stated the results might have shown unrealistic expectations of preparation and collaboration.

In today's schools, novice teachers have valid reasons for concern regarding their accountability for the academic achievement of difficult learners and those with learning disabilities (Blanton et al., 2011). Gulec-Aslan (2013) recommended teacher preparation training focused on the educators, administered by disability specialists, and not limited by theoretical knowledge. The researchers also recommended teacher training should extend over time and be comprehensively covered. They suggested the training be in

small groups and include consultative follow-up service. Also, the training should include teaching skills and classroom management for problem behaviors (Gulec-Aslan, 2013).

In another study related to teacher preparedness, West et al. (2012) collected data based on educators' views of perceived preparedness from training designed to aid in preparing teachers to work with children with ASD. Deciding to conduct the research was based on the premise that far too often, specialized training of teacher preparatory programs had been ineffective, and many teachers had to learn on the job (West et al., 2012). Participants in the West et al. (2012) study included 38 practicing teachers: 31 women and seven men, ranging in ages from 26 to 62, from areas of the United Kingdom, United States, and Australia. The data collected included open-ended responses from participants on their perception of postteaching learning, to determine their perceived effectiveness in teaching students with disabilities, including those identified with ASD. Results of the study determined that more teacher preparedness training was needed to teach students with ASD and to enhance experiential learning. The results also showed the need for observation of classroom practice, intensive preservice learning opportunities, the use of mentors, and training in assistive technology (West et al., 2012).

ASD

Since the 1970s, the educational system has viewed all children as capable, regardless of their culture, religion, health, gender, abilities, or social and economic status (Soto-Chodiman, Pooley, Cohen, & Taylor, 2012). Because of changes in legislation, enrollment into regular educational settings has increased among students with neurological disabilities. The changes in legislation also have allowed parents to elect not

to send their special-needs children to special-needs schools (de Boer, Pijl, & Minnaert, 2011).

ASD is a spectrum of common, developmental disorders that interfere with how a person thinks, feels, uses language skills, and relates to others (American Psychiatric Association, 2016). Including students with mild, moderate, and severe disabilities like ASD into mainstream classrooms requires teachers to take on greater responsibilities, as they learn the appropriate curriculum to teach these and other students with disabilities alongside students without identified disabilities (Cameron & Cook, 2013).

ASD is a neurological disorder that affects brain functioning. Approximately 1% to 2% of all school-age students identify as ASD (Bölte, 2014). Early symptoms of this disorder can manifest between the ages of 1 and 3 years (Fakhoury, 2015). ASD is more common in boys than in girls. Many children identified with ASD are developmentally delayed; they cannot respond to their name by 12 months of age and fail to thrive socially in such activities as pretend games by the age of 18 months. ASD can change over time, and elements of the spectrum differ from person to person and in severity (American Psychiatric Association, 2016).

A child with ASD may have trouble with social communication and may engage in restricted and repetitive behaviors. The child may experience a broad range of tendencies, from difficulties with social interaction to communication skills, and may respond inappropriately to some conversations. These students may lack the ability to build relationships, may engage in abnormal routines, or may develop inappropriate obsessions (American Psychiatric Association, 2016). Even with some classroom inabilities, studies have proven significant benefits to inclusive educational settings for

students with disabilities. An inclusive setting allows the disabled student the opportunity to interact with peers who have and do not have disabilities. Compared to a self-contained classroom, an inclusive classroom allows students to receive social support, engage in social interaction, increase social networks, and advance their educational goals (Lindsay et al., 2013).

Teaching students with ASD in a general education setting may become problematic to an inexperienced teacher, as these students can have difficulties with thinking, feeling, language, and relating to others (American Psychiatric Association, 2016). Due to the social and behavioral impairment in children with ASD, teachers often encounter considerable obstacles in managing student needs (Lindsay et al., 2013). Therefore, early diagnosis of ASD is important, as it allows for early intervention. With early detection, children with ASD can make significant gains in language and social skills (Fakhoury, 2015). Early detection also allows for early academic interventions. Many children with ASD have characteristics that may manifest in the classroom, causing them to have problems with transitioning to various tasks, managing routine changes, and identifying and processing simple information from their environments (Deris & Di Carlo, 2013).

Due to the multiple challenges associated with students diagnosed with ASD, scholars have recommended teachers be knowledgeable about the disorder. This knowledge requires teacher skilled in changing a classroom to support students with disabilities (Razali et al., 2013). Also, teachers should receive regular in-service training in effective teaching strategies regarding behavior modification, as understanding how to best handle these students in their general education classroom settings will prove

beneficial to all students' education.

When given the social and behavioral impairments in children with ASD, many teachers encounter barriers to choosing appropriate ways to manage the needs of these students (Lindsay et al., 2013). These barriers may be intense, frequent, and long lasting; obstacles may also be present that can disrupt the learning environment or threaten the physical safety of student and teacher (Able et al., 2014). A well-prepared educator will determine behavioral triggers and address them. Such behavioral triggers may include too much noise in a particular part of the classroom. By observing and recording what happens before and after a behavior problem occurs, the teacher can remove the trigger or move the student to a quieter, relaxing area within the classroom (Odom & Wong, 2015).

Inclusion

Inclusive education for students with ASD is one of the least understood aspects of the school system. Humphrey and Symes (2013) wrote one essential prerequisite of effective inclusive education for students with ASD is the attitude of the teacher. The temperament of the teacher may become a contributing factor to the success or failure of the inclusive educational environment for an identified student (Chung et al., 2015).

Inclusive educators who teach students with ASD in their general education classrooms should have knowledge of how to offer a quality education to all students. However, many teachers feel they lack evidence-based teaching strategies to teach in inclusive settings (Able et al., 2014). Humphrey and Symes (2013) reported experienced teachers with direct experience and a working knowledge of inclusive education have higher optimism in teaching identified students than less experienced teachers. Humphrey and Symes also reported that many teachers welcome the added support provided by

teaching assistants or paraprofessionals, as their help not only assist with the students, but also helps with peer acceptance. However, inclusive education requires buy-in from the entire faculty and staff, and not just the dedication, commitment, and enthusiasm of one or two teachers (Humphrey & Symes, 2013).

Unfortunately, many teachers have stereotypical views regarding teaching students with disabilities in their general education classrooms, which results in unpleasant or inadequate teacher–student relationships and poor student achievement (Gao & Mager, 2011). Researchers have reported many general education teachers lack basic problem-solving skills and the ability to motivate students or amend assignments to help meet the needs of students with neurological disabilities (Vashishtha & Priya, 2013). In fact, a report conducted in 2008 showed half of middle and high school teachers felt that the learning abilities of their inclusive students were so diverse that they could not teach (Blanton et al., 2011).

Teachers also have reported a lack of supportive resources, professional development, and training as a contributing factor to their negative approach to inclusive settings (Razali et al., 2013). Including students with ASD into mainstream classes has many benefits, including access to the general education curricula and peer and social interactions (Able et al., 2014). However, an inclusive classroom can challenge both the student with ASD and the teacher. For example, students with ASD may have difficulty taking part in group activities, which in most cases are unstructured and lack monitoring of social skills (Able et al., 2014). Also, elementary-aged students with ASD more than likely will struggle with teamwork, assertion, self-control, hyperactivity, or internalizing others' behavior (Able et al., 2014).

Multiple studies have shown significant benefits in inclusive educational settings. With the successful implementation of inclusion, students can receive social support, increase their engagement in social interaction, improve social networks, and advance their educational goals, compared to a self-contained classroom setting (Lindsay et al., 2013). However, meeting the needs of students who previously have been in self-contained classrooms may present multiple challenges for the teacher and their inclusive peers.

Teaching students with ASD in mainstream classrooms may seem overwhelming for a general education teacher. Some general education teachers have expressed concerns; in fact, many do not agree with the inclusion process, as they believe they lack the proper training and preparation needed to teach in an inclusive setting (Able et al., 2014). Able et al. (2014) reported in a program evaluation on the deficiencies in previous empirical research relating to inclusive education and the needs of educators. In the study, the researchers identified intervention development and implementation as the areas teachers felt were most underrepresented. Able et al. also addressed deficiencies of support in educating students with ASD in the general education classroom, such that elementary and secondary general education teachers felt they lacked the confidence in teaching in an inclusive setting and experienced low self-efficacy in working with special-needs students.

The purpose of the Able et al. (2014) study was to analyze elementary, middle, and high school educators' perspectives in receiving social support to teach students with ASD placed in their inclusive classrooms alongside non-special-needs students. The research suggested that teachers provided with adequate professional development

opportunities, along with collaborative experience, increased their self-confidence in inclusive education (Able et al., 2014). In another study, Chung et al. (2015) identified training as the vital component to successful inclusive education, as teachers trained in special education could enhance their understanding, confidence, experience, and skills to work with students diagnosed with ASD.

One problem addressed in the Able et al. (2014) program evaluation was the concern with the preparation methods provided to general educators who taught students with ASD. According to the study, the primary method used to prepare teachers for teaching students with special needs in their inclusive classrooms was a series of courses on exceptionalities, which in the researchers' opinion provided little specialized training in autism. The Able et al. case study used several focus groups. In the study, teachers showed that the collaboration between them was beneficial. However, the collaboration did not address the concerns for the lack of planning time, the lack of training in varying student skill levels, and the lack of administrative support needed to prepare them for teaching students with special needs in their mainstream classrooms (Able et al., 2014). To better help understand teachers' perception of teaching students with ASD in their mainstream classrooms, the researchers developed several case study focus groups. The focus group participants included 10 elementary teachers, 12 middle school teachers, and 12 high school teachers (Able et al., 2014). The data analysis from the case study included transcribed recordings. The results of the research identified many concerns among the teachers, such as a primary need for more training regarding students with ASD and a better description of these students' most common disruptive characteristics.

