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General Education Teacher Perceptions of Self-Efficacy Regarding Teaching Students
with Autism in Inclusion Settings

By
Jennifer H. Condrey

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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Approval Page

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Abstract

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With an increase in the number of children being diagnosed with Autism Spectrum Disorder comes an increase in students with autism being integrated into regular education classrooms. While general education teachers strongly support inclusion, they do not feel prepared to implement inclusion practices in their classrooms. This dissertation was designed to gauge perceptions of self-efficacy among K-5 general education teachers in regards to teaching students with autism in inclusion settings.

The researcher conducted digital surveys and personal interviews among K-5 regular education teachers who had inclusion experience with students with autism. Teacher perceptions were measured in the areas of preparedness, support, and overall attitude towards students in inclusion.

An analysis of the data revealed that teachers held positive views of inclusion overall, with the most positive area being the benefits of inclusion and the lowest area being lack of preparedness. While the literature review blamed lack of training for low perceptions of self-efficacy, participants never cited training as a source of preparedness. The three biggest factors which influenced teacher perceptions overall were (1) personal experiences with students with autism or other disabilities, (2) open communication with parents before and during inclusion, and (3) an established environment where all students are accepted and respected.

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Chapter 1: Introduction

Introduction to Autism

Autism rates have radically increased over the last several years, resulting in nearly a half million students with autism entering our public schools every day (United States Department of Education [USDE], National Center for Education Studies, 2013). Under federal law, most of these students will see at least some time in a general education (GE) setting, bringing discussions to the forefront regarding effective teaching practices in inclusive classrooms (“North Carolina’s Master’s,” n.d.). While the increase in prevalence has been consistently on the rise, regular education teachers feel ill-prepared to teach this population (Bloudoff-Indelicato, 2014; Centers for Disease Control and Prevention [CDC], 2014; Scheuermann, Webber, Boutot, & Goodwin, 2003).

Autism Prevalence

Every 2 years, the CDC issues its Autism and Developmental Disabilities Monitoring (ADDM) Network autism prevalence report. The CDC’s first report from 2002 data estimated that one in 150 children had autism; in 2004, statistics showed one in 125; in 2006, one in 110 children were thought to have autism; and in 2008, reports showed one in 88, with almost one in every 54 boys (note: because reporting years often reflect data collected 3-5 years earlier, the researcher chose to share data from the actual surveillance years) (Autism Society of America, n.d.a; CDC, 2014).

The most recent report, released in March of 2014 (surveillance year 2010), reflected autism in one of every 68 children. Based on the collective data, the estimated prevalence of Autism Spectrum Disorders (ASDs) has increased roughly 123% since 2002 (ADDM Network, 2014; “Prevalence of ASD,” 2014).

While these studies are a reflection of the consistent increase in the autism

population in the United States, these statistics are drawn from a limited number of communities (six to 14 ADDM sites, depending on funding in a reporting year), reflect the prevalence among 8-year-olds only (the year by which most children have been identified for services), and represent less than 10% of the 8-year-old population in the U.S. (ADDM Network, 2014).

It is interesting to note that North Carolina (NC) is one of the prevalent ADDM sites. According to the Autism Society of NC (2014), “evidence suggests that the prevalence rate in NC is even higher than the national average, at one in 58” (para. 1): one in 35 boys, one in 179 girls. A 2010 CDC study of NC also identified a racially diverse group of children with ASD, although White and Black children had the highest prevalence (“A Snapshot of ASD in NC,” n.d.). While autism is five times more prevalent in boys than girls, “the overall incidence of ASD is consistent around the globe,” and “knows no racial, ethnic, or social boundaries” (Autism Society of NC, 2014, para. 3).

With an increase of school-age children identified as having ASD comes an increase in demand for Exceptional Children (EC) services. The total number of children with autism receiving EC services in 2000-2001 was 93,000. That number has jumped significantly each school year, with 455,000 being served in 2011-2012, a 389% growth in a little over a decade (USDE, National Center for Education Statistics, 2013; USDE, Office of Special Education Programs, 2013; see Table 1).

Table 1

Total Number of Students Receiving EC Services in Public Schools Each Year in the U.S. (by thousands)

Reporting Year	Total EC	Total Autism
2000-01	6,296	93
2001-02	6,407	114
2002-03	6,523	137
2003-04	6,634	163
2004-05	6,720	191
2005-06	6,718	223
2006-07	6,687	258
2007-08	6,597	296
2008-09	6,483	336
2009-10	6,481	378
2010-11	6,436	417
2011-12	6,401	455

Note. Original source: National Center for Education Statistics (2013). This table reflects the total number of students receiving EC services per year compared to those with a specific autism diagnosis.

While the overall percentage of public school children receiving EC services has gradually declined in the past 10 years, with a 6.5% decrease since 2004-2005, the percentage of autistic students receiving services since that year has increased by 350%. Today, roughly 12.4% of NC students have an Individualized Education Program (IEP), nearly equal to the United States average (Center for Public Education, 2009; USDE, National Center for Education Statistics, 2013; USDE, Office of Special Education Programs, 2013; see Table 2).

Table 2

Total Number of Students Receiving EC Services in Public Schools Each Year in the U.S. by Percentage of Total School Enrollment (prekindergarten through 12th grade)

Reporting Year	Total EC	Total Autism
2000-01	13.3	0.2
2001-02	13.4	0.2
2002-03	13.5	0.3
2003-04	13.7	0.3
2004-05	13.8	0.4
2005-06	13.7	0.5
2006-07	13.6	0.5
2007-08	13.4	0.6
2008-09	13.2	0.7
2009-10	13.1	0.8
2010-11	13.0	0.8
2011-12	12.9	0.9

Note. Original source: National Center for Education Statistics (2013). This table reflects the total percentage of students receiving EC services per year compared to those with a specific autism diagnosis.

Possible Factors Regarding Increase in Autism Rates

With an increase in autism rates across the board, there are several factors to consider. The CDC believes that while the reasons for increased prevalence are “not understood completely,” “some of the increase is due to the way children are identified, diagnosed, and served in their local communities” (“10 Things to Know About New Autism Data,” 2014, para. 4). For instance, the federal government has expanded the definition of autism to include milder cases (Center for Public Education, 2009). “Previously, many of these students simply would have been identified as low achievers” (Horn & Tynan, 2001, p. 264).

A recent study from the University of Utah suggested “changes to autism criteria may be more to blame for rising rates of the developmental disorder than anything else” (Heasley, 2012, para. 1). Researchers applied current diagnostic criteria (from the DSM-

IV-TR) to records from participants in a 1989 study (labeled either “diagnosed autistic” or “diagnosed not autistic”), and “found that most [59%] who were deemed to be autism-free at that time would receive the label today” (Heasley, 2012, para. 8). An additional 38% “diagnosed not autistic” showed signs of ASD (Heasley, 2012, para. 8).

Increases can be partly influenced by greater awareness among doctors, teachers, parents, schools, and other organizations (“Why are ASDs Increasing,” 2012).

