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The Effects of Teacher Self-Efficacy with the Inclusion of Students with Autism in General Education Classrooms

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LOYOLA UNIVERSITY CHICAGO

THE EFFECTS OF TEACHER SELF-EFFICACY WITH THE INCLUSION OF
STUDENTS WITH AUTISM IN GENERAL EDUCATION CLASSROOMS

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL OF EDUCATION
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF EDUCATION

PROGRAM IN CURRICULUM AND INSTRUCTION

BY

TEKITA Q. GORDON

CHICAGO, ILLINOIS

DECEMBER 2017

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I want to thank my Lord and Savior Jesus Christ; through him all things are possible (2 Corinthians 4:7-10). My family for their unwavering love, encouragement, and support throughout my educational journey. My great grandmother “Momma Lizzie” whose dream was for me to get an education. Momma Betty whose greatest desire was for me to finish this journey. My father whose love has given me the foundation I needed to soar. My mother who continues to go above and beyond to help my son and I. My brother and sisters, knowing you were watching me kept me moving forward. My friends, who are like family that never allowed me to give up. Tia S. Broussard, thank you for editing my papers, helping me explain my thoughts, and walking through this season with me. Each of you has given me the strength to believe in myself and infinite possibilities.

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burns the fire inside my soul. You are everything that is good and perfect. I finished this dissertation because of you. Ru, I love you more than anything in the world!

DEDICATION

I dedicate this dissertation to my son,

Sherman Gordon Jr.

My light in a season of darkness.

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ABSTRACT

Autism spectrum disorder (ASD) continues to rise at an astonishing rate. As many schools attempt to create an inclusive environment that is conducive for students with autism's academic success, it is important that we recognize the teacher's role in creating an inclusive classroom. Teachers with high self-efficacy have a positive impact on student achievement. Therefore, this qualitative study explores the effects of a teacher's self-efficacy with the inclusion of students with autism in a general education classroom.

Eleven general education teachers were interviewed in order to gain insight into their experience and perceptions on the inclusion of students with autism. The questions asked required participants to reflect on their beliefs, training, and the practices implemented within their classroom while teaching students with autism. The collected data was audio recorded and transcribed, then analyzed using a software analysis program. The results showed a positive correlation between teacher self-efficacy and the importance of knowledge and positive experiences teaching students with autism. The findings in this study support the need for continued in-service and preservice training that will allow educators to be prepared to teach students with autism in general education classrooms. It also provides evidence of the change that needs to occur in teacher preparation programs that would allow novice teachers to have the foundation of knowledge and experience in inclusion that will allow them to be successful practitioners.

It also acknowledges the importance of on-going training that teachers will need while educating diverse learners.

CHAPTER I

INTRODUCTION TO THE STUDY

Background

John Dewey and Albion Small considered learning to be an activity deriving from how one deals with the personal problems that arise within one's life (1897). In, *My Pedagogic Creed*, Dewey made it clear, however, that the traditional education of his time varied from his theory of learning (Guthrie & Davis, 2003). Dewey and Small (1897) described an educational system that inhibited students from developing profound relationships that supported their moral education and provided them with the tools to work and acquire knowledge from each other. The reader cannot be certain that Dewey and Small (1897) referred to students with special needs within his description; however, it is obvious he believed that all citizens should be exposed to the type of educational system he purported. In the article, Dewey and Small stated:

I believe that the individual who is to be educated is a social individual and that society is an organic union of individuals. If we eliminate the social factor from the child we are left only with an abstraction; if we eliminate the individual factor from society, we are left only with an inert and lifeless mass. (p. 262)

Historically, special education and general education have always functioned independently (Simpson, de Boer-Ott, & Smith-Myles, 2003). Before the 1960s, many students with special needs were excluded from education because of their lack of ability

and the resources they required (Greene, 2007). However, today there exists a prevalent shift in the inclusion of children with disabilities in neighborhood schools. Despite this global modification in education, current trends in research literature provide inconsistent evidence to the effectiveness of the inclusion of children with special needs in general education classrooms (Simpson et al., 2003). Lundeen and Lundeen (1993) analyzed a study of a group of students mainstreamed in a high school that implemented *collaborative teaching*. Initially, when students with special needs were placed in a Collaborative Teaching Program, there was not a significant difference in the grades given to those students or their nondisabled counterparts. However, several years later, those students' grades were considerably lower than when the study originated. Goldstein, Moss, and Jordan's (1965) study concluded that within the ideal special education class, students learned less reading than when placed in a general education classroom. This idea was confirmed by the classic review of literature conducted by Dunn (1968) that established that students with mild mental handicap made as much progress in general education classrooms as they did in segregated settings. Jordan, Schwartz, and McGhie-Richmond's (2009) findings suggest that successful inclusion depends upon effective teachers. These researchers found that providing students with a superior instruction ultimately engaged students with and without special needs in their learning processes—which aids in meeting the instructional needs of students.

Inclusion is not a special education issue; it is an education issue (Flynn, 1999). The goal of public education involves preparing students for adult roles in society. Schools must foster a variety of academic, vocational, social, and citizenship skills in

preparing students to becoming active participants in their communities. Therefore, exclusion of the special needs population does not afford all students with the opportunity to participate in their communities (Sobsey, Ray, & Raymond, 1999). Inclusive education seeks to construct unity amongst differences (Flynn, 1999). Inclusion strives to foster relationships between students with special needs and students who are not disabled. It also pursues to develop students' natural curiosities and increases their critical thinking skills by exposing them to a curriculum based on their needs and experience. Inclusive education provides students with the experiences that allow them to gain a better understanding of how people are connected for the greater good of society (Flynn, 1999). As education seeks to provide students with the acquisition of skills, the recent rise in the diagnosis of children with autism in the United States may have made these efforts more challenging. Researchers are gaining a better understanding of the genetic components of autism, which affects 1 out of 68 children (Centers for Disease Control and Prevention; CDC, 2014). Autism is a disorder that influences a child's learning behaviors—particularly in the area of communication. Understanding these behaviors can oftentimes be overwhelming for general education teachers not adequately trained to educate this population; this lack of training may impact their willingness to accept the responsibilities that come with educating these students. On the other hand, awareness and appropriate training may positively affect the teacher's perception of the inclusion of these students (Friedlander, 2009). The need for training may be important for a teacher of students with disabilities—including those with autism. Although there have been several treatment studies, these projects have not established documentation of the effectiveness of these

programs. In spite of the abundance of research completed on the treatment and education of this population, a great deal of the information gained has not been integrated into the educational decision-making and policies of many states. Despite the rise in prevalence, educational systems strive to assist students in the development of personal responsibility (National Research Council, 2001).

Many teachers have found it difficult to implement inclusion within their classrooms. One reason for this may be that teacher self-efficacy may impact their ability to support these students (Hoy & Spero, 2005). Bandura (1977) defined self-efficacy as a person's belief in their ability to produce and influence events that affect their lives. Self-efficacy may be an alterable factor, which can be affected for better or worse for teachers. In Hoy and Spero's (2005) longitudinal study, prospective and novice teachers revealed a pattern and change, over time, of self-efficacy. Within this research, most of the participants' self-efficacy rose during student teaching and the beginning of their careers, but soon decreased with their experiences as a teacher.

Macmillan and Meyer (2006) found that teachers must feel adequate in their instructional decision-making. To gain that confidence, teachers must have a strong sense of self-efficacy. Teachers do not always feel self-efficacy—as noted by their feelings of inadequacy. Macmillan and Meyer discovered that many teachers divided their feelings of inadequacy into two types of guilt: omission and commission. Guilt by commission is defined as teaching while knowing the needs of all learners were not met. Guilt by omission is felt when the teacher lacks the resources and skills or knowledge required to contribute to the student's success. Macmillan and Meyer described a teacher's guilt as

their inability to meet standards set for them professionally and personally. The researchers discovered that teachers' feelings of guilt often led them to question their practice, effectiveness, and profession—thereby leading many educators to seek ways to ease these feelings by searching for solutions. Teachers utilized negative and positive methods to alleviate these feelings of inadequacy; some teachers became proactive in meeting the needs of their students while others began to regress. The latter of the two prove to be more detrimental to the successful implementation of inclusion (Macmillan & Meyer, 2006).

Understanding and addressing teacher's self-efficacy represents an essential element for the inclusion of children with autism in general education classrooms (Whalen, 2009). Self-efficacy affects teachers' abilities to provide modifications and accommodations, and to support their students. By exploring teachers' self-efficacy toward the inclusion of children with autism in general education, policy makers may be able to provide teachers with pathways that will ultimately benefit all learners (Macmillan & Meyer, 2006).

Despite the effects of self-efficacy toward the inclusion of students with autism, few studies have addressed the role of teachers' self-efficacy and their willingness and ability to provide adaptations for students with autism. As stated, self-efficacy may be a necessary component to support the successful implementation of inclusion. Simpson et al. (2003) discovered five required major areas in implementing successful inclusion: modifications, instructional methods, commitment, recurrent evaluation, and support in a variety of areas. Research must be conducted that develops further understanding of self-

efficacy relating to the willingness of teachers to provide supports for students with autism in the general education classroom.

Conceptual Underpinnings

Special Education

Before the Civil Rights movement of the 1950s and 1960s, the policies of education were exclusionary toward most students with disabilities. During this time, the federal government placed education largely in the hands of the states, which openly practiced segregated activities (Hardman & Dawson, 2008). Only one in five students with disabilities were educated while 1.5 million were excluded from public schools (Greene, 2007). These exclusionary practices were based on race, gender, and ability of the student. These practices also allowed many schools an opportunity to develop an isolated curriculum, which only benefited able learners (Hardman & Dawson, 2008).

The disproportionate representation of students with special needs in public schools was directly linked to the overwhelming financial burden upon the schools' revenues. The schools' finances were dependent upon the funding brought in by general education students. Students with special needs were expensive to service and often times did not generate the additional funds for school (Hardman & Dawson, 2008). The National Center for Education Statistics (2010) concluded that the average cost per pupil in 1969 was \$879. Upon researching the estimated cost of special education during 1969, researchers found that the cost for students with special needs, as compared to general education students, was 1.92:1 (Chambers, Pérez, Harr, & Shkolnik, 2005). Therefore, many districts were fearful that meeting the needs of the special education

population would increase the education cost, as well as the number of students with disabilities enrolled in school (Hardman & Dawson, 2008). As early as the 1800s, many debates around students with special needs centered on several core questions. For example, a discussion on special education brought about inquiries regarding who is considered disabled and who is responsible for planning and implementing these students' education (Osgood, 2005).

Inclusion

After the Civil Rights movement, the inclusion of students with special needs continued to be a controversial topic; however, many strides were made toward the issue (Sautner, 2008). During the early 1960s, the United States public schools were plagued with economic and social inequalities. In 1966, President Lyndon Johnson supported the Elementary and Secondary Education Act (ESEA, Public Law 89-10). The law supported the education of students with disabilities and continued support for research in special education (Osgood, 2005). For the next several years, there was responsiveness to the rights of people with disabilities. However, The Rehabilitation Act of 1973 has and continues to influence the lives of people with disabilities (Woods, 2002). Also, known as Public Law (PL) 93-112, the act affirmed that no person could be excluded or denied participation for any activity or program. In 1975, the U.S. Congress solidified the federal government's stance on educating students with special needs by creating the Education for All Handicapped Children Act (EAHCA; PL-94-142). The act focused on ensuring access to education for the disabled (Woods, 2002).

By the early 1980s, mainstreaming—referring to the acceptance of students with mild disabilities being placed within a general education classroom—was widely accepted. In the late 1980s to the early 1990s, the number of children with disabilities accepted into neighborhood schools increased (Hardman & Dawson, 2008). However, in the Analyzing Report to Congress, McLeskey and Pacchiano (1994) contended that very little progress had occurred in the education of students with special needs during those years. In fact, the researchers found evidence that students with disabilities were still spending a significant amount of their day in restricted classrooms. Therefore, Stainback and Stainback (1984) were met with a significant amount of opposition when they proposed the integration of special education in their article, *A Rationale for the Merger of Special and Regular Education* (Osgood, 2005). The article brought awareness to the continued need for school reform. The Regular Education Initiative (REI) was formed in an effort to move toward a more complete integration of students with disabilities. The REI was the answer to the call for a more shared responsibility of educating students with disabilities. The initiative sought to include students who were typically excluded from mainstream classes. The integration of students with special needs required an increase in specialized personnel (Osgood, 2005). In addition, there was a concern about the adverse effect it may have on the other students because of the amount of time the teacher needed to devote to students with disabilities (Wood, 2004).

In 1990, the EAHCA was reauthorized as the Individuals with Disabilities in Education Act (IDEA), designed to increase access to programs and services for students with disabilities. The IDEA contends that all students, regardless of disability, were

entitled to a free and appropriate education in their least restrictive environment (Burke & Sutherland, 2004). It was during the 1990s that the integration of students with special needs was referred to as inclusion. For the next several years, schools attempted to implement inclusion but were unsure of how to meet the needs of these students. In 1997, the amendments made to IDEA clarified the school's role in educating these students in general education classrooms. It also allowed states and local agencies to use the term *developmental delay* for children aged 3 to 9. Developmental delay was used at the discretion of the state if the child experienced a developmental delay in one of the following areas: physical, cognitive, communication, social or emotion development, or adaptive development. The amendments acknowledge disabilities such as autism—considered a developmental disability due to its effect on a child's verbal and nonverbal communication. Although IDEA acknowledges the government's efforts to place students in their least restrictive environment, the multiplicity of disorders within special education made this a challenging undertaking (Burke & Sutherland, 2004). Woods (2004) identified three different levels of inclusion ranging from limited to full inclusion. Each level varied depending upon the modifications, scheduling coordination, and collaboration required to implement the program.

Autism

By 1997, the Americans with Disabilities report discovered 52.6 million people with disabilities (www.census.gov/prod/2001pubs/p70-73.pdf). In 2014, the CDC noted a rise in the number of children diagnosed with autism. They estimated that 1 in 68 children were diagnosed with autism. In addition to the large increase of students with

autism entering into the school system, the disorder varied in degrees of impairment, symptoms, and characteristics across three related disorders—autism, Asperger syndrome, and pervasive developmental disorders—thereby making it challenging to establish a set of effective strategies (Whalen, 2009). Current research uses the symptoms to assist with the knowledge needed to develop educational treatment. These treatments are based on three theories—explained by the common symptoms of autism. The first theory, the cognitive theory, is based on the brain malfunction that many children with autism display. These students are often over stimulated by audio or visual stimuli and often withdraw due to difficulties in processing the situation. Students are provided with visual cues that allow them to communicate with people in appropriate ways. The second theory is based on a developmental explanation, which suggests that the brain malfunctions limit the progress of the child’s social, language, cognitive, and motor domains. The treatment for this theory focuses on simulating sequenced experiences, which allow the child the repetition needed to develop communication. The third theory is a behavioral explanation, which posits that the neurological impairment impedes on the child’s normal learning and has ensued in severe behavioral deficits and behavioral excesses. The treatment for this theory is based on the applied behavioral analysis (ABA), which assumes that defective learning can be corrected with direct instruction of the appropriate behavior techniques (Scheuermann & Webber, 2002).

The No Child Left Behind Act (NCLB) held stakeholders such as states, school districts, teachers, and the community accountable for the academic performance of students. The act forced educators to develop meaningful scientific-based practices for

students; it also questioned the instructional decision making of teachers who taught students who were academically unsuccessful (Yell, Drasgow, & Lowrey, 2005).

As education strategies continue to change, so does the population it serves. Although autism was not identified as a disorder until the early 1940s, evidence of the condition was recognized as early as 1867 (Gupta, 2003). In 1911, Bleuler described self-preoccupation due to poor social skills as schizophrenia. Several years later, Kanner (1943) used this description to describe a group of children who lacked social skills and were infatuated with meaningless facts. In 1944, Asperger described a condition similar to Kanner's; however, he remarked on the children's odd gaze (cited from Gupta, 2003). For several years, Kanner and Asperger's use of the term autism were combined with the recent discovery of schizophrenia (cited from Gupta, 2003). However, in the late 1960s, Ornitz and Ritvo clarified the description of autism as a disorder with a specific constellation of symptoms (cited from Gupta, 2003). In 1968, the National Society for Children and Adults with Autism's advisory board defined autism as the following:

A behavioral disorder that manifested before the age of 30 months and involved disturbances of developmental rate/sequence, response to stimuli, speech and cognitive capacities and relating to people, events, and objectives. (Gupta, 2003, p. 242)

Creating a new category of pervasive developmental disorder (PDDs) eliminated the confusion between autism and schizophrenia and acknowledged all of the domains affected by autism (Gupta, 2003).

Students with autism have unique needs depending upon the child (Whalen, 2009). A surge is evident in the number of children with autism being diagnosed with autistic syndrome disorder (ASD); therefore, the number of these students in public schools has also increased (Whalen, 2009). In addition, a rise has occurred in the number of students with ASD recommended to be supported in inclusive settings (United States Department of Education, 2011). Teachers and related service professionals are challenged to meet the needs of these diverse learners. Yet, researchers have acknowledged that the inclusion of these learners must be carefully orchestrated in order to be successful (Simpson et al., 2003). Attempting to implement efficacious inclusion of students with autism may relate to the teacher's belief that he or she can affect the student's learning (Viel-Ruma, Houchins, Jolivette, & Benson, 2010). One of these components may be self-efficacy.

Self-Efficacy

The research on self-efficacy has been pioneered by two researchers. In 1966, Rotter developed a social learning theory based on the idea that people's willingness to engage in an activity is effected by the impact of the expected outcome (Henson, 2001). Bandura built a framework for self-efficacy based on the social cognitive theory. Social cognition was originally constructed around the belief that humans' thoughts and actions influence an individual's motivation, affect, and behaviors. In 1977, Bandura expounded upon this view in his article, *Self-Efficacy: Toward a Unifying Theory of Behavioral Change*. Within the article, Bandura (1977) defined self-efficacy as one's belief in his or her capabilities to implement a certain course of action to achieve certain

accomplishments (Henson, 2001). Bandura (1977) believed that self-efficacy influenced one's determination and endurance during adversity and was a powerful predictor of an individual's behavior.

Historically, researchers have struggled to interpret and measure self-efficacy within the theoretical formulation established by Rotter and Bandura (cited in Henson, 2001). However, Woolfolk and Hoy (1990) studied a comprehensive review of developments based on this theory and discovered that minimal findings existed supporting a correlation between characteristics of a teacher and students' learning. However, the results acknowledged the association between teacher's self-efficacy and student achievement. Moore and Esselman's (1992) results concluded that teacher efficacy was a strong predictor on the state achievement test. Yet, current concerns on the meaning and appropriate way to measure self-efficacy affected the study and validity of the topic (Tschannen-Moran, Hoy, & Hoy, 1998).

Statement of the Problem

IDEA

The least restrictive environment (LRE) provision in IDEA mandates that students are provided with access to make academic gains within a general education classroom. Although this directive has been met with mixed levels of support, various research has been conducted on the inclusion of students with disabilities in general education classrooms (McLeskey, Hoppey, Williamson, & Rentz, 2004). For example, Madden and Slavin (1983) piloted a comprehensive review of literature and concluded there were social and academic benefits to inclusion programs. On the other hand, Zigler and

Hodapp's (1986) findings did not provide evidence of the effectiveness of the inclusion of children with disabilities in general education classrooms. Despite these conflicting results, many states are developing inclusive programs to accommodate students with special needs.

Rise in Prevalence

As states attempt to adapt to the academic needs of all students, there has been a rise in the number of school-age children identified with autism (Scheuermann & Webber, 2002). The CDC (2014) concluded that an average of 1 in 68 children in the United States have ASD. However, a 2014 study conducted by the federal government (in the same year as the CDC's conclusions) surveyed parents and found 1 in 45 children identified as having ASD. Researchers concluded this overall increase was due to early diagnosis—accounting for a large number of nonschool age children. The statistics vary; therefore, gaining an accurate number of people living with autism is somewhat difficult (CDC, 2014). Autism spectrum disorder continues to be a perplexing disorder for many with a great deal of unanswered questions. Many causes of autism have been proposed over the last several decades as researchers continue searching for new and innovative ways to meet the needs of these mystifying individuals (Whalen, 2009).

Inclusion of Children with Autism

Educators face a number of challenges as they seek to educate this unique population of students. Students with autism do not look, act, converse, or acquire knowledge in the same manner as other students (Kluth, 2003). Skilled and experienced educators often feel unqualified to teach these students (Simpson et al., 2003).

Unfortunately, many inclusive programs lack the protocol and guidelines needed to facilitate effective placement for these students. There is a lack in research, which seeks to identify the components of an effective inclusion program for students with autism (Simpson et al., 2003).

Teacher Self-Efficacy

A significant amount of research focuses on teachers' attitudes toward the inclusion of students with disabilities. In fact, researchers have concluded that ultimately, the teacher's attitude toward inclusion and a student's learning ability affects the learning environment of the student (Van Reusen, Shoho, & Barker, 2000). Yet, there is not enough research on how teachers' self-efficacy is affected by or affects the inclusion of children with autism in general education classrooms. Understanding teachers' self-efficacy about the inclusion of students with autism may help researchers examine how to address a teacher's morale, which is connected to a student's learning (Macmillan & Meyer, 2006).

Purpose of the Study

This study is designed to understand the relationship between teachers' experiences in supporting students with autism, self-efficacy, and teachers' views of the inclusion of these students. The researcher of this paper hypothesizes that if teachers have undergone a positive experience in their preparation and current work environment while working with children with autism, it will ultimately affect their self-efficacy and their view on the implementation of inclusion within their classrooms. The acknowledgement of teachers' self-efficacy may contribute to determining the

factors that may enhance the preservice and in-service training of educators who service students with autism in general education classrooms.

Research Questions

The following questions relate to the proposed study:

1. How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their preservice training?
2. How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their in-service training?
3. Does a teacher's self-efficacy toward the inclusion of students with autism effect the practices he or she implements within the classroom?
4. What current experiences with students with autism either facilitate or create barriers toward teachers' views regarding the inclusion of children with autism in general education classrooms?

Hypotheses

The following hypotheses were addressed in this study:

1. Teachers' self-efficacy toward the inclusion of children with autism in general education classrooms is related to their preservice training.
2. Teachers' self-efficacy toward the inclusion of children with autism in general education classrooms is related to their in-service training.
3. Teachers' self-efficacy toward the inclusion of students with autism affects practices implemented within their classroom.

4. Teachers' current experiences with students with autism are related to the teacher's view of the inclusion of children with autism in general education classrooms.

Limitations

This study was conducted in a Catholic elementary school with a small number of general education teachers that may not broadly generalize to the values or discernments of other school settings. Therefore, a critical case sampling was used in order to have the greatest impact on the development of knowledge by using the information gained (Patton, 2001). The researcher used maximum variation to select participants in three groups of teaching ranges: 1-3, 4-6, and 7 or more. School staff consisted of 18 teachers, thereby limiting the external anonymity of the participants. The study was further limited to a sampling of teachers within the school who have experiences providing educational services to a child with autism in an inclusive setting. To add these barriers, the researcher thickly describes the school setting to increase transferability of the findings to other settings.

Assumptions

The researcher of this study makes several assumptions. First, the belief that all participants will or have taught students with autism in a general education classroom. The teachers may not currently be servicing students with autism; however, each will have had an experience working with them in an inclusive setting during the course of their career. This represents a necessary assumption the researcher made in order to draw from the teachers' knowledge and experiences.

In addition, the researcher assumes that each teacher will be open and honest when giving their answers during the interview. Oftentimes, when dealing with mental disabilities, many people want to give the politically correct answer to appear to be a good person (Merriam, 1998). It is important that the data collected reflect the respondent's honest views and opinions regarding the inclusion of children with autism in general education classrooms.