Next, Able et al. (2014) examined the need for teacher training regarding

appropriate accommodations for the students' academic and social needs. In the study, teachers reported a desire for more support in addressing the social needs of students with ASD, and the teachers wanted help in advocating for the needs of all students with ASD. The teacher participants stressed the need to understand how and when to intervene in behavioral concerns regarding students diagnosed with ASD. Results of the Able et al. study showed that participants felt the need for appropriate social accommodations in teaching students with ASD in their classrooms.

In conclusion, the participants in Able et al.'s (2014) study acknowledged a genuine desire to make the inclusive process successful. The limitation noted in the case study was the need for a more representative sample, as all participants were from the same school district. Also, all the teachers expressed limited knowledge of how to best accommodate students with ASD in general education classrooms. The Able et al. study also identified concerns of the students in inclusive settings; many students felt they were primary targets for bullying and social isolation. In a final point, their study reiterated the need for teachers' willingness to grow their profession to meet the needs of all students. Regarding the current research, the results of the case study have broadened understanding for the researcher, as collaboration and professional development are important factors when teaching students with ASD in the mainstream classrooms.

Inclusion Challenges

Inclusive education is a step in the right direction, but challenges for teachers remain relating to their inadequate preparation in meeting the academic needs of children with disabilities enrolled in their mainstream classrooms. The practice of inclusive education is not only about pedagogical methods of teaching but also about the

challenges related to teaching approaches, knowledge, and experiences (Humphrey & Symes, 2013). For the teachers, finding the right balance in providing differentiated instruction to students with ASD can be challenging. “Teachers report they do not feel adequately prepared for the job and for being held accountable for the achievement of learners who have disabilities” (Blanton et al., 2011, p. 5).

Educators experience challenges each day in their inclusive classrooms (Lindsay et al., 2013). When dealing with students diagnosed with ASD, some of the overt challenges that teachers experience include students’ poor social and communication skills, developmental delays, and language impairments (Soto-Chodiman et al., 2012). These issues may challenge teachers who teach in rural areas, because these regions include low incidences of students identified with autism. According to Busby et al. (2012), many teachers who taught students with autism reported limited experience, restricted access to training, and lack of resources to support working with these students.

The challenges of teaching students with ASD in mainstream classrooms may seem overwhelming for a general education teacher. Therefore, McAllister and Maguire (2012) suggested the following performance guidelines for considerations:

1. Encourage students to relax and settle down to work in an environment with sufficient lighting, sound, and relaxing colors.
2. Ensure sufficient personal space for comfort and to de-stress.
3. Provide a “learning environment [that] contains areas of high interest to reflect the particular interests of the child with autism” (McAllister & Maguire, 2012, p. 202).

A primary challenge associated with inclusive education is the lack of preparation of preservice teachers. Plentiful literature has addressed particular challenges faced by

educators and how to best deal with these challenges. Therefore, it is incumbent on educational leaders to bring about sustainable changes in inclusive education (Ahsan, Sharma, & Deppeler, 2012). Able et al. (2014) reported elementary-aged students diagnosed with ASD, due to their communication difficulties, likely will struggle with the concept of teamwork, assertion, self-control, hyperactivity, and internalizing behavior. Parents, educators, administrators, and support personnel have agreed on the importance of providing effective interventions to address the social skills deficits of students with ASD if these students expect to attain increased independence and success (Busby et al., 2012).

Busby et al. (2012) examined primary teacher challenges and preparation needs in teaching students with autism. They conducted a program evaluation for a university's college of education program to determine its effectiveness in preparing teachers to work in an inclusive setting with students diagnosed with ASD. Participants in their study included 32 students, 23 of whom were teachers. All participants were graduate students in a Master of Education program and worked for a rural school or had clinical field experience in rural schools (Busby et al., 2012). The purpose of the study was to develop or revise the curricula that prepared elementary educators to teach children with autism in mainstream classrooms. Busby et al. reported many teachers felt the teacher collaboration was beneficial. However, the overall experience did not prepare them to teach children with autism in the inclusive setting.

The design of the Busby et al. (2012) study was due in part to a desire for improvements to empower teachers while they worked with autistic students in a general education classroom, although the researchers did not provide teachers with a curriculum

to address the special-needs population. The survey instrument for their study was the Nominal Group Technique. Before implementation, the participants were taught a lesson on characteristics, features, and best practices in educating students with autism. This preimplementation exposure to ASD facilitated identification of potential areas for improvement in the education curriculum (Busby et al., 2012). The training used by the university might have been insufficient in providing specific guidance for teaching students with ASD; using a survey course might not have addressed perceptions and challenges regarding the fundamentals of inclusive education. With inadequate training, teachers may struggle with their preconceived notions or willingness to address classroom challenges in which they were neither trained nor prepared (Busby et al., 2012). This inadequate training was concerning for teachers living in rural areas with low incidences of students with autism (Busby et al., 2012).

The primary question that guided Busby et al.'s (2012) study was, "How adequate was the current teacher preparation program for preparing general education teachers for teaching children with autism?" (p. 27). Data collected indicated a perceived challenge of a need for extensive training in teaching students with autism. The perceived need results proved inconclusive, as the participants felt they needed more information to process procedures and practice in the learned task. Implications of the study showed that the program did not prepare the master's program participants to teach in an inclusive setting (Busby et al., 2012). The results "provided insights into teacher perceptions of their abilities regarding teaching children with autism" (Busby et al., 2012, p. 34). Evaluation results may be helpful for professional development developers seeking to assist general education teachers with potential challenges encountered in the inclusive practice of

students with ASD. The limitation determined in Busby et al.'s study was that all participants were from one master's program at one particular university.

In the study Busby et al. (2012) general education teachers blamed their lack of confidence in teaching students with ASD on their classroom size and their lack of preparedness in working with special education students. At the onset of the study, the participants felt the level of specialization needed for successful inclusion was not available (Busby et al., 2012). This lack of available specialized training was true most times, as the researchers acknowledged the many struggles educators experienced as they tried to keep pace in meeting the needs of students with ASD.

In a similar study on inclusive challenges, Ahsan et al. (2012) surveyed administrators, who acknowledged the many difficulties teacher face and their perceived lack preparedness for teaching students with ASD in a mainstream classroom. Ahsan et al. agreed with Busby et al. (2012) that teachers face difficulties in inclusive education. Participants in the study included 22 department heads, which included deans, directors, and principals. The analyzed data were audio-taped interviews. Ahsan et al.'s results specified the four greatest challenges teachers face with inclusive education: (a) attitudinal beliefs, (b) academic challenges, (c) challenges in practicum areas, and (d) challenges for beginning teachers.

The results of the attitudinal beliefs for the participants were positive regarding inclusive education as the best option to ensure equal rights to students with disabilities like ASD (Ahsan et al., 2012). However, the beliefs were under certain conditions, such as preparing teachers, minimizing class size, enhancing teacher motivation, providing necessary resources, and providing specialized support for disabled students (Ahsan et

al., 2012). For the academic challenges, the participants felt that preservice teacher training did not appropriate teacher preparation. For the challenges in practicum, the participants felt they lacked adequate information regarding children with disabilities in the inclusive setting. The participants reported a lack of preservice training for beginning teachers regarding how to manage large class sizes and how to handle a diverse classroom. They also cited the lack of resources available to new teachers (Ahsan et al., 2012). Results of the study suggested strategies such as including curriculum reform, contextualizing teaching learning, improvements in practicum opportunities, and proper training of education administrators. Ahsan et al. (2012) concluded, despite the multiple challenges teachers faced with inclusive education, the stakeholders in the study should consider reevaluation on how they prepare their teachers for inclusive education.

Teacher Attitudes

Scholars have suggested the attitude of inclusive teachers correlates with their training in inclusive education and preparedness in working with students who have disabilities (Vashishtha & Priya, 2013). As studies have shown, the attitude of teachers differs based on the type and degree of the students' disabilities. According to de Boer et al. (2011), the most prevalent attitude of inclusive teachers is negative, which is significant in inclusive settings with students who have emotional and behavioral disabilities. Research also suggested that teacher attitude may relate to other inclusive variables, such as class size and experience. According to de Boer et al., teachers who hold a more positive viewpoint towards inclusive education, are novice teachers, those with less experience, and those with smaller class sizes.

When looking beyond general acceptance of personality traits, such as kindness

and patience, the attitude of the teacher has been predictable, consistent, and concerning regarding social development and academic gains of students with ASD in inclusion classrooms (Segall & Campbell, 2012). Therefore, investing in appropriate teacher training is essential. Successful inclusive classrooms depend on well-prepared teachers with positive attitudes and who believe in the inclusive process (Ahsan et al., 2012).

Despite institutional mandates and various degrees of teacher attitudes in working with students who have disabilities, educators continue to strive to provide an appropriate inclusive education. Segall and Campbell (2012) reported that in many educational organizations, teachers' viewpoints towards inclusive education have been improving. Not all teachers are against inclusive education, as many teachers seem to endorse inclusive education in mainstream classrooms and believe it is fair—as long as it is not their general education classroom in which the student enrolls (de Boer et al., 2011). As Montgomery and Mirenda (2014) reported, many general education teachers prefer sending students with disabilities to special education classrooms, because they believe general education teachers should not have to carry the burden of educating students with special needs.