According to Craig Newschaffer, the Director of the A. J. Drexel Autism Institute in Philadelphia, “Autism [is] more of a household word . . . you literally have to be living under a rock to not have heard of autism” (Bloudoff-Indelicato, 2014, para. 11).

Leslie Markowitz, pediatric psychologist at the Cleveland Clinic Children’s Center for Autism, believed that because of this awareness, autism carries less of a stigma than it has in past years. “With recognition from insurance companies, publicly funded programs for autistic children, and the rise of advocacy organizations like Autism Speaks, people may be more likely to seek the diagnosis” (Bloudoff-Indelicato, 2014, para. 12).

While autism cases continue to rise each year, Newschaffer described the increases as “not surprising,” stating that each report is “a continuation of a trend and not a sudden jump” (Bloudoff-Indelicato, 2014, para. 10).

Autism Defined

According to the Autism Society of America, autism is a complex, lifelong neurodevelopmental disorder, usually appearing within the first 3 years of life. It is defined by a certain set of characteristics and is considered a “spectrum disorder,” as it affects individuals in numerous ways and in varying degrees (Autism Society of America, n.d.a, para. 1).

The main characteristic of autism involves lack of social skills. Scholars agree

that “social reciprocity deficits are a core feature of the ASD and a major source of impairment regardless of cognitive or language ability” (Carter, Davis, Klin, & Volkmar, 2005, p. 1). Other common characteristics include lack or delays in speech, repetitive patterns of behavior (verbal and/or motor mannerisms), narrowed interests and activities, lack of eye contact, lack of spontaneous or make-believe play, focused behaviors (often to the point of obsessiveness), sensory issues, and immediate and/or delayed echolalia – repeatedly imitating, or “echoing,” words, phrases, or sounds (Autism Society of America, n.d.a; 4, “Echolalia,” 2008; Fombonne, 2003; “Prevalence of ASD,” 2014).

Diagnosis. Formerly labeled as a type of “Childhood Schizophrenia,” autism was first added to the American Psychiatric Diagnostic Statistical Manual (DSM-III) in 1980 as “Infantile Autism.” Subsequent volumes of the DSM included “Autistic Disorder,” and “Asperger’s Syndrome” (often referred to as mild or “high-functioning” autism). In May 2013, the DSM-V added ASD, an unofficial umbrella for previous autism-related disorders. Those who had previously received a separate diagnosis of autistic disorder or Asperger’s were now considered ASD (“ASD,” n.d.; “Cracking the Enigma,” n.d.; DeWeerd, 2011).

ASD criteria is divided into two main categories:

1. “Social Communication,” including “deficits in social-emotion reciprocity;” “deficits in nonverbal communication behaviors used for social interaction;” and “deficits in developing, maintaining, and understanding relationships” (Diagnostic Criteria, 2014).
2. “Restricted, Repetitive Behaviors” (RRBs), including “stereotyped or repetitive motor movements, use of objects, or speech;” “insistence on sameness, inflexible adherence to routines, or ritualized patterns” of

verbal/nonverbal behavior; “highly restricted, fixated interests that are abnormal in intensity or focus;” and “hyper- or hypo-reactivity to sensory input or unusual interests in sensory aspects of the environment” (Diagnostic Criteria, 2014).

A three-tiered scale was also added to gauge the severity in the two main areas, including “requiring support” (Level 1), “requiring substantial support” (Level 2), and “requiring very substantial support” (Level 3). Finally, an area was included to specify the comorbidity of the autism (“Autism at 70,” 2013; DMV-V Diagnostic Criteria, 2014).

Autism and Special Services

Eligibility. As mentioned earlier, the number of students with autism has almost quadrupled since 2000-2001. Of those students, most will receive special services (Goodman & Williams, 2007). In 1990, the Individuals with Disabilities Education Act (IDEA) recognized autism as one of 13 disabilities under which students can qualify for special education services. The IDEA, first enacted as the Education for All Handicapped Children Act in 1975, is the federal legislation that entitles children with disabilities to a free public education, including access to and benefits from the general curriculum. It is the responsibility of the school to identify students who qualify for services under IDEA. The EC Division of NC’s Department of Instruction (NCDPI) oversees state educational policies in NC public schools and helps ensure that eligible students receive EC services (“NC Master’s,” n.d.).

There are three basic concepts under IDEA: (1) free and appropriate education (FAPE) – a free education program designed for a child’s unique needs, with reasonable expectations of educational benefits; (2) least restrictive environment (LRE) – education with nondisabled peers to the maximum extent possible, usually including some level of

inclusion; and (3) IEP – a plan to provide measurable learning goals and supports provided by the school (The ARC, 2006; IDEA, 2006; National Autism Resource and Information Center, n.d.; USDE, Office of Civil Rights, 2004).

In order to qualify for services under IDEA, a child must have a disability PLUS documented need for specialized instruction. A multidisciplinary team of school professionals review evaluation results with the parent to determine eligibility (IDEA, 2006).

Inclusion. As autism numbers rise, so do the “the numbers of children with autism being fully included in GE classrooms where general educators teach them” (Goodman & Williams, 2007, p. 53). According to the USDE, Office of Special Programs (2001), approximately 53% of all students with disabilities (ages 6-21) were receiving a major portion of their education within GE classrooms (National Center on Educational Restructuring and Inclusion, 1995). Furthermore, the National Center on Educational Restructuring and Inclusion stated, “students from IDEA’s thirteen disability categories, at all levels of severity, in all grade levels, are being included across the country” (Harriott, 2004, p. 135).

While there is no legal definition of inclusion, the general purpose is to “make sure students with disabilities go to school along with their friends and neighbors while also receiving whatever ‘specially designed instruction and support’ they need to achieve high standards and succeed as learners” (FSU Center for Prevention & Early Intervention Policy, 2002, para. 4). According to Forest and Pearpoint (1991), “the criterion for inclusion is breathing, not IQ, income, color, race, sex, or language” (p. 3).

Preparation of GE Teachers

According to Teffs and Whitbread (2009), “little is known about the status of

personnel preparation for teachers of children with ASD” (p. 134), but recent studies have shown that providing teachers with professional development specifically designed for serving students with ASD has a positive impact on student outcomes (Browder, Trela, & Jimenez, 2007; Jordan, 2003; Koegel, Robert, Koegel, Frea, & Green-Hopkins, 2003).

Unfortunately, general educators have consistently expressed misgivings about teaching children with autism because they do not believe they have received such training; therefore, they do not believe they are adequately prepared to address these students’ diverse needs (Schumm & Vaughn, 1991). In Scruggs and Mastropieri’s (1996) in-depth review of 28 studies conducted between 1958-1995, they found that while the majority (65%) of GE teachers supported the idea of inclusion, less than 30% believed they had received enough training to implement inclusive services. So, while GE teachers seem to support the idea of including students with diverse needs, they believe they are inadequately prepared when faced with the task (Lambe & Bones, 2006).