Simpson et al. (2001) identified a large number of studies focused on general education teachers' attitudes toward mainstreaming; however, a very limited amount of research exists on how a teacher's self-efficacy is affected by the inclusion of students with autism. Due to the deficiency in this area of research, a limited number of resources were available that specifically analyzed this area of research.

Design Control

The research site is located on the West Side of town of a Midwestern state. The research involves a small Catholic elementary school serving students with special needs and their nondisabled counterparts. The school educates 375 students ranging from Grades PreK-8. To assist with providing students with an education in their LRE, the school hired a consulting business to assist with providing students the needed support services. Students within the school are in an integrated program, which allows them to participate in academic and extracurricular activities together.

Although the school is small, it represents a staple within the community. Oftentimes, staff have taught the *parents* of the children currently in their classrooms. Also, the school has several faculty members' family members who went to the school.

This connection within the community has created a culture of empathy for the students and families the school serves. The mission of the school involves developing students' moral character by creating a cohesive school unity that allow students to make a positive impact on their family, school, and community.

Definition of Key Terms

The following terms are defined for the purposes of this study:

Autism: The term *autism* refers to a group of disorders that appear early in a child's life. These disorders include severe impairments in social interaction, communication, abstract thoughts, and rigid repetitive behaviors. These ailments must emerge within the child before age 3 to be considered autism (Thackery & Harris, 2003).

Asperger's Disorder: Asperger's disorder, also known as Asperger's syndrome (AS) or autistic psychopathy, fits within a group of childhood disorders known as pervasive developmental disorders (PDDs) or ASD. Individuals with Asperger's disorder have an impaired reciprocal social interaction and restricted, repetitive patterns of behavior and activities (Thackery & Harris, 2003). Pervasive developmental disorder may not appear in children by age 3 (Spencer & Simpson, 2009).

Pervasive Developmental Disorders (PDD): A group of disorders that impacts physical, cognitive, social, and the language development of a child (Thackery & Harris, 2003).

Autism Spectrum Disorder (ASD): Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following (currently or by history):

1. Deficits in social-emotional reciprocity; reciprocity ranging, for example, from an abnormal social approach and failure of normal back and forth conversation to reduced sharing of interests, emotions, or affect to failure to initiate or respond to social interactions.
2. Deficits in nonverbal communicative behaviors used for social interaction ranging, for example, from poorly integrated verbal and nonverbal communication to abnormalities in eye contact and body language or deficits in understanding and using gestures to a total lack of facial expressions and nonverbal communication.
3. Deficits in developing, maintaining, and understanding relationships ranging, for example, from difficulties adjusting behavior to suit various social context to difficulties in sharing imaginative play or in making friends to absence of interest in peers (The Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition; DSM-5).

Individuals with Disabilities Education Act (IDEA): A law that mandates *a free appropriate public education* for all children with disabilities that require special education services (Guthrie & Davis, 2003).

Education for All Handicapped Children Act (EAHCA; PL. 94-142): A law enacted for the education of children with disabilities needing special education and related services (Guthrie & Davis, 2003).

Inclusion: A program allowing all students—despite disability, ability level, or services needed—to be educated with nondisabled students in a general education classroom in their neighborhood school (Guthrie & Davis, 2003).

General Education: A setting where students receive special or related services outside of the general education classroom for less than 21% of the instructional day (McLeskey et al., 2004).

Years of Teaching Experience: Teaching experience is defined as the number of years in which one teaches academics in a private, state, or public supported school system (Department of Education, 2006).

Preservice Training: Preservice training refers to the education provided by an accredited institution that prepares teachers with the knowledge and skills required to perform effectively in a classroom (Albee, 2003; Albion, 2001; Anderson & Maninger, 2007).

In-service Training: In-service training is defined as the preparation teachers receive while employed as a teacher to enhance effectiveness within an educational setting (Hargreaves, 1995; Lieberman, 1995; Lieberman & Miller, 1990).

Self-efficacy: Self-efficacy is, according to Bandura (1977), concerned with people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave. Such beliefs produce these diverse effects through four major processes: cognitive, motivational, affective, and selection processes (p. 82).

Summary

Chapter I provides the reader with the foundations needed to understand the importance of this study. This section intended to expose how the self-efficacy of teachers is affected by the inclusion of students with autism in their classrooms. Chapter II analyzes the pertinent literature, which encloses the topic. Chapter III describes the design of the study; it provides an explanation of the use of qualitative method and the demographic survey. Chapter IV presents the analysis of the data retrieved from the interviews and survey; it also examines the instrument developed to gather data. Chapter V evaluates the study findings and conclusions to offer further recommendations for research.

CHAPTER II

LITERATURE REVIEW

Introduction

This study focuses on the effects of teacher efficacy toward the inclusion of students with autism spectrum disorder (ASD). This chapter addresses three major areas: inclusion, teacher efficacy, and ASD. Although there was a limited amount of literature exhibiting all three areas discussed within this review together, additional studies were included that parallel the research questions.

A review of existing research on inclusion was conducted to understand how teachers deal with the current shift within education. Several studies helped identify the advantages and limitations of teachers implementing inclusion. In addition, a review was conducted on the teacher preparation programs and current professional development of educators to gain a better perspective on how educators are being trained for today's classroom. Further, teacher efficacy was examined to determine how teachers perceived the abilities to meet the needs of various learners. Finally, research on ASD was analyzed to study a prevalent group whose presence is increasing within the general education classroom.

Definition of Inclusion

The definition of inclusion is one that varies in meaning and usage (Osgood, 2005). It is a definition that differs among schools, districts, researchers, and advocacy

groups. While some view inclusion as an idea of which to aspire to, others view inclusion as a pragmatic policy (DeMatthews & Mawhinney, 2014). Woods (2002) defined inclusion as the placement of students with special needs in general education classrooms. Woods described inclusion as the commitment to providing services, when appropriate, for students with special needs within the classroom that the child would have been in if they did not have a disability. Katzman (2007) defined inclusion as “an educational philosophy that calls for schools to educate all learners-including students with disabilities and other special needs-together in high quality, age appropriate general education classrooms in their neighborhood school” (p. 129).

Udvari-Solner and Kluth (1997) described inclusion as the following:

Inclusion as an inclusive school propels a critique of contemporary school culture and thus encourages practitioners to reinvent what can be and should be to realize more humane, just and democratic learning communities. Inequities in treatment and educational opportunity are brought to the forefront, thereby fostering attention to human rights, respect for difference and value of diversity. (p. 142)

Osgood (2005) described inclusion as an ideal that practitioners should aspire to, and yet one that is unobtainable in the real world. He stated that the term (inclusion) affects the policies and practices of special education while altering the overall structure of school systems across the country. Although inclusion has transformed special education and social justice work, no clear definition has been formed (DeMatthews & Mawhinney, 2013).

This study presents both aspects of the argument. For the purposes of this paper, inclusion is defined as a method used to aid students facing considerable difficulties in a general education classroom. It is a method focused on the right of a marginalized group of students giving way to an increase in flexible teaching styles and materials used to educate this population (Dyson, 2001). The concept of inclusion is complex, multidimensional, and challenging to characterize (Riehl, 2000; Salisbury, 2006).

Overview of History

Over the last several decades, the history of special education has had a multitude of terms and practices. Alan Dyson (2001) offers an optimistic view of the history of special education. His view allows educators and policy makers to look at the progress as consistent and uninterrupted. It allows people to look at the past as a time when things were not done correctly. However, consistent efforts have been made to improve special education. Special education began as a specialized program in a separate area from the general education classroom. The special education program was developed in response to schools' attempts at providing universal education for all students (Gerber, 1996). Johnson (1962) identified advantages in specialized teachers, low teacher-pupil ratio, and an emphasis on individualized instruction in separated classes. Researchers, such as Dunn (1968), questioned the validity of such placements suggested by Johnson (1962).

Dunn's (1968) article presented several reasons for change within the special education system. First, Dunn believed that homogeneous grouping was a disadvantage and often times, discriminatory for slow learners. Dunn also pointed to the efficacy issues with special classes. In 1962, Judge Skelly Wright, United States Court of Appeals for the

District of Columbia, suggested that tracking students was discrimination against low social economic groups and was a violation of those students Fifth Amendment of the Constitution of the United States. On the other hand, the results of Kirk's (1964) research found that students with special needs consistently made as much or more progress in general education classrooms.

There is a universal agreement that children who are mentally handicapped and enrolled in special classes achieve academically lower than their *same-age* peers. An argument could be made that children who are mentally handicapped, that has special trained teachers, more money spent on their education, and enrolled in classes with fewer students in a program designed to meet their unique needs, may have the ability to accomplish the objectives of their education at the same or lower level than those students with handicaps who have not been afforded with that opportunity.

Johnson (1962) also noted the significant progress being made within general education that benefited students within special needs. For instance, changes in school organization, curriculum, professional personnel, and technology were beneficial to students with disabilities. Mackie (1967) questioned whether these changes were being made within the school system in an effort to meet the needs of the so-called mentally challenged students. Dunn's (1968) article, *Special education for the mildly retarded: Is much of it justifiable?*, offered several suggestions to start the change needed within education at the time. Dunn's proposal called for a change in diagnostic procedures, curriculum, strategies, and training for school personnel. He was also in favor of a placement (e.g., less restrictive placement). Although Dunn's ideas for change lacked

empirical evidence that supported his argument, the article initiated a discussion of providing access to students with special needs to general education classrooms. The ideas presented in the article brought a shift in thinking for educators and focused on improving the programs in which students with special needs were enrolled (MacMillan & Semmel, 1977).

Dunn's (1968) article also parallels with the 1960s movement of antisegregation and questions history's previous *separate but equal* form of education. The Education of the Handicapped Act (EHA), now referred to as the Individuals with Disabilities Education Act (IDEA), mandated that students with disabilities be provided with an appropriate education designed to meet their needs in the least restrictive environment (LRE). The act also required that students with disabilities be educated to the maximum extent with their nondisabled counterparts (e.g., mainstreaming; Buckley, Bird, Sacks, & Archer, 2002). Although the act required that students with disabilities be educated to the maximum extent with their nondisabled counterparts, it was unclear on how those students should be taught (Kauffmann & Hallahan, 1995). Therefore, the resource room at most schools became a primary placement for many students with special needs (Forness & Kavale, 2001).

The term, *mainstreaming*, began to be used in the 1970s. Mainstreaming describes the educating of all students in the same classroom. Within this system, students with disabilities are held to the same standards as their nondisabled counterparts. Students with disabilities are often challenged more than they would be in a self-contained classroom,

while mainstreaming benefitted nondisabled students by encouraging diversity and empathy (Lawrence, 2014).

The Education for All Handicapped Children Act (EAHCA; PL. 94-142) required that American schools provide a free and appropriate public education to students with special needs. It required special educators and the school-related services for students with special needs to work toward developing and implementing a student's Individualized Education Plan (IEP). Welch (1998) contended that the collaboration requirement may have unintentionally fostered a separation of culture and roles within education. The separation eventually led to a school reform initiative in the 1980s known as REI (Regular Education Initiative). The reform called for educators to collaborate and provide services for students with special needs within general education classrooms (Dettmer, Thurston, Knackendofelle, & Dyck, 2009).

The proponents and opponents of REI based their arguments on several key areas. Proponents of REI contended that separating regular and special education classes infringed on students' civil rights (D'Alonzo & Boggs, 1990). Opponents such as Kauffman and Hallahan (1995) argued that separateness may be needed for an opportunity that may be directly linked to teaching and learning. Kauffman and Hallahan went on to employ that proponents of REI used the initiative as a civil rights issue to evoke emotional appeal. Proponents of REI also argued that a negative stigma was associated with the labeling of students. Stainback and Stainback (1987) insisted that labeling leads to the stereotyping of students. The Wang and Birch (1984) study concluded that when combined with the general education counterparts, students with special needs often

scored higher levels in social and cognitive functioning. Opponents contend that labeling is necessary in order to provide the appropriate services needed. Both proponents and opponents of REI agree that issues exist in federal funding. In addition, both parties identify that the system may encourage more labeling of students in efforts of receiving more funds.

Several of the areas mentioned within the act were the foundation for many special education reforms policies, mandates, and program development. In 1997, the EAHCA (PL. 94-142) was amended to IDEA, which revolutionized special education. The amendment sought to eliminate the exclusionary practices and ensure educational equity to children with disabilities (Kavale, 2002). After, a structural change occurred within special education. Eventually, mainstreaming evolved into inclusionary practices. Although both terms (mainstreaming and inclusion) aim to include students with disabilities in a general education setting, mainstreaming uses a variety of pull out services and resource rooms (cited in Paul & Ward, 1996).

Alan Dyson (2001) recognized the changes occurring within the special education structure and practices of special education. In addition, Dyson (2001) recognized that historically, special education had a turbulent past—typically bombarded with changes in terms, programs, structures, and practices. Remedial education, special classes, special schools, and integration differentiation have all gave way to the term, inclusive education (Dyson, 2001).

Teacher Attitudes Toward Inclusion

The attitudes of teachers toward the inclusion of students with disabilities is a topic of inclusion that is inconsistent. Shade and Stewart (cited in Kinch, Lewis-Palmer, Hagan-Burke, & Sugai, 2001) stated, “teachers may feel challenged, hopeful, and desirous of what can be accomplished, but they may also feel frustrated, burdened, fear, lack of support, and inadequate about their ability to teach children with different kinds of problems” (p. 37). Researchers have found that the most positive attitudes toward inclusion come from teachers who are well trained in educating students with disabilities (Jobe, Rust, & Brissie, 1996). Research has also found that most educators believed that all students with disabilities were within their right to receive an education in a general education classroom; however, these educators did not believe that these students possessed the academic skills needed to place them in the classroom. Dyson (2001) noted that the emphasis on participation in inclusion often led to discord amongst practical and theoretical rigidities when placed amid the stresses and pressures of being an educator.

Advantages of Inclusion

The inclusion of students with disabilities in general education has long been debated by scholars. The argument is one shrouded in conflicting research results. Advocates Stainback and Stainback (1992) deem inclusion as a means to provide students with disabilities with the social interactions that will benefit all learners. Banerji and Dailey (1995) found some positive outcomes in the increased tolerance of students with disabilities. Dyson (2001) suggested that social inclusion may also offer society with a new and positive way of dealing with the educational disadvantaged. However, the

research on peers' attitudes toward students with disabilities is not uniformly positive; some research suggest inclusion is harmful to all learners (Kauffman & Hallahan, 1995; Kauffman & Mock, 2002; Sailor & Roger, 2005). Dyson (2005) pointed to social integration as a way of the government creating a highly skilled workforce in society. He contends ensuring that no social group can become isolated from the mainstream if all learners are armed with the skills to become highly effective citizens within society.

Challenges of Inclusion

As stated before, the topic of inclusion is one that has conflicting research that not only supports the advantages of inclusion, but also acknowledges the challenges it has faced within education. Inclusion advocates, Stainback and Stainback (1991), viewed full inclusion as the solution to many of the problems experienced by special education. However, opponents perceive that some components of LRE lack knowledge of academic process and lack the awareness of the importance of student interaction (Kavale, 2002). In the late 1970s, researchers (Larrivee & Cook, 1979) acknowledged academic, administrative, and pedagogical concerns. Kavale (2002) found similar concerns in more recent research, which suggest that some educators felt uneasy about a student with disabilities being placed within their own classrooms. Some teachers were concerned about their readiness to teach students with disabilities.

Researchers have also found a disproportionate number of African Americans labeled in special education (DeMatthews & Mawhinney, 2014). The United States Department of Education (2008) identified African Americans 13.6% more likely to be labeled as intellectually challenged. They were also identified as the most likely to be

placed in a more restrictive environment. In addition, researchers DeMatthews and Mawhinney (2014) recognize that many school leaders will face issues with the availability of resources, teacher development, and legal mandates when attempting to implement an inclusive environment for all learners. However, emerging literature points to a rise in leadership, which focuses on initiating social justice by creating an environment that addresses the marginalization of students with disabilities.

Inclusion in Catholic Schools

In the late 1980s, the structure of Catholic schools began to evolve. Schools replaced the parish-based schools with a principal model of governance (Hamilton, 2008). The roles of priest, sisters, and brothers were replaced with staff that varied in their religious beliefs. The curriculum shifted from religious formation to one that included technology supports. These changes were made due to the financial crisis that forced the parish's financial support to be supplemented by tuition paid by parents. These changes also motivated Catholic schools to open their tuition base and accept more non-Catholic students (Hallinan & Kubitschek, 2010). The U.S. Department of Education Report estimated that over 13% of students in the United States require special education services (Aud, Wilkinson-Flicker, Kristapovich, Rathburn, Wang, & Zhang, 2013). Roughly, less than 1% of those students are enrolled in private or specialized schools. However, the United States Conference of Catholic Bishops (USCCB) stated that Catholic Schools service 7% of students who have been diagnosed with learning disabilities (Carlson, 2014). Carlson (2014) proposed the question of *how* and whether all children with disabilities can be served. The funding of special education is a major challenge of Catholic schools.

Although IDEA provides the use of federal, state, and local funding, tuition and funding would not fully fund special education (Scanlan, 2009). Moreau, Weaver, Adams, Landers, and Owen (2006) suggested that inclusion be used as a means to service students with disabilities in a cost-effective manner. Moreau et al. (2006) continued by suggesting that professional development be provided to educators that provided them with the ability to identify and understand the learning disabilities. This paradigm shift would also provide teachers with the confidence needed to service this population. Therefore, examining the inclusion of students with disabilities in general education classrooms represents a topic that both public and Catholic schools seek to gain a better understanding when educating students with special needs.

Teacher Preparation Programs

Over the last few decades, the practice of including students with special needs in general education classes has continued to rise. The United States Department of Education (2012) indicated that over 80% of students with disabilities enrolled in public schools are being educated in a general education classroom. As the practice of inclusion rises, so too does the demands on special and general education teachers (Van Laarhoven, Munk, Lynch, Bosma, & Rouse, 2007). The initial excitement of the inclusion has been overtaken by the long hours and slow progress of many inclusive programs (Burke & Sutherland, 2004). These demands have brought about a discussion on the structure and requirements of teacher preparation programs. Researchers have found that the attitudes of teachers toward the inclusion of students with special needs are crucial to the implementation of an inclusion program (Johnson, 2001). Despite this discovery

(Everhart, 2009), many preservice teachers expressed feelings of anxiety toward working with students with disabilities. However, researchers have noticed that teachers who received the most training on inclusion had the most positive attitudes toward the inclusion of students with special needs. Eisenberg, Cumberland, Spinrad, Fabes, Shepard, Reiser, Guthrie et al. (2001) assumed that ineffectively trained teachers may not implement effective strategies leading to a successful inclusive setting. Therefore, there exists an increase in the roles of teacher preparation programs, as these programs prepare educators to teach in inclusive settings (Van Laarhoven et al., 2007).

Researchers have called for the restructuring of teacher preparations due to the need to prepare preservice special and general educators to teach in an inclusive classroom (Van Laarhoven et al., 2007). Previously, most teacher preparation programs separated the general and special education preservice teachers. The separation of these two programs led to feelings of inadequacies among both groups. General education teacher programs often spent very little time focused on the knowledge needed to assist with teaching students with disabilities (Hsien, 2007). Arendale (2001) noted that when studying one of the approaches used by preservice general education teachers that the methodology used often perpetuated the students' feelings of inadequacies by focusing on the students' deficits. Focusing on these deficits often caused many general education teachers to feel like the skills and strategies learned in their teacher preparation programs were not helpful when dealing with students with special needs. These teachers often felt as if they needed better skills at adapting the curriculum in order to assist students with disabilities (Hedeen & Ayres, 2002). Winn and Blanton (2005) found that students in the

special needs teacher programs spent a great deal of time learning to accommodate exceptional learners, but very little time focusing on general curriculum.

Current literature points to modifications in teacher preparation programs and their curriculums, which would allow candidates to feel more confident in their ability to work with students with disabilities (Everhart, 2009). The literature suggested several different programmatic changes to assist with meeting the needs of both special and general education certifications (Van Laarhoven et al., 2007).

The initiative to improve teacher education programs has influenced the enhancements in current programs that would assist with meeting students' needs, field experience in diversity, and unified programs integrating general and special education program requirements. For example, the University of Illinois began a more unified program called project ACCEPT. The ACCEPT program is the response to the current need for general and special education teachers to study an inclusive learning environment. The teachers' program was restructured to include an emphasis on inclusive methodology, curriculum modifications and accommodations, collaborative skills, and a clinical experience. Researchers found that participants within the group experienced growth in a number of areas. The program was revolutionary in that it merged new courses with current courses while providing enhancements with the traditional program.

Everhart (2009) studied the heart rate and perceptions of preservice teachers; Everhart's findings were consistent with most researchers in recognizing and identifying the initial anxiety that most preservice teachers' perceive about working with students with disabilities. The study noted a significant increase in preservice teachers' heart rates

as they taught students with disabilities. Although the research did not state whether the preservice teacher's heart rate and anxiety decreased over time, it did support recommendations for future educators to receive field experience that included teaching students with disabilities (Everhart, 2009). A strong foundation must be based in the coursework needed to increase the knowledge of various disabilities and clinical experience that help increase self-efficacy and positive attitudes (Chang, Early, & Winton, 2005).

In more recent research, Hamman, Lechtenberger, Griffin-Shirley, and Zhou (2013) sought to understand the source of efficacy for students in their practicum experience. Researchers concluded that efficacy can be determined by more than the coursework teacher candidates receive. Hamman et al. (2013) discovered that efficacy is derived by characteristics of the practicum setting and the collaboration that occurred in the inclusive setting between the cooperating teacher and the teacher candidate. Frankel, Hutchinson, Burbidge, and Minnes (2014) recognized that self-efficacy may differ among preservice educators. Researchers found that when studying early childhood educators and elementary teacher candidates of students with developmental disabilities and delays, teacher candidates reported a significant sense of self-efficacy as compared to their early childhood counterparts. This mixed method analysis uncovered that although both groups were placed in a practicum with students with autism and other developmental delays, the experience provided them a feeling of being mildly competent to meet the needs of students with developmental disabilities and delays. This implies that teacher preparation

programs most provide students with the knowledge and experiences that allows teachers to teach a wide range of students.

Professional Development

Recent amendments to IDEA provide eligibility to students with disabilities to receive special education and related services (Pindiprolu, Peterson, & Bergloff, 2007). The federal legislation requires that teachers become *highly qualified* in scientific strategies used for students with disabilities. Many researchers note that with the prevalence of disorders such as ASD, it is inevitable that general education teachers will have children with disabilities in their classroom (Morrier, Hess, & Heflin, 2011). Over the last few years, national, state, and local policymakers have made efforts to shift *what* and *how* students learn. This shift offers a more balanced approach to teaching and focuses on a student's understanding of the content (Garet, Porter, Desimone, Birman, & Yoon, 2001). Therefore, it is important teachers continue to deepen their depth of knowledge and skills to meet the needs of various learners.

Due to its complex range of concepts, no definite definition of professional development exists. Schwartz and Bryan (1998) defined professional development as an activity that aids in the education of instructors using various resources during a set time period. Professional development varies based on the needs and the setting of the participants. Non-formal professional development is an organized systematic activity—such as departmental training, orientations, and professional association. Informal professional development is less organized and systematic and can occur unintentionally.

Informal professional development may include activities such as observation, shadowing coworkers, mentoring, coaching, and other activities (Schwartz & Bryan, 1998).