Razali et al. (2013) found a mixture of positive and adverse attitudes among respondents who taught in inclusive educational environments. The researchers noticed the shift to more inclusive education had made a global impact on research regarding teacher attitude. As Malinen et al. (2013) reported, the stronger and more positive the attitude of the teacher, the greater effort by the teachers, which leads to better performance from the students.

Gao and Mager (2011) reported the higher the efficacy of the teacher, the more

stable and motivated the teacher will be in setting challenging goals and creating a successful inclusive classroom. Montgomery and Mirenda (2014) conducted a case study, intending to replicate and extend a previous study that examined the relationship between teacher self-efficacy and teachers' sentiments, attitudes, and concerns. The study by Montgomery and Mirenda focused on how the teachers' attitude and other factors affected inclusive education. The study took place in an inclusive elementary teacher education program. The participants in the study all lived in the same urban province; they included 115 elementary teachers in kindergarten through Grade 7. Eighty-seven percent of the participants were women and two thirds were older than 35 (Montgomery & Mirenda, 2014).

Multiple scholars have observed disabled students' educational needs compromise the teachers' attitudes towards inclusive education (Malinen et al., 2013). Therefore, the viewpoint of the teacher may provide insight to whether a correlation exists between teachers' attitude and how the teacher reacts to behavioral problems found in an inclusive setting (Malinen et al., 2013). In the Montgomery and Mirenda (2014) study, the viewpoint of the teachers was that they were more willing to include students with external signs of disability into their general education classrooms compared to those with less obvious indicators, such as those students with emotional or behavioral disabilities.

Since teachers are at the forefront of inclusive education, they need enriched professional development opportunities to lead the way (Savolainen, Engelbrecht, Nel, & Malinena, 2012). In the Montgomery and Mirenda (2014) study, data collection was through an online and paper survey. The two surveys included general definitions of

terms relevant to the study. The Montgomery and Mirinda study also included a demographic form and two case study instruments. A demographic form requested information regarding participants' gender, age, educational background, and years of teaching experience. The survey also made inquiry concerning the teachers' current teaching assignment, the number of special education in-service hours completed, and the respondent's range of exposure to students with developmental disabilities (Montgomery & Mirinda, 2014).

Montgomery and Mirinda (2014) used two survey instruments, the Teacher Efficacy for Inclusive Practices (TEIP) and the Sentiments, Attitudes, and Concerns About Inclusive Education–Revised (SACIE-R). The TEIP sentiments subscales included positive statements related to teacher attitude, and the SACIE-R sentiments subscale included negative comments. The attitudes subscale of the SACIE-R included positive statements regarding teachers' belief that students with developmental disabilities should be included in regular education classrooms (Montgomery & Mirinda, 2014). The last subscale of the TEIP, concerns, included negative statements about potential barriers that teachers might experience in inclusive classrooms. Measured outcome expectations for TEIP show the higher the value, the greater the concern.

The researchers selected the TEIP instrument because various studies have proven its high validity and reliability, therefore making it an excellent choice for measuring the viewpoint of the participants (Montgomery & Mirinda, 2014). The SACIE-R was selected to provide validation when used with the TEIP. The 15-item Likert scale of the SACIE-R included three sections: sentiments, which measured teacher feelings about engaging with people who had developmental disabilities; attitudes, which measured teachers'

acceptance of learners with different learning needs; and concerns, which measured the concerns that teachers had regarding inclusive education. The results showed strength in the relationship between the TEIP and SACIE-R (Montgomery & Mirenda, 2014).

The computation of the correlation analysis in Montgomery and Mirenda's (2014) study determined the relationship between teacher viewpoint and the teachers' sentiments, attitudes, and concerns about inclusive education. First, the sentiment results suggested a limited negative correlation between teachers' sentiments and teachers' self-efficacy in inclusive instruction and behavior management of students with developmental disabilities. Next, the attitudes results suggested a limited positive relationship between teachers' viewpoints and attitude toward inclusive instruction and collaboration with other teachers. However, the attitude results also showed a limited but positive relation to behavior management of students with developmental disabilities. Final results relating to teacher concerns suggested a significant negative relationship between teachers' attitude and the collaboration with other teachers, as it related to inclusive instruction and behavior management of students with developmental disabilities (Montgomery & Mirenda, 2014).

In all three models, the teachers' attitude for collaboration emerged as the only significant predictor of all three measurements; neither teacher attitude nor predictors prevailed. Results from the study by Montgomery and Mirenda (2014) determined that a primary area of inquiry was the extent to which the four sources of teacher efficacy affect students with developmental disabilities. Supporting factors were those components of daily classroom routines that require additional time and specific skills that may not be a part of the teachers' repertoire.

Results of the teacher factors included the possibility that a teacher with a negative sentiment about students with disabilities also may have negative attitudes towards inclusive education, as the teacher may have a difficult time working with these students in their classrooms (Montgomery & Mirenda, 2014). Results of the study centered on a list of student factors and teacher factors that included system issues related to factors controlled by the educational system and affecting how schools operate. Concluding results of the study established a successful replication of the previous finding, in which teachers' viewpoint, attitudes, sentiments, and concerns towards inclusive education for students with disabilities produced positive sentiments. These results also shed light on training in teacher effectiveness in implementing inclusive educational practices for teaching students with developmental disabilities (Montgomery & Mirenda, 2014).

Scholars have suggested studies showing proper training of teachers in special-needs education may facilitate a more positive attitude among teachers, which may influence teacher–student relationships (de Boer et al., 2011). However, the results of the study by Montgomery and Mirenda (2014) remained conclusive for each of the three components of teacher attitude. The study replicated the previous research because the teachers with higher attitude were more confident in providing inclusive education in the general education classroom, measuring inclusive instruction, managing disruptive behavior, and collaborating with others. The primary limitation of this study was self-selection bias, as participation was voluntary. The Montgomery and Mirenda replication study has enhanced the current research by establishing a possible correlation between the taxonomy of educational objectives evaluation level and cultural influences regarding

teacher attitude and instructional practices of including students with disabilities in mainstream classrooms. The study also confirmed the need for more research in this area of study, suggesting that future research should include a larger sample size and should extend cross-cultural (Montgomery & Mirenda, 2014).

Teacher Self-Efficacy

Researchers have found teacher preparedness correlates with teacher self-efficacy, as they both relate to cultural and social challenges regarding teacher instructional practices (Qingmin, 2014). In fact, self-efficacy, as it relates to teaching perceptions, is related to teacher efficacy—the confidence a teacher holds regarding preparedness for the capability to accomplish a particular teaching task (Qingmin, 2014). Teachers' efficacy, attitude, and willingness to accept the inclusive education of students with diverse abilities will determine the success of the inclusion experience (Leyser, Zeiger, & Romi, 2011). The teachers' self-efficacy assumes an important factor in shaping instructional practices and student learning (Qingmin, 2014).

A teacher who struggles with self-efficacy may not support students identified with ASD placed in the teacher's mainstream classroom. When teachers experience low levels of self-efficacy within a particular action, or exhibit avoidance behavior, they are often unwilling to try or embrace the opportunity to master the reluctant task (Leyser et al., 2011), such as teaching students with disabilities who exhibit disruptive behaviors. Teacher efficacy can be two-dimensional, according to Leyser et al. (2011). First, it represents the teacher's sense of personal teaching efficacy, the belief that one skill influences student learning and behavior. Second, any ability of the teacher can bring about change, limited only by external variables such as the students' abilities or their

home environments (Leyser et al., 2011).

A teacher with high self-efficacy is more likely to be present in successful inclusive education. A high self-efficacy is useful when teachers face obstacles, failures, disconfirming experiences, dissuading messages, oppression, or discrimination associated with teaching in an inclusive environment (Thompson & Graham, 2015). Therefore, the greater the self-efficacy, the less critical a teacher will be towards student errors in judgment, and the more likely the teacher will continue to encourage students who are having difficulties. Along those lines, the higher the teacher self-efficacy, the more positive the classroom management skills and the more the teacher will be able and willing to experiment with new methods to meet the needs of students with ASD (Leyser et al., 2011).

Malinen et al. (2013) conducted a multicountry study to investigate and explain teacher self-efficacy regarding inclusive practices. Malinen et al. also expected to add to existing research on teacher self-efficacy beliefs by improving teacher education in inclusive educational settings. Malinen et al. also sought to determine which teacher-related factors predicted the self-efficacy of the teacher for inclusive practices, and they wanted to analyze the differences found in various models that would identify teacher self-efficacy. The researchers hypothesized that vicarious experiences, social persuasion, and emotional states had a strong impact on self-efficacy of novice teachers but less of an impact on experienced teachers.

Malinen et al. (2013) explained that vicarious learning experiences occur by observing others perform a particular task, such as teacher collaboration to teach in an inclusive classroom. Social persuasion occurs through interactions received through

verbal comments regarding the teacher's ability to master a task, which may include restoring order after a classroom disturbance. Last, emotional arousal for a particular task may impact the performance of the expected task (Malinen et al., 2013). The higher the level of arousal, the more it impedes performance, leading a person to avoid the task or adverse outcomes (Thompson & Graham, 2015); this may refer to a teacher's resilience factor. A person may experience any of the three sources, as the information gained may affect perceived self-efficacy and may involve cognitive processing and reflective thinking (Malinen et al., 2013).