Because of this lack of confidence, Rosenweig (2009) stated, “there is a compelling need to improve the preparation of teachers required to serve these students” (Busby, Ingram, Bowron, Oliver, & Lyons, 2012, p. 29). Busby et al. (2012) agreed that in addition to improving student outcomes, “adequate training and diverse clinical experience” also helps improve sense of self-efficacy (p. 28).

Theoretical Framework

Avramidis, Bayliss, and Burden (2000) believed that both teachers’ overall attitudes toward inclusion and their perceptions of self-efficacy “are fundamental to their acceptance of and willingness to address the challenges with which they are charged” (p. 192). Unfortunately, when teachers have a negative outlook on inclusion, the students

suffer. According to Busby et al. (2012), “Lack of motivation and self-efficacy in teachers are often root causes of ineffective teaching of children with autism” (p. 28).

The low perception of self-efficacy among GE teachers is rooted in Mastery Motivation Theory. Busby et al. (2012) stated, “mastery motivation suggests that there is a link between motivation to engage in a difficult task and perceived confidence in one’s ability to perform that task” (p. 28). White (1959) suggested that people have an inborn motivation to feel competent and succeed with tasks, but “when people do not feel they can succeed at what they attempt to do, they are less likely to try” (Busby et al., 2012, p. 28).

Harter (1978) also built upon this theory, stating that those with high levels of self-efficacy tend to get more enjoyment from their work, “which leads to increased intrinsic motivation” (Busby et al., 2012, p. 28). A cyclical effect begins and “the intrinsic motivation to attempt and persist with a task is related to the perceptions of competence” (Busby et al., 2012, p. 28). Busby et al. (2012) stated,

When teachers begin to feel competent in their abilities to teach children with autism, they may be more motivated to address the challenges and accept their responsibilities for teaching these children. Once this cyclical effect has evolved, teachers may begin to view teaching children with autism as equivalent to facing any other challenge they may encounter in their classroom. (p. 28)

In conclusion, the public school systems are facing rapid increases in ASD. According to Goodman and Williams (2007), the prevalence of autism at state, national, and international levels makes it very likely that most elementary school teachers will teach a child with autism and should be prepared to include them in GE classes. With this in mind, the research explored the perceptions of self-efficacy, and the factors that influence

them, among GE teachers in regards to teaching students with ASD.

Dissertation Preview

The purpose of this study was to answer the question, “What factors influence the perception of self-efficacy for K-5 GE teachers working with students with autism?” A review of the educational literature helped determine those factors that were present in the research, while this doctoral dissertation aimed to (a) support or contradict factors found in the literature and (b) uncover any new factors or themes that do not currently exist in the research literature.

Chapter 2 explores the research literature involving GE teacher perceptions of inclusion, while focusing on the specific factors that impact teacher self-efficacy. These areas include (1) perceptions of support from coworkers and administrators, (2) perceptions of teacher preparedness (training and experience), and (3) perceptions of and assumptions about students with autism.

Chapter 3 discusses the methodology with which the research addressed perceptions of self-efficacy among GE teachers (pertaining to serving children with autism) in elementary schools. The research applied a mixed-methods approach using digital surveys and personal interviews with elementary school GE teachers in an NC district.

Chapter 4 revisits the purpose of the study and details the research of the perceptions of GE elementary school teachers regarding teaching students with ASD in inclusive settings. The chapter articulates the steps taken in participant selection, data collection, and analysis of the data.

Chapter 5 summarizes the data in detail and discusses conclusions drawn from the research. Based on this information, the chapter also includes the researcher’s

recommendations for further study and suggestions for improving self-efficacy among GE teachers working with students with ASD.

Limitations

Referred to by Hatch (2002) as a “backyard study,” Creswell (2003) maintained it is often difficult to remain objective in such studies. Confidential surveys and voluntary interview participants helped increase objectivity. Other limitations to consider were the small sample size (nine small elementary schools, two to three regular education teachers per grade level), and the restricted views of a rural community of predominantly White female educators.

Key Terms

Interchangeable terms. EC and special education; ASD and autism; GE and regular education; integration and inclusion; nondisabled and neurotypical.

Definitions

Self-contained. A classroom specifically designed for children with more severe disabilities who may not be able to successfully participate in GE classrooms. It is considered a “separate setting” on the special education continuum.

Comorbid. The presence of one or more additional disorders co-occurring with a primary disorder (i.e., ADHD and autism).

Neurotypical. A term used (often by persons with ASD) to describe individuals without ASD.

Teacher self-efficacy. “The belief that a teacher feels capable of affecting a student’s performance and teaching to high standards” (Skuller, 2011, p. 12).

Chapter 2: Literature Review

Autism has quickly become a household name, due to its major news headlines, its vocal advocates, and its prevalence in our communities (Falco, 2014; Mercer, 2009; “NC Families Demand Better,” 2014). It is sometimes errantly referred to as an “epidemic,” which Merriam-Webster defined as “affecting or tending to affect a disproportionately large number of individuals within a population, community, or region at the same time” (Epidemic [Def. 2], n.d.). This is true of ASD, but the connotation of epidemic can also portray disease, contagion, or reason for panic (“Autism, The Hidden Epidemic,” n.d.; Epidemic [Def. 1], n.d.; Epidemic [Def. 3], n.d.; Roithmayr, 2012).

ASD is none of these. It is a neurodevelopmental disorder that currently affects one in every 68 children in the United States. A heterogeneous “spectrum” disorder, ASD affects individuals in numerous ways and in varying degrees (Quill, 2000). There is a common saying among autism communities, “If you’ve met one child with autism, you’ve met one child with autism” (Ellis, 2014, para. 7). While no one is sure of its origin, the quote summarizes the complexity and heterogeneity of ASD (Autism Society of America, n.d.b).

ASD Behaviors and Their Impact on Inclusion

The research literature often defines autism using the three diagnostic components of the DSM-IV, including (1) social impairments; (2) communication impairments; and (3) RRBs and interests (Ronald et al., 2006). Based on the new diagnostic categories presented in the DSM-V, released May 2013, the research addressed these issues under the two main category headings of (Grinker, 2007).

- 1. Social impairments.** According to the National Research Council (2001), social communication is “the ability to communicate ideas and feelings,

imagination, and the establishment of relationships with others” (p. 11). In nonverbal children with ASD, there is an obvious lack of social communication. It should not be assumed that children with ASD who are “fluently verbal” are socially competent. The Indiana Resource Center for Autism (IRCA) has compiled a comprehensive list of social communication and language deficits found in high-functioning, verbal individuals with ASD.