To carry out the new initiatives in education, teachers must forfeit the traditional “sit and get” professional development (Hunzicker, 2011, p. 177). Researchers (Morrier, et al., 2011) found that teachers were resourceful and creative when attempting to meet their training needs for their students. However, the research also found that although teachers were primarily trained in workshops or hands-on training, most teachers did not apply scientific based strategies when working with students with ASD. Research has shown that traditional professional development opportunities do not provide teachers with sufficient time to acquire the knowledge needed to cultivate change within their classrooms (Garet et al., 2001). The new reform calls for teachers to be submerged in content knowledge and have the ability to aid in the development of problem-solving and critical thinking skills (Garet et al., 2001).

Research on teacher learning shows that fruitful opportunities to learn new teaching methods share several core features:

- (a) ongoing collaboration of teachers for purposes of planning with,
- (b) the explicit goal of improving students’ achievement of clear learning goals,
- (c) anchored by attention to students’ thinking, the curriculum, and pedagogy, with
- (d) access to alternative ideas and methods and opportunities to observe these in action and to reflect on the reasons for their effectiveness. (Hiebert, 1999, p. 15)

Unfortunately, very little research provides evidence of whether these characteristics relate to positive outcomes for teachers and students. Garet et al. (2001)

found a correlation in some of the teaching methods just mentioned. Researchers found that teachers indicated that intensive professional development is more likely to lead to a positive effect on their practices.

Teacher Self-Efficacy

Historical Overview

For decades, the theoretical and empirical underpinnings of teacher efficacy have been debated amongst researchers. In 1954, Rotter (1966) developed locus of control regarding how an individual conceptualizes their internal or external control of factors within their environment. Locus-of-control theory is an individual's perception that their actions are made based on external and internal factors instead of their own ability to choose an action. Bandura (1977) developed the social learning theory based on the foundations developed earlier by Rotter (1966). The social learning theory describes learning as a cognitive process that can occur through observation or direct instruction. The social learning theory integrates behavioral and cognitive theories.

Several years later, Bandura (1977) introduced the concept of self-efficacy. Self-efficacy is one's capabilities to obtain and complete a task. Teacher efficacy received its theoretical base from Rotter (1966), afterward a study published by RAND aided in the researchers' ideas of how teachers believed they could control themselves or their environment (Tschannen-Moran & Hoy, 2001). In the study, researchers examined several reading and intervention programs in which teacher efficacy was found to be an indicator of reading achievement among minorities (Armor, 1976). In the second RAND study, researchers discovered that teacher efficacy was also a predictor of whether or not

teachers would continue the reading and intervention programs after they concluded. These two studies started the discussion of whether student motivation and performance were indicators of teacher performance (Berman, 1977). The sum of two items in the RAND research instrument is referred to as teacher efficacy. The paradigm refers to ideas a teacher believes is internally controlled by them (Tschannen-Moran et al., 1998).

It has been clear that teacher self-efficacy has brought great insight to the link between a teacher's efficacy and student achievement. However, this construct has had problems developing an effective tool to measure teacher self-efficacy. Over the past several decades, researchers have continued to question the validity and reliability with the existing measurement. Initially the RAND group used two items within their study to identify a teacher's internal beliefs of the consequences of their teaching (Tschannen-Moran & Hoy, 2007). Many researchers questioned the reliability of the two-item scale; therefore, several items expanded on the measurement. Rose and Medway (1981) used a 28-item measurement called the teacher locus of control (TLC). It was found that TLC was more of an effective indicator of teacher behaviors than Rotter's (1966) internal-external (I-E) scale. The TLC was specific to teacher content. In the 1980s, Gibson and Dembo (1984) developed a teacher self-efficacy scale that merged the RAND findings and reinforced Bandura's groundwork. Gibson and Dembo's (1984) study assumed that self-efficacy and outcome expectancy were the underpinnings of the social cognitive theory. Researchers labeled self-efficacy as personal teaching efficacy and teaching efficacy based on the expectancy of an outcome (Tschannen-Moran & Hoy, 2001). Those two factors were moderately related when studying preservice and in-service teachers.

Although Gibson and Dembo's (1984) measurement was the most popular scale to date, with continued research, the researchers' scale began to show inconsistencies. Questions were raised about lack of clarity between the two factors (Tschannen-Moran & Hoy, 2001). Later, Tschannen-Moran and Hoy created the Teacher Self Efficacy Scale (TSES), which was based on three factors: efficacy of student engagement, efficacy in instructional practices, and efficacy in classroom management. Researchers use this tool regularly to measure teacher self-efficacy (Tschannen-Moran & Hoy, 2001).

Bandura (1977) introduced the concept of self-efficacy as one's beliefs in their capability to achieve a desired performance level. Self-efficacy applied to the educational realm has created rich debate in how a teacher's self-efficacy relates to their actions and outcomes (Tschannen-Moran, Hoy, & Hoy, 1998). A teacher's self-efficacy is a belief in his or her abilities to succeed in producing a preferred outcome. Over the last several decades, various empirical research supports Bandura's (1977) association between teacher self-efficacy and student outcomes (Tschannen-Moran & Hoy, 2007). Research indicates that teachers with high self-efficacy improve students' self-efficacy, motivation, and their academic achievements (Anderson, Greene, & Loewen, 1988; Margolis & McCabe, 2003; Ross, 1992).

Although evidence supports the benefits of high teacher self-efficacy, very little is known about the source of teacher self-efficacy. Bandura (1977) alleged four possible sources for teacher self-efficacy: mastery experiences, verbal persuasion, vicarious experiences, and physiological arousal. Mastery experiences is considered the most

dominant of the four resources and is derived from a teacher's experience teaching students (Tschannen-Moran & Hoy, 2007).

A teacher's self-efficacy is raised when he or she believes their performance was a success and contributed to the student's success. Verbal persuasion is the interactions a teacher receives, which evaluate his or her performance. These verbal interactions may occur from administrators, consultants, colleagues, or the community. Vicarious experiences occur when a teacher observes a task modeled by someone else. The teacher's self-efficacy in this model depends upon how the teacher identifies with the performance. Psychological and emotional arousals are the feelings a teacher receives. These feelings can be conflicting in that they contribute to a teacher's feelings of proficiency, yet also add to their sense of anxiety and frustration.

The Effects of Teacher's Self-Efficacy Toward Inclusion

Federal and state mandates of inclusion have made it essential for all educators to be prepared to meet the needs of diverse learners. The new classroom consists of students that differ in ability, learning styles, and challenges (Burton & Pace, 2009). As today's classrooms shift to a more inclusive environment, oftentimes students with disabilities are met with uncertainty by many teachers. Many educators are optimistic about their ability to meet the needs of the students within their classroom. However, these teachers surreptitiously question their ability to meet the needs of students with disabilities (Damore & Murray, 2009). According to Avramidis and Norwich (2002), "Teachers beliefs and attitude are critical in ensuring the success of inclusive practices since teachers' acceptance of the policy of inclusion is likely to affect their commitment to

implementing it” (p. 130). Teacher efficacy stems from Bandura’s (1977) social cognitive theory. The theory contends that efficacy beliefs influence the choices people make and the efforts employed toward a task. Tschannen-Moran and Hoy (2001) found that teachers with high efficacy were invested in their goals. These teachers were willing to implement the new methods that students with special needs would need. Elevated efficacy allowed teachers to be less critical of student errors. Teachers with high efficacy are also more confident in their abilities to instruct and manage difficult students in their classrooms (Brownell & Pajares, 1999). Teachers with low efficacy were more controlling and less strategic with their instruction (Tschannen-Moran & Hoy, 2001).

Soodak, Podell, and Lehman (1998) found that self-efficacy effected a teacher’s decision to refer a student with challenges. General education teachers with high efficacy often believed that the general education classroom was the most appropriate placement for students that exhibited certain problems and delays. Soodak et al. concluded that teachers with low efficacy believed that students with problems would not be effective in general education classrooms.

Personal experiences, severity of disability, and the age of the student with disabilities are factors influencing the efficacy of teachers (Moore-Hayes, 2008). For example, Newman (1999) found that teachers who had exposure to classrooms with students with disabilities had higher efficacy than those who were unable to gain the same experience. Leyser, Zeiger, and Romi’s (2011) findings revealed that the courses taken by preservice teachers during their college preparation built self-efficacy in the socialization domain. This represents a promising discovery since one of the main goals of inclusion

involves promoting socialization within a classroom. Unfortunately, these findings did not identify an increase in teacher efficacy or personal teaching efficacy. These findings tend to vary; for example, some researchers discovered an increase in both general teaching efficacy and personal teaching efficacy (Hoy & Spero, 2005). Other researchers discovered that increases with teacher personal efficacy had a decline or no change at all in general teaching efficacy (Gibson & Dembo, 1984; Romi, Daniel, Zozouski, Ariav, & Kenan, 2001).

A common thread within research entails special education teachers exhibiting greater confidence as it pertains to meeting the needs of exceptional learners (Buell, Hallam, Gamel-McCormick, & Scheer, 1999). Researchers have discovered that when teacher personal efficacy is increased, teachers are less apprehensive about including students with disabilities into their classroom (Soodak et al., 1998). Brownell and Pajares (1999) contend that teachers who are confident in their ability to teach students with disabilities are more likely to employ effective learning strategies. High efficacy teachers set clear expectations and applied effective academic instruction. Therefore, increasing a teacher's efficacy will ultimately assist with the implementation and effectiveness of the inclusion of students with special needs.

Preservice Teacher's Self-Efficacy

When analyzing teachers' capabilities, Tschannen-Moran et al. (1998) suggested that teachers make judgments about the requirements of the task and their personal teaching abilities. Self-efficacy is based on self-perception of competence rather than the actual level of competence. A teacher may believe that he or she has more or less

competency than their teaching skills. However, Bandura (1977) contends it is actually beneficial for teachers to perceive they have a higher level of skill set than they have. Bandura suggested that these teachers are more likely to be persistent when challenges arise within their classroom.

Self-efficacy is the self-perception of competence rather than the actual level of competence a teacher may have. A qualitative study by Munby, Russell, and Martin (2001) found that teachers bring their prior experience as children into their own classrooms. Oftentimes, people over- or underestimate how well they use the skills they do have. For example, researchers found that undergraduates are often unaware of the responsibility, complexity, and demands of the teaching profession. Therefore, Woolfolk and Hoy (1990) found a decline in the personal teaching efficacy during the student teacher practicum. Weinstein (1988) implied that most student teachers had a strong sense of false optimism. These findings suggest that when faced with the realities of teaching, many student teachers believed that the problems experienced by others would not affect them (Woolfolk & Hoy, 1990). Some student teachers began to lower their expectations of excellent teaching in order to preserve their self-efficacy.

Findings also identified that several student teachers were unsure if the school would have the capability to overcome various challenges such as home life and parents. Therefore, Woolfolk and Hoy's (1990) findings were consistent with a decline in efficacy once a teacher completed his or her student teacher practicum. However, researchers (Woolfolk & Hoy, 1990) suggest that this knowledge is an appeal to teacher preparation programs to provide students with experiences teaching and managing children in order to

build their mastery experiences. Student teachers would be engaged with various students in developing one skill at a time while receiving encouragement (verbal persuasion) to build efficacy (Woolfolk & Hoy, 1990).

Experienced Teacher's Self-Efficacy

Bandura (1997) suggested that changes in efficacy among experienced teachers are harder to increase and sustain. Ross (1994) discovered that experienced teachers' self-efficacy remained steady even after attending efficacy workshops. Ohmart (1992) found that an experienced teacher's efficacy increased after attending an *efficacy seminar*; however, when assessed 6 weeks later, the increase diminished. Bandura (1997) proposed that upon gaining a new skill, people departmentalized their capabilities while testing out the new knowledge. Change is hard; therefore, most teachers test the skill before placing judgments on their capabilities.

Early on in the RAND study, researchers discovered that teachers with strong self-efficacy did not only attribute to student achievement, but also had a strong effect on the success of various projects and reform (Tschannen-Moran et al., 1998). When teachers undertake new programs, their efficacy may initially decrease; however, those teachers eventually rebound when the new skills become effective. Ross (1998) stated:

- (a) High teacher efficacy might contribute to experimentation and new teaching ideas by influencing teacher's goal setting.
- (b) Teacher efficacy could decline as the new techniques disrupted the smoothness of existing practice.
- (c) Efficacy beliefs might remain depressed even if there was early success if the perceived superiority of the new techniques persuaded teachers of the inadequacy of their

routine practice. (d) Teacher efficacy might begin to increase as teachers integrate the new methods into their repertoire and began to enjoy increased student performance consistently. (e) Enhanced efficacy might motivate the search for new skill development opportunities. (pp. 31-32)

Ross, McKeiver, and Hogaboam-Gray (1997) found that when teachers participated in mainstreaming, many found it difficult to integrate strategies to teach a mixed ability class. Teachers' efficacy declined when the new program was implemented. Many teachers' efficacy decreased due to an uncertainty of the outcome of the program's effectiveness. Teachers were able to recover from the initial problems of mainstreaming when the program showed evidence of success. Teachers were more confident about future programs when they accumulated a new effective strategy for teaching (Ross et al., 1997). These findings are congruent with Smylie (1988) who suggested that confident teachers are more likely to implement new strategies that provide an ability to control their classrooms and affect student achievement. On the other hand, Rosenholtz (1987) found a decline in teachers' self-efficacy when outside agencies imposed mandates in which teachers were excluded from the decision-making process. Surprisingly, most teachers were resilient in being able to maintain their professionalism (Byrne, 1994; Rosenholtz, 1987).

The next section discusses ASD, defines the disorder, and looks at the history and prevalence of the disorder. Then it identifies the challenges of educating this unique population. Next, it looks at how teachers' attitudes are affected by the inclusion of

students with autism. Finally, it examines how teacher's self-efficacy is affected by the inclusion of students with autism in general education classes.

Autism Spectrum Disorder (ASD)

According to the Centers for Disease Control and Prevention (CDC), in 2014, 1 in every 68 children were diagnosed with autism in the United States, making autism a more prevalent disorder in America than AIDS, diabetes, and cancer combined (CDC, 2014). It has risen by 6-15% each year from 2002 to 2010 (based on biennial numbers from the CDC). In children, it was increased by 119.4% from 2000 to 2010. Autism is diagnosed four times more in males than females. As ASD continues to rise, it is imperative that people are provided with the knowledge that allows them to gain a better understanding of the disorder.

The next section discusses the complexity of ASD. It begins by defining the groups of complex neurodevelopment disorders and provides the reader with the history of ASD. It continues by explaining the prevalence of the disorder and how it has effected education.

Definition of Autism

Autism spectrum disorder is defined as a mental disorder characterized by severely abnormal development of social interaction and of verbal and nonverbal communication skills. The people affected may adhere to inflexible, nonfunctional rituals or routines. They may appear to have limited range of interest and be unable to connect to others' feelings (Stedman, Taylor, & Taylor, 1972).

The Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition (DSM-5) defines the diagnostic features of ASD as follows:

1. Impairment in reciprocal social communication and social interaction, which are pervasive and sustaining. The verbal and nonverbal deficits depend on the individual's age, intellectual level, and language ability. The impairment of social interaction is manifested by absent, reduced, or atypical use of eye contact.
2. Restricted, repetitive patterns of behavior interests or activities, as manifested by at least two of the following: stereotyped or repetitive motor movements, inflexible adherence to routines, fixated interest that are abnormal intensity, and hypo reactivity to sensory input.
3. Impairment in social, occupational, or other important areas of current functioning. (American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorder 2013)

Children with ASD may have a deficiency in social communication that may be accompanied by intellectual disabilities not in line with the individual's developmental level. The functional characteristics listed (specific sounds, scents, temperature) may vary according to the characteristics of the individual and his or her environment.

Historical Perspectives

Autism has evolved over the last few decades since Leo Kanner's (1943) first clinical description of the disorder. Thomas (2013) concluded that the study of this disorder has been through a number of erroneous theories (Bettelheim, 1967; Spitz, 1945),

injudicious diagnostics (Bender, 1947) and imprudent interventions (Bender, Goldschmidt, Sankar, & Freedman, 1962). It was not until the 1980s that autism was separated from childhood schizophrenia and listed in the Diagnostic and Statistical Manual of Mental Disorder. Autism spectrum disorder causes researchers to question whether the disorder is hereditary or caused by the environment or vaccinations. Kanner (1943) was the first to attempt to clinically diagnose the disorder; however, diagnosing ASD has been difficult over the years. The scales developed earlier in research helped to group symptoms (Creak, 1963) that would later be of value when creating a diagnostic tool. As researchers continue to study ASD, various approaches to intervention continue to be developed and utilized. For years, parents, educators, and medical professionals have been baffled by conflicting messages because each child or adult may respond to an intervention differently. Behavioral and cognitive interventions have been explored. While no cures exist for autism, continued research and education about the disorder aids in facing some of the challenges of the disorder.

When looking at the definition of autism, one may understand the transitions that have occurred throughout the years in diagnosing, intervention, and therapy. Autism spectrum disorder is a serious neurodevelopment disorder that impairs a child's ability to communicate with others. It also includes restricted repetitive behaviors, interests, and activities. These issues cause significant impairment in social occupational and other areas of functioning (Mayo Clinic Staff, 2012).

Asperger syndrome was placed under the umbrella of ASD by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorder (DSM-5;

2013). Asperger differs from autism in that students with Asperger possess average intelligence. Students with Asperger syndrome do not have language communication delays; however, they may display severe impairment in social interactions.

Challenges of the Inclusion of Students with Autism Spectrum Disorder

Within the last few years, there has been an increase in the inclusion of students with ASD. Government mandates, along with a push from parents, has increased the number of students with autism placed within the general education classrooms (Rotheram-Fuller, Kasari, Chamberlain, & Locke, 2010). By definition, these students can often be more challenging because of their struggle to build social relationships and ineffective communication (American Psychiatric Association, 2000). However, some students display cognitive functions at or above their age level (Sansosti & Sansosti, 2012). Therefore, many parents have become advocates for integrating these students in general education classrooms to assist in the development of social interactions and increase their exposure to the traditional curriculum (Hunt & Goetz, 1997; Kasari, Freeman, Bauminger, & Alkin, 1999). Although research has found some benefits to the inclusion of students with ASD, it also indicates that significant challenges exist for those students integrated within the general education classroom (Sansosti & Sansosti, 2012).

Humphrey and Lewis (2008) provided a four-pronged definition for inclusion that focused on the importance of presence (without integrated segregation), participation (providing a quality educational experience to the pupil), acceptance (by teachers and peers), and achievement (greater academic progress, improving social and emotional skills). Humphrey and Lewis suggested that although the inclusion of students with

disabilities is increasing, students with autism are often perceived as not benefitting from being mainstreamed. Students with ASD customarily have issues with language. When studying a group of students with Asperger's syndrome (a disorder within the autistic spectrum that customarily has issues with language), Whalon and Hanline (2008) discovered that the inability of students with autism to acquire oral language skills effects their ability to comprehend text. Myles, Barnhill, Hagiwara, Griswold, and Simpson (2001) found that when Asperger syndrome students were asked to read silently, most performed below their grade level. However, when those same students were given an opportunity to read aloud, student achievement increased. Unfortunately, as Myles et al. (2001) pointed out, silent reading is one of the instructional strategies used in many classrooms.

Researchers have examined the behavior of students with ASD and implied that some behaviors may be due to the students with autisms' attempts to communicate and engage with others (MacDonald, 2000). Researchers have discovered that difficulties with ASD are discernible in a variety of ways. These students have a difficult time forming and maintaining relationships due in part to their inability to recognize or interpret nonverbal cues (National Research Council, 2001). In addition, students with ASD face a lack of understanding in society. They often display anxiety behaviors due to their lack of regulated senses (Friedlander, 2009). Many children with autism are consistently in sensory overload. The typical buzz of a school, bright lighting in the hallway, dishes being banged about in the cafeteria, or the humming of a classroom air conditioner can overstimulate these children (Friedlander, 2009). MacDonald (2000) discovered that

students with ASD behaviors can be considered challenging or noncompliant. However, when the student in the study was given more challenging material and the opportunity to engage in social interaction, there was an increase in appropriate behavior—therefore, questioning if the student’s behavior is disruptive or merely the child’s attempt to interact or engage socially.

Advantages of the Inclusion of Students with Autism Spectrum Disorder

Despite the challenges of including students with ASD, a number of researchers support the integration of these students. Researchers have advocated for cooperative learning groups that allow students with ASD to engage in interactions with their nondisabled counterparts. Kamps, Barbetta, Leonard, and Delquadri (1994) found that when students with autism were peer tutored, their ability to answer reading comprehension questions increased 85%-100%. However, Fein and Dunn (2007) suggested that teachers be attentive when grouping students for collaborative learning to ensure that students with autism are included. Students with ASD may feel isolated if students without disabilities are allowed to select the group members.

In a more recent study, Sainato, Morrison, Jung, Axe, and Nixon (2015) discovered that when students with autism were placed in a model kindergarten classroom, they showed significant growth in nonverbal intelligence, academic achievement, and language scores over children enrolled in a comparison group. Students with autism who were enrolled in the model kindergarten classroom received the general education curriculum in an inclusive setting. They also received evidence based strategies that were arranged to support diverse learners. Emphasis was placed on behavior management,

which supported positive behavior and assisted students with self-management development. Lastly, educators in the model environment were well trained and received consistent feedback to help them implement effective intervention strategies for their students.

Chamberlain, Kasari, and Rotheram-Fuller (2007) studied a group of students with ASD to determine how inclusion affects their social development. These students were more accepted in the early grade levels yet typically received more social connections in the upper grade levels. In the study, students with ASD were nominated for friendships however the data did show a lack in reciprocity. Although research indicates an increase in the sociology for students with ASD, questions have been asked about the effects of including students with ASD and students without disabilities. Some advocates contend that inclusion is beneficial to all learners. Friedlander (2009) suggested that providing students with a daily opportunity to collaborate with each other in an inclusive classroom builds respect and empathy for all learners.

Teacher Attitudes Toward the Inclusion of Students with Autism Spectrum

Disorder

The inclusion of students with autism is a gift and an upsurge of responsibility for teachers. As the number of students with ASD increases within the school system and the general education classroom, it is important that educators understand how to facilitate learning in an inclusive environment for these students (Barned, Knapp, & Neuharth-Pritchett, 2011). A number of the challenges faced by educators are due to the severity of the disorder. Several research studies have been examined that identify the knowledge,

attitudes, and strategies for teaching students with ASD. For example, York, Von Fraunhofer, Turk, and Sedgwick (1999) found a lack of knowledge among educators of effective strategies in sensory development and socialization to use with students with ASD. In fact, social skills were reported to be the least implemented—a cause for concern when thinking about the importance of socialization for students with autism. Conflicting results in the research findings about the attitudes of teachers toward the inclusion of students with disabilities have always existed.

Commonly, most educators have a favorable attitude about the inclusion of students with ASD. Segall (2008) reported that 75% of educators believed that integrating students with ASD in a general education classroom was beneficial. Dymond, Gilson, and Myran (2007) contend that many educators lack the preparation and training needed to meet the needs of students with ASD; therefore, they cannot be expected to have positive outcomes. Oftentimes, educators do not know the evidence based intervention strategies required to be effective with students.

The Effects of Teacher's Self-Efficacy Toward the Inclusion of Students with Autism Spectrum Disorder

The prevalence of students with ASD continues to grow within today's school systems. Students with autism have a broad range of characteristics that may be challenging for teachers. Teachers may feel unprepared in meeting the needs of these complex learners. Gaining a better understanding of the perceptions and attitudes of teachers with students with autism may allow teachers to build the efficacy needed to meet the challenges they face. Despite the rise in students with ASD being placed within

general education classroom, there exists a very limited amount of literature on how teachers' efficacy is affected by the inclusion of this population within general education classrooms.