Montgomery and Mirenda (2014) suggested that teacher efficacy is subject to cultural influences, and thus its influence on teachers' teaching and student learning produces varying results. However, in the Malinen et al. (2013) study, the results of the multicultural contexts suggested teacher self-efficacy was multidimensional and related to instruction, classroom management, and student motivation and engagement. The result of the study suggested the attitude of teachers played a significant role in educating all students and implementing an inclusive environment. According to the study, a teacher with a negative sentiment about people with disabilities was likely to have a negative attitude towards inclusive education. A negative attitude may cause resentment in the teacher, who may have trouble with providing an unbiased learning environment for students with disabilities (Malinen et al., 2013).

Summary

Bloom's (1956) taxonomy was an appropriate theoretical framework for this study because it describes a framework that may relate to teachers' perception of preparedness for teaching students with ASD in their mainstream elementary classrooms.

Bloom's taxonomy would provide a framework for teacher perceptions regarding preparedness about knowledge, comprehension, application, analysis, synthesis, and evaluation.

When including students with ASD in general education settings, the educator should be certified to teach in an inclusive setting. Hamilton-Jones and Vail (2013) concluded that teacher preparation for inclusive education should provide training in both pedagogical knowledge and skills, along with collaborative support and mentorship with experienced teachers. A prepared teacher will have the fundamental insight of the unique learning characteristics of many students with ASD (Ferraioli & Harris, 2011). Therefore, collaboration with experienced teachers and effective training are both critical for general education teachers. Including students with mild, moderate, and severe disabilities like ASD into their mainstream classrooms requires teachers to take on greater responsibilities, as they learn the appropriate curriculum to teach these and other students with disabilities alongside students without identified disabilities (Cameron & Cook, 2013).

Inclusive education for students with ASD is one of the least understood aspects of the school system. In the results of the study by Able et al. (2014), teachers expressed concern regarding their ability to provide the accommodations for students with ASD in inclusive classrooms. The concerns of the teachers included a lack of knowledge regarding characteristics found in ASD students. Also, teachers voiced their concerns of how they should differentiate instruction and collaborate with other general education teachers and special educators.

Along with the concerns for teaching in an inclusive classroom, teachers face

multiple challenges, including teaching approach, knowledge, and experiences. In their study, Busby et al. (2012) concluded teacher preparation programs must do a better job in preparing teachers for the challenges associated with teaching in an inclusive setting. They recommended preparation programs evolve to meet the current demands of inclusive enrollment. Effective training, preparation, and experience should provide teachers with the tools to handle challenges associated with inclusive education.

The attitude of the teacher affects his or her perceived preparedness to teach students with ASD in the mainstream classroom. In the study by Montgomery and Miranda (2014), results showed the attitude of the teacher was not a significant predictor of a successful inclusive educational environment. However, the study shed light on training in inclusive educational practices. Last, evaluating various research suggested that teachers' efficacy affects their willingness to accept the inclusive education of students with diverse abilities. In the study by Malinen et al. (2013), the results showed experience in teaching students with ASD was the strongest predictor of teacher self-efficacy. Improvements are needed in teacher education to allow teachers to respond better to the challenges of inclusive education.

In conclusion, the literature review may have overlooked a comprehensive comparison of self-contained classrooms to the inclusive classrooms. However, it is most critical that novice teachers receive training in the inclusive education process, starting with preservice preparation. Also, educational organizations should examine curriculum and practicum-related issues regarding inclusive educational practices.

Research Questions

The review of the literature suggested a quantitative method for the current

research was an appropriate method for measuring teacher perception of preparedness for teaching students with ASD in a mainstream classroom. Three research questions guided the current study. Answers to these questions served as evidence of achievement of the study's purpose:

1. How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in the area of instructional content and practice?

2. How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in the area of planning and managing the teaching and learning environment?

3. How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in the area of managing student behavior and social interaction skills?

Chapter 3: Methodology

Quantitative methodology was used for this study. Using a quantitative methodology allowed for educational research emphasizing objective measurements for answering the research problem through a numerical analysis. This numerical analysis allowed the researcher to establish the overall tendency of various responses by using data collected from questionnaires or surveys (Creswell, 2008). The participants' responses to a series of questions also helped to identify trends in perception and opinions, which served as evidence of achievement of the study's purpose. Using quantitative research also allowed the researcher to employ a single description most common or more typical in participants (Black, 1999). Based on this information, a quantitative method for the current research was the appropriate method for measuring teacher perception of preparedness for teaching ASD students in a mainstream classroom.

Participants

Participants for this study came from eight elementary schools in Florida. The school district is among the 25 largest school districts in the United States, according to the most recent information from the National Center for Education Statistics (Sable et al., 2010). Participants for the study were all teachers who taught students diagnosed with ASD in their general education classrooms during the 2015-2016 school year in the eight schools. The targeted population used a sampling frame approach; a report generated by a student database program identified potential participants. The demographic makeup of the eight targeted elementary schools included 450 school-based instructional staff and 20 school-based administrators. A combined student enrollment for the eight schools in 2015 was 6,884 students, with 154 students identified as having ASD. All eight

elementary schools had a school performance grade of A. Public schools in Florida receive grades based on student performance on state assessments and the value of students making learning gains. Florida schools are assigned a letter grade (A through F) corresponding with their rated performance; an A represents the highest performance (Florida Department of Education, 2015b). The average home listing price within the schools' boundaries ranged from \$150,000 to \$600,000 (Better Homes and Gardens Real Estate, 2016).

Any teacher who teaches in Florida schools, including the schools targeted for this study, may receive additional training in teaching students with ASD and other disabilities, throughout their teaching career. In fact, in 2014, The Florida Department of Education (2015a) made an addendum to the renewal requirements for educator certification requiring teachers to obtain continuing education in-service credit for teaching students with disabilities before the expiration date of their Professional Certificate. Also, all participants of the current research receive multiple professional development opportunities throughout the school year and are encouraged to take advantage of the school district's continuing in-service education programs. These in-services offer various professional development opportunities, which provide training to teachers in a multitude of educational competencies, including training in teaching students with developmental disabilities. Special education and disability in-services include training for educational best practices used in inclusive education, lesson planning, and behavior interventions for teaching students with ASD and other developmental disabilities. The targeted population included 287 teachers with bachelor's degrees, 122 teachers with master's degrees, and two teachers with specialist degrees

(Florida Department of Education, 2015b).

Using the convenience sampling in this study allowed the researcher to select participants from a target population willing to take part (Creswell, 2008). All teacher participants in this study had at least one student with ASD in their class during the 2015-2016 school year. Participants took part in the study by signing the informed consent document and completing the questionnaire. The estimated number of teachers meeting the inclusion criteria for the study was 51. The final sample was 20.

Instruments

The instrument for the study was the SKSIMSD (Daniels & Vaughn, 1999), a Likert-scale model (see Appendix). The quantitative data instrument included a closed-ended survey presented with questions assigned to fixed responses that allowed participants to choose the answer that best reflected their opinion regarding a particular topic (Creswell, 2008). Choosing the Likert scaling method facilitated the use of a preexisting survey created as “an instrument that schools could use to obtain information about general classroom teachers’ perceptions of knowledge and skills regarding the instruction and management of students with disabilities” (Daniels & Vaughn, 1999, p. 48). Using the SKSIMSD allowed teachers to rate their response based on a 5-point scale of 1 = *no knowledge or skills*, 2 = *limited knowledge or skills*, 3 = *undecided*, 4 = *moderate knowledge or skills*, and 5 = *adequate knowledge or skills*. The developed Likert scales were at equal intervals among responses. This interval scale was chosen because it works best when presented with multiple categories or multiple choices (Creswell, 2008).

Approval to use the instrument was obtained from Sage, a leading independent,

academic, and professional publisher. The SKSIMSD asked participants to rate their experiences on a scale of 1–5, with 5 representing *adequate knowledge*. The targeted population rated their perceived level of knowledge and skills in teaching students with ASD in their mainstream classrooms. The SKSIMSD design included a 60-question survey. Part 1, Demographic Information, included 13 questions regarding participants' educational background, years of teaching experience, average class size, and primary teaching responsibilities. Part 2, Instructional Content and Practice, included 20 items regarding participants' perceived levels of knowledge and skills related to instructional content and practice. Using the Likert scale response allowed participants to rate their perceived levels of knowledge and skills in various categories. Part 3, Planning and Managing the Teaching and Learning Environment, included 10 questions, also designed as a Likert scale response. Part 4, Managing Student Behavior and Social Interaction Skills, included 12 items with Likert scale responses. The final three self-efficacy questions required participants to provide an overall feeling regarding the survey. These items were not used in data analysis for answering the study's three research questions.

The developers of the instrument sought to establish validity and reliability for the SKSIMSD, as they “successfully use[d] the scale in four schools in a large metropolitan school district” (Daniels & Vaughn, 1999, p. 49). Likert scales methods like SKSIMSD are popular and used in research. As reported by Fabrigar and Wood (2007), many regard the use of this scale as an achievable, reliable, and valid approach to measuring attitudes, and the reliability and validity of Likert scales have been used through many test–retest consistencies. In addition, Jupp (2006) reported that the use of Likert scale in research has proven to be a useful technique because it appeals to participants. Therefore,

participants are much more likely to complete the entire survey, improving response rates and generalization reliability. Using a Likert scale method helped in checking validity by ensuring accurate measurement of the intended construct (Jupp, 2006). Although no formal statistical validity and reliability data were available for the SKSIMSD, the commonly established use of this instrument, which used an acceptable Likert scale method, makes this instrument acceptable for the study. The lack of statistical validity and reliability data for the instrument was acknowledged as a limitation of the study.