- a. Language Characteristics. Although the ability to exchange meaningful messages is the heart of communication, it is important to look at the characteristics of the language used to convey the messages. Individuals with ASD may
 - Appear to have a good vocabulary and a sophisticated command of the language system based on their verbal utterances.
 - In some instances, sophisticated language may reflect repetition of bits of dialogue heard on television or in the conversation of others. This mitigated echolalia may or may not be used in appropriate contexts.
 - For the majority of individuals, the depth of meaning for specific words used may be restricted and/or the breath of vocabulary may not be as expansive as utterances may suggest. Of course, some individuals may have an excellent verbal repertoire.
 - Appear to have difficulty with figurative language such as idioms, metaphors, similes, and irony.
 - Appear to have difficulty recognizing in contextual (conversational) or text (print) situations that certain vocabulary words may have

alternative meanings.

- Appear to respond to suggestions, directions, or information in a very literal manner.
 - Appear to have some difficulty grasping the main idea, drawing conclusions and making other inferences from conversation, text, TV programs, and movies.
 - Appear to have difficulty understanding humor in television programs, movies, cartoons (animated and static), and everyday interactions.
 - Appear to have difficulty with WH question forms such Who, What, Where, When, Why, How and others.
 - Appear to understand basic sentence structure but may have more difficulty with more complex sentences that contain embedded and subordinate clauses.
 - May primarily attend to key words rather than to the message conveyed by the grammar; may also have difficulty understanding the grammar and thus resort to the key word strategy.
 - Will experience difficulties in reading comprehension if comprehension of oral language is poor.
 - May not be connecting idea to idea from conversation or text, e.g., not connecting the content of one sentence to the next.
- b. Social Communication. Communication is a social act, and unless one is conducting a monologue with one's self, it involves at least one other person. Communication within a social situation can be more challenging than just understanding the words of others. There are unwritten rules that

govern interactions and these may change depending on the circumstances and to whom one is talking. The individual with an ASD may

- Have difficulty seeing another person's perspective; tendency to interpret from own point of view. This impacts social interaction and the understanding of perspective in narratives whether in text, movies, or TV format.
- Have difficulty understanding that other people have unique thoughts, ideas, and personal motivation.
- Give no or minimal eye contact during an interaction; eye contact may be distracting or provide more sensory information than can be useful or processed by the person with ASD.
- Speak too loudly or too fast, unless taught about the needs of his or her communication partner.
- Have difficulty staying on topic; may be distracted by associations cued by his or her own words or the dialogue of others.
- Deliver monologues, lectures, or lessons about a favorite topic, rather than allow/participate in reciprocal involvement with a communication partner.
- Talk aloud to self in public situations and be unaware that others can hear the content of the self-talk and will make judgments about them based on what was heard.
- Have difficulty attending to an auditory message if stressed, agitated, or highly stimulated.
- Make statements that are factually true but socially inappropriate

because of lack of awareness of the impact of his or her statement on others.

- Not know strategies to initiate, terminate, or facilitate a conversation.
- Have difficulty understanding the significance of another's role and the need to adjust topic, the vocabulary, grammar, and tone of conversation accordingly. May address an authority figure in the same fashion as a peer or as a TV/video character might do.
- Have difficulty knowing that he or she has the responsibility to give the communication partner sufficient information to understand the message. In addition, he or she may have difficulty surmising what information the partner already has and what new information is needed.
- Not monitor his or her own comprehension of incoming messages and therefore does not seek clarification when needed.
- Seek to promote an inflated or positive self-image by using pseudo-sophisticated language; sometimes this strategy is used to mask the degree of underlying comprehension problems that the person really experiences during daily living situations or within school activities.
- Lie with the intent of getting people to leave him or her alone rather than with an intent to deceive or manipulate. In general, is not effective at deception.
- Exhibit good recall of people's names, facts, and/or trivial information; often the depth of knowledge about a topic may be superficial.

- Utilize, on occasion, old behavior or communication patterns for more appropriate verbal social communication. This might include nonverbal means of communication such as aggression, passivity, pacing, self-stimulation, self-abusive behavior, or echolalia.
- Talk about unusual topics such as fans and The Weather Channel because he or she finds the topic fascinating; the display of knowledge may take place irrespective of the interest of the communication partner in the topic.
- Be nonselective about appropriateness of time, place, and person with whom to discuss certain topics.
- Be perseverative or bothersome on limited topics. May ask repetitive questions.
- Desire social interaction, but has difficulty knowing how to initiate and maintain a friendship.
- Experience difficulty recognizing the lies, deceptions, and mischief of others.
- Miss nonverbal cues of others and nuances in social situations; may be taught to recognize some instances.
- Lack a repertoire or have difficulty selecting/applying appropriate social communication strategies in everyday situations.
- Recognize and identify basic emotions of others and self (mad, happy, sad) but have more difficulty with recognizing more subtle expressions of these feelings or emotions.
- Have difficulty recognizing, identifying, and understanding various

other states of emotion expressed by others and knowing what to say in that situation.

- Have difficulty making predictions about the consequences of a situation and understanding the motivation of others; will usually be very concrete and socially naive.
- Have difficulty multi-tasking, i.e., talking or listening while doing something else at the same time; may need to do one thing at a time.

Other characteristics of ASD that may be present characteristics other than language difficulties may also be evident during interaction opportunities and impact the communicative exchange in an indirect way. Sometimes actions or comments during an interaction may provide clues regarding the need for additional support in other life areas of the person with ASD. Sometimes knowing about other characteristics promotes more patience and understanding in the communication partner. The individual with ASD may

- Appear very egocentric in terms of concern for others, their feelings, their needs, and their ideas.
- Prefer that experiences or events be interpreted in black and white or very concrete terms; this expectation is at odds with the complexity of most situations.
- Have difficulty getting the gestalt or big picture of a situation rather than just the details.
- Engage in repetitive activities and/or rituals.
- Can obsessively persist in mulling over past, present, or future events or ideas.
- Be resistive in varying degrees to changes in routine or environment.

- Have splinter skills (e.g., unusual abilities in music, math).
- Exhibit clinical anxiety, varying degrees of depression, or other mood disorders.
- Express thoughts about suicide; may not have a clear understanding of the finality of death.
- Exhibit clinical obsessive-compulsive disorder.
- Exhibit seizures.
- Act like a perfectionist – does not like to make mistakes.
- May have sensory issues; be under responsive or sensory seeking; can get overwhelmed by sensory overload.
- Experience encounters with law enforcement and the judicial system as a consequence of social challenges and emotional regulation.
- Be physically as well as socially awkward.
- Have difficulty with fine motor skills, especially handwriting.
- Not perform well when under pressure or stress.
- Have difficulty utilizing relaxation strategies to reduce stress.
- Have difficulty with executive function skills - planning, organization, flexibility, monitoring, etc.
- Have difficulty with reading comprehension but be able to decode and fluently read aloud.
- May have excellent memory for detail but not working memory, i.e., keeping ideas in mind while manipulating them and problem solving.
- Need some degree of supervision, support, and/or advocacy to be employable or to live independently in the community.

- Be very naive and vulnerable to social/sexual abuse.
- Become more socially isolated as his/her negative experiences in social situations increases (Vicker, 2009).