A famous saying often used within the autism community by Dr. Stephen Shore says: "If you've met one person with autism, you've met one person with autism" (Shore, 2013, Autism Speaks Conference). This statement alludes to the complexity of the group of disorders. As the prevalence of autism increases in the United States, teachers in rural areas struggle due to limited experience with these students. Busby, Ingram, Bowron, Oliver, and Lyons (2012) studied the challenges and needs of teachers to offer suggestions to a rural university on ways to improve the teacher preparation program to increase teacher efficacy. Twenty-three graduate students who were also teachers were surveyed using the Nominal Group Technique (NGT). The NGT process is designed to identify the problem and to create solutions. The participants identified five challenges ranging from effective training, collaborating with other educators, and a lack of knowledge regarding how to include students with autism. The participants also identified needs that would assist in successfully including students with ASD. Using these five challenges, professors developed several suggestions in modifying the teacher preparation program in a rural area to meet the needs of the small population of autistic students in the state of Alabama. Recommendations were offered as a solution to promote the efficacy of teachers integrating students with ASD (Busby et al., 2012).

Although this research does not exactly meet the effects of teacher efficacy toward the inclusion of students with ASD, it is in the same field. This study's sample was small;

participants did not have experience with students with autism due to the small percentage in the school system. However, the perception of the participants helped to anticipate several challenges that may be faced when integrating students with ASD. The recommendations provided to the school were intended to provide teachers with the confidence needed to implement students with autism in a successful inclusive classroom. The implications for this study will aid in the development of a successful curricula that prepares future educators for the inclusive classroom.

Ruble, Usher, and McGrew (2011) studied the self-efficacy of 35 special education teachers. The study used the Teacher Interpersonal Self-Efficacy Scale (TISES) to determine the sources of teacher self-efficacy. The study included participants who worked with students with ASD. The study searched for the correlation between three hypotheses and the sources of the efficacy that motivates and retains teachers.

The findings indicate that there is no association between the number of years a teacher serves or social persuasion (coaching and feedback) and self-efficacy. However, researchers found a significant correlation between the classroom management and self-efficacy (Ruble et al., 2011). The findings indicate a close association between teacher burn out and an educator's feelings of being capable to complete a task. These articles on teacher well-being and specific praise may be helpful since they relate to positive behavior support (Reinke, Herman, Stormont, Newcomer, & David, 2013; Ross, Romer, & Horner, 2012).

Once again, this study did not correlate exactly with examining the effects of teachers' self-efficacy with the inclusion of students with ASD. It does not specify if the

areas in which the teachers taught in were inclusive. However, the study sought to identify the sources of teacher self-efficacy of students with ASD.

CHAPTER III
RESEARCH DESIGN AND METHODOLOGY

Introduction

Recently, a large increase in the number of students identified with autism has been evident. These students often represent a challenge faced by the education field and the educators who instruct them. Many teachers spend time making accommodations for students with disabilities in efforts of aiding in their academic success. However, students with autism are more difficult to instruct due to the complexity of the disorder. No two autistic students are alike; they are like different countries that when explored, vary in language and culture. Therefore, when educating these students, the needs of each child may differ drastically. However, as the number of students identified with autism increases, teachers must be prepared to modify their instructional practices to accommodate these diverse learners.

A teacher's self-efficacy can be affected by the inclusion of students with autism spectrum disorder (ASD)—for example, their professional training, coursework, and experiences. This study investigates if a general education teacher's self-efficacy is affected by the inclusion of students with autism in an inclusive setting. This chapter describes the methods and materials used to conduct this research. It depicts information from various areas of research—such as population, instruments, data collection, and analysis. First, the questions and hypotheses are reviewed; then the population and sample

are defined, followed by the description of variables. The procedures for data collection are included, describing the development of the survey and how data will be obtained. The research design explains the logic of data analysis. A section on ethical standards is included and describes the treatment of the participants with respect to human subjects' protection. Finally, the chapter ends with a conclusion.

Problem and Purposes Overview

The prevalence of autism has increased at state and national levels. Many schools will see an increase in the number of students with autism entering the general education classrooms (Goodman & Williams, 2007). Despite teachers' feelings or beliefs, the federal government has mandated that students with disabilities be placed in their least restrictive environment (LRE; IDEA, 2004). The Individual with Disabilities Education Act (IDEA) requires that educators be prepared to meet the needs of all children in their classrooms. However, researchers Avramidis, Bayliss, and Burden (2000) discovered that teachers may lack motivation and self-efficacy due to what they perceive as ineffective instructional practices they provide to children with autism. In 1959, researchers determined a link between the motivations a person has to engage in a difficult task and the individual's perceived confidence in completing the task (White, 1959). White suggests that people have an inert need to feel competent and to succeed with a task; when people do not feel that confidence, they lack the motivation to try. Many other researchers throughout history have built their hypothesis on White's (1959) theory. Harter's (1978) research concluded that people with high self-efficacy found pleasure in completing tasks—which ultimately increased their motivation. On the other hand, Chan and Lam

(2008) found if a teacher does not believe he or she is effective with students with disabilities, it affects their instructional practices.

Studying a teacher's self-efficacy may assist in the success of placing student's with autism in general education classrooms. Researchers Eriks-Brophy and Whittingham (2013) found a link between the successful inclusion of students with disabilities and a teacher's willingness to gain new knowledge and implement newly acquired skills. Teachers must be able to reflect on their craft, accept the responsibilities, and address the challenges of teaching these diverse learners (Busby et al., 2012). Therefore, the study of teacher self-efficacy, in regard to the inclusion of children with autism, is essential to improving the success of inclusion of students with autism in general education classrooms.

Research Questions

1. How are teachers' self-efficacies toward inclusion related to their prior experiences with students with autism in their preservice training?
2. How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their in-service training?
3. Does a teacher's self-efficacy toward the inclusion of students with autism effect the practices he or she implements within the classroom?
4. What current experiences with students with autism either facilitate or create barriers toward teachers' views regarding the inclusion of children with autism in general education classrooms?

Research Hypotheses

1. Teachers' self-efficacies toward the inclusion of children with autism in general education classrooms is related to their preservice training.
2. Teachers' self-efficacies toward the inclusion of children with autism in general education classrooms is related to their in-service training.
3. Teachers' self-efficacies toward the inclusion of students with autism does affect practices implemented within the classroom.
4. Teachers' current experiences with students with autism are related to the teachers' views of the inclusion of children with autism in general education classrooms.

Role of the Researcher

I have been a teacher in the largest district in the state of Illinois for 14 years. All of these years have been spent at a small public school on the South Side of a Midwestern state. The school has a large population of students with special needs who are included in general education classrooms. Therefore, I have been afforded the opportunity to work with a wide range of students with a variety of needs. Working with this population of students has caused me to question my ability to teach ALL students, despite their needs. Reflecting on my own self-efficacy ultimately led me to research teacher self-efficacy in an effort to gain a better understanding of how research, training, and experiences can affect the academic success of all students.

As a student and a teacher, I serve in various capacities throughout the data collection process. After receiving permission from the Institutional Review Board (IRB),

I petitioned the selected school's principal to conduct the study. I then invited a number of select teachers to participate in the study. These teachers were asked to complete a demographic survey. Afterward, I conducted a face-to-face interview and asked several open-ended questions.

Anonymity

All study participants were informed of the purpose and responsibilities of this study. The survey was attached to a cover letter that solicited participation. The letter explained the purpose of the study, that participation was voluntary, and complete confidentiality would be maintained. Each participant was asked to keep his or her comments to the interviewer private. Participants were assured that the study results would not be used to evaluate their performance. Completing the survey represents the participant's acceptance of participation in the study. During the spring semester, nine or more teachers received a consent form to participate in the semi structured interviews. At the end of the consent form, survey, and interview, participants were reminded that if they had questions or concerns about any part of the process, they could call or email the researcher.

The researcher used pseudonyms for each participant to ensure their confidentiality. In addition, the survey and its findings were kept anonymous. The survey data, audio recordings, transcripts, and interviews notes were stored on an external hard drive locked in the researcher's home office. The audio recordings will be destroyed after five years. The researcher collected data for the study as well as conducted the interviews after the acceptance of IRB.

Population and Sample

Critical case sampling was used to gain the maximum amount of information; this allowed the researcher to make logical generalizations. Participants were chosen using maximum variation in three groups of teaching ranges (0-3, 4-6, and 7 or more years of experience). The population for this study included Catholic school general education teachers on the West Side of an urban area. The purposeful sample of general education teachers (PreK-8), were selected to participate in this study. Patton (2015) suggested that by selecting purposefully, the researcher gains information from rich cases, but acknowledges the limitations on sample size. The participants chosen for this study either currently teach or have taught a child with autism in a general education classroom. The level of education varies within this research population. For example, teaching experiences range from one to 20 or more years.

The samples consisted of a school that practiced an inclusion model. In this study, inclusion is defined as students diagnosed with a disorder and placed in the general education classroom for at least 50% of the day. Within this model, the student is in the general education for at least one core subject. The general and special educator share responsibility for the instruction provided to the student. The students with ASD were diagnosed within the school or by a physician.

Data Collection and Instrumentation

The study was designed to investigate the relationship between a general education teacher's self-efficacy with the inclusion of children with autism in their classroom. The study sought to determine the effects of various factors such as preservice

training, in-service training, and the current experiences with children who are autistic as a means of affecting the teacher's self-efficacy and the implementation on instructional practices. Participants were interviewed by the researcher, who asked several open-ended questions. In addition, participants completed a basic demographic questionnaire, which included age, gender, education level, and years of experience.

Interviews

Patton (1990) described interviews as an effective method that provides participants with the framework needed to express their perceptions and experiences. Standardized open-ended interviews were used to limit the bias that often occurs when researchers conduct different interviews with different people in other types of interview instrumentation. Using a standardized, open-ended interview increases the comparability of responses by asking each participant the same questions with the exact same wording—although Patton acknowledged it limits flexibility, the relevance of the questions, and the participants' responses. This instrument allows facilitators to review the tool during evaluations and fosters the organization of data to be analyzed.

Participants were interviewed; each having signed a written consent allowing them to be recorded using an audio recording. The participants were asked 13 questions developed by the researcher. The questions were designed as a way to grasp the general education teachers' perceptions of their attitudes toward the inclusion of students with autism. To ensure the experience would be the same for all participants, each was asked the same questions in the open-ended interviews. Interviews were held in a private location in the school.

Credibility

Lincoln and Guba (1985) identified four criteria for judging the soundness of qualitative research (a) credibility, (b) transferability, (c) dependability, and (d) confirmability. Lincoln and Guba acknowledged credibility as assisting with establishing the truthfulness of the findings. This is critical in qualitative research since the findings are explained through the interpretations of the participants. Therefore, it is imperative that the data supports the findings presented in the research. Providing readers with a rich description of the setting, subjects, and interactions assists the researcher with ensuring the boundaries and parameters of the study are detailed.

Transferability

Transferability is defined as the applicability of the evidence found in one context holding true to another. To allow readers to apply transferability, the research provides the reader with a thick description of the setting and uses purposive sampling. Patton's (1990) purposive sampling was used to collect and analyze information from participants, which assisted in explaining a phenomenon of interest. Gaining insight into these areas allows the reader to determine if the findings are reliable (Shenton, 2004).

The researcher selected the specific Catholic school for this research due to its history of having children with autism in general education classrooms. The Catholic school is atypical in the number of students with autism it has had over the years; however, given the prevalence of students with autism in education, it may be socially transferable to readers. Social transferability refers to the evidence of people's physical and social settings being relevant in another social context (Lincoln & Guba, 1985).

Denzin (1999) recommend providing readers with a thick description to establish the significance of an experience or individual event. Schwandt (2001) stated that a thick description helps the reader make sense of the emotions, thoughts, and perceptions of the participants.

Confirmability

Patton (1990) recognized that researcher's bias are inevitable due to human skill and perception. Miles and Huberman (1994) stated that the researcher must admit his or her own predispositions in the methods. Therefore, the researcher should examine the decisions made and methods adopted. The researcher uses triangulation to reduce some of the bias that occurs within this study.

Triangulation

Using triangulation in qualitative research empowers researchers with valid and reliable data. Triangulation is a method used in qualitative research that allows the researcher to validate data using multiple theories, materials, or methods. It is the collection of accounts from different participants in a specified setting, in different stages of an activity (Banister, Burman, Parker, Taylor, & Tindall, 1994). It examines the consistency of findings attained through various instruments. Denzin (1999) offered enrichment as one of the benefits of triangulation. Informal and formal instruments allow the researcher to provide more insight into various topics. Gaining information from multiple sources during research allows the data to be analyzed to draw conclusions. It also allows the researcher to identify inconsistencies in data easily. Triangulation also helps with measurement and sampling bias, which may occur when there is an inability to

sample a large population due to convenience. In addition, it allows the researcher to combine the best of the options to get an efficient amount of coverage. Lincoln and Guba (1985) recommend that no one item of information should be given serious consideration unless it is triangulated. In this study, triangulation was used to identify themes and to guarantee that all assertions and interpretations were supported by two or more perspectives found within the study.

Procedures for Data Analysis

Data was collected in this qualitative method simultaneously. The purpose of using the qualitative method of interviewing was to provide support for the perceptions of the participants. This method allowed an in-depth understanding of the unique school setting and its effects on the teacher's self-efficacy when implementing inclusion with students with autism. Examining the data may assist with gaining an understanding of how a teacher's self-efficacy can be affected by the inclusion of children with autism in a general education classroom.

The data analysis for this study examined interview transcripts—a demographic survey. The qualitative data was organized and analyzed to find connections (McMillan & Schumacher, 2001). The audio and field notes from the interviews were transcribed and subjected to coding analysis. Saldana (2008) stated that humans have a natural consistent and repetitive pattern of action. Therefore, the coder's goal involved identifying those patterns within the data documented. Emergent coding allowed the researcher to identify the arising concepts when analyzing the data. The different sources of data were

triangulated and used as justifications for the themes identified in the data (Creswell, 2015).

Reliability and Validity

This study uses qualitative research to collect data on how the self-efficacy of teachers is affected by the inclusion of students with autism. Qualitative research is beneficial for interpreting an individual's personal experiences. The researcher may be a threat to the validity of the study as many times he or she is the instrument collecting data. The researcher's bias may be present in the interpretations of the findings. If the researcher becomes too attached to the group he or she is studying, the group may no longer be objective. Therefore, many times, the researcher must gauge and assess the relationships with their subjects (Leininger, 1991).

Collecting and analyzing data is another threat to the validity and reliability of the study. Miles and Huberman (1984) acknowledged there may be underrepresented groups or phenomenon within a story. This bias can cause a researcher to see confirming beliefs instead of the discomfoting beliefs that may be present. In this study, the researcher used purposive sampling and triangulated the data to increase the validity and reliability of the study (Patton, 1990).

Conclusion

The purpose of Chapter III involved describing the methodology and the various elements of research design through the depiction of data collection tools and a discussion of the research design. Qualitative data was analyzed for common themes and ideas using

an appropriate statistics software tool—NVivo 11. Chapter IV discusses the results of the analysis and findings that were collected over the course of the study.

CHAPTER IV

RESULTS

Introduction

Chapter IV presents the findings for this research study. As the prevalence of autism spectrum disorder (ASD) continues to rise and the classroom continues to evolve, it is imperative that teachers are prepared with the training and support that allows them to be successful practitioners. Teachers' self-efficacy toward the inclusion of students with autism may affect the success of an inclusive environment. This study examined how appropriate training and previous experiences effect the teacher's self-efficacy toward the inclusion of students with autism in general education classrooms.

A qualitative study was conducted to determine the effects of a teacher's self-efficacy with the inclusion of students with autism in a general education classroom. It was conducted in a small Catholic school on the West Side of town in a large urban area. The purpose of the investigation was to determine the relationship between the inclusion of students with autism and the self-efficacy of teachers. The perceptions of 11 elementary school teachers were established through interviewing the teachers about their experiences teaching students with autism in general education classrooms. This chapter presents the results of the interviews and demographic survey. The collected qualitative data were used to answer the following four research questions:

Research Question 1: How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their preservice training?

Research Question 2: How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their in-service training?

Research Question 3: Does a teacher's self-efficacy toward the inclusion of students with autism effect the practices he or she implements within the classroom?

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers' views regarding the inclusion of children with autism in general education classrooms?

Sample

The goal of sampling for this inquiry was to ensure maximum information regarding the process of examining a teacher's self-efficacy with the inclusion of students with autism in a general education classroom. To achieve this goal, a purposive sampling procedure was used (Patton, 1990) to select the site and study participants. These sampling technique questions included a maximum variation sampling. The process involved soliciting participants and a site, which represented critical cases (Lincoln & Guba, 1985).

Participants

An invitation letter was emailed to the faculty by the office staff (see Appendix A). All 18 of the general education teachers in the school were invited to participate in the research study. The study participants consisted of 11 general education teachers from a Catholic school on the West Side of town in a large urban area.

The 11 certified general education teachers completed the interviews and the demographic survey. All of them were currently or had previously taught students with autism. The two largest groups of educators had 0-3 years' experience and seven years or more experience. The years of experience and highest degree of education are presented in Table 1. Each participant was coded with a unique participation number to aid with the confidentiality of the teachers (see Table 1).

Table 1

Experience Teaching Students with Autism in a General Education Classroom

Interviewee	Gender	Highest Degree	Years of Experience
Teacher #1	Female	Master	3
Teacher #2	Female	Bachelor	27
Teacher #3	Female	Bachelor	25
Teacher #4	Female	Bachelor	2
Teacher #5	Female	Bachelor	4
Teacher #6	Female	Master	22
Teacher #7	Female	Bachelor	2
Teacher #8	Male	Bachelor	1
Teacher #9	Female	Bachelor	1
Teacher #10	Female	Master	17
Teacher #11	Female	Bachelor	27

Interviews were conducted to gain specific information from the experiences of teachers who had experience teaching students with autism. The interviews lasted 60-75 minutes. Each teacher was given a participation number. Ten of the 11 participants consented to be audio recorded. For the participant who did not wish to be recorded, field notes were used for data collection. Each of the audio recordings and field notes

were transcribed to text by the researcher. A 13-question interview guide was used to conduct structured interviews with the staff.

The researcher was originally seeking 9-12 participants with three to four teachers in each of the three categories (0-3, 4-6, and 7 or more years of teaching experience). A total of eleven participants were interviewed—five teachers with 0-3 years of experience, one teacher with four years of experience, and five teachers with more than seven years of experience. Figure 1 indicates the number of participants interviewed in each respective category (i.e., years of service).



Figure 1. Participants' Experiences Teaching Students with Autism in a General Education Classroom

Open-Ended Questionnaire

The open-ended interview guide was created by the researcher and consists of 13 questions asking teachers to expand on their development regarding knowledge of

inclusion, execution of practices, and ability to reflect on their theory of the inclusion students with autism in a general education classroom. Chapter III stated this guide was the researcher's means of providing participants with an opportunity to express their perceptions and experiences (Patton, 1990). These interview questions were framed using the Teacher Self-Efficacy Scale (TSES) developed by Anita Woolfolk Hoy (Tschannen-Moran & Hoy, 2001; see Appendix B). The TSES scale identifies three consistent correlating factors within the instrument: efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management (Tschannen-Moran & Hoy, 2001). A Likert scale is used on the TSES to measure the efficacy of each teacher in the areas identified previously. This study defines self-efficacy as the beliefs in one's ability to succeed in specific situations or in accomplishing a task (Bandura, 1977). Therefore, the researcher used the survey to create interview questions that aligned with the correlating factors of situational confidence identified by Bandura. The researcher added additional questions based on a review of the literature—which analyzed how teacher training effected self-efficacy as well.

Table 2

Interview Questions

Guided Questions	Sub Questions
1. To what extent can you provide an alternative explanation or an example when students with autism are confused?	Can you describe how you do this? Can you give an example?
2. To what extent were you able to gauge the students with autism comprehension of what you have taught?	Can you describe how you do this? Can you give an example?

3. In what way did your practice as a teacher change from your experiences working with students with autism?	Explain how these changes came about.
4. What experiences went well with the inclusion of students with autism in your classroom?	What experiences did not go well with the inclusion of students with autism in your classroom?
5. Do you believe that you possess the skills needed to implement inclusive educational practices?	
6. Can you describe what was effective about inclusive educational practices in the general educational classroom?	
7. What is feasible about inclusive educational practices in general education?	
8. How much can you do to adjust our lesson to the proper level for students with autism?	Can you describe how you do this? Can you give an example?
9. How well were you able to provide appropriate challenges for students with autism?	Can you describe how you did this? Can you give an example?
10. Describe how you were able to provide alternative strategies for the student with autism.	
11. How much were you able to control the disruptive behavior of students with autism?	Can you describe how you did this? Can you give an example?
12. Can you describe preservice training, if any, you have had that prepared you to teach students with autism?	Can you describe preservice training you think you would have needed to prepare you to teach students with autism?
13. Can you describe in-service training, if any, you have had that prepared you to teach students with autism?	What in-service training do you think you would have needed to prepare to teach students with autism?

Data Analysis

Interviews

To analyze the interview data, the researcher audio recorded all sessions with a digital voice recorder and transcribed the recordings verbatim using Microsoft Word. Transcribing the interviews allowed the researcher to become intimately familiar with the data during the analysis process (Merriam, 1998, p. 110). The researcher uploaded the transcriptions and field notes into Nvivo 11, a web based qualitative research data analysis software, to explore the data and discern findings relevant to the research questions. The researcher analyzed the data through an open coding method that limits the researcher's biases and preconceptions by allowing the data to provide distinct concepts and categories (Blair, 2015).

Using conventional content analysis (Hsieh & Shannon, 2005), the researcher coded an interactive process where the researcher read and reread the transcripts to make meaning from participants' ideas and began sorting information in broad categories related to the research questions. Reading word by word, the researcher developed codes using teachers' exact words and phrases to capture their key thoughts and ideas. During this, the researcher determined which codes represented more than one key thought and aggregated the data in emerging categories. This categorical aggregation allowed the researcher to organize teachers' experiences as they related to the research questions (Hsieh & Shannon, 2005; Stake, 1995). The researcher repeatedly examined the data, reading the transcripts again and again to find patterns and meanings. The researcher used Nvivo 11 to narrow the categories and individual instances into more specific themes

using multiple descriptors to connect findings with research questions (Hsieh & Shannon, 2005; Merriam, 1998).

Three generic subcategories emerged from the data: training, execution of practices, and reflection of experiences. These components were directly linked to the research questions and sought to determine the aspects of how teachers were affected by the inclusion of students with autism in general education classroom. These generic categories were identified because they were essential in attempting to answer the research questions. The subcategories were identified by analyzing the content of the transcribed interviews using the lens of the generic categories. The analysis results are presented based on the research questions.

The study findings were triangulated to support the researcher with valid and reliable data. Lincoln and Guba (1985) offer triangulation as a means of identifying the themes found within research data; this allows participants from a specified setting to offer different accounts of different stages of an activity. The assertions are supported with two or more perspectives from other participants. The findings from multiple teachers within the Catholic school allowed the researcher to gain insight on how teachers' self-efficacy are effected by the inclusion of students with autism in a general education classroom. The inconsistencies within the data were easily identified due to the lack of support given by other participants.

When focusing on the generic category of training, it became apparent that the predominant theme in the generic category is whether participants received in-service or preservice training. Therefore, the next section is divided into two categories: preservice

and in-service training, to answer research questions 1 and 2, which sought to determine how training effected the self-efficacy of teachers when students with autism were included in general education classrooms. These generic categories are essential in determining how teachers are trained to teach students with autism and therefore are categories that are reliably reflected to this study. The findings for research questions 1 and 2 are presented under the heading “Training.”

Training

Preservice training (RQ1). Through interviews with teachers, a category that became apparent under training was preservice training. This included giving insight into preservice classes taken or suggested meeting graduation requirements that assisted participants with teaching students with autism. Figure 2 shows categories and subcategories that emerged during the interviews.