Procedures

Design. The survey design selected for this research allowed the researcher to administer “a survey or questionnaire to a small group of people to identify attitudes, opinions, behaviors, or characteristics” (Creswell, 2008, p. 61). Using the survey model designed proved to be a “valuable tool in identifying teachers’ perceived levels of proficiency for providing effective instruction to students with disabilities” (Creswell, 2008, p. 54). The timeline of the study required generating data based on teacher experiences during the 2015-2016 school year. Using the quantitative design in this research allowed the researcher to “ask specific, narrow questions; collect quantifiable data from participants; analyze the numbers, use statistics and conduct the inquiry in an unbiased objective manner” (Creswell, 2008, p. 46).

Data collection procedures. Institutional Review Board and site permissions were all obtained before data collection. Recruitment of participants started with the researcher utilizing the data reporting system, FOCUS. With this system, the researcher identified students with an exceptionality of ASD enrolled in a general education classroom during the 2015-2016 school year. The names of the general education

teachers who taught the identified students during the identified school year were available in the report. After identifying the teachers, the researcher retrieved the e-mail addresses of the potential participants from the eight schools' individual websites. After collecting e-mail addresses, the researcher used a personal e-mail address to send introductory e-mails to the eight school principals, explaining the study and attaching the approved letter from the school district. Within the e-mail, the principals were asked for permission to contact the identified teachers. The researcher informed the principals that a copy of the study would be made available should they desire to review the results.

Once approvals were received from the principals and after obtaining the participants' e-mail addresses, recruitment e-mails were sent using the researcher's personal e-mail address, asking potential participants if they would take part in a survey. The recruitment e-mail included the title of the research and a brief statement of what the researcher asked of participants. Also included in the e-mail was a statement regarding the purpose of the study, a statement that the principal had given approval to contact them, and the attached district approval to conduct the survey. Within the e-mail, the teachers were asked to respond with their contact information and preferred mailing address to mail survey and consent. Once e-mail responses were received, the researcher made copies of the SKSIMSD and mailed a copy of the consent and survey to participants by way of the U.S. Postal Service. Included in the mailing was a self-addressed return envelope, postage paid. Willing participants were asked to retain a copy of their signed informed consent for their records and return it along with the completed survey. All participants received a copy of the SKSIMSD to complete on their own. One week after the original mailing of the survey, nonrespondents were contacted by e-mail to

request they complete and return the survey. Twenty days after the original mailing of the survey, data collection ceased.

Data analysis procedure. Descriptive statistics were used to analyze collected data. Using descriptive statistics allowed the researcher to create a breakdown of general tendencies in data, which included a spread of values for comparative predisposition and measurements of the variability of individuals from the targeted population (Creswell, 2008). At the completion of the survey data collection period, all quantitative data were analyzed. Data reporting included tables illustrating the results of the data from all the corresponding parts of the SKSIMSD. Within the tables, the researcher showed the frequencies and the mean of the collected data for all individual items, survey categories, and the overall results.

Research Question 1 asked the following: How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in instructional content and practice? The analysis for this question involved the use of SKSIMSD Likert scale rating values from the 20 items of Part 2, Instructional Content and Practice, to determine a mean preparedness rating value in knowledge and skills relative to instructional content and practice. Research Question 2 asked the following: How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in planning and managing the teaching environment? The analysis for this question involved the use of SKSIMSD Likert scale data from the 10 items in Part 3, Planning and Managing the Teaching and Learning Environment, to determine a mean preparedness rating value in knowledge and skills relative planning and managing the teaching environment. Research Question 3 asked the

following: How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in managing student behavior and social interaction skills? The analysis for this question involved the use of SKSIMSD Likert scale data from the 12 items in Part 4, Managing Student Behavior and Social Interaction Skills, to determine a mean preparedness rating value in knowledge and skills relative managing student behavior and social interaction skills.

Chapter 4: Results

This quantitative study described teachers' perception of their preparedness for teaching students with ASD in their mainstream elementary classrooms. The current study analyzed survey data from teachers in eight neighboring elementary schools who taught students with ASD in their general education classrooms during the 2015-2016 school year. An estimated 51 teachers met the criteria for participating in the study. The makeup of the eight targeted elementary schools included 450 school-based instructional staff and 20 school-based administrators. Combined student enrollment of the eight schools in 2015 was 6,884 students, and 154 students were identified with ASD.

Demographic Characteristics

Of the estimated 51 potential participants meeting the inclusion criteria for the study, 20 chose to participate by completing the survey. The gender makeup of the research participants was 19 women and 1 man. All participants currently had at least one student identified with ASD enrolled in their classroom. Sixty-five percent of the participants were general education inclusion teachers, and 35% were noninclusion teachers (see Table 1). Forty percent of the participants described their current classroom setting as general education, 10% described their classroom setting as full inclusion, and the remaining 50% described their current classroom setting as inclusion. Eighty percent of the participants were currently teaching in an inclusion setting, and 20% were not.

When asked demographic questions related to the research, 75% of the participants responded that their overall perceived level of knowledge and skills for teaching students with ASD was good, and only 5% (1 participant) self-perceived as insufficient in skills and knowledge for teaching students with ASD (see Table 1).

Table 1

Demographic Characteristics (N = 20)

Demographic	%	<i>n</i>
Type of general education teacher		
Inclusion	65	13
Noninclusion	35	7
Classroom setting		
Inclusion	50	10
General education	40	8
Full inclusion	10	2
Currently teaching in an inclusion setting		
Yes	80	16
No	20	4
Self-rated knowledge and skills for teaching students with autism spectrum disorder		
Excellent	10	2
Good	75	15
Fair	10	2
Insufficient	5	1
Highest degree		
Bachelor's	55	11
Master's	45	9
Source of training on inclusion		
College and in-service workshop	30	6
College only	35	7
In-service workshops only	35	7
Source of training on content knowledge of cultural diversity		
College and in-service workshop	65	13
College only	15	3
In-service workshops only	20	4
Did college training prepare you for teaching in an inclusive setting?		
Yes	20	4
No	80	16
Would you advocate for the primary setting of all students with disabilities to be in the general education setting?		
Yes	10	2
No	90	18
Years teaching		
6–10	10	2
16–20	60	12
21 or more	30	6

Table 1 presents educational attainment and type of training of the recipients. When asked if college training prepared them for teaching in an inclusive setting, 80% responded no. Only 10% of the participants would advocate for all students with disabilities being placed in general education classrooms, as shown in Table 1.

Data Analysis

Descriptive statistics were used to analyze collected data. Using descriptive statistics allowed the researcher to create a breakdown of general tendencies in data, which included a spread of values or comparative predisposition, and measurements of the variability of individuals from a targeted population (Creswell, 2008). At the survey completion, all quantitative data were analyzed. Data reporting included both narrative and tables summarizing results from the data collection of corresponding survey items. The mode, median, mean values, and standard deviation for each survey item are listed within the tables. Also included in the tables are overall mean values for that set of survey items.

The survey instrument included 60 questions asking teachers to provide a response as to their perceived level of knowledge and skills in teaching students with ASD in their mainstream classrooms. The instrument included three sections for content areas: Instructional Content and Practice, Planning and Managing the Teaching and Learning Environment, and Managing Student Behavior and Social Interaction Skills. Participants completed a Likert scale survey that asked them to provide a response rating using a 5-point scale. The rating values were 1 = *no knowledge or skills*, 2 = *limited knowledge or skills*, 3 = *undecided*, 4 = *moderate knowledge or skills*, and 5 = *adequate knowledge or skills* (Daniels & Vaughn, 1999). Using these rating values, mean values

for knowledge and skills for each content area measured by the instrument were calculated. These mean values were used to calculate an overall mean value for each content area for both knowledge and skills. The overall mean values were then used to answer the research questions.

The study was guided by three research questions, with each representing one of the three content areas measured by the survey instrument. Findings for each research question are presented in the following sections. A summary section is also provided.

Research Question 1

How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in the area of instructional content and practice? Survey Items 1–5 measured teachers' perceived knowledge level in instructional content and practice. Items 1, 3, 4, and 5 had multiple parts. Survey Items 6–20 measured participants' perceived skill level in instructional content and practice. Of these items, four had multiple parts.

The overall mean value for knowledge level of preparedness for teaching students with ASD in their mainstream elementary classrooms in the area of instructional content and practice was 4.01 in knowledge (see Table 2). The overall mean value for skills level in the area of instructional content and practice was 4.01 (see Table 3).

Therefore, based on data analysis, the participants in the study perceived their level of preparedness the same, moderate, for both knowledge and skills. The finding for Research Question 1 was that participants perceived their preparedness level in the content area of instructional content and practice for both knowledge and skills to be moderate.

Table 2

Instructional Content and Practice: Knowledge Level

Survey item	<i>SD</i>	Mode	Median	<i>M</i>
1a. Differing student learning styles	1.09	5	4	4.15
1b. Adapting teaching to learning styles	1.11	5	4	4.20
2. Demands of various learning environments	1.01	5	4	4.20
3a. Curricula for developing cognitive skills	0.91	4	4	3.75
3b. Curricula for developing academic skills	0.89	5	4	4.20
3c. Curricula for developing social skills	1.19	5	4	3.60
4a. Instructional and remedial methods	1.05	4	4	4.05
4b. Instructional and remedial techniques	0.91	4	4	4.10
4c. Instructional and remedial curriculum materials	1.14	4	4	3.85
5a. Techniques to modify instructional methods	1.12	5	4	4.10
5b. Techniques to modify instructional materials	1.08	4	4	4.00
Overall perceived knowledge level				4.01

Note. $N = 20$. Scored on a Likert scale of 1 (*no knowledge*) to 5 (*adequate knowledge*).