While these characteristics may be similar to those with language or learning disabilities, most of them “lessen or disappear for those who do not have an autism spectrum disorder” (Vicker, 2009, para. 1). It is the “frequency and persistence . . . into adulthood that exemplifies the syndrome of autism” (Vicker, 2009, para. 1).

2. RRBs. According to Quill (2000), many children with ASD engage in RRBs to help cope with the anxiety of changes in their environment. According to Temple Grandin (2011) – famous author, inventor, speaker, and adult with autism – most children with ASD “feel good in some way” when caught up in these ritualistic behaviors (para. 2). “It may counteract an overwhelming sensory environment, or alleviate the high levels of internal anxiety these kids typically feel every day . . . it helps refocus and realign their systems” (Grandin, 2011, para. 2). Robyn Stewart, famous UK figure and also an adult with autism, compares it to driving a new baby around in a car to get them to fall sleep. “They are lulled to sleep by the sound and the movement because they feel safe” (“Stimming: What Autistic People Do, 2013, para. 7). Similarly, children with ASD feel safe through self-controlled sound and/or movement (“Stimming: What Autistic People Do,” 2013).

Most people in the autism realm refer to these behaviors as “self-stimulation,” or “stimming.” Grandin (2011) believed that everyone “stims.” Tapping a pen, twirling one’s hair, humming, or biting one’s nails are all examples of socially acceptable means of stimming. “The difference between acceptable stims and those we consider inappropriate is in the type and intense repetition of the stims” (Grandin, 2011, para. 1).

Self-stimulation can include physical stims such as rocking, flapping, bouncing, jumping/bending, spinning around, pacing, spinning objects or hitting objects together, or hitting oneself. Verbal stims may include screaming, or repeating words, phrases, or sounds over and over. Many times, children with ASD will engage in a combination of these behaviors simultaneously, i.e., jumping, bending, and making noise (Grandin, 2001; “Verbal Stimming,” n.d.).

It is important to understand that not all RRBs are necessarily stims. As already mentioned, some children engage in repetitive movements to soothe themselves, the opposite of self-stimulatory behavior (Penrod, 2013). Some movements are involuntary, due to Tourette Syndrome “tics” or side effects of antipsychotic drugs. Other movements may be part of a meltdown due to sensory overload. This looks like “a tantrum while exhibiting repetitive behaviors” (Grandin, 2011, para. 6).

Impact on Inclusion

Given the social awkwardness and RRBs of children with ASD, GE teachers are often hesitant to include them in their classrooms. According to the literature, the level of comfort (or discomfort) GE teachers feel toward these behaviors is one of the main factors in measuring self-efficacy. Teachers often assume students with ASD will present a myriad of behaviors in the classroom, creating time constraints and challenges beyond their ability (Higginson & Chatfield, 2012; Horne & Timmons, 2009; Maccini & Gagnon, 2006).

GE teachers may also assume that children with significant disabilities cannot learn (Biklen, 2000; Kliwer, Biklen, & Kasa-Hendrickson, 2006). Kliwer et al. (2006) described a young nonverbal student who was denied reading instruction because of his cognitive level. He was transferred to a different GE class where he was welcomed into

the reading program. Upon arrival, he was presented with the book *Where the Wild Things Are*, by Maurice Sendak. As the teacher read about the wild rumpus, the young man, holding a plush character from the book, began to march and dance around the room. The teacher encouraged his classmates to follow his lead as she continued reading. Previously rejected for his inability to communicate and read aloud, he was now allowed to demonstrate understanding of the literature while becoming an accepted leader in the classroom.

In the first setting, Kliewer et al. (2006) described the young man as having “literate invisibility” to the teacher based on his category (label). This type of teacher perception “emerges out of a sense of the culturally devalued category (and, thus, the categorized individual) as static: simple, one dimensional, dormant, stalled, and fossilized” (Kliewer et al., 2006, p. 175). Biklen (2000) agreed that children with significant disabilities are often defined by their label, becoming stuck in a “calcifying vein” of stigma (p. 339). Therefore, “disability becomes an idea that precludes the possibility of human development” (Biklen, 2000, p. 339). As a result, there are lower expectations and higher resistance to inclusion.

Whether or not GE teacher perceptions are based on achievement “invisibility,” the literature seemed to reflect a constant disconnect between the rising number of students needing inclusion and the number of teachers willing to help. “Educational inclusion of students with disabilities has been widely promoted in recent years, resulting in ever-increasing numbers of students with disabilities [including ASD] receiving all or nearly all of their services in general education classrooms,” yet GE teachers consistently expressed hesitation about inclusion, often stating they were not adequately prepared (Mastropieri & Scruggs, 2001, p. 265; Lambe & Bones, 2006; Schumm & Vaughn,

1991). According to Rosenweig (2009), because of this poor perception of self-efficacy, “there is compelling need to improve the preparation of teachers required to serve these students” in inclusion settings (Busby et al., 2012, p. 29).

What Does Effective Inclusion Look Like?

According to Learn NC, an NC educator program from the UNC School of Education, there are five main research-based inclusion strategies that have proven successful in inclusion classrooms with children with ASD (Flynn, n.d.).

Academic Modification/Differentiated Instruction

The most common inclusion model used in the State of NC includes differentiated instruction.

Differentiation allows teachers to focus on essential skills in each content area, be responsive to individual differences, incorporate assessment into instruction, and provide students with multiple avenues to learning. The result is a classroom where specialized instruction is the norm for all students. (Hobgood & Ormsby, n.d., para. 3)

If executed effectively, students with disabilities have access to GE curriculum using appropriate modifications, while gifted students are constantly and appropriately challenged (Hobgood & Ormsby, n.d.; Tomlinson, 1999).

According to Carol Tomlinson (n.d.), accomplished author on the subject, The idea of differentiated instruction to accommodate the different ways that students learn involves a hefty dose of common sense, as well as sturdy support in the theory and research of education It is an approach to teaching that advocates active planning for student differences in classrooms. (para. 1)

While even “proficient” teachers in NC demonstrate “differentiated instruction by

grouping and individualizing instruction,” most GE teachers may not know what it “looks like” for including students with autism (NC Principals & Assistant Principals Association, n.d., p. 3). According to Dybvik (2004), “There are few, if any, mandated guidelines for what [inclusion] should look like The concept of ‘place’ has taken priority over ‘how’ children are taught” (para. 28).

Modifications. In order for some students to receive true differentiated instruction, modifications will need to be made. Students with ASD will most likely receive some form of academic modification while in their GE class, regardless of intellectual ability (Wagner, 2002). It is important to note that modifications are different from accommodations found in the IEP. “Modifications change the construct through altering language load, content complexity, and/or cognitive complexity” (Perkis, 2010, slide 7). Examples include simplified reading passages, reduced response choices, and reduction in workload (Autism Speaks, n.d.).