RQ1 for this study asked, “How are teachers’ self-efficacies toward inclusion related to their prior experiences of students with autism in their preservice training?” All of the participants graduated from a general education teacher preparation program except for one. Teacher 7 received a bachelor’s degree in special education and is currently working on a master’s in general education.



Figure 2. Coding Scheme for Preservice Training

Additional training in special education. A second emerging theme was the number of courses participants completed that aided educators in their ability to teach students with autism. These courses could include seven hours or more of courses that developed teachers' knowledge of various disabilities. Additional training in special education also included practicums or observation hours in inclusive classrooms. Table 3 indicates there are two categories of preservice training. When asked to describe the preservice training received in preparation to teach students with autism, four of the participants stated they had additional courses within a special education program. The type of additional training received differed among the participants. For example, one teacher had a bachelor's degree in special education; another stated, "At X university,

they were starting an approval status program.” She went on to describe the four courses on various special needs topics and the additional two-hour class she completed. She continued explaining that the courses counted as electives and could later be used with additional course hours to receive a special education certification. Another participant with additional special education preservice training described a program that required her to have additional courses and two practicums in an inclusive setting. Three of the four participants with additional special education training described their acquired skills as a tool kit. As stated by a teacher, “I think my special education degree prepared me with a bag of tricks.” These teachers had a higher, self-reported efficacy due to the additional training they received in preparing them for students with disabilities.

Table 3

Preservice Training Experienced by Participants

Research Question 1: How are teachers’ self-efficacies toward inclusion related to their prior experiences of students with autism in their preservice training?		
Teacher Preservice Training	Subcategory	Responses
	Additional Special Education Training (more than seven course hours)	4
	3-6 Hours of Special Education Training	5
	No Courses	2

Three to six hours of special education training. Through further discussion with the teachers, a subcategory that emerged was the amount of coursework provided by teacher preparation programs. Limited course work in this research study describes those

teachers who had 3-6 hours of training in special education. Several teachers mentioned taking one course in special education, while two participants acknowledged taking two courses in special education. One participant stated, “I believe I have only taken two special classes.” Another teacher agreed, “Oh that’s been years ago, I think I had one in special ed.” These participants described the one to two courses in general education programs that provided them with a broad base of knowledge for a variety of disabilities. Two of the teachers did not receive preservice training that prepared them to teach students with autism. As one teacher stated, “No! In the 60s when I earned my degree, you were taught to be a straight [general education] teacher or you were into special ed. [education] there was no in between.” It wasn’t until the two teachers with seven years or more of experience went on to earn advanced degrees that they learned more about students with disabilities. Four of the teachers that received 3-6 hours of special education training described feeling unprepared for today’s inclusive classroom. “Besides those two classes, none of the other classes focused on the special education track program. Which is a big concern.” She went on to explain that schools are moving toward an inclusive environment, yet not understanding why special needs classes are only offered for those students on the special education track. Another interviewee stated, “So I feel like that [course] didn’t really prepare me as much as I needed.”

Courses in special education. As the prevalence of autism continues to rise, teachers need a foundation of knowledge to assist them with meeting the needs of these diverse learners. However, three of the participants in the 0-3 years of experience range described courses that acknowledged autism within these classes. One participant

described that several days during the course, they focused on “students with autism and what can we do and what kind of behavior charts, and how can we break the lesson down even further to assist with those students’ understanding.” However, over half of the participants described courses that provided information on a wide range of topics and disorders in special education. Despite the prevalence of autism and inclusion in today’s educational system, these teachers had low, self-reported efficacy in regard to the preservice training they received. This theme could be due in part to the limited amount of coursework in special education these participants received in their teacher preparation programs. “I took one course which described a lot of different disorders and then it was like check that off the [requirement] list.” She went on to describe how she would have appreciated additional courses in special education that allowed her to have knowledge of students with disabilities. Because most participants had limited courses in special education, the major category for the feedback focused on the need for additional training that allowed teachers to gain the knowledge needed to teach students with autism.

Training effects on self-efficacy. It is important to gain an understanding of how to create an inclusive environment to support students with autism. The teachers who had additional preservice training in special education had a higher self-reported efficacy rate than those who took one to two courses during their teacher preparation programs and were often capitalized on for their expertise. “So, everything I’ve learned, unfortunately, has not come from an academic class or in a program, but came from a peer or colleague who is having success with that particular strategy.” These four participants felt prepared to teach students with autism in an inclusive classroom. One participant said:

So, I had training in special education and so, obviously, autism is one of the biggest disabilities in schools today and one that teachers face, and I have definitely had a number of classes and days where you focus on just students with autism.

This participant went on to describe the various strategies she was taught within those courses. The teachers with additional special education training gained additional strategies, which allowed them to feel more confident in their ability to meet their students' needs. One subcategory that emerged from the preservice training question regarding the reasoning for the self-efficacy beliefs of teachers with additional special education training involved the following: the support and structure of their university made those participants believe they could be successful. Those staff members were able to utilize those field experiences and knowledge gained through those programs to provide them with the confidence needed to meet the challenges of teaching students with autism. As stated by a novice teacher, "Because I had that special education background, I had to take different special ed. classes and a lot of them did break down different disabilities and what situations may occur and how we can help them in the classroom."

Preservice training needed. In today's inclusive classroom, it could be assumed that teachers would receive additional courses in the special education department to prepare them for the evolving classrooms. However, most of the participants acknowledged the limited amount of training provided to them through teacher preparation programs. This subcategory could be due in part to the age range and years of experience of participants; however, two of the five teachers in the 0-3 years of

experience had a limited amount of course work required in their teacher preparation programs that would support them with including students with autism. As stated by a first-year teacher, “I believe I have only taken two special education classes.”

When asked to describe what type of training they believed would have assisted them in teaching students with autism, five participants were consistent in their desire to be trained more effectively to teach students with autism. Eight teachers’ suggestions listed specific training in various aspects of the autism spectrum disorder (ASD), including modifications, accommodations, behavior management, and sensory processing. “Really it [training] doesn’t have to just be autism, but classes that would prepare you for today’s classroom,” stated one teacher. Four teachers agreed there was a need for teachers to be trained more in special education while two specifically mentioned a desire to learn how to differentiate instruction. As one teacher commented, “[they taught you] how to teach math, but they never taught you [how to teach] math to students who aren’t getting it whether they’re diagnosed or not.” These teachers believed the strategies and knowledge gained within those classes would assist them with any child struggling in their classroom. Three participants felt being emerged in an inclusive environment while student teaching would have helped them learn how to teach students with autism. The four participants who received more training in special education also desired added training in ASD. Teachers acknowledged the differences among students on the autism spectrum. As one teacher explained, “There are so many manifestations of autism, not every child with autism manifest in the same way.”

In-service training (RQ2). RQ2 for this study asked, “How are teachers’ self-efficacies toward inclusion related to their prior experiences of students with autism in their in-service training?” In-service training emerged as a category within training. In-service training is learning acquired through conferences, workshops, consultation, and other learning environments. Research question 2 examined whether teachers are receiving the in-service training that would allow them to be prepared to teach students with autism. Figure 3 describes the coding scheme for in-service training.

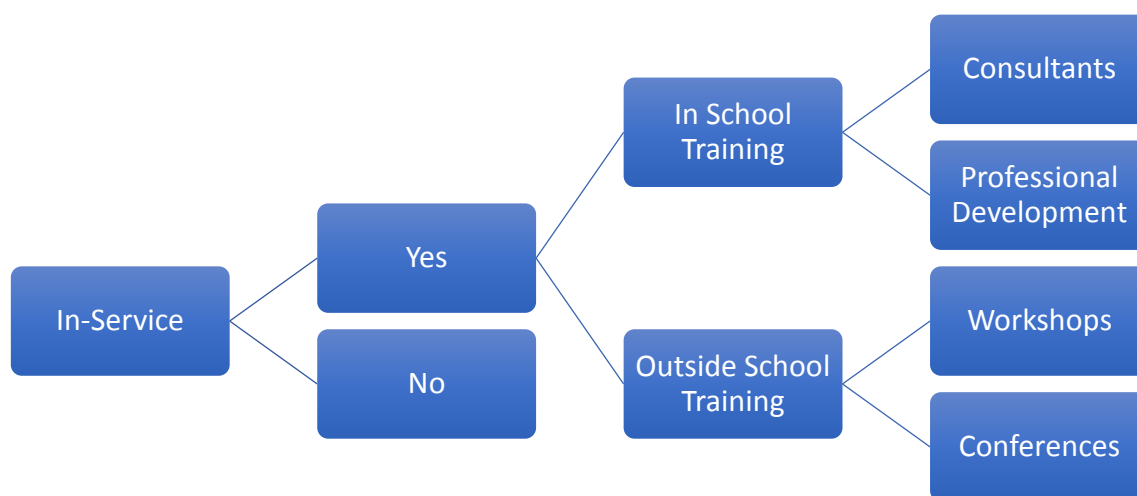


Figure 3. Coding Scheme for In-service Training

Training provided. Table 4 indicates the type of in-service training participants received that assisted them with teaching students with autism. Within this category, teachers’ responses to interview question 13 assessed the strength of the professional development provided to educators teaching students with autism. Ninety percent of the

participants interviewed acknowledged receiving in-service training. Based on the feedback, two subcategories emerged: in-service training provided within the school and in-service training provided outside of the school. Overall, teachers viewed in-service training essential to their success of teaching students with autism. The in-service category is centered on the support and structure provided by the district, parish, and school administration. Regarding the importance of in-service training, as described by one teacher, “We get a lot of professional development,” she continued:

I guess we are unique because we do have that [professional development]. We have principals who actually care about this and make sure that we’re getting the prep that we need, and really going out of their way to figure it out.

Table 4

In-service Training Acknowledged by Participants

Research Question 2: How are teachers’ self-efficacies toward inclusion related to their prior experiences of students with autism in their in-service training?		
Teacher In-Service Training	Subcategory	Number of Responses
	In School Training	5
	Outside Training	5

In school training provided. Considering information provided in the interviews, the in-service training teachers are provided with was a primary factor in answering the second research question. In general, teachers felt professional development helped to set the stage for including students with autism into general education classrooms. Two of the teachers mentioned consultants providing training on how to work with students with

disabilities. A teacher stated, “Years ago, we had a consultant that showed us how to use drama with students with autism.” Several other teachers mentioned the partnership the school had with universities and support service providers that assisted with learning various strategies supporting the inclusion of students with autism. A teacher in the 7 years or more group reflected, “Years ago, we had professors from X university come in and conduct training.” One teacher also stated:

I have had PD [professional development] given by the school or with Title I. A lot of these PDs covered autism by talking about the different areas of special education. There are things in special education that teachers need to be aware of.

Outside school training. The second subcategory that was discovered under in-service training was training provided outside of the school building. A teacher stated, “It’s been brought in here or you are sent to it,” She continued to describe the various opportunities she had to seek [regarding professional development] through various outside sources. One teacher in the seven years or more of experience group recalled various consultants and professional development provided within the school. Several teachers mentioned various outside resources they used to assist with providing instruction to students with autism—such as relationships with professors, reading literature on the autism spectrum, and Google (search engine). Teacher 3 stated:

God, it’s just a lot of Googling; I feel like not one kid is the same so I would be lying if I said I hadn’t tried 30 different things with one student and then finally one stuck. Then it lasted for a week and I had to try a new one.

Two of those teachers described a conference they attended focusing on various aspects of teaching students with disabilities, yet had several workshops that focused on the strategies that supported students with autism. “This summer we attended a conference that had different aspects of teaching students with disabilities. There were some that focused on learning more about students with autism, such as sensory processing disorder and behavior interventions.”

In-service training needed. An emerging subcategory for in-service training was supporting the inclusion of students with autism. When asked more specifically about the in-service training provided, the subcategory focused on gaining the knowledge and learning the strategies needed to support students with autism included in general education classroom. One teacher stated, “We get a lot of professional development. I just think ongoing updated information is necessary because I think the spectrum of autism is so great that we don’t even realize how one child can be,” she continued:

It’s [autism] such an interesting subject and it’s huge, so I think it’s just ongoing that you would need [professional development] all the time because it’s changing so much. It’s good to be current on anything even regular education. I think it’s important to get the new information that is available.

The category of in-service gives insight into the additional services teachers who are including students with autism would need to support the inclusion of those students. This includes giving awareness into which in-service training would be beneficial to the inclusion of students with autism. For example, one participant described the demand for behavioral interventions. “I would love a PD on behavior as far as particular students

with autism and their behavior.” Forty-five percent of teachers’ responses point to the need to learn more about how to present differentiated instruction to students with autism. “I would have loved a PD on how to assess, and how to grade, and how to determine how much do I modify this; it is difficult because it is a case by case and student by student.” Some participants thought they would benefit from additional field experience. One teacher stated, “I would have loved to do like a clinical experience.”

Many mentioned gaining a better understanding of the autism spectrum, hoping it would assist with teaching those students. A teacher stated, “I get it, they manifest themselves in so many different ways that you need training in not just differentiation, but how to understand their needs? How to get them to communicate.” This teacher also described the importance of teaching these students social functions and other skills. Four teachers believed that receiving training in behavior management would be beneficial to teaching students with autism in an inclusive setting. These participants felt like teaching teachers to understand students with autism behaviors and how to deal with them was essential for a positive inclusion environment that benefits all students in the classroom. Throughout the research interviews, many teachers in the seven years or more of experience category referred to their previous experience teaching students with autism as a pivotal resource in teaching students with autism. One teacher stated, “I feel like that [training] didn’t really prepare me as much as just being in the field and just having them [students with autism] in my classroom.” However, both teachers in the seven years or more and 0-3 years of experience categories believed they would benefit from in-service training that allowed them to have “more classroom experience,” as stated by a teacher.

Training helps provide teachers with various strategies to utilize; however, some teachers felt that, “the classroom is best, just what worked with other kids.”

Executing inclusive practices (RQ3). RQ3 asked, “Does a teacher’s self-efficacy toward the inclusion of students with autism effect the practices he or she implements within the classroom?” During the interview, participants were asked questions specifically targeting their inclusive practices implemented within the classroom. Teachers were asked open ended questions to provide a description in several areas regarding their ability to execute inclusive practices with the inclusion of students with autism in general education classrooms. Figure 4 depicts the coding scheme used to support research question 3.

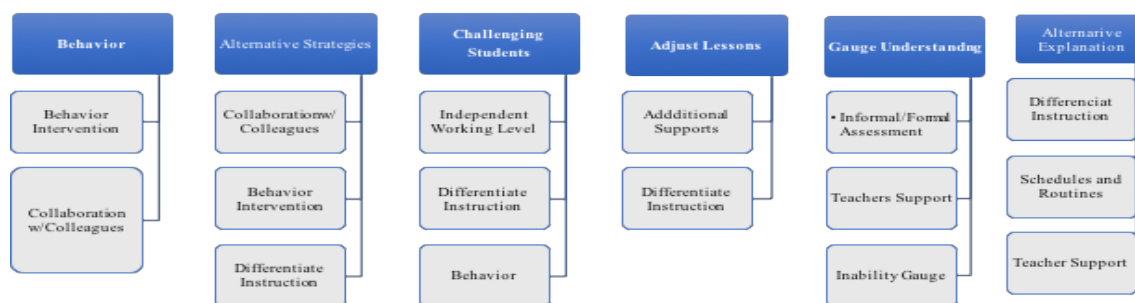


Figure 4. Coding Scheme for Inclusive Practices

Alternative explanations. It is important to gain an understanding of the multiple strategies implemented into a classroom that support the inclusion of students with autism. Through interviews with participants, a major category under inclusive practices

was the alternative strategies used to support the inclusion of students with autism.

Alternative strategies include the various strategies and examples used to assist students with autism when they do not understand what has been taught.

Table 5 indicates the discussion with teachers on how they are able to offer alternative explanations to students with autism when these students are confused. Teachers offered several subcategories in assisting with students with autism understanding. Several teachers offered differentiated instruction as a means for an alternative explanation to confused students. In this study, differentiated instruction was used to describe when teachers change the product, process, or environment for a student to help them understand curriculum and instruction.

Table 5

Providing Alternative Explanations

Research Question 3: Does a teacher's self-efficacy toward inclusion of students with autism effect the practices implemented within the classroom?			
Inclusive Practices	Category	Sub-categories	Number of Responses
	Alternative Explanation	Differentiated Instruction	9
		Teacher Support	4
		Routines and Schedules	2

Over three-fourths of the teachers provided examples of how they simplified instruction to support students with autism. As one interviewee stated, "I will go to the autistic child and go step by step through the explanation." Another teacher stated, "So a lot of the time, they were confused; you would really, really have to break it down."

Other teachers referred to the various ways they altered the instruction or task to offer an alternative explanation. For example, a participant stated, “So when a particular student is confused, it helps to differentiate the lesson, sort of. You’re modifying so you don’t have to change the end goal.” She continued:

We have a vocabulary quiz and its multiple choice with four options for each question. For a couple of students, I will take it down or chop some of the options for answers leaving the student with 2 instead of 4 [options] to choose from.

Another teacher explained how she used Howard Gardner multiple intelligence to differentiate her instruction: “Anything that taps into the kinesthetic and sensory to help those [students with autism] students.” Howard Gardner was a developmental psychologist who developed a theory of multiple intelligences describing the various ways to process information. While most teachers offered differentiation by simplifying instructions or altering their instruction as a means to providing students with an example if they did not understand, other teachers explained how they were able to offer students supports that assisted with the explanation. One teacher explained how she and the aid helped a student, “The assistant and I would sit by him to assist with the reading.” Another teacher agreed, “I like to sit with them more specifically to offer help if needed.” Two teachers in the primary departments stated that establishing schedules and routines helped, “I teach kindergarten so my children are often confused but we have to set guidelines and a very strict schedule and it’s what works the best; they need to be aware of what is coming.”

Overall, Table 6 indicates teachers in this study used differentiated instruction as a means to provide alternative strategies to students with autism. A hundred percent of the students in the 0-3 years of experience used differentiated instruction. This could be insightful into the information being provided in universities and colleges.

Table 6

Percentage of Responses for Alternative Explanations, Based on Years of Experience

Years of Experience	Differentiated Instruction	Routines and Schedules	Teacher Support
7 Years or More of Experience	80%	20%	20%
0-3 Years of Experience	100%	20%	20%

Table 7 identifies that students who received additional training in special education were also able to use differentiated instruction as a means to offer a different example at a rate of 100%. Participants with 3-6 hours of special education training were also able to provide differentiated instruction at a high percentage rate. Only half of the participants in the 0 hours were able to offer their students with differentiated instruction as an alternative example. It is surprising that study participants were able to use differentiated instruction at a high rate despite over half of the participants receiving a limited amount of preservice training.

Over half of the participants in the limited courses in education used routines and structures as a means to give students alternative examples. There are multiple reasons that could explain this data. The importance of a structure and routine could depend on where the student is on the autism spectrum. The student's age could also account for

these percentages. As well, teachers who taught in the primary grades noted the importance of routines and schedules more than those in the intermediate to upper grades.

Table 7

Percentage of Responses for Alternative Explanations, Based on Preservice Training

Amount of Preservice Training	Differentiated Instruction	Routines and Schedules	Teacher Support
7 Hours or More of Special Education	100%	20%	25%
3-6 Hours of Special Education Training	80%	60%	20%
0 Hours in Special Education	50%	0%	0%

Informal/formal assessment. Being able to gauge whether students with autism are comprehending what teachers are presenting also provided the researcher with a range of responses. Table 8 indicates the various methods used to gauge students with autism's understanding of the material taught. The subcategories that emerged from the category of gauging students understanding was differentiated instruction, assessments, and being unable to gauge students with autism's understanding. The majority of the interviewed participants discussed how informal and formal assessments offered teachers an opportunity to gauge students with autism's understanding of the presented curriculum and instruction. This study used formal assessments, such as comprehension tests and paper and pencil method, to measure students understanding of the information taught.

Informal assessments include nonverbal cues and observation. Three participants provided examples of how to use informal assessments to check for students understanding. One teacher stated, “If we were working in a whole group setting, I could tell she was understanding because of her smile or she would nod ‘Yes’ or would really become excited when grasping the information.” Another teacher who supported informal assessments stated, “I gauge it [understanding] if there is consistency in what we do,” she continued, “if I can do it on day one and do it on day three and get reasonable productive results, then I gauge that something stayed.”

Table 8

Gauging Students Understanding

Research Question 3: Does a teacher’s self-efficacy toward inclusion of students with autism effect the practices implemented within the classroom?			
Inclusive Practices	Category	Subcategories	Number of Responses
	Gauging Students Understanding	Informal/Formal Assessment	9
		Differentiated Instruction	7

Other participants described how more formal assessments are used to gauge students’ understanding. One teacher stated, “For comprehension, it’s usually through tests made with questions.” This contrasted with three other teachers who were unable to gauge students with autism’s understanding in an inclusive environment. A primary teacher stated, “He would just kind of sit there and I wouldn’t know if anything was

getting through or not.” Two participants mentioned frustration with formal assessments that were timed test. For example, one teacher explained:

Actually it was very difficult last year on the AIMS web test because it was a timed test and my student was very, very, very bright and he knew all of the material but scored very low because the time he had to do it was one minute and he couldn't do it. . . . He wasn't used to timed tests so we did not get an accurate result on what he knew.

Gauging students with autism may vary due to where the student is on the autism spectrum. The inability to gauge their understanding through formal assessments may also speak to understanding students with autism's needs and attempting to meet them.

Differentiated instruction. The second subcategory that emerged under gauging students understanding was using differentiated instruction to assist with students with autism's understanding. Several participants mentioned how differentiated instruction allowed them the ability to assess the understanding of students with autism. In addition, these teachers also acknowledged that students learn in a variety of ways. Teacher 8 reported, “Students are able to read at their level, which is great. They can still read the same topics as everyone else.” Several teachers described how simplifying instructions contributed to gauging students understanding of the curriculum. One explained:

I have to split my directions, very simply anyway, but those students tend to not even know those simple directions so I kind of have to take them individually and figure out what is the best method that this student will understand.

Another teacher supported that statement:

When they are confused, you would really, really have to break it down on a daily basis; we were working with the student on the calendar and understanding the order of the months and it was a lot of creating flipbooks and you would literally have to say what comes first, what comes second.

Table 9 recognizes participants (in the 0-3 years of experience) abilities to gauge their students with autism's knowledge by using assessments and differentiated instruction at 100%. However, in this category, teachers in the seven years or more of experience groups struggled to gauge their student's understanding. When examining Table 10, those teachers with additional training in special education were consistently able to gauge students understanding of concepts taught. This data established a connection between the preservice training provided and the ability to gauge students with autism's understanding. Surprisingly, the inability to gauge understanding came from those teachers who had limited amount of coursework instead of those who did not have preservice training in special education.

Table 9

Percentage of Responses for Gauging Students with Autism's Understanding, Based on Years of Experience

Years of Experience	Formal/Informal Assessment	Differentiated Instruction	Unable to Gauge
7 Years or More of Experience	60%	40%	20%
0-3 Years of Experience	100%	100%	20%

Table 10

Percentage of Responses for Gauging Students with Autism's Understanding, Based on Preservice Training

Amount of Preservice Training	Formal/ Informal Assessment	Differentiated Instruction	Unable to Gauge
7 Hours or More of Special Education Training	100%	100%	0%
3-6 Hours of Special Education Training	80%	80%	40%
0 Hours of Special Education Training	50%	50%	0%

Differentiated instruction. Teachers' abilities to adjust their lessons represented a major category in inclusive practices. In this study, adjusting a teacher's lesson refers to the teacher making modifications or accommodations to assist with students with autism's understanding. Table 11 indicates participants' responses to how they adjust their lessons. A major subcategory that emerged from the discussion was how differentiated instruction contributed to the students with autism's academic success. Nine teachers felt providing students with autism differentiated instruction allowed teachers to meet the needs of all learners. Teachers explained how they developed their lessons based on the goals and standards of the *average student*.