Research Question 2

How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in the area of planning and managing the teaching environment? Survey Items 21–23 measured teachers' perceived knowledge level in planning and management of the teaching and learning environment. Item 21 had multiple parts. Survey Items 24–30 measured teachers' perceived skill level in planning and managing the teaching and learning environment. Items 29 and 30 had multiple parts.

The overall mean values for knowledge and skill level of preparedness for teaching students with ASD in their mainstream elementary classrooms in planning and managing the teaching and learning environment are presented in Tables 4 and 5. The mean was 4.14 in knowledge (see Table 4) and 4.25 in skills (see Table 5).

Table 3

Instructional Content and Practice: Skill Level

Survey item	<i>SD</i>	Mode	Median	<i>M</i>
6. Interpreting, using data for instructional planning	1.05	5	5	4.00
7. Developing assessments, programs, and practices that respond to				
7a. cultural differences	1.23	4, 5	4	3.65
7b. linguistic differences	1.22	3, 4	3	3.30
7c. gender differences	1.19	4	4	3.45
8. Using appropriate techniques to accomplish objectives	1.10	4, 5	4	4.05
9. Preparing appropriate lesson plans	0.99	4	4	4.15
10. Involving student in setting instructional goals and charting progress	1.10	4, 5	4	4.05
11. Task analysis	1.02	4	4	3.75
12a. Selecting strategies and materials based on learner characteristics	0.80	4	4	4.00
12b. Adapting strategies and materials based on learner characteristics	0.81	4	4	4.15
12c. Using strategies and materials based on learner characteristics	0.81	4	4	4.15
13a. Sequencing individualized student learning objectives	1.14	4	4	3.85
13b. Implementing individualized student learning objectives	0.95	4	4	4.05
13c. Evaluating individualized student learning objectives	1.02	5	4	4.10
14a. Integrating affective skills in academic curricula	1.16	4	4	3.75
14b. Integrating social skills in academic curricula	1.42	4	5	3.70
15. Using strategies to maintain, generalize skills	0.95	4	4	3.95
16. Using instructional time properly	0.99	5	5	4.35
17. Teaching students thinking, problem solving, and cognitive strategies	1.02	5	5	4.10
18. Rapport with learner	0.41	5	5	4.80
19. Verbal and nonverbal communication	0.75	5	5	4.60
20. Self-evaluation of instruction	0.88	5	5	4.35
Overall perceived skill level				4.01

Note. *N* = 20. Scored on a Likert scale of 1 (*no skills*) to 5 (*adequate skills*).

Table 4

Planning and Managing the Teaching and Learning Environment: Knowledge Level

Survey item	<i>SD</i>	Mode	Median	<i>M</i>
21. Basic classroom management for special-needs students in				
21a. theories	1.10	4	5	3.95
21b. methods	1.06	5	4	4.20
21c. techniques	1.08	5	5	4.30
22. Research-based best practices for management	1.04	5	4	4.15
23. Using technology to plan and manage	1.17	5	4	4.10
Overall perceived knowledge level				4.14

Note. $N = 20$. Scored on a Likert scale of 1 (*no knowledge*) to 5 (*adequate knowledge*).

Table 5

Planning and Managing the Teaching and Learning Environment: Skill Level

Survey item	<i>SD</i>	Mode	Median	<i>M</i>
24. Creating safe, positive learning environment supporting diversity	0.41	5	5	4.80
25. Integrating exceptional students in various settings	0.88	5	5	4.35
26. Preparing and organizing material	0.51	4	4	4.50
27. Evaluation, planning, and management to match learner needs	0.89	4	4	4.20
28. Encouraging participation in various individual and group activities	0.82	5	5	4.40
29a. Designing routines for students	0.95	5	5	4.45
29b. Designing routines for staff	0.85	4	5	4.25
29c. Designing routines for the general classroom	0.83	5	5	4.50
30a. Directing the paraprofessional	1.30	4	5	3.70
30b. Directing the aide	1.31	3, 4	3	3.60
30c. Directing the peer tutor	1.03	3, 5	3	4.00
Overall perceived knowledge level				4.25

Note. $N = 20$. Scored on a Likert scale of 1 (*no skill*) to 5 (*adequate skill*).

The finding for Research Question 2 was that participants perceived their preparedness level in the content area of planning and managing the teaching and learning environment to be 4.14 for knowledge and 4.25 for skills. Scores were on a scale of 4 representing *moderate* and 5 representing *adequate*.

Research Question 3

How do teachers perceive their preparedness level for teaching students with ASD in their mainstream elementary classrooms in the area of managing student behavior and social interaction skills? Survey Items 31–35 measured teachers' perceived knowledge level in managing student behavior and social interaction skills. Items 33 and 34 had multiple parts. Survey Items 36–42 measured teachers' perceived skill level in managing student behavior and social interaction skills. Items 39 and 42 had multiple parts.

The overall mean value for knowledge level of preparedness for teaching students with ASD in their mainstream elementary classrooms in the area of managing student behavior and social interaction skills was 4.23 in knowledge (see Table 6). The overall mean value for skills level in the area of managing student behavior and social interaction skills was 4.05 (see Table 7).

The finding for Research Question 3 was that participants perceived their preparedness levels in the content area of managing student behavior and social interaction skills for knowledge to be 4.23 and for skills to be 4.05 on a scale in which 4 represented *moderate* and 5 represented *adequate*. Using the descriptors for item responses provided to participants in the instrument's directions, the overall mean values for Research Question 3 most closely aligned with moderately prepared in both knowledge and skills.

Table 6

Managing Student Behavior and Social Interaction Skills: Knowledge Level

Survey item	<i>SD</i>	Mode	Median	<i>M</i>
31. Applicable laws, rules, and regulations	1.07	4	5	4.10
32. Ethical considerations in behavior management	0.82	5	5	4.40
33a. Teacher attitudes and behaviors that positively influence student behavior	0.75	5	5	4.60
33b. Teacher attitudes and behaviors that negatively influence student behavior	1.15	5	5	4.20
34a. Social skills for educational environments	0.93	5	5	4.45
34b. Social skills for functional living	1.15	4	5	3.95
35. Effective instruction in development of social skills	1.15	4	5	3.95
Overall perceived knowledge level				4.23

Note. $N = 20$. Scored on a Likert scale of 1 (*no knowledge*) to 5 (*adequate knowledge*).

Table 7

Managing Student Behavior and Social Interaction Skills: Skill Level

Survey item	<i>SD</i>	Mode	Median	<i>M</i>
36. Behavior management techniques for special-needs students	1.04	4	5	4.15
37. Least intensive intervention	1.07	4	5	4.10
38. Modifying learning environment to manage inappropriate behaviors	0.93	4	5	4.15
39a. Realistic expectations for personal behavior	0.95	4	5	4.20
39b. Realistic expectations for social behavior	1.21	4	5	4.10
40. Integrating social skills into the curriculum	1.31	4	5	3.60
41. Using effective procedures in social skills instruction	1.25	4	5	3.75
42a. Procedures to increase student self-awareness	1.31	5	5	4.15
42b. Procedures to increase student self-control	1.29	4	5	4.10
42c. Procedures to increase student self-reliance	1.40	5	5	4.05
42d. Procedures to increase student self-esteem	1.21	5	5	4.25
Overall perceived skill level				4.05

Note. $N = 20$. Scored on a Likert scale of 1 (*no skill*) to 5 (*adequate skill*).

Summary

The finding for Research Question 1 was that participants perceived their preparedness level in the content area of instructional content and practice for both knowledge and skills to be a rating value of 4.01 on a scale of 1–5, with 1 being the least prepared and 5 being adequately prepared. The results indicated that teachers perceived their knowledge and skills in the content area of instructional content and practice to be moderate. The lowest ratings (3.65 or lower) were for knowledge of curricula for the development of social skills ($M = 3.6$) as well as skills in developing or selecting assessments, instructional programs, and practices that respond to cultural differences ($M = 3.65$), linguistic differences ($M = 3.3$), and gender differences ($M = 3.45$). The highest ratings (4.6 or higher) were for skills in establishing and maintaining rapport with the learner ($M = 4.8$) and using verbal and nonverbal communication techniques ($M = 4.6$).

The finding for Research Question 2 was that participants perceived their preparedness levels in the content area of planning and managing the teaching and learning environment to be 4.14 for knowledge and 4.25 for skills, on the same Likert scale. The results indicated that teachers perceived their knowledge preparedness level to be slightly lower than their skill level, but both indicated moderate preparedness in the content area of planning and managing the teaching and learning environment. The lowest rating was for skills in directing the activities of a classroom aide ($M = 3.6$). The highest rating was for skills to create a safe, positive, and supporting learning environment in which diversity is valued ($M = 4.8$).

The finding for Research Question 3 was that participants perceived their preparedness levels in the content area of managing student behavior and social

interaction skills for knowledge to be 4.23 and for skills to be 4.05 on the same Likert scale. The results indicated that teachers perceived their knowledge preparedness level to be slightly higher than their skill level. However, like the other content areas, teachers perceived their knowledge and skills in the content area of managing student behavior and social interaction skills to be moderate. The lowest rating was for skill in integrating social skills into the academic curriculum ($M = 3.6$). The highest rating was for knowledge of teacher attitudes and behaviors that positively influence student behavior ($M = 4.6$).