Accommodations, on the other hand, “are changes made for those students who require them in order to better access the core curriculum content. But they do NOT change the content – only the method of delivery,” and may include extended time on a test, printed schedules, preferential seating, or assistance with note taking (Wagner, 2007, p. 81; Adreon & Stella, 2001).

Just as with differentiated instruction, there was a presence of research literature regarding the need for modifying and individualizing instruction for students with special needs. Unfortunately, there were few specifics regarding *how* to modify instruction for students with ASD. The general rule of thumb is to “modify the general curriculum while maintaining the integrity of that curriculum” (Inclusion: Round Pegs/Square Holes, n.d., para 5).

Consideration for teaching practices. According to the National Education Association (2006), most students with ASD have difficulties with the following core activities: “identifying important global concepts and elements of tasks,” “processing auditory information,” “generalizing (skills must often be taught in context),” “sequencing information or steps,” “transitioning between activities,” “managing time” (p. 3).

Based on these core difficulties, Grandin (2007) offered the following tips for GE elementary school teachers regarding teaching practices for including students with autism.

Avoid long verbal directions. Since students with ASD struggle greatly with sequential memory, they have a difficult time with verbal directions. They may need to look down, look away, or even close their eyes to be able to process the auditory input. Therefore, providing visual directions, or verbal directions with visual prompts, is the most effective method to give multistep instructions. If the student can read, written directions, diagrams, or models of a finished product also work well. If verbal directions alone are necessary, avoid giving more than two steps (Allen, Lincoln, & Kaufman, 1991; Broun, 2012; Grandin, 2007).

Avoid vague language. Students with ASD think only in “black and white,” while neurotypicals often communicate in “gray.” It is important to speak in concrete language to students with autism. Autism Speaks (n.d.) offered this example of a child’s plea:

Idioms, puns, nuances, double entendres, inferences, metaphors, allusions, and sarcasm are lost on me When you say “Jamie really burned up the track,” I see a kid playing with matches. Please just tell me “Jamie ran very fast.” (p. 13)

Since students with ASD have difficulty with inferencing, they need more specific instructions. For example, if someone said “it’s almost time to go” at the end of a work day, a neurotypical adult would assume he needs to shut down his computer, pack his things, and get his keys. When a student is told “it’s almost time to go” at the end of the school day, he may not understand this is a cue to get packed up for the bus. Expectations should be laid out visually and given in simple steps (Autism Speaks, n.d.; Grandin, 2007; Perkis, 2010).

Give students time to respond. Students with ASD have a harder time processing a “simple question” for many reasons. Because most students with ASD have sensory sensitivities, they may not only need to process the verbal question but also the smell of the teacher’s perfume, the touch of the teacher’s hand on his shoulder, the sound of the student tapping his pencil behind him, and the sunlight beaming through the window. Students with limited vocabulary may have difficulty finding the right words for a response (Autism Speaks, n.d.).

Grandin (2007) described a time when she was expected to circle pictures that began with “B.” Because of her lack of generalization skills, she missed “bike” and “birdbath.” She didn’t have time to tell her teacher that the bike looked like her “trike,” and the “garden” the birdbath was in had more significance to her.

Respect sensory sensitivities. Students with ASD often get sensory overload from external stimuli (i.e., flicker of fluorescent lights, school bell, noisy environment), sometimes resulting in a meltdown. According to Lawson (2003), many students are “‘pushed’ beyond their limits of sensory endurance . . . due to those relating to them not having understood how ‘painful’ it is to be overloaded by too much sound; visual stimulation; emotional and/or physical demand and environmental expectation” (p. 11).

For example, a teacher might demand a student look them in the eye while they are being addressed. “The need for eye contact belongs more to the neurotypical person than the person with ASD” (Lawson, 2003, p. 11). Eye contact is very difficult for persons with ASD, as it provides additional unwelcomed stimuli. Jean Paul Bovee, popular speaker and adult with autism has been known to say, “I can look at you or I can listen to you, but I can’t do both” (Broun, 2012, p. 1).

Because of these sensory processing issues, teachers should try to limit classroom noise, clutter, physical contact, and other sensory input until they understand their student’s boundaries. In the event a meltdown does ensue, teachers should remember the acronym “S.C.A.R.E.D.,” coined by medical psychologist Will Richards. In a nutshell, teachers should (S) make sure the student feels *safe* (this may be letting him go to a quiet place, or removing the immediate stimuli); (C) stay *calm*, addressing the child in reassuring, literal manner; (A) provide *affirmation*, ensuring others (if present) are contributing positively, and reassuring the student by name; (R) maintain *routine* when the child is ready in order to help him feel secure; (E) *empathize* with the student, trying to understand the scenario from their perspective; and (D) *develop* a plan to avoid future meltdowns, once the triggers are identified (Autism Speaks, n.d.; Grandin, 2007; Lipsky & Richards, 2009).

While students with ASD can easily become overstimulated, they can also sometimes *seek* stimulation. As mentioned earlier, some students with ASD like to “stim.” It is important to provide students opportunities throughout the day to stim freely (i.e., recess, gym, breaks), but it may also be necessary during work times to offer less-distracting sensory alternatives such as squishy balls, textured items, or other “fidgets” in the student’s desk. Exercise bands around the legs of the student’s chair, “wiggle

cushions,” or weighted lap pads are also helpful (Grandin, 2011; “Sensory Tools & Products,” n.d.). Because stimming serves a purpose for students with ASD, it is important not punish or try to stop it. It’s “a bit like ‘teaching’ someone who is blind not to feel things in a room to find out where they are because we don’t like them putting their arms and hands out to do so” (Stimming: What Autistic People Do,” 2013, para. 14).

Positive reinforcement. One of the most popular ways to motivate students with ASD, encourage wanted behaviors, and even avoid meltdowns is the use of “reinforcers” (Flynn, n.d.). A reinforcer is a high-interest object or activity given to a student after a certain required task has been performed or a certain wanted behavior has been demonstrated. “Reinforcing a non-preferred activity with a preferred activity (positive reinforcement) helps increase the frequency of the task or behavior in the future” (Cooper, Heron, & Heward, 2007, p. 300).

According to Cooper et al. (2007), “conducting a preferred reinforcer assessment prior to teaching the student with ASD is very important” (p. 300). If the student is unable to verbalize his preferred reinforcer(s), a child’s parent or other caregiver could volunteer this information or the teacher could determine preferred objects/activities by trial-and-error of presented reinforcers in an informal setting. It was also noted that the quicker the reinforcement is given to the student after a requested task, the more meaningful it will be (Cooper et al., 2007).

Focus on strengths. While the research literature rarely focused on the strengths of children with ASD, these students have a variety of unique gifts that can help them become successful. Strengths include, but are not limited to, advanced visual-spatial skills, attention to detail, independent thinking skills, excellent visual

processing/memory, advanced skills in high-interest areas, loyalty, honesty, and (despite popular belief) a great sense of humor (Grandin, 2007; Lyons & Fitzgerald, 2004; Shore, n.d.).