Table 11

Adjustment of Lesson Plans

Research Question 3: Does a teacher’s self-efficacy toward inclusion of students with autism effect the practices implemented within the classroom?			
Inclusive Practices	Category	Subcategories	Number of Responses
	Adjust Lesson	Differentiated Instruction	9
		Additional Supports	3

As Teacher 8 explained, “I start with the end goal, so backwards planning.” He explained how he taught the American Revolution and differentiated the students’ task. “While the accelerated or average student focused on writing a script with grammar and a presentation, the lower-tier students focused on the presentation” He continued, “Just really [being] intentional, what is your end goal for the assessment, and differentiating from there.”

A teacher explained:

All of the students have to write an opinion (paper); they have to come up with three reasons, they have to back it up, they’ve got to address the counter argument, and I expect autistic kids to do the same thing, but I will sit with them a little bit more. Or if there’s support systems there, they’ll sit with them and will walk them through it just like everybody else. I may modify it a little bit and say, “OK you only have to do two reasons for the opinion paper.

Nine of the teachers interviewed provided examples of how they modified a task or material to help students with autism gain a better understanding of the curriculum.

Making changes to materials, providing multiple examples, using Howard Gardner's multiple intelligence were also described as possible ways to assist students with alternative strategies. For example, "If I know the student, I will know how to help them to be successful. If I know the student has fine motor issues, I would [use] multiple choice or scribe for the student to limit pencil manipulation," a teacher stated. Another teacher supported the statement:

The rest of my students just did the regular norm, but say that student would be writing a narrative story. So, I would transcribe it. So, at that point I just wanted to know if that student could come up with stories and the ideas in their head—never-mind if they could write it.

Five of the teachers acknowledged how differentiated instruction not only benefited students with autism, but also assisted students who were not identified as a student with special needs, but struggle as well. One teacher stated:

So really thinking about everybody and the way they learn so that's a nice thing. You're coming up with just many different ways to teach the lesson and reach everybody, and not just your students with special needs. Maybe it started because you were thinking about that child but then at the end you're helping all of them.

A subcategory of additional supports emerged during a small number of interviews. Three teachers offered various ways they used additional supports to adjust their lesson to meet the needs of students with autism. In this question, additional support refers to teachers or aids being used to support students. This includes sitting with the student or collaborating with colleagues to determine the resources needed to support

student with autism. For example, one teacher commented, “I pretty much adjust to whatever they need. I would say up to this point, with the experience I’ve had, anything they need I can pretty much adjust my lessons for it.” Another teacher stated, “Using various resources like working with lower grade teachers and then finding other things on my own to support the student.” Interestingly, teachers felt that differentiating the curriculum and providing additional supports allowed them to adjust their lesson plans to meet the needs of all learners.

Table 12 does not show a difference in teachers’ abilities to adjust their lesson by using differentiated instruction. Teachers in the seven years or more and 0-3 years of experience categories were the same. Interestingly, teachers with the limited amount of special education training indicated using differentiated instruction to adjust their lessons more than those who had additional hours in special education training. Some differences also existed between the teachers with additional special education and limited special education, in their efforts to use additional supports to adjust their lessons for students with autism.

Table 12

Percentage of Responses of How to Adjust Lessons, Based on Years of Experience

Years of Experience	Differentiated Instruction	Additional Supports
7 Years or More of Experience	80%	20%
0-3 Years of Experience	80%	20%

Table 13 indicates that despite the additional special education training, the teachers in the seven hours or more category were second. In this category, teachers recognized that differentiating their instruction was the most appropriate way to adjust their lesson plans. The 3-6 hours of special education training also recognized their need for additional supports when attempting to adjust their lesson plans to meet the needs of students with autism.

Table 13

Percentage of Responses of How to Adjust Lessons, Based on Preservice Training

Amount of Preservice Training	Differentiated Instruction	Additional Supports
7 Hours or More of Special Education Training	75%	25%
3-6 Hours of Special Education	100%	40%
0 Years of Experience	50%	0%

It is widely recognized that students with autism differ depending on where they are on the autism spectrum. Therefore, when asked how teachers were able to provide appropriate challenges for students with autism, replies varied. Challenges were defined as requesting students to do something they felt was difficult. These challenges included assignments, social activities, and working at their optimal academic level.

Table 14 indicates participants' responses to how they challenged the students with autism. Feedback from participants regarding how to challenge students with autism identified using differentiated instruction. Seven of ten teachers mentioned various

literacy activities implemented to assist them with presenting challenging material for students with autism. For example, “So the student I have now is academically a high reader so we’re in a book club where they read higher books and they do very in-depth book studies and character studies.” Teacher 6 stated:

I have always believed a child that reads on a different level needs to be given a different book, given different ways to look at that book. Give them the challenge, give them the extra thing to do, a different way to look at it.

Table 14

Appropriate Challenges for Students

Research Question 3: Does a teacher’s self-efficacy toward inclusion of students with autism effect the practices implemented within the classroom?			
Inclusive Practices	Category	Subcategories	Number of Responses
	Challenge Students	Differentiated Instruction	10
		Independent Working Level	4
		Behavior	3

Another teacher stated:

I read him a story and I would be like can you tell me what happens next, tell me what happens in the middle, could this happen if this didn’t happen, things like that making them take the extra step to think rather than oh this just comes first, this comes second.

Some of the teachers mentioned providing students with mathematical activities that allow students to engage in complex thinking. One teacher stated, “Providing

mathematical challenges, illustrations, making the student provide specific details to execute the task.”

Independent working level. The discussion of challenging students also provided the researcher with an emerging subcategory of pushing students to their independent working level. In this subcategory, participants discussed pushing students with autism within their zone of proximity—which allows students to be challenged, but deflected students from becoming frustrated. As one teacher stated, “Give them the opportunity to go out of the box. They become more successful in what they are doing.” The four participants in this category discussed how to encourage students with autism to complete their work or to try something new. Another teacher added, “You can do this; just show me and it just . . . I think the challenge I present to him is I don’t let him give up.” One teacher explained how she was able to support the student with autism for him to be able to write a research paper. She explained how she created a support system that allowed him to receive the modifications and accommodations—such as a graphic organizer—to help him organize his thinking. Doing this allowed the student to complete a four-page research paper with parenthetical documentation. The teacher stated, “Now, they had help, but they did it. I mean they were smiling and they were confident because they did it.” She continued, “Now was it easy? No. But you’re going to be successful.”

Three participants shared how the autism spectrum often provided challenges to both teachers and students. Challenges with behavior was one of the subcategories that emerged within providing students with autism with appropriate challenges. For example, one teacher stated:

I think sometimes it's hard just because when you do present them with those challenges . . .," she continued, ". . . to know that they are going to have that breakdown. We want them to know that even when these behaviors come up, here is what we can do to help them [students with autism] get through it.

The information provided in Table 15 paints a picture that the 0-3 category of teachers may be attempting to challenge their students with autism in multiple ways. Participants in this group identified three of the three subcategories (differentiated instruction, independent working level, behavior) as a means of challenging students with autism. The responses of teachers with seven years or more of experience also indicated they used differentiated instruction to challenge students. However, this group of participants lacked responses in any other area. This may correlate with the previous data presented, which indicated a lack in preservice training that would allow them to have a variety of strategies to use to challenge students with autism. This also may provide an understanding as to the importance of continued in-service training. Although these teachers lacked preservice training, each acknowledged receiving in-service training. This information, in conjunction with the data provided earlier, paints a picture of the importance of ongoing in-service training that allows teachers to be emerged in professional development and provides them with a plethora of methods and strategies to meet the needs of students with autism—despite where the student may be on the autism spectrum.

Table 15

Percentage of Responses on Challenging Students with Autism, Based on Years of Experience

Years of Experience	Differentiated Instruction	Independent Working Level	Behavior
7 Years or More of Experience	80%	0%	0%
0-3 Years of Experience	100%	60%	60%

This is consistent with the information provided in Table 16, which acknowledges the effects of additional preservice training. The participants who received seven hours or more of special education training were consistently able to offer their students a variety of ways to be challenged. Table 16 also indicates that overall, the study participants used differentiated instruction to challenge and meet the needs of all learners.

Table 16

Percentage of Responses on Challenging Students with Autism, Based on Preservice Training

Amount of Preservice Training	Differentiated Instruction	Independent Working Level	Behavior
7 Hours or More of Special Education Training	100%	50%	75%
3-6 Hours of Special Education Training	80%	40%	0%
0 Hours of Special Education Training	100%	0%	0%

The use of alternative strategies, including differentiated instruction, was a major category in implementing inclusive instructional practices (see Table 17). When participants were asked how they provided students with autism an alternative strategy when teaching, the majority of the feedback focused on differentiating instruction. One of the teachers explained, “My kids that couldn’t get the sound, couldn’t get the concept of building the word to get /m/, /a/, /t/ kind of thing. So, I let them build words literally, physically build words with blocks.” Several teachers described how they used technology to differentiate their instruction:

I’ve really used a lot of technology with them. If you are nonverbal, you can show me, whether it’s in a book or on the iPad—that has helped a lot.” A primary teacher explained, “He would get an iPad and listen to the sounds and he knew all the words and he knew all sounds when he watched the video.”

Table 17

Alternative Strategies

Research Question 3: Does a teacher’s self-efficacy toward inclusion of students with autism effect the practices implemented within the classroom?			
Inclusive Practices	Category	Subcategory	Number of Responses
	Alternative Strategies	Differentiated Instruction	9
		Behavior Interventions	7
		Communication w/ Colleagues	3

Behavior interventions also emerged as a subcategory of alternative strategies (see Table 18). In this subcategory, behavior included modeling appropriate behavior, peer interaction/modeling, and the inclusion of fine/gross motor tools. One teacher explained, “The one that comes right off the top of my head right away is a motivation chart. Sometimes I’ve noticed that with my students who have autism, they can lack the focus and motivation to get things done.” A teacher in the 0-3 category agreed:

Sometimes those students just need a break, whether it’s a walk in the hall or a space in the room to get a moment to themselves . . . it helps. Most of the time, those students can take a break and come back to the lesson.

Several study participants explained how they sought the assistance of their colleagues and other resources. Communication with colleagues included support staff such as counselors and other educators. One participant said, “I would go on the internet. I would look at anything I could do to help him. I would talk to the counselor.” Another teacher explained, “Sometimes I had to have them teach me the alternative strategy.” The feedback from this subcategory acknowledged teacher’s willingness to support one another. It also emphasized the importance of appropriate training that prepared teachers to teach students.

Table 18 indicates that both teachers in the 0-3 and 7 years or more of experience are using differentiated instruction to provide students with alternative strategies. Table 18 also indicated that teachers in the 0-3 years of experience category are providing students with a variety of strategies in curriculum and behavior. This group also

collaborated with their colleagues to gain ideas on new strategies to assist with students with autism's understanding.

Table 18

Percentage of Responses for Alternative Strategies, Based on Years of Experience

Years of Experience	Differentiated Instruction	Communication w/Colleagues	Behavior Intervention
7 Years or More of Experience	80%	40%	20%
0-3 Years of Experience	80%	80%	40%

The data in Table 19 differs from that of the majority of the data presented previously—although teachers consistently use differentiated instruction to meet the needs of diverse learners. The teachers with 0-6 hours of training in special education had higher scores than those teachers who had received additional training in special education. The teachers in the 3-6 hours of training category also used behavior interventions at a higher rate than the other participants. The data for this question could acknowledge participant's confusion between interview questions 1 and 10; both had similar language and may account for the inconsistency in data.

Table 19

Percentage of Responses for Alternative Strategies, Based on Preservice Training

Amount of Preservice Training	Differentiated Instruction	Behavior Intervention	Communication w/ Colleagues
7 Hours or More of Special Education Training	75%	75%	25%
3-6 Hours of Special Education Training	80%	80%	20%
0 Bonus of Special Education Training	100%	50%	50%

Another category of the execution of inclusive practices identified within this study was behavior management. Participants were asked how much they were able to control any disruptive behavior of students with autism. Table 20 indicates the responses to question 11. The majority of teachers interviewed provided feedback that used a variety of behavior interventions to control disruptive behavior exhibited by students with autism. Redirections, breaks, and behavior charts were mentioned again and again by the staff as a means of assisting with the behavior of students with autism in their classroom.

Table 20

Behavior

Research Question 3: Does a teacher's self-efficacy toward inclusion of students with autism effect the practices implemented within the classroom?			
Inclusive Practices	Category	Subcategories	Number of Responses
	Behavior	Behavior Interventions	10
		Collaboration with Colleagues	2

For example, Teacher 5 stated the following:

I have a little corner in my classroom that is open to everybody but is there for these particular students. So, it's like a calming down spot. So, if that student needs to be by themselves for a moment they just go over there, but I like to open it to the whole class. I never want them to think this is specifically just for you.

Another teacher also stated, "I would let them go outside and sit at a table and calm down or they could move to a table and calm down." Yet another teacher stated:

We created a motivation chart because the child loved hockey. So, we had a Hawk's player on one side and the goal was for him to shoot and score a goal to the goalie. So every time that he accomplished a task in class he was able to move the hockey puck up to get closer and closer to make that goal.

Another teacher added, "You have to handle the situation as it comes. Find the best way. A behavior chart or a reminder chart works for some." She expressed how she tries multiple interventions depending on the student. Another teacher described how

nonverbal gestures and redirections assisted with student behavior, “Gestures, eye contact without talking, gentle hand on shoulder, and compliments.” Ten of the eleven teachers were able to use behavior interventions to assist with controlling any disruptive behavior of students with autism.

Collaboration with colleagues was a subcategory that also emerged in the category of behavior managements. The participants viewed the teachers with additional special education training as a resource to learn new and inventive ideas. “I asked one of the fourth-grade teachers one of her strategies and what she uses,” said one teacher. The fourth-grade teacher, who has a degree in special education, was mentioned by several teachers as a resourceful person who often shares various strategies and interventions with her colleagues.

Barriers toward inclusion (RQ4). RQ4 asked, “What current experiences with students with autism either facilitate or create barriers toward teachers’ views regarding inclusion of children with autism in general education classrooms?” It was important to gain an understanding of the reflective practices of teachers when including students with autism into their classrooms. Figure 5 indicates the coding scheme for research question 4.

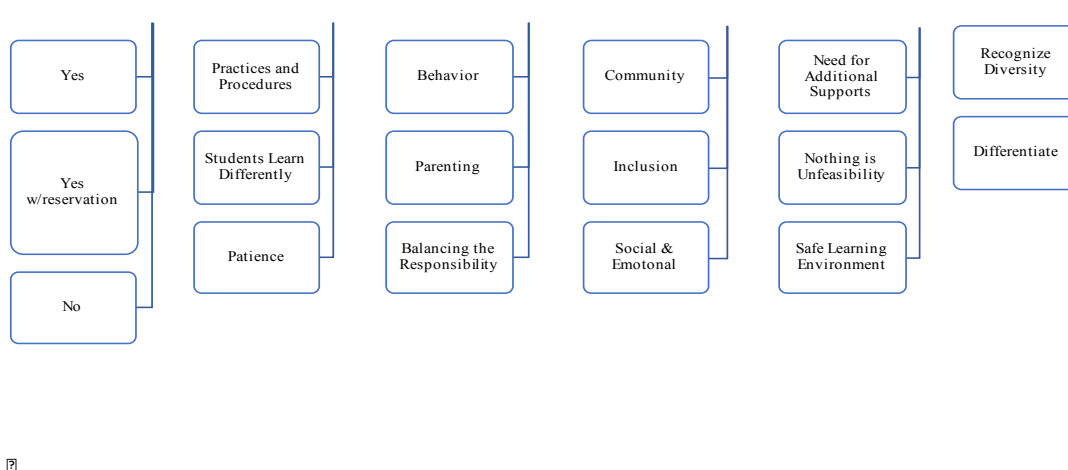


Figure 5. Coding Scheme for Research Question 4

As a part of the interview, teachers were asked about what went well with the inclusion of students with autism in their classroom (see Table 21). Positive impacts in this study will be defined as *sources of pleasure or optimism for teachers when implementing inclusive practices*. A surprising emerging subcategory of community was acknowledged by over half of the respondents. Teachers mentioned how understanding, protective, and helpful other students were when working with students with autism. Teachers in primary, intermediate, and upper grades described how a sense of community provides a positive impact for students with disabilities. One teacher described: “They’re friends and their looking out for their classmates, and they want to help, and they want to make sure they become a part of the classroom community.” The intermediate teacher added, “Just that reinforcing community and interaction from peer to peer has been the

most exciting thing.” The primary teacher also stated, “One of the biggest things I’ve seen with my students with autism is the community that’s built.”

Table 21

Positive Impacts on Inclusive Education

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers’ views of inclusion of children with autism in general education classrooms?			
Reflective Practitioner	Category	Subcategories	Number of Responses
	Positive Impacts on Inclusive Education	Community	7
		Inclusion	4
		Social and Emotional	3

Another positive impact of the inclusion of students with autism in general education classrooms were students’ abilities to understand and accept the differences among them. This correlated with the social growth that several teachers identified as contributing to the development of students with autism’s independence. One teacher stated, “My class is very accepting and they know when to help and when not to help, when they should be doing things on their own.” Another stated, “Kids are starting to realize that and be more inclusive. Recognizing difference, which is phenomenal,” she continued, “. . . reinforcing a sense of community and interaction from peer to peer has been the most exciting thing.”

For example,

. . . students have learned that there are going to be people in your life forever that are a little bit different. So, I have students that you would never guess would be the helper and really just stepped up. It's brought up conversations about how you help others who are learning differently or acting differently.

The third subcategory under the category of positive impacts of inclusion was the social and emotional benefits. Social emotional includes building friendships, an increase in confidence, and independence. A teacher described the impacts of social and emotional benefits as "helping build their independence; so I think just from the social aspect I've seen a lot of growth in my classroom with my students who have autism."

Table 22 identified 100% of the teachers in the 0-3 years of experience category agreed that community has a positive impact on inclusion. Teachers with the additional preservice training also agreed that community had a positive impact on inclusion. Table 23 shows that 100% of the teachers in the seven hours or more of special education recognized community as the most positive impact of inclusion. Surprisingly, the zero hours of special educational training appeared to find less positive impacts in inclusion. The responses varied for this interview question; however, that could be due to the current or previous experiences teachers had with students with autism. A teachers' perceptions on what went well with inclusion also could be affected by where the student with autism is on the autism spectrum.

Table 22

Percentage of Positive Impacts of Inclusion, Based on Years of Experience

Years of Experience	Community	Inclusion	Social and Emotional
7 Years or More of Experience	40%	20%	40%
0-3 Years of Experience	100%	60%	20%

Table 23

Percentage of Positive Impacts of Inclusion, Based on Preservice Training

Amount of Preservice Training	Community	Inclusion	Social and Emotional
7 Hours or More of Special Education Training	100%	50%	50%
3-6 Hours of Special Education Training	40%	40%	20%
0 Hours of Special Education Training	50%	0%	0%

Behavior. Table 24 indicates the responses for the category of challenges regarding inclusion of students with autism. Challenges are the aspects in which teachers struggled with as they implemented inclusive practices. The responses provided gave insight into how a teacher's self-efficacy is effected by inclusion. A major subcategory of the challenges of inclusion was the behavior of students with autism. Comparing the responses and detailed feedback allowed the researcher to identify five out of five teachers who mentioned behavior also questioned their self-reported efficacy. For

example, “We can’t control what goes on,” one teacher stated, as she described the situations that occur when students have an ‘emotional day.’ A teacher stated, “One child can change the environment instantly and it’s difficult to try to get it under control.”

Table 24

Challenges of Inclusion

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers’ views of inclusion of children with autism in general education classrooms?			
Reflective Practitioner	Category	Subcategories	Number of Responses
	Challenges of Inclusion	Behavior	5
		Parents Involvement	5
		Balancing Responsibility	4

Balancing responsibility. Efficacy was also a subcategory within the category of challenges of inclusion as teachers described the difficulties experienced when balancing the responsibilities of inclusion. For example, one teacher commented, “I feel pulled in different directions to help support one to two students with autism. And then my 19 other kids,” he continued, “I don’t even know if it’s necessarily something that didn’t work well but a struggle I have as a teacher.” Within the category of challenges of inclusion, teachers’ abilities to balance their responsibility also emerged. This subcategory could largely be in part due to the years of experience of those teachers. Four teachers in the category of 0-3 years of experience identified balancing the responsibilities of being a teacher as a challenge of inclusion. This could also correlate to

the limited amount of preservice training in special education that was received by these teacher preparation programs. Another teacher explained:

Another hard thing is its way more challenging as a teacher. Personally, it's a lot harder because you have to take the extra time to differentiate, you have to take the extra time to give sticker chart or make sure you are giving explicit instructions. As a teacher, you want to feel like you're including them and you want everyone to learn but it's important . . . and one thing I have a hard time with.

Parent involvement. Participants were also asked to indicate the challenges faced when including students with autism. Teachers reported opposition from families as the subcategories of challenges faced when including students with autism. A teacher commented, "Parent involvement and the way they handle a situation is so crucial to the success and the way they work with the teacher." Participants specified parental involvement, or lack thereof, as one of the difficulties of including students with autism in general education classrooms. For example, one participant stated, "So I would say that probably getting families to understand that middle ground. Because I have one who I knew they wouldn't do anything and they know he needs help." A lack of understanding on the part of the diverse learners' needs with situations that may occur within the classroom was also mentioned by teachers; for example:

So, he had a corner for reading in the room with a bean bag chair and sometimes he would just remove himself . . . so when he wanted to remove himself and he

would just go and his mother didn't want me to do that so that was very frustrating.

Some teachers mentioned the absence of support given when they were attempting to get support services for the child or in attempting to establish a home-school relationship that supported the development of the student with autism. For example, "Like the one student, he needs services and we have them through the program that I do, but the parents won't return the paper work and I have been trying since October."

As stated, when examining the positive impacts of inclusion, the responses varied among teachers—possibly due to a number of variables effecting their perceptions on the challenges of inclusion. However, Table 25 establishes that teachers in the 0-3 years of experience category have a difficult time adjusting to the demands of their job. This subcategory could possibly correlate with any number of variables, such as training or students.

Table 25

Percentage of Responses of Challenges of Inclusion, Based on Years of Experience

Years of Experience	Behavior	Parenting	Balancing Responsibility
7 Years or More of Experience	40%	60%	0%
0-3 Years of Experience	40%	40%	80%

Interestingly, Table 25 also indicates that despite additional training in special education, teachers found behavior most challenging. The lack of self-reported efficacy was most apparent in this area as many teachers expressed their struggles adjusting to the

various behaviors of students with autism. As one teacher stated, “In the beginning, I really struggled with what to do. I was often lost in just how to deal with the extra things, the behavior, the yelling, the acting out.”

Table 26

Possession of Skills for Inclusive Educational Practices

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers’ views of inclusion of children with autism in general education classrooms?			
Reflective Practitioner	Inclusive Educational Practices	Subcategories	Number of Responses
		Yes, with reservations	7
		Yes	3
		No	1

Regarding teachers possessing the skills needed to implement inclusive practices, 10 out of 11 reported “Yes.” For example, “I do. A lot of it, like I said earlier, it comes from my background, so I am a little more familiar with it than some of the other teachers might be.” As indicated by Table 26, the majority of teachers said “Yes”; however, seven of those teachers had reservations. These responses may be impacted by the in-service training that provides them with the strategies needed to implement inclusion. The majority of teachers were confident in their ability to implement inclusive educational practices. For example, one teacher commented, “Not everyone, but yes, I do believe I possess them because I’m willing to learn, willing to try, inclusive education.” A teacher in the 0-3 years of experience category stated:

Yes, but I would like to learn more. I don't think anyone is ever an expert on everything. I think there is always room to learn. I do feel like I present the skills necessary for a basic inclusion as far as everyone turning in work, I'm differentiating, I'm modifying, keeping a community environment great.