The results of the descriptive analysis were used to answer the three research questions. For all three content areas in both knowledge and skills, the participants perceived their levels of preparedness to be equal to or slightly greater than a rating value of 4, which represented a moderate level of preparedness. Interestingly, according to the demographic data, 75% of participants considered their overall knowledge and skills level for teaching students with ASD to be “good.” The findings for Research Questions 1–3 seemed to support this assessment.

Chapter 5: Discussion

Overview of the Study

Teachers who lack clear guidelines and proper training for teaching students with special needs in their classrooms assume the tremendous challenge of identifying best practices to use (Lindsay et al., 2014). The research problem for this study was that many general education teachers feel unprepared to teach students with ASD in their general education classrooms. The purpose of this quantitative study was to describe teachers' perceptions of their preparedness for teaching students with ASD in their mainstream elementary classrooms. A quantitative method with a survey design was used, and three research questions guided the study.

The instrument for the study was the SKSIMSD (Daniels & Vaughn, 1999; see Appendix). Descriptive statistics were utilized for the data analysis. Participants for this study were from eight elementary schools in Florida. Fifty-one teachers met the initial criteria to take part in the study. At the end of the extended survey collection period, 20 survey packets were returned and used in the data analysis for the study.

Summary of Findings

Research Question 1. How do teachers perceive their preparedness levels for teaching students with ASD in their mainstream elementary classrooms in the area of instructional content and practice? The overall mean values for all items related to Research Question 1 were 4.01 for knowledge level and 4.01 for skills level. The results indicated teachers perceived their knowledge and skills preparedness level to be moderate in instructional content and practice.

Research Question 2. How do teachers perceive their preparedness levels for

teaching students with ASD in their mainstream elementary classrooms in the area of planning and managing the teaching environment? The overall mean rating values for all items related to Research Question 2 were 4.01 for knowledge and 4.25 for skills. Again, results indicated teachers perceived their knowledge and skills preparedness level to be moderate in planning and managing the teaching environment.

Research Question 3. How do teachers perceive their preparedness levels for teaching students with ASD in their mainstream elementary classrooms in the area of managing student behavior and social interaction skills? The overall mean values for all items related to Research Question 3 were 4.23 for knowledge level and 4.05 for skills level. As with the other two areas, results indicated teachers perceived their knowledge and skills preparedness level to be moderate in managing student behavior and social interaction skills.

Interpretation of Findings

The study sought to describe teacher perceptions relative to their level of preparedness for teaching students with ASD in their mainstream elementary classrooms. The findings for this study indicate that the participants, on average, felt moderately prepared, but not adequately prepared. The expectation of the study was that the findings would indicate that the participants felt unprepared to teach students with ASD in their mainstream classrooms. This expectation was supported by a Cameron and Cook (2013) study, which showed mainstream classroom teachers who taught students with ASD in today's classrooms face a multitude of challenges, such as deciding on the appropriate curriculum and knowing how and when to address the functional, behavioral, and social goals of inclusive education of students with ASD. In contrast, the results of the study

also indicated that even experienced teacher participants may perceive their skills level in teaching students with ASD in their inclusive classrooms as less than adequate.

Context of Findings

The results for all three research questions showed similarity, with participants indicating moderate knowledge and skills levels in all three content areas. Similarities between the current study's findings and information from the literature were found. Differences between the current study's findings and information in the literature were also present. The current study's findings within the context of the literature are discussed in the following sections.

Research Question 1 discussion. The content area of instructional content and practice was addressed by Research Question 1, and the teacher ratings for Question 1 for both knowledge and skills were identical. In this content area teachers perceived their knowledge and skills to be at the moderately prepared level, which was less prepared than the adequate level.

The results support a study conducted by West et al. (2012). The results of the study by West et al. (2012) determined that teachers needed more preparedness training to teach students with ASD. West et al. (2012) gathered data from participants regarding their perception of postteaching experiential learning, to determine their perceived effectiveness in teaching students with disabilities. The West et al. (2012) study and the current study both support the idea that improved teacher preparedness is needed in the area of instructional content and practice. Contrasting information was provided by Hamilton-Jones and Vail (2013). Hamilton-Jones and Vail found inconsistencies in the effectiveness of preservice training regarding cooperation and preparedness in

determining teachers' beliefs and perceptions of inclusive education. Even though Hamilton-Jones and Vail found inconsistencies in the effectiveness of training related to inclusive education, effective training would have to be considered a key to improving teacher preparedness in this area.

Research Question 2 discussion. The content area of planning and managing the teaching environment was addressed by Research Question 2. In this content area, teachers perceived their knowledge and skills to be at the moderately prepared level, which was less prepared than the adequate level. This finding relates to a study by Malinen et al. (2013) investigating and explaining teacher self-efficacy regarding inclusive practices. The study's results validated the hypotheses that vicarious experiences, social persuasion, and emotional state had a strong impact on self-efficacy of novice teachers but less of an impact on experienced teachers. Malinen et al. also determined that more teacher preparedness training was needed to teach students with ASD and to enhance experiential learning. The findings indicated that a teacher who struggles with self-efficacy may be unable to support a student with ASD placed in the teacher's mainstream classroom. Finding in the Malinen et al. study implied that the attitude of teachers plays a significant role in the education of all students and is a key component in designing and implementing an inclusive environment. However, in contrast to this study, Razali et al. (2013) suggested it is not the perception of the teacher that impacts planning and managing the teaching environment, but the lack of training in teaching children with ASD and the lack of knowledge in characteristics of these children.

In addition, the results of a study by Busby et al. (2012) support the value of

planning and managing the teaching environment. The Busby et al. study examined data similar to the current study related to teacher challenges and preparation needs in teaching students with autism. The results of this study determined the value of effective training in preparing teachers to work in an inclusive setting with students diagnosed with ASD. The findings of the Busby et al. study determined the importance of empowering teachers to work with autistic students in a general education classroom, encouraging curricula that address the special-needs population, and encouraging professional development to assist general education teachers in addressing potential challenges encountered in an inclusive setting.

The current study determined that teachers perceived their preparedness levels in both knowledge and skills in the area of planning and managing the teaching environment to be moderate rather than adequate. The studies by Malinen et al. (2013) and Busby et al. (2012) and the current study all support the idea that improved teacher preparedness is needed in the area of planning and managing the teaching environment. Based on these studies and the current study, teachers' attitudes regarding the inclusion of ASD students in mainstream classrooms are an important factor and should be addressed in training designed to better prepare teachers for working in the inclusion classroom.

Research Question 3 discussion. The content area of managing student behavior and social interaction skills was addressed by Research Question 3. Teachers perceived their knowledge and skills in this content area to be at the moderately prepared level, which was less than the adequate level. Soto-Chodiman et al. (2012) suggested some of the overt challenges that teachers experience working in the inclusion classroom include poor social and communication skills, developmental delays, and language impairments.

The results of a study by Ahsan et al. (2012) supported the Soto-Chodiman et al. study and the current study, as the authors recognized the value of managing student behavior and social interaction by first identifying multiple challenges facing inclusive education, such as attitudinal beliefs, academic challenges, and general challenges for beginning teachers. Participants in Ahsan et al.'s study indicated a lack of available resources as well as a lack of preservice training regarding managing large class sizes and handling a diverse population. In contrast to this study, Lee, Yeung, Tracey, and Barker (2015) suggested neither teacher training nor professional roles make significant differences in supporting teachers in managing student behavior in an inclusive classroom. This finding may provide additional support for the notion that teacher attitudes toward inclusion play a vital role in their effectiveness in working with students with ASD.

Implications of Findings

Achievement of the purpose of this quantitative study, which produced a description of teachers' perceptions of their preparedness for teaching students with ASD in their mainstream elementary classrooms, provides implications for practitioners. Most teachers considered themselves only moderately prepared for teaching students with ASD in their mainstream elementary classrooms. Thus an implication of the findings for teachers is that teachers should consider further training in identification and use of differentiated instructional strategies that emphasize rigor and relevance in areas of specific needs. In addition, Survey Items 3, 7, 11, 13, 14, 15, 30, 34, 40, and 41 had a mean preparedness rating of less than 4, approaching the *undecided* rating, which was less prepared than the *moderate* rating. An implication is that these teachers could consider further training in strategies that facilitate and align effective academic and

social-emotional services for students based on needs and training designed to improve classroom management skills.

Since most teachers considered themselves only moderately prepared for teaching students with ASD in their mainstream elementary classrooms, which was less prepared than the adequate level, an implication is that principals should provide the opportunity for teachers to attend professional development sessions related to inclusion. Teachers should have opportunities to engage in dialogue, practice new strategies, collaborate with peers, and receive follow-up to improve preparedness for teaching students with ASD in their mainstream elementary classrooms.

The study's findings have implications for directors of professional development, administrators overseeing preservice program curricula, and educational program directors at colleges or universities. These professionals could review findings of this study, including the demographic results, and encourage the offering of appropriate courses and professional development training to enhance professional growth in knowledge and skills for inclusive education. This audience should encourage state and local school districts to utilize research-based assessment tools toward providing the necessary support to educators to ensure student success.

Limitations of the Study

The study might have had threats to both internal and external validity. A potential threat to internal validity was selection bias. This threat might have involved teaching experience as a factor, as 30% of the participants had 16 or more years of teaching experience. This high percentage and resulting potential limitation relates to the study's theoretical framework, Bloom's taxonomy. The educational objectives of

Bloom's taxonomy indicate the conscious choices of educators are based on their previous educational experience and the acquisition of knowledge from those experiences (Bloom, 1956). Bloom (1956) further suggested that when a person gains knowledge, he or she gives evidence of that knowledge by recalling what was experienced during the educational process. With knowledge, a person will transform based on the amount of knowledge he or she has retained (Bloom, 1956). Relative to this study, the percentage of experienced participants might have been a limitation.