According to Grandin (2007), “The most successful adults with autism, Asperger’s Syndrome, dyslexia, or other learning problems had teachers who developed their strengths” (p. 30). For this reason, teachers are highly encouraged to consider the strengths of students with ASD when implementing effective inclusion teaching practices (Mann, 2006).

Socialization Strategies

“Social skills” are the verbal and nonverbal skills people use in order to have fluid interactions with each other. “This can encompass reading and giving nonverbal cues (such as body posture, eye contact, tone of voice, etc.)” (Smith-Michaels, 2008, para. 3). It also involves “taking another’s perspective, knowing what to and not to say, when to and not to say it, and to whom it should be said or not said to” (Smith-Michaels, 2008, para. 3). Considered the “hallmark” characteristic of ASD, students with autism need intense interventions to develop these skills (Smith-Michaels, 2008).

It is important to realize that even if a student with ASD “appears social,” chances are good they may not be interacting appropriately. “Many children with Asperger’s Syndrome [high-functioning autism] have good sentence structure, high vocabulary, clear pronunciation, and correct syntax with an adult-like and pedantic speaking style at a young age” (McKelvey, 2008, p. 29). Despite the speaking ability of these “little professors,” they still need help with initiating conversation, picking appropriate topics, changing topics, personal space, voice modulation, and more (National Institute of Neurological Disorders and Stroke [NINDS], 2014).

Peer interactions. Social skills can be gained through peer interactions.

According to Grandin (2007), children “develop social skills through shared interests” (p. 31). Research literature supported Grandin’s claim, showing that interactions with peers in the GE classroom setting increased greatly when teachers incorporated class activities that are based on the interest(s) of the student with ASD (Koegel, Vernon, Koegel, Koegel, & Paullin, 2012). Social interactions can also be enhanced using conversation scripts, guided stories, and role-playing (Hess, 2006; Loveland & Tunali, 1991).

Research studies have also measured social interactions *outside* of the classroom. Douglas (2009) found that students with ASD who did not interact much with their peers inside an inclusion classroom engaged in more positive and appropriate interactions during P.E. It was noted, however, that students frequently approached teacher assistants during activities, who then redirected them back to the group activity (Douglas, 2009).

Gutierrez, Hale, Gossens-Archuleta, and Sobrino-Sanchez (2007) found that students with ASD typically did not interact with neurotypical peers on the playground, nor did teachers try to initiate social interactions. These studies helped demonstrate “that mere exposure to typically developing children is not the mechanism by which students with autism gain meaningful social experiences. Creating inclusive experiences that result in social interactions likely require additional, systematic interventions designed to facilitate those interactions” (Gutierrez et al., 2007, p. 29).

Social stories. A common tool for teaching social skills through direct instruction is “Social Stories.” According to Carol Gray (n.d.), creator of Social Stories, “the goal of a Social Story™ is to share accurate social information in a patient and reassuring manner that is easily understood by its audience” (para. 3). It is used to describe “a situation, skill, or concept in terms of relevant social cues, perspectives, and

common responses in a specifically defined style and format” (para. 3).

While there are many books and online resources for teachers to access premade Social Stories, they can easily be created in the classroom, keeping in mind the student’s interests, ability level, and suggestion that “half of all Social Stories™ developed should affirm something that an individual does well” (Gray, n.d., para. 3). Research literature shows that Social Stories are effective in increasing prosocial behavior and decreasing problem behaviors (Autism Society of America, n.d.b).

Communication Strategies

As mentioned earlier, children with ASD struggle with auditory processing, yet have visual-spatial strengths. According to the Eastern Upper Peninsula Autism Grant Team (EUPAGT, 2005), there are three ways to utilize visual supports when teaching students with ASD.

Organize a sequence of events. Visual supports can “enhance the student’s ability to understand, anticipate, and participate” (EUPAGT, 2005, slide 3). Consistency and routines are extremely important to most individuals with ASD. When they experience unexpected change, it greatly increases their anxiety and interferes with learning. In some instances, a meltdown occurs (Schopler & Mesibov, 1994). Picture schedules, “first/then” schedules, and visual timers help students with ASD be more successful in an inclusion setting by providing reassurance in routine and reducing anxiety about what will happen next (Cihak, 2011). Research also shows that students who use picture schedules transition much more independently, improve skill generalization and sequencing, and require less immediate supervision (Dugan & Kaufman, 2006; MacDuff, Krantz, & McClannahan, 1993).

Supplemental verbal instruction. Visual supports can “clarify the information

for the student and increase comprehension” (EUPAGT, 2005, slide 3). Research literature showed that verbal instruction alone is generally ineffective among students with ASD, yet when accompanied by signs or gestures, instructions are more effective and efficient. Therefore, teachers should utilize gestures, video, photographs, picture symbols, demonstration, modeling, or other visuals when instructing students with autism (Onur, 2011).

Cue communication. Visual supports can “provide reminders of what to do and say in a situation” (EUPAGT, 2005, slide 3). Even verbal students with ASD have trouble communicating feelings or indicating a need for a break. Visual cards or picture charts can help encourage open communication and help students with ASD express themselves (Autism Speaks, n.d.; “Sensory Tools & Products,” n.d.).

One of the most popular sources for producing picture icons for visual supports is “BoardMaker” by Mayer-Johnson, although schedules can easily be made with drawings, clipart, photos, or free downloads from websites such as www.do2learn.com (“How to Make Your Own Visual Aid,” n.d.; Mayer-Johnson, n.d.; see Appendix A for examples of visual aids used with children with ASD).

Strategies for Managing Obsessions and Compulsions

According to Lewin et al. (2005), “Obsessions are persistent and intrusive thoughts, ideas, impulses, or images that result in anxiety. Compulsions are repetitive behaviors or mental acts that typically function to reduce or prevent anxiety, often in response to an obsessive thought” (p. 91). Some of the obsessive/compulsive characteristics of ASD have already been discussed, including insistence on routine, desire to stim or soothe through repetitive behaviors, and focused interests (North Shore Pediatric Therapy, 2014).

RRBs. Children with ASD find creative ways to stim or soothe themselves using one or more of their senses: (1) visual – flapping hands, staring at lights or spinning objects, lining up objects, peering from the corners of their eyes; (2) auditory – grunting, shrieking, covering/uncovering ears, repeating portions of songs, videos, or books; (3) tactile – scratching, rubbing, or picking skin with hands or object(s), opening/closing fists, rubbing different textures; (4) vestibular – rocking back and forth, spinning, pacing, jumping; (5) taste – placing objects or body parts in one’s mouth, licking things; and (6) smell – sniffing oneself, objects, or others (North Shore Pediatric Therapy, 2014).