Table 27 indicates that while 10 of the 11 teachers believed they possessed the skills needed to implement inclusion, the teachers in the 0-3 years of experience category had the most self-reported efficacy. The majority of teachers interviewed in this study believed they possessed the skills needed to implement successful inclusive education. Interestingly, Table 28 indicates that despite additional training in special education, the teachers in the seven hours or more of special education training category reported the highest rate of reservations when questioned about the skills they believed they possessed. Table 28 also indicates that despite a lack of special education training, teachers in that category still believed they possessed the skills needed to implement inclusive educational practices. This could support evidence of the effectiveness of in-service training due to the fact that neither of the participants received preservice training in working with special education students. Both of the teachers, self-reported efficacy could be a result of their years of experience—considering both of these teachers have seven years or more of experience.

Table 27

Percentage of Participants Who Possess the Skills Needed to Implement Inclusion, Based on Years of Experience

Years of Experience	Yes, with Reservations	Yes	No
7 Years or More of Experience	60%	20%	20%
0-3 Years of Experience	60%	40%	0%

Table 28

Percentage of Participants Who Possess the Skills Needed to Implement Inclusion, Based on Preservice Training

Amount of Preservice Training	Yes, with Reservations	Yes	No
7 Hours or More of Special Education Training	75%	25%	0%
3-6 Hours of Special Education Training	60%	20%	20%
0 Hours of Special Education Training	50%	50%	0%

Recognizes diversity. When asked to describe effective inclusive educational practices that occurred in classrooms, the responses varied. Table 29 indicates the two common subcategories within the theme of effective inclusion, diversity and differentiated instruction. Participants suggested that students are able to recognize and accept the differences that exist among them. One teacher responded that inclusion

teaches students understanding and empathy. She added, “I think what’s really effective is past what education is. It (inclusion) teaches all the students to be accepting to everybody.”

Another teacher added:

I think it’s good for the general ed. student because no matter what point they are in their life they’re always going to be . . . there’s that chance that someone with a disability of any sort of disability not just autism will be placed into their life and I think it’s good for them to know what to do in those situations and how to help them.

Table 29

Effective Inclusive Educational Practices

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers’ views of inclusion of children with autism in general education classrooms?			
Reflective Practitioner	Category	Subcategories	Number of Responses
	Effective About Inclusion	Recognize Diversity	5
		Differentiated Instruction	2

Differentiated instruction. Differentiated instruction was discovered as one of the two subthemes of the effectiveness of inclusion educational practices. When asked to describe the effectiveness of inclusive educational practices, one teacher replied, “It forces a lot of teachers to really differentiate their instruction,” the teacher continued, “. . . so your really thinking about everybody and the way they learn so that’s a nice thing.”

Another teacher stated, “I guess because it forces the teacher to teach more than one way.” Although these two subcategories represent a limited portion of the responses, it offers insight into how various experiences shapes the perceptions of teachers.

Table 30

Feasibility

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers’ views of inclusion of children with autism in general education classrooms?			
Reflective Practitioner	Feasibility	Subcategories	Number of Responses
		Need for Additional Support	5
		Safe Learning	4
		Nothing is Unfeasible	2

Need for additional support. Several questions in the interview spoke to teachers’ confidences in their ability to influence the success of students. Table 30 identifies the three most common subcategories under the category of feasibility. This study defined feasibility as what teachers believed they were capable of doing. Through discussion with the teachers, a major subcategory involved several teachers identifying the need for additional support services for students. Additional supports included speech therapy, occupational therapy, physical therapy, and other support services. This subcategory could be due to the lack of supports Catholic schools have; Catholic schools do not have the same amount of resources available for students with special needs as found in public schools.

For example:

For our school, specifically, and I know other Catholic schools don't have as many services provided for children with special needs and we do offer some services so I think it is a big help. I know that the public schools are a little different because they do have all of those services, but making sure the students that need the services are getting them is feasible.

Another teacher stated, "I think it's a doable thing because . . . I guess . . . if they've had the support, it's doable."

Safe learning environment. Participants suggested that providing a safe learning environment was in their control. For example, one participant stated, "Making the room safe for learning; for example, some classes have kids that are violent, they don't have to be autistic, you have to let them know what's not allowed. Don't change the standards." Another participant said, "I think building that classroom community right off the bat and that acceptance." She acknowledged how unsafe environments would make it [inclusion] more difficult. However, two of the study participants suggested there was nothing unfeasible when it came to implementing inclusion. A novice teacher stated, "I think if you're willing to put the time in, I think anything is. . . ." The teachers in the 0-3 years of experience category had a higher self-reported efficacy.

Tables 31 and 32 acknowledge teachers' understandings of the importance of a support system that assists with the inclusion of students with autism. Not enough evidence supports the fact that one group recognizes it more than another. Table 32 recognizes the self-reported efficacy that teachers in the 0-3 years of experience category

had. There are several ideas to the confidence expressed by the teachers in the 0-3 years of experience category. Age and experience could play major roles in the confidence teachers have for the feasibility of inclusive educational practices.

Table 31

Percentage of Responses for Feasibility of Inclusion, Based on Years of Experience

Years of Experience	Need for Additional Services	Safe Learning Environment	Nothing is Unfeasible
7 Years or More of Experience	60%	40%	0%
0-3 Years of Experience	40%	20%	40%

Table 32

Percentage of Responses for Feasibility of Inclusion, Based on Preservice Training

Amount of Preservice Training	Need for Additional Services	Safe Learning Environment	Nothing is Unfeasible
7 Hours or More of Special Education Training	50%	25%	25%
3-6 Hours of Special Education Training	40%	20%	20%
0 Hours of Special Education Training	25%	25%	0%

Changes in practices and procedures. It is important to gain an understanding of how the experience of teaching students with autism effected teachers' practices. Table 33 indicates the three subcategories that surfaced when teachers were asked to reflect on

what ways their practice changed by teaching students with autism. Through further discussion with the teachers, a subcategory was changed to Changes in Practice and Procedure. Changes in practices and procedures included differentiating instruction, organization, and planning. Over half of the participants responded that they had changes to their practice and procedures. These changes could be due to the instruction it provided. For example, one teacher commented:

If there is any short answer or open response questions, they will be scribed by either myself or an aid will write down their answer and then I make sure that I make note of it so the parents know they are their words but someone else had written it for them.

Table 33

Changes to Teachers' Practices

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers' views of inclusion of children with autism in general education classrooms?			
Reflective Practitioner	Category	Subcategories	Number of Responses
	Change in Practices	Changes in Practice and Procedure	9
		Students Learn Differences	7
		Patience	3

Another teacher agreed, "If I noticed that the student didn't respond, then I would make alterations to what she needed to do as a teacher." The teachers' responses noted that changes were made to their organization. "I would probably say that the biggest

thing that I have learned was preparing beforehand,” said a teacher. Many of the responses acknowledge the various ways teachers have learned to make the changes needed for students with autism to be successful in the classroom.

Students learn differently. A second emerging subcategory involved teachers acknowledging that students learn differently. One teacher stated, “So I think it just makes you more aware, even just each student’s individual needs.” Another agreed, “So I quickly learned that nobody learns the same. Not everyone can sit at a table and not everyone can do the same things.” The participants’ responses to this subtheme involved sharing accounts of how they identified the needs of those students and began addressing those needs. These responses may be connected to the spectrum of autism and how it varies among students.

Patience. The third subcategory within the category of changes to practices was patience. A teacher stated, “I think I changed as a person when I started working with autistic kids. It made me much more patient.” Another teacher commented, “The change also comes in your own level of patience and the need to repeat it 47 times.” The three teachers whose response was “patience” were teachers in the seven years or more of experience category; therefore, and patience could be considered a natural progression over teaching years.

Table 34 indicates that teachers in the 0-3 years of experience category acknowledged the most change to their practices and procedure. This data could be due to these teachers being new to the profession and their perceptions being shaped by their prior knowledge and experiences. Table 35 also recognizes the willingness teachers have

to make changes to improve their instruction. Both teachers in the seven hours or more of special education and teachers in the zero hours of education both acknowledge the changes to their practices and procedures. It could be inferred that despite a lack in preservice training, the zero hours of special education training teachers are willing to continue to learn and seek knowledge. This also correlates with the changes to their patience that also occurred due to teaching students with autism.

Table 34

Percentage of Responses to Changes in Practice, Based on Years of Experience

Years of Experience	Practices and Procedures	Students Learn Differently	Patience
7 Years or More of Experience	60%	60%	60%
0-3 Years of Experience	100%	80%	0%

Table 35

Percentage of Responses to Changes in Practice, Based on Preservice Training

Amount of Special Education Training	Practices and Procedures	Students Learn Differently	Patience
7 Hours or More of Special Education	100%	75%	0%
3-6 Hours of Special Education	60%	60%	20%
0 Hours of Special Education	100%	50%	100%

Self-Efficacy

When self-efficacy was contextualized into participants' instructional capabilities, 10 out of 11 teachers interviewed were confident in their ability to implement inclusive educational practices. This fact is interesting since most of these same participants acknowledged they did not receive adequate preservice training. The researcher found that although these participants stated "Yes," many spoke of their reservations. The novice teachers recognized their number of years as a classroom teacher allowed them continued growth in the area of learning new practices to implement within an inclusive classroom. One teacher in the 0-3 years of experiences category stated:

I think being a first-year teacher and still learning, I think my skills are going to be expanded. But, I think along with my students, everyday I'm learning and there is always something else I can learn or I can do better.

The remaining four teachers interviewed in the 0-3 years of experience category agreed that although they were confident they possessed the skills needed to implement inclusive educational practices, each identified several areas in which they could continue to grow—such as differentiated instruction and assessments.

Three of these teachers acknowledged how their previous preservice experiences in a special education teacher preparation program provided them with the necessary tools to implement inclusive practices. The more seasoned teachers also believed they possessed the skills needed to implement inclusive educational practices; however, they acknowledged that the link between their previous experiences as a teacher prepared them to teach other students with special needs. One of the seasoned teachers mentioned,

“I believe I do now because I have quite a few years of experience.” She went on to say how in her first year of teaching, she felt like she was learning as she went. However, her previous experiences allowed her to be more confident in her ability to meet the needs of other students with autism. Several teachers in the seven years of experience or more category referred to times within their career when they were unsure of how to implement those practices. For instance, one stated:

I’m not going to lie, I’ve been teaching 25 years and I’m still insecure when any special needs come into my room. Am I going to be able to do everything they need? I’ve come to the realization I can’t do everything but I do my best.

The teacher continued explaining that when confused about the best methods to help her students, she often went to novice teachers because they had new and innovative strategies and had matriculated from a more structured academic environment.

In question 4, participants were asked to reflect on how their practice as a teacher had changed due to their experiences with students with autism. Three-fourths of the teachers interviewed recognized a shift in their thinking that acknowledged that students learned differently. This recognition caused a shift in their instruction that effected all students. One teacher stated:

I became more acutely aware of my own procedures and practices because I wanted to make sure they were getting it all. I found that some of my other students benefited from some of my practices with the autistic kids too.

The participants identified the importance of providing students with differentiated instruction that allowed the curriculum to meet the needs of all students within the

classroom. Each teacher provided the researcher with an example of how a strategy used for students with autism benefited other students; this caused them to modify their practices and procedures. For example, several teachers mentioned the schedules they provided for students with autism. However, many of them noticed all of the students benefited from the structure and organization the schedules provided. This also made many teachers more organized in their planning.

Conclusion

This study and research were designed to examine the impact of a teacher's self-efficacy as it related to the inclusion of students with autism. Participants consisted of general education teachers from a Catholic school on the West Side of town in a large urban area. A qualitative method approach was used to answer research questions due to the fact it offered the participants an opportunity to give in-depth accounts of their experiences and perceptions of the inclusion of students with autism. The study results discovered that training effects a teacher's self-efficacy with the inclusion of students with autism. These results speak to the importance of foundational and continued training when preparing to teach diverse learners. The results also show that teachers self-efficacy is affected by the instructional practices used while teaching students with autism. These experiences affect the self-efficacy and the perceptions of feasibility of including students with autism in general education classrooms.

Chapter V summarizes the study and presents conclusions and implications about the findings. In addition, it provides implications for change, limitations of the study, and recommendations for future research.

CHAPTER V

DISCUSSION

Introduction

This chapter provides an interpretation and discussion of the findings presented in Chapter IV. It also discusses the implications and provides a synopsis for the future research of the inclusion of students with autism and how it relates to teacher self-efficacy. The sample population for this study included 11 general education elementary school teachers from a small Catholic school in an urban area in a large Midwestern state. The purpose of this study was to determine if connections existed between teacher self-efficacy and the inclusion of students with autism. This research study also investigated if teachers who had undergone preparation had a positive experience with the inclusion of students with autism and experienced a higher self-efficacy. This qualitative study used in-depth interviews to allow a deeper understanding of participants' perceptions, feelings, and opinions. The research questions guiding this investigation into teacher self-efficacy and the inclusion of students with autism in general education classrooms were:

Research Question 1: How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their preservice training?

Research Question 2: How are teachers' self-efficacies toward inclusion related to their prior experiences of students with autism in their in-service training?

Research Question 3: Does a teacher's self-efficacy toward the inclusion of students with autism effect the practices he or she implements within the classroom?

Research Question 4: What current experiences with students with autism either facilitate or create barriers toward teachers' views regarding inclusion of children with autism in general education classrooms?

Literature on inclusion is prevalent as the dynamics of the classroom changes; however, limited research exists on teacher self-efficacy and its relation to the inclusion of students with autism. This research sought to fill that gap and add to the existing literature on the relationship between teacher self-efficacy and inclusion. Identifying the relationship between the two variables has implications for teachers, administration, and teacher preparation programs that reveal the changes needed to affect the preparation of future educators.

Analysis

Preservice Training

One of the categories that emerged from the researcher's analysis of the pretraining of general education teachers was the lack of preparation for an inclusive classroom. The data collected from the interviews indicated that over half of the participants had one to two courses or less in special education while in teacher preparation programs. This data is alarming considering the number of students with special needs being placed in general education classrooms is at such high rates. In 2013, researchers Allday, Neilsen-Gatti, and Hudson (2013) discovered that when examining teacher preparation programs at 109 colleges and universities in the United States, only 7-

10% of them were addressing issues dealing with meeting the needs of students with disabilities. The researchers' findings indicated that in over half of the colleges and universities examined, the average amount of coursework dedicated to inclusion was less than seven credit hours. This has a direct connection to the findings in this research study, which discovered five teachers with 3-6 hours of training in special education and two teachers with zero hours of special education training.

The participants in this study believed that teacher preparation programs needed to increase future educators' experiences and knowledge of students with special needs in order to meet the needs of diverse learners. Eight teachers desired to increase their knowledge of students with autism. These teachers asked for added training in behavior interventions, modifications, accommodations, and other skills needed to assist with the inclusion of students with autism. Everhart (2009) called for an initiative that would improve self-efficacy of preservice teachers. Recent literature examines how inclusion instruction, collaborative teaching, and practicum settings will affect a student teacher's efficacy. The study recognized that teacher preparation programs typically focused on course content (Hamman et al., 2013). This was consistent with the researcher's findings in this study where six of the participants mentioned the separation of the special and general education programs. The teachers mentioned a concentration on teaching core content, but a lack in preparing future educators for an inclusive classroom. Researchers discovered that teacher candidate's confidence in their abilities increased by being exposed to inclusion practices in their practicum (Hamman et al., 2013). This

corresponds to this study's findings where three of the four teachers who had seven or more hours of training expressed a higher self-reported efficacy.

The recommendations given by Busby et al. (2012) identified several challenges when including students with autism: effective training, collaboration with other educators, and knowledge of how to include students with autism. These results were similar to the concerns the study participants mentioned when working with students with autism in general education classrooms. Teachers in this study mentioned a lack of knowledge and not being adequately trained in preservice programs to deal with students with autism. The recommendations given by Busby et al. to Troy University included coursework in presenting best practices, field experience in an inclusive environment, and multiple opportunities to observe a successful inclusive educator for children with autism and other disabilities. When the participants were asked what preservice training was needed to prepare them to teach students with autism, the teachers identified five of the six recommendations given by Busby et al. The study participants mentioned course work that provided knowledge of various disabilities, empirically validated best practice procedures for inclusion, preservice programs that model inclusion, opportunities to observe a successful inclusive practitioner, and field experience. These findings suggested a connection between the teachers' needs (who work with students with autism) and the training needed to feel confident in their ability to teach these students.

Dual Programs

One solution for the preparation of all teachers that work with students with autism would be dual special and general education programs. Researchers have called

for more teacher preparation programs that meet the needs of both special and general education classrooms (Laarhoven et al., 2007). Although none of the participants in this study made mention of a dual program that would allow them to teach in both general and special education classrooms, six of the participants acknowledged the need to increase the number of classes taken in special education. Researchers have identified a gap some teacher preparation programs have attempted to fill. When evaluating merged teacher preparation programs, researchers found that participants in these programs were more competent in differentiated instruction and planning, assessment, and collaboration with their colleagues, this allowed the ability to create a successful inclusive environment within their first year of teaching (Fullerton, Ruben, McBride, & Bert, 2011).

In-Service Training

Quality instructors are an essential element in developing an effective inclusive environment. This element is within the institution's control and one that largely effects student learning. Providing faculty with learning centered and inclusive teaching methods through professional development assists them in effectively implementing these practices (Schmid, Gillian-Daniel, Kraemer, & Kueppers, 2016). The findings from this study confirmed that teachers, administration, and schools understand the importance of providing teachers with professional development. Ten of the eleven participants interviewed affirmed the efforts made by their administrator to continue assisting teachers in transforming their instructional practices to align with research-based pedagogy. The teachers in this study implied that the training provided varied, but paralleled teachers' efforts to meet the needs of students with autism. Teachers described

training on behavior interventions, sensory processing, and a variety of other areas that centered around teaching diverse learners.

Hiebert (1999) discovered teachers benefited from learning new teaching methods, which allowed them to access new ideas and methods; this also permitted them the opportunity to reflect upon their effectiveness. Five participants mentioned receiving professional development from an outside source (to include conferences and other training provided by the school's partnership with Aspire). Aspire, an outside service provider used by the school, offered innovative human services to children and adults in the local community. Doktor (2010) stated that partnerships with universities and other outside providers can assist in bridging the gap between classrooms and incorporating best practices. These partnerships assisted with transforming classrooms by introducing and modeling techniques in differentiation, co-teaching, and response to instruction. Teacher participants discussed how partnerships with outside sources (such as universities and colleges) often afforded professors with the opportunity to work with the school as a consultant, as a mentor, or by providing workshops.

As mentioned, practicing teachers usually lack the specialized coursework and teaching experiences needed to serve all students (Doktor, 2010). Preservice programs are not adequately preparing teachers to implement effective instruction to students with autism. Practitioners must receive continued instruction and information beyond what they received in their teacher preparation programs. It is imperative that educators possess the knowledge and skills needed to implement interventions while in an educational program to educate students with autism. The study participants identified

gaining a better understanding of autism spectrum disorder (ASD); the behaviors exhibited by those students would assist in teaching students with autism in a general education classroom. An educator's professional confidence and competence is enveloped in their belief that they encompass the ability and confidence to teach and manage students (Bandura, 1994). Despite over half of the teachers in this study receiving less than six hours of pretraining in special education, when asked if they possess the skills needed to implement inclusive education practices, 90% responded, "Yes." These findings could provide an understanding to the connection between in-service training and a teacher's self-reported efficacy. The in-service training provided in this study allowed teachers, in spite of their preservice training, to convey a sense of confidence in the skills they possessed.

In 2001, the Committee on Educational Interventions for Children with Autism, discovered concerns with the professional development of personnel teaching students with autism (National Research Council, 2001). Maddox and Marvin (2013) evaluated STEPS—a training and mentoring program that provided 12 months of professional development for personnel working with students with autism. Researchers discovered that after completion of the program, trainees had a significant increase in their perceived knowledge and skills related to working with students with autism. Maddox and Marvin's study relates to the findings of this study due to the professional development needs identified by the participants in terms of accommodations, behavior interventions, and instructional practices. Harris (2013) found that the self-efficacy of a physical education teacher increased with a one-day training on including students with autism. Although it

was a small increase, this speaks to the practical significance of professional development's impact on a teacher's self-efficacy. As supported by the findings of the previous research and the present study, knowledge about ASD may contribute in some way to higher self-reported efficacy.

Instructional Practices

One of the categories that emerged from the study analysis was the importance of presenting effective instructional practices to all students. Nationally, teachers are under an enormous amount of assessment and accountability measures that reinforces the need for all students to be included. However, students with autism often present challenges that can make effective inclusion difficult (Witmer & Ferreri, 2014). When asked how to gauge a student's understanding of what teachers have taught, study participants mentioned the challenge faced when attempting to assess comprehension of the skills covered. The findings suggested that some educators recognized that students with autism struggled with taking state or district assessments due to time or understanding the concepts. Witmer and Ferreri's findings suggested that 86% of teachers agreed that students with mild ASD should be assessed. The researchers suggested that providing students with alternative tests may alter the expectations and instruction provided by teachers to those students. In this study, several of the teachers stated that having the same expectations for students with autism was important in making the student strive to meet their academic goals.

When asked a number of questions that assessed the quality of participants' inclusive practices, many acknowledged that substantial modifications were made to the

curriculum to assist with the success of students with autism. The majority of teachers in this study acknowledged the benefits that differentiated instruction provides students with autism. Researchers found that over 55% of students were provided with general education instruction that was significantly modified (Lee, Wehmeyer, Soukup, & Palmer, 2010). These modifications varied, depending upon the severity of the autism symptoms displayed by the student. This related to findings from this study in that most participants assessed the individual needs of the student with autism and modified and accommodated accordingly.

Teacher responses to interview questions 1, 2, 8, 9, and 10 focuses on the connection between training and the inclusive practices teachers implement within their classrooms. The feedback from these interviews paints a picture that implementing inclusive practices may be most impacted by teachers' abilities to implement differentiated instruction. Bandura (1977) postulated that people acquire knowledge through actual experiences, (e.g., Mastery Experiences). Ten of the 11 teachers interviewed described differentiated instruction as a major component of implementing inclusive practices to support students with autism's academic success. Many conversations acknowledged how providing differentiated instruction met the needs of all learners. The implications are that there was a connection that existed between the category of training and the implementation of inclusive practices. Despite a lack of preservice training, over half of the participants were able to offer multiple ways they implemented inclusion practices within their classrooms that met the needs of all learners. In three of the five interview questions that focused on inclusive practices, teachers with

seven hours or more training in special education consistently ranked highest. Enough evidence supports the knowledge that additional training in special education offered in teacher preparation programs provided these educators with the knowledge needed to implement inclusive practices within the classroom. Teachers who received 3-6 hours of special education training were second in four out of the five interview questions in implementing inclusive practices. The data exhibited a relationship between in-service training with teachers who have experience teaching students with autism and the self-reported efficacy. It can be concluded that teachers in these two categories had a higher self-reported efficacy in implementing inclusive practices due to their in-service training.