Another limitation of this study was that it was a study based on the convenience of using participants from neighboring schools. Even though much effort was made to include 60 participants from eight different schools, 85% of the participants came from one elementary school. This limitation relates to selection bias.

Another limitation that provided an internal threat to validity for the study was the instrument. The instrument used for the study had been used in previously published research. However, no formal statistical validity or reliability data were available for the instrument.

A limitation of the study and a threat to external validity was in the limited sample size. The small sample size, which included participants from eight schools in only one school district, with the majority of participants from only one school, might have limited generalizability and thus the validity of the research findings. Limited sample size may increase variability because the smaller size may increase discrepancies (Lenth, 2007). Therefore, the larger the sample size, the better results and therefore a truer representation of the data results (Lenth, 2007).

Future Research Directions

Future studies should incorporate a larger sample size. The larger sample size would improve the validity of the study and the generalizability. Another recommendation for future studies would be to expand the scope of the study to include the middle and high school levels. A comparison of the perceptions of middle and high school teachers with those of elementary school teachers would be interesting. Also, future studies may include qualitative data or the use of a mixed methods study. Future research also could be limited to novice teachers, those who have taught in an inclusion setting for less than 2 years. The perceptions of novice teachers may be different than the perceptions of more experienced teachers.

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Appendix
Survey Instrument

Figure 1. Scale of Knowledge and Skills for Instruction and Management of Students with ASD (continued)

Part II: Instructional Content and Practice

Directions: Please indicate your perceived level of "knowledge" and "skills" in the area of "Instructional Content and Practice" as related to students with ASD. Rate each item based on the scale below. Circle only one response per item.

Knowledge
 1 = No Knowledge
 2 = Limited Knowledge
 3 = Undecided
 4 = Moderate Knowledge
 5 = Adequate Knowledge

Skills
 1 = No Skills
 2 = Limited Skills
 3 = Undecided
 4 = Moderate Skills
 5 = Adequate Skills

Knowledge:	Response				
1. Learning styles					
a. differing learning styles of students	1	2	3	4	5
b. how to adapt teaching to these styles	1	2	3	4	5
2. Demands of various learning environments (e.g., individualized instruction in general education classes).	1	2	3	4	5
3. Curricula for the development of:					
a. cognitive skills	1	2	3	4	5
b. academic skills	1	2	3	4	5
c. social skills	1	2	3	4	5
4. Instructional and remedial:					
a. methods	1	2	3	4	5
b. techniques	1	2	3	4	5
c. curriculum materials	1	2	3	4	5
5. Techniques for modifying:					
a. instructional methods	1	2	3	4	5
b. instructional materials	1	2	3	4	5

Skills:	Response				
6. Interpreting and using assessment data for instructional planning.	1	2	3	4	5
7. Developing and/or selecting assessment measures and instructional programs and practices which respond to:					
a. cultural differences	1	2	3	4	5
b. linguistic differences	1	2	3	4	5
c. gender differences	1	2	3	4	5
8. Choosing and using appropriate technologies to accomplish instructional objectives and to integrate them appropriately into the instructional process.	1	2	3	4	5
9. Preparing appropriate lesson plans.	1	2	3	4	5
10. Involving the student in setting instructional goals and charting progress.	1	2	3	4	5

Figure 1. Scale of Knowledge and Skills for Instruction and Management of Students with ASD (continued)

11. Conducting and using task analysis.	1	2	3	4	5
12. Instructional strategies and materials:					
a. selecting instructional strategies and materials according to characteristics of the learner	1	2	3	4	5
b. adapting instructional strategies and materials according to characteristics of the learner	1	2	3	4	5
c. using instructional strategies and materials according to characteristics of the learner	1	2	3	4	5
13. Student learning objectives					
a. sequencing individualized student learning objectives	1	2	3	4	5
b. implementing individualized student learning objectives	1	2	3	4	5
c. evaluating individualized student learning objectives	1	2	3	4	5
14. Integrating the following skills with academic curricula:					
a. affective	1	2	3	4	5
b. social	1	2	3	4	5
15. Using strategies for facilitating maintenance and generalization of skills across learning environments.	1	2	3	4	5
16. Using instructional time properly (adequately).	1	2	3	4	5
17. Teaching students to use thinking, problem-solving, and other cognitive strategies to meet their individual needs.	1	2	3	4	5
18. Establishing and maintaining rapport with learner.	1	2	3	4	5
19. Using verbal and nonverbal communication techniques.	1	2	3	4	5
20. Conducting self-evaluation of instruction.	1	2	3	4	5

Part III: Planning and Managing the Teaching and Learning Environment

Directions: Please indicate your perceived level of "knowledge" and "skills" in the area of "Planning and Management of the Teaching and Learning Environment" as related to students with ASD. Rate each item based on the scale below. Circle only one response per item.

Knowledge

- 1 = No Knowledge
- 2 = Limited Knowledge
- 3 = Undecided
- 4 = Moderate Knowledge
- 5 = Adequate Knowledge

Skills

- 1 = No Skills
- 2 = Limited Skills
- 3 = Undecided
- 4 = Moderate Skills
- 5 = Adequate Skills

Knowledge:	Response				
21. Basic classroom management for students with exceptional learning needs in terms of:					
a. theories	1	2	3	4	5
b. methods	1	2	3	4	5
c. techniques	1	2	3	4	5

Figure 1. Scale of Knowledge and Skills for Instruction and Management of Students with ASD (continued)

22. Research based best practices for effective management of teaching and learning.	1	2	3	4	5
23. Ways in which technology can assist with planning and managing the teaching and learning environment.	1	2	3	4	5

Skills:	Response				
24. Creating a safe, positive, and supporting learning environment in which diversities are valued.	1	2	3	4	5
25. Using strategies and techniques for facilitating the functional integration of exceptional individuals in various settings.	1	2	3	4	5
26. Preparing and organizing materials in order to implement daily lesson plans.	1	2	3	4	5
27. Incorporating evaluation, planning, and management procedures which match learner needs with the instructional environment.	1	2	3	4	5
28. Designing a learning environment that encourages active participation by learners in a variety of individual and group learning activities.	1	2	3	4	5
29. Designing, structuring, and managing daily classroom routines, including transition time, effectively for:					
a. students	1	2	3	4	5
b. other staff	1	2	3	4	5
c. the general classroom	1	2	3	4	5
30. Directing the activities of a classroom:					
a. paraprofessional	1	2	3	4	5
b. aide	1	2	3	4	5
c. peer tutor	1	2	3	4	5

Part IV: Managing Student Behavior and Social Interaction Skills

Directions: Please indicate your perceived level of "knowledge" and "skills" in the area of "Managing Student Behavior and Social Interaction Skills" as related to students with ASD. Rate each item based on the scale below. Circle only one response per item.

Knowledge

- 1 = No Knowledge
- 2 = Limited Knowledge
- 3 = Undecided
- 4 = Moderate Knowledge
- 5 = Adequate Knowledge

Skills

- 1 = No Skills
- 2 = Limited Skills
- 3 = Undecided
- 4 = Moderate Skills
- 5 = Adequate Skills

Knowledge:	Response				
31. Applicable laws, rules, and regulations, and procedural safeguards regarding the planning and implementation of management of student behaviors.	1	2	3	4	5
32. Ethical considerations inherent in classroom behavior management.	1	2	3	4	5

Figure 1. Scale of Knowledge and Skills for Instruction and Management of Students with ASD (continued)

33. Teacher attitudes and behaviors that:					
a. positively influence student behavior	1	2	3	4	5
b. negatively influence student behavior	1	2	3	4	5
34. Social skills needed for:					
a. educational environments	1	2	3	4	5
b. functional living environments	1	2	3	4	5
35. Effective instruction in the development of social skills.	1	2	3	4	5

Skills:	Response				
36. Demonstrating a variety of effective behavior management techniques appropriate for the needs of exceptional individuals	1	2	3	4	5
37. Implementing the least intensive intervention consistent with the needs of the exceptional individual.	1	2	3	4	5
38. Modifying the learning environment (schedule and physical arrangement) to manage inappropriate behaviors.	1	2	3	4	5
39. Identifying realistic expectations for:					
a. personal behavior in various settings	1	2	3	4	5
b. social behavior in various settings	1	2	3	4	5
40. Integrating social skills into the curriculum	1	2	3	4	5
41. Using effective teaching procedures in social skills instruction	1	2	3	4	5
42. Demonstrating procedures to increase:					
a. student self-awareness	1	2	3	4	5
b. student self-control	1	2	3	4	5
c. student self-reliance	1	2	3	4	5
d. student self-esteem	1	2	3	4	5

43. What kind of teacher do you perceive yourself to be?
 General Education Inclusion Teacher General Education Non-Inclusion Teacher

44. How would you describe your classroom setting?
 General Education Setting Full Inclusion Setting Inclusion setting

45. Overall, how would you rate your knowledge and skills for teaching students with ASD | ?
 Excellent Good Fair Insufficient

Comments: _____

Note. From "A Tool to Encourage: "Best Practice in Full Inclusion," by V. I. Daniels & S. Vaughn, 1999, *Teaching Exceptional Children*, 31(5), 48-55. © Sage. Reprinted with permission.