According to Penrod (2013), host of “Autism Live,” students with ASD use obsessive-compulsive movements (RRBs) to “soothe themselves” or “feel good.” For students with ASD “who lack social and self-regulatory skills, these behaviors can interfere with learning at school” or “be disruptive and upsetting to others, causing them to avoid or ostracize the individual in social settings” (Harris, 2014, para 4). Therefore, it was suggested that teachers offer a “replacement behavior,” a more socially appropriate activity to accomplish the same goal. For example, if a student flaps his hands to enjoy the blur of his fingers, offer a toy that spins and blurs colors (Penrod, 2013). When students are redirected to more appropriate behaviors and taught appropriate play skills, “they will be able to learn without distraction, interact with others without fear of being ostracized, and ultimately lead more productive and fulfilling lives” (Harris, 2014, para. 10).

Focused interests. Students with ASD tend to stay actively engaged with inappropriate objects or activities or engage in appropriate activities at inappropriate times. The National Research Council (2001) defined active engagement as “sustained attention to an activity or person” (p. 160). According to the National Association of

School Psychologists (NASP, 2004), because students with ASD “tend to display limited or idiosyncratic interactions with objects and people,” it is important for educators to “adapt activities and materials to encourage more appropriate involvement” (p. 4).

Grandin (2007) suggested that teachers use student fixations to motivate them. For example, if a student has a high interest in airplanes, a creative teacher can find ways to incorporate airplanes into all subject areas. Grandin suggested that by doing this, teachers can “form the basis for future careers” (p. 32). As a child, Grandin noticed a hydraulic cattle chute which was used to confine cattle. Her obsession to be squeezed led to her invention of a “squeeze machine” for humans. This also led to her fame as a designer of humane equipment in stockyards (Grandin, 1987).

When students are allowed to explore and express their interests and talents among peers, the results can be heart-warming. In an online article, “Children in the Grip of Autism,” an 8-yr-old boy with ASD was described as having difficulty speaking or even “recognizing the human voice” (Mosland, 2005, para. 2). After finding ways to express himself through music, he was allowed to play his cello in class and on stage for the entire school. His mother claimed, “Now he’s known in school not as the autistic kid, but as a cellist” (Mosland, 2005, para. 4).

Grandin (1987) encouraged teachers to find “ways to turn negative fixations into productive activities The important thing is to use the tremendous drive created by the compulsion to motivate academic behaviors” (p. 303).

Strong Support Systems

Support can be offered to teachers in many different ways. While most GE teachers expect automatic support from coworkers and administrators, they must sometimes find ways to seek out support on their own (Allsopp, 1997; Hardy, 2001;

Strauss, 2012). Some teachers seek mentorship by pairing up with an experienced teacher and “forming an agreement that they spend so many hours together throughout the course of the year” (Skuller, 2011, p. 9). Others may seek out special educators for occasional support (Murawski & Dieker, 2008).

Co-teaching. According to the research literature, one of the most effective ways to reach children with ASD while receiving ongoing support is through co-teaching: “the collaboration between general and special education teachers for all of the teaching responsibilities of all students assigned to a classroom” (Manset & Semmel, 1997, p. 41). Studies documented the benefits and challenges of co-teaching at the elementary level. Some of the benefits included an increase in manpower to teach, an enhanced level of expertise, increased confidence in working toward a common goal, and a decrease in overall workload (Cook & Friend, 1995; Keefe, Moore, & Duff, 2004; Scruggs, Mastropieri, & McDuffie, 2007).

It was found that co-teaching is much more effective when teachers have administrative support, including allotted planning time and specific training (Scruggs et al., 2007). Research also suggested that teachers be given a *choice* to co-teach (Murawski & Dieker, 2008). Teachers should not “be thrown together because school systems are fulfilling requirements made by various laws or as a way of helping weak teachers learn from experienced teachers” (Walther-Thomas & Bryant, 1996, p. 258).

Regardless of the fashion in which teachers work together for inclusion, Pierre (2010) advised, “No time or effort is wasted when quick and thorough communication is available or when problem-solving is needed” (p. 20).

What are the Benefits of Inclusion to Students with Autism?

According to Messemer (2010), “current research on best practices for instructing

students with [an] autism spectrum disorder has shown that integration with general education peers can be effective for students with ASD” (p. 1). While McCarty’s (2006) review of the literature showed varied opinions on the matter, conclusive studies showed great benefits, including both social and academic gains in the students being included.

Language Development

Researchers have found the practice of educating children with special needs in regular classes helps to improve language skills. According to Laura Justice, co-author of the study and professor of teaching and learning at Ohio State University, “Students with disabilities are the ones who are affected most by the language skills of the other children in their class” (Nauert, 2014, para. 4). As a result, children with disabilities have tremendous gains in language scores over the course of a year when allowed to interact with other children who have good language skills (Nauert, 2014).

Hunt, Staub, Alwell, and Goetz (1994) found that even students with severe disabilities can benefit from peer interactions and attain language growth. Students acquire “basic communication and motor skills through interactions with peers without disabilities who provided them with cues, prompts, and consequences” (Hunt et al., 1994, p. 301).

Social Skills

As mentioned earlier, students with autism can improve social skills through interactions with neurotypical peers. Lerner (1997) stated that the main “philosophical argument for inclusion is that it provides integrated social learning opportunities for children with disabilities” (p. 47). According to Zager and Alpern (2010), studies suggested that “it is vital that children with autism learn social skills, including building friendships and engaging in sharing, cooperative play, and other actions necessary to help

them successfully adapt to the normal classroom” (p.155).

Supplemental structured programs, such as the Circle of Friends Program (COFP) seemed to have an even greater social impact on students in inclusion settings. COFP not only built connections between a variety of students with and without ASD in their natural environment, it trained its neurotypical participants in a systematic approach to teach and support social and life skills. As a result, student participants with ASD felt an increase of acceptance, respect, and social inclusion, established social networks, and gained an overall elevated sense of self-worth (Calabrese et al., 2008; COFP Description, n.d.; Miller, Cooke, Test, & White, 2003).

Increased Confidence

With an increase of social skills, independence, and acceptance came an increase in overall confidence for students with ASD who experienced inclusion. These students increased attention to task and decreased inappropriate behaviors (DePaul, Ervin, & Hook, 1998), demonstrated greater effort and learned more (Dupuis et al., 2006), and learned independence and self-regulation skills (Dugan & Kaufman, 2006). Their self-esteem increased as they learned to better communicate and become a greater part of the school community. They also expressed a preference for working with peers over adults (Mesibov & Shae, 1996), and often identified their favorite teachers as their peers (Klinger, Vaughn, Schumm, Cohen, & Forgen, 1998).

Increased Awareness and Acceptance

According to the Autism Society of America (n.d.b), classmates have been known to “benefit from their experiences with students with ASD, developing a compassion for and an understanding of children with special needs” (para. 5). Participants in structured inclusion programs such as COFP, regardless of their role, often felt that “involvement

[is] a transformative experience” (Fredrickson & Turner, 2003, p. 244). Overall, when general and special education combine forces, neurotypical peers gain self-confidence and learn to accept differences in others (Holtz & Tessman, 2006). “Their self-esteem is boosted by the positive role they take in helping a friend with autism learn” (Autism Society of