Behavior

Educators face many challenges when teaching students with autism. Study findings suggested there existed a core of instructional needs associated with teaching students with autism—including behavior intervention, training, and implementing instructional practices. The participants recognized the importance of behavior interventions in educating students with autism. Study participants acknowledged how behavior often interfered with academic instruction and impeded social interactions. Teachers identified a variety of strategies they used to provide students with autism an environment conducive for learning. Redirection, instructional breaks, and the use of technology have all been identified as methods to accommodate for the needs of students with autism. Boardman, Argüelles, Vaughn, Hughes, and Klingner's (2005) findings suggested that teachers did not consider whether an intervention was research based when implementing it within an inclusive classroom. Many teachers in this research

acknowledged this was due to students with autism who often differ depending on where they are on the autism spectrum. This study found a relationship between self-efficacy and classroom management. These responses provide insight into the training needed to assist with the successful inclusion of students with autism. Despite the limited amount of preservice training provided, the in-service knowledge provided teachers with the efficacy needed to implement behavior interventions.

Self-Efficacy of Instructional Practices

Self-efficacy is a powerful predictor of motivation and behavior across diverse domains of function (Bandura, 1997). Teachers' perceptions of their self-efficacy had a high impact on their ability to meet the challenges of implementing inclusive practices. As the prevalence of students with autism continues to rise, teachers are met with daily experiences and challenges that shape their instructional practices. Researchers have identified several problems that many teachers face when examining teacher self-efficacy, as it relates to their abilities to teach students with autism (Busby et al., 2012). These findings correspond to this study's results and caused participants to question their self-efficacy. First, Busby et al. discovered that many educators believed that teaching students with autism was a highly-specialized skill for which they felt unprepared. Findings from this study recognized that over half of the teachers had received less than 6 hours of training in special education. As stated by one participant, "You have to be honest when you say, yeah, I don't know what I'm doing, I don't know how to do it, I need help." This is one of many examples given within this study where a teacher's knowledge of teaching students with autism caused him or her to question their self-

efficacy. When interviewed, a teacher in the 0-3 years of experience category stated, “. . . This is the year that was definitely a learning experience. I feel like my first year, I wanted to come home crying because I couldn’t figure it out.”

Busby et al. (2012) found that many teachers assumed there would be complex behavior challenges when including students with autism into general education. Researchers have raised several perspectives on how teachers analyze the behavior of children with autism (MacDonald, 2000). The study findings are consistent with the research in that although teachers were experiencing behavior challenges, they were flexible in the interventions they applied in order to meet the individual needs of the student with autism. As stated by a novice teacher:

I use a sticker chart to set reasonable expectations for my students and that takes time. I think at the beginning of the year, I didn’t know my students very well, especially my ones with autism. I didn’t know how hard to push. . . .

When asked how well they were able to control the disruptive behavior of students with autism, some participants acknowledged the challenges. “That’s definitely the biggest struggle. It’s a daily process,” acknowledged one teacher. These statements reinforced that a teacher’s self-efficacy is questioned with the struggles of including students with autism—but other statements made by participants exhibited the confidence teacher’s gain in inclusive education. This was supported by the data in this study that identified the majority of teachers in this study were applying various behavior interventions within their classroom (including breaks, incentive charts, and preferential seating). For example, one teacher commented, “That’s what’s so neat about teaching and growing is

that we've come from being an island back in early years." She explained that teaching has evolved into a collaborative community. Teachers with an increased self-efficacy implement effective instructional practices and exert more effort in planning lessons and managing classroom behaviors. These behaviors create better learning opportunities for students with autism who are included in general education classrooms (Tschannen-Moran & Hoy, 2001). As a first-year teacher stated, "What can I do to make their day as seamless as possible and maximize their learning and minimize behavior. Just keep learning in general what I can do, all the time to help those students learn." Teachers with high self-efficacy were more open to learning and applying new instructional practices that may help with providing students with autism an effective inclusive environment (Morrison, Wakefield, Walker, & Solberg, 1994).

Reflective Practitioner

Being a reflective practitioner is valuable and encouraged in today's rapidly evolving classroom. When describing reflective thinking, John Dewey (1933) stated, the function of reflect thought is, therefore, to transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort into a situation that is clear coherent and settled harmonious (p. 100).

Dewey (1933) suggested that people move from routine action to reflective action, which is delineated by constant self-appraisal and development. He believed that reflection was a state people encountered when working with complex tasks—whether new or unfamiliar learners. This was acknowledged as many participants reflected on their initial experience with students with autism entering into their rooms. "I was in the

fetal position crying as a young teacher because it was like, what do I do now; everything you planned (thumb motioned down and tongue stuck out).” These feelings of doubt are often expressed when teachers are met with uncertainties in their practice. Dewey offers reflection as an opportunity to deliberate on those perplexing situations—solve them and learn from them.

Donald Schön (1983) developed the terms “reflection in action” and “reflection on action” (p. 68). Reflection in action is described when you are delivering instruction while you are monitoring, and continue to adjust as needed. Reflection on action is completed when participants analyze and reflect afterward. These actions ultimately inform ensuing planning and preparation and allow for continued improvement. The awareness allows the ability to change situations by “flying by the seat of my pants,” as one veteran teacher described it. She used the phrase to describe how she adjusted her instruction based upon the needs of the student. Schön’s work is considered a distinction between the theory-practice gap. He believed that teachers may have received the theoretical foundations of teaching and learning and although this may describe how their classroom should be, it might not reflect what their classroom actually is. Schön believed that reflection started as a working practice that derived from a place of confusion. This state of confusion was described by one interviewee, “I had a girl my first year here and I would stay up all night worrying about her and trying to find ways that worked because one day it would work and then two days later it didn’t work.” These experiences allowed teachers to develop a synthesis of theory and practice that they were able to use for themselves.

Throughout this study, participants were asked to reflect upon how their experiences teaching students with autism facilitated or created barriers toward their view of the inclusion of students with autism in general education classrooms. When interviewed, several teachers referred to the strong sense of community that inclusion builds within a classroom. Friedlander (2009) suggested that providing students with autism an opportunity to engage within an inclusive classroom is beneficial to all learners. Overall, participants agreed that one of the advantages of inclusion was the sense of the classroom as a community. As stated by one teacher, “The goal of every teacher is can we include everyone in an equal way to make them feel safe even though they are different.” Most teachers felt this was well within their control. “It’s definitely feasible to make everyone feel like they are a part of education. It’s definitely feasible to make everyone feel comfortable and safe,” stated the participant. Study findings supported researchers’ suggestions that inclusive classrooms build respect and empathy for all learners (Friedlander, 2009).

Differentiated Instruction

Providing students with differentiated instruction was a common trend within these research findings as many teachers described how they met the individual needs of all learners. Bandura (1997) suggested a teacher’s efficacy stems from the social cognitive theory that contends that beliefs influence the choices people make and the effort they employ completing a task. Many educators described the additional preparation needed to implement effective instruction that allowed all students to have success. As a veteran teacher explained, “I became more acutely aware of my own procedures and practices

because I wanted to make sure they were getting it all.” Several of the participants interviewed acknowledged how providing differentiated instruction for students with autism had benefited the entire class. “I found some of my other students benefited from some of my practices I used with the autistic kids too,” commented one. Teachers with high efficacy are more invested and willing to implement the new methods that students with disabilities need. Researchers have discovered that teachers with higher self-efficacy were more confident in their ability to instruct difficult students in their classroom (Brownell & Pajares, 1999).

Parental Involvement

The parental involvement discovered within this study had both benefits and challenges. Researchers have acknowledged that parents have become advocates for integrating students with autism into general education (Hunt & Goetz, 1997). This was reflected upon as several of the primary teachers referred to how they used strategies from home to help students with transitions. On the other hand, several interviewees mentioned the frustration with parents in various aspects of developing an inclusive classroom and assisting with the needs of students with autism. These frustrations effected teachers’ self-efficacies as they strived to meet the needs of students with autism. For example, one teacher stated, “There are times I do get frustrated.” She explained how her attempts to gain the parents’ consent to receive services had been ignored, therefore causing her to doubt her ability to provide the student with autism with the resources and services needed to be successful.

Teacher Self-Efficacy

Bandura (1977) alleged there were four sources for a teacher's self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal. Mastery derived from a teacher's experience teaching students was considered to be the most dominant of the four sources (Tschannen-Moran & Hoy, 2007). This study's findings suggest that a teacher's self-efficacy are effected by the inclusion of students with autism. Participants on both ends of the field (teachers in the 0-3 and 7 years or more of experience categories), expressed a shift in efficacy with the inclusion of students with autism in their classroom. Newman (1999) suggested that teachers who were exposed to students with disabilities had a higher self-efficacy than teachers who were not able to gain those experiences. The teachers interviewed pointed to those experiences as a reference to the changes they continued making to their instructional practices. "I think it just makes you more aware, even [*sic*] just each student's individual needs in general, especially the students with autism. You have to be more creative, just really do anything you can to get them to learn."

The current study and research support speak to the connection between teacher self-efficacy and the inclusion of students with autism. Several aspects were addressed in this study. Research Question 1, which sought to determine if a connection existed between preservice training and teacher's self-efficacy, indicated a positive connection. The positive connection derived from the results of this study, which supports the notion that teachers with additional preservice training in special education have a higher self-reported efficacy. Furthermore, because there appeared to be a positive connection

between reported self-efficacy and preservice training, it would be helpful for future educators to receive specialized training to support efficacy in regard to working with students with autism. Teachers need a strong foundation that provides the knowledge and clinical experiences needed to impact their self-efficacy. Both research and results from the current study support the notion of the importance of teacher efficacy, which is derived from the amount of preservice training they receive.

Results for Research Question 2, which sought to determine if in-service training positively relates to teacher self-efficacy, indicates a positive relationship exists between the in-service training teachers receive and their self-efficacy. These findings, along with current research, support the consensus that a connection exists between in-service training and improving self-efficacy. The implications from this study support that providing in-service training improves self-efficacy. Professional development provides teachers with an understanding of their craft and impacts their self-efficacy (Swackhamer, Koellner, Basile, & Kimbrough, 2009). This notion is supported by the study findings, which indicated that teachers who received in-service training expressed a higher self-reported efficacy regarding teaching students with autism.

Research Question 3 sought to determine if there was a positive connection between the practices implemented in the classroom and self-efficacy. The results indicated that a positive connection existed. There was a positive relationship between the amount of training received by teachers and their self-efficacy. Researchers (Morrison et al., 1994) suggested that teachers were more open to learning and applying new teaching methods in learning to assist with providing an inclusive environment. This

notion is further supported by the research findings indicating that if teachers receive training, whether in preservice or in-service, they were more willing to undertake the challenges of implementing inclusive practices.

The final research question sought to determine if the experiences of students with autism facilitated or created barriers for inclusion. It was determined that overall, there were several variables that impacted teachers' views on inclusion. These variables varied because of age, teaching experiences, training, and where the student was on the autism spectrum. Weinstein (1988) stated that teachers in their early years have an unrealistic optimism that provides them with a stronger sense of efficacy. Researchers Munby et al. (2001) suggested that teachers bring their prior experiences with students into the classroom. Woolfolk and Hoy (1990) recognized the benefits of providing teachers with the knowledge to assist with building their competency and confidence. Collectively, it appears that certain variables impact teachers' views toward the inclusion of students with autism. The results of the current and past research support the notion that many variables can positively or negatively affect teachers' views regarding the inclusion of students with autism in general education classrooms.

Limitations

The overall design of this qualitative study included certain limitations. One study limitation involved access to teachers who had experience teaching students with autism in general education classrooms. The majority of participants were from the 0-3 and seven or more years teaching experience categories. Therefore, the sample size of this research study does not represent the larger population of general education teachers in

the state where the research was conducted. This study was conducted in a Catholic school; therefore, it cannot be generalized to all general education teachers in public school settings. However, the study demographics were similar to those within the surrounding public schools. This study could act as a powerful tool to help administration and other educational leaders understand teachers' needs in providing the support needed to build an inclusive environment.

Another limitation involved the use of interviews, which had several limitations. Although interviewing allowed participants to give in-depth accountings of their experiences, the researcher's presence while gathering data could have affected the subjects' responses to questions. Although this limitation was unavoidable, it needs mentioning, as many participants looked for confirmation that their responses were appropriate for several questions. Although the general education teachers' responses pertained to self-efficacy, it was also difficult to determine whether their connections to self-efficacy and teaching students with autism were merely responses embedded in social acceptance.

Another limitation pertained to the primary researcher's own experiences, which may have affected the perceptions of the participants. Furthermore, these perceptions could have affected the coding conducted by the researcher. The lack of a second coder to confirm the codes that were developed presented a limitation of this study. Future studies should include an external audit to increase the credibility of the data. The researcher in this study read and reread the data to strengthen the codebook. The data was also triangulated to support the credibility needed for this research study.

Implications

The demands on teachers have expanded to working with and understanding students with disabilities. To meet the needs of all learners, teachers need preservice and in-service training. The rise of autism has created a surge in inclusive education; therefore, it is critical that teachers be given the training and support needed to create an inclusive classroom for students with autism. The study findings indicated that teachers who received preservice and in-service training have higher self-efficacies.

To promote a change in educational practices implemented in schools, it is integral that educational leaders support teachers with ongoing professional development to allow teachers success. Training will provide staff with opportunities to gain knowledge and collaborate to create inclusive schools. In addition, professional development is imperative—especially when teachers are attempting to meet the needs of various learners. The results of this study speak to the various needs of teachers servicing students with autism. Engaging in these trainings will assist in developing and retaining teachers who have high self-efficacies toward the inclusion of students with autism in their classrooms.

This study appears to support the argument for a change in the professional development provided to teachers. Research has shown that traditional professional development does not provide teachers with sufficient enough time to be submerged in content or provide practical experiences (Garet et al., 2001). This may explain the lack of interest in participants in the 4-6 years of teaching experience category. This group of teachers are no longer novice teachers who require additional training and experiences to

shape and mold their craft. Also, this group has not been away from an academic setting for as many years as the veteran teachers who may feel as though they need to be updated on the changes occurring in research. Dwayne Huebner (1966) described the schema associated with professional development for some teachers as more of a demand instead of a responsibility associated with teaching. This group of teachers may feel as if professional development is something they are required to do because they are told to. Therefore, participating in this study may be perceived as one more responsibility placed on their list.

On a larger scale, school districts and local universities need to establish a learning community that allows teachers to cultivate inclusive practices. This collaboration would provide teachers with the opportunity to get advance degrees and allow universities to provide professional development for the school district. This conglomerate provides future and current educators with the knowledge needed to learn more about ASD and the inclusionary educational model. Successful inclusive \practices must acknowledge teacher self-efficacy to have an impact on student achievement.

Recommendations

The recommendations for this study include providing teachers with the support necessary to build and maintain inclusive classrooms. For example, teachers need a foundation of knowledge that allows them to provide modifications and accommodations appropriate for students with autism. Doing so requires teachers to receive the foundational knowledge and ongoing professional development on how to implement best practices. Teachers need opportunities to offer their input on what are essential to

creating a successful classroom. This study acknowledged a connection between teachers' self-efficacies and the experiences of teaching students with autism in general education classrooms. This connection supported the notion that it is essential to provide teachers with initial and ongoing education to use when teaching students with autism.

Recommendations for Further Research

The study findings indicated multiple opportunities for other possible research studies involving improving a teacher's self-efficacy. Further research could be explored on how teachers feel about their ability to teach students with autism in a general education classroom. In addition, designing a measurement tool that examines how teacher self-efficacy relates to teaching students with autism is recommended. It could also be helpful to conduct a mixed method approach to studying self-efficacy—which would provide some statistical support to the narratives provided in interviews. A tool that examines teachers' knowledge of autism and the inclusive practices needed for them to have academic success would also be beneficial.

In addition, further research related to improving teacher preparation programs would equip teachers with the knowledge and skills needed to prepare for today's classroom would be helpful. Classrooms are evolving and require a shift from the traditional segregated teacher preparation programs. Direct instruction is needed to provide future educators with the knowledge needed to understand ASD. New and upcoming teachers would benefit from learning behavioral interventions and instructional strategies that allow students with autism to acquire academic success. Additional field experience may also be required by these programs to allow teachers to gain practice in

an inclusive setting. These changes in teacher education programs could include programs to align with the current state of education.

It is relevant to investigate how professional development experiences impact a teacher's self-efficacy toward the inclusion of students with autism in general education classrooms. Additional training is needed to help educators gain a better understanding of the autism spectrum. This training should include behavior interventions and inclusion instructional practices for students with autism. Teachers may also benefit from professional development, which allows them to observe educators who have knowledge and experience teaching students with autism in an inclusive setting. Teachers can use professional development to acquire a solid sense of efficacy through gaining skills, modeling, structured activities, and feedback (Bandura, 1997).

Conclusion

Autism diagnoses have become more prevalent, which has shifted education. This shift has given students with autism more opportunities to be in the general education classroom. A teacher's role is critical in the development of an inclusive classroom. Therefore, the impact of teacher self-efficacy is substantial, sustained, and relevant to teaching and learning. The degree of impact varied; however, participants acknowledged the importance of in-service and preservice training. The research results can be used to improve inclusive education by providing future educators with teacher education programs that create teachers who meet the needs of all learners. This study's findings also provided an understanding of the importance of providing teachers with ongoing professional development that facilitates inclusion.

Teachers are defining factors for the effective inclusion of students with autism. The effect of a teacher's self-efficacy with the inclusion of students with autism in a general education classroom has not been thoroughly investigated. Further research should be explored due to the prevalence of autism and the evolution of the general education classroom. It is this researcher's hope that the research findings will be used by educational leaders to alter teacher education programs and allow continued professional development that will create knowledgeable reflective practitioners.

APPENDIX A
INVITATION LETTER

INVITATION LETTER

Dear Educator,

My name is Tekita Gordon. I am a doctoral candidate in the Department of Curriculum and Instruction at Loyola University of Chicago. I am conducting a research study as a part of the requirements of my doctorate in Curriculum and Instruction, and I would like to invite you to participate.

I am studying the effects of teacher self-efficacy with the inclusion of students with autism in general education classroom. Potential participation candidates must teach or have taught students with autism in a general education classroom. If you decide to participate, you will be asked to complete an interview and demographic survey. The interview requires you to reflect upon your experience teaching a student with autism in a general education classroom. The questions will require you to reflect upon your beliefs and instructional practices. The interviews will be conducted in a quiet area in the school at a mutually agreed upon time. The interview should last about 60-75 minutes and the demographic survey should take about 5-15 minutes. The interview will be audio taped and the researcher will also take notes in order to accurately reflect on what is discussed. The tape will be transcribed by a transcription company. The researcher will enter into a confidentiality agreement with the transcription company as a way of protecting any information gained during this research study. Pseudonyms will be used for the school, district, and staff. General information will be used to describe the location of the school and any other demographic information that would identify the school or staff. The audio recordings will be destroyed after transcription.

You do not have to answer any questions that you do not wish to during the interview. As a participant, you will not benefit directly from participating in this study. However, I hope that the information gained will assist with the training and preparation of teachers for inclusive classrooms.

Participation is confidential. The results of the study will be locked and protected in the researcher's office. The results of this study may be published; however, your identity will not be revealed. No identifying information will be released about the district, school, or personnel used during this study.

Taking part in the study is your decision. You do not have to be in this study if you do not want to. You may also discontinue your participation at any time or decide not to answer any questions you are not comfortable answering.

I will be happy to answer any questions you have about the study. You may contact me with your study-related questions or issues at 859-402-5434 or tekita.gordon@gmail.com. Or, feel free to contact my faculty advisor Hank Bohanon at hbohano@luc.edu or 312-915-7099.

Thank you for your consideration. Please contact me at the number or email provided to discuss participation. Please be aware that I will call you within the next 2 days to determine your interest in participating.

With kind regards,

Tekita Gordon

APPENDIX B
INTERVIEW QUESTIONS

INTERVIEW QUESTIONS

1. To what extent can you provide an alternative explanation or example of when students with autism are confused? Can you describe how you do this? Can you give an example?
2. To what extent were you able to gauge the students with autism's comprehension of what you taught? Can you describe how you do this? Can you give an example?
3. In what way did your practice as a teacher change based on your experiences working with students with autism? Explain how these changes came about.
- 4a. What experiences went well with the inclusion of students with autism in your classroom?
- 4b. What experiences did not go well with the inclusion of students with autism in your classroom?
5. Do you believe you possess the skills needed to implement inclusive educational practices?
6. Can you describe what was effective about inclusive educational practices in the general education classroom?
7. What is feasible about inclusive educational practices in general education?
8. How much can you do to adjust our lesson to the proper level for students with autism? Can you describe how you do this? Can you give an example?

9. How well were you able to provide appropriate challenges for students with autism? Can you describe how you did this? Can you give an example?
10. Describe how you were able to provide alternative strategies for the student with autism?
11. How much were you able to control the disruptive behavior of students with autism? Can you provide an example of how you did this?
- 12a. Can you describe preservice training, if any, you had that prepared you to teach students with autism?
- 12b. Can you describe preservice training you think you would have needed to prepare you to teach students with autism?
- 13a. Can you describe in-service training, if any, you had that prepared you to teach students with autism?
- 13b. What in-service training do you think you would have needed to prepare you to teach students with autism?

APPENDIX C

SURVEY

Teacher Efficacy ¹

A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

**KEY: 1=Strongly Agree 2=Moderately Agree 3=Agree slightly more than disagree
4=Disagree slightly more than agree 4=Moderately Disagree 6=Strongly Disagree**

- | | |
|---|-------------|
| 1. When a student does better than usually, many times it is because I exert a little extra effort. | 1 2 3 4 5 6 |
| 2. The hours in my class have little influence on students compared to the influence of their home environment. | 1 2 3 4 5 6 |
| 3. The amount a student can learn is primarily related to family background. | 1 2 3 4 5 6 |
| 4. If students aren't disciplined at home, they aren't likely to accept any discipline. | 1 2 3 4 5 6 |
| 5. I have enough training to deal with almost any learning problem. | 1 2 3 4 5 6 |
| 6. When a student is having difficulty with an assignment, I am usually able to adjust it his/her level. | 1 2 3 4 5 6 |
| 7. When a student gets a better grade than he/she usually gets, it is usually because I found better ways of teaching that student. | 1 2 3 4 5 6 |
| 8. When I really try, I can get through to most difficult students. | 1 2 3 4 5 6 |
| 9. A teacher is very limited in what he/she can achieve because a student's home environment large influence on his/her achievement. | 1 2 3 4 5 6 |
| 10. Teachers are not a very powerful influence on student achievement when all factors are considered. | 1 2 3 4 5 6 |
| 11. When the grades of my students improve, it is usually because I found more effective approaches. | 1 2 3 4 5 6 |
| 12. If a student masters a new concept quickly, this might be because I knew the necessary steps in teaching that concept. | 1 2 3 4 5 6 |
| 13. If parents would do more for their children, I could do more. | 1 2 3 4 5 6 |
| 14. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson. | 1 2 3 4 5 6 |
| 15. The influences of a student's home experiences can be overcome by good teaching. | 1 2 3 4 5 6 |
| 16. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly. | 1 2 3 4 5 6 |
| 17. Even a teacher with good teaching abilities may not reach many students. | 1 2 3 4 5 6 |

- | | | | | | | |
|---|---|---|---|---|---|---|
| 18. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty. | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. If I really try hard, I can get through to even the most difficult or unmotivated students. | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment. | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. Some students need to be placed in slower groups so they are not subjected to unrealistic expectations. | 1 | 2 | 3 | 4 | 5 | 6 |
| 22. My teacher training program and/or experience has given me the necessary skills to be an effective teacher | 1 | 2 | 3 | 4 | 5 | 6 |

¹ From Woolfolk, A. E., & Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82*, 81-91. Originally based on the Teacher Efficacy Scale developed by S. Gibson & M. Dembo (1984). Teacher Efficacy: a construct validation. *Journal of Educational Psychology, 76*, 569-582.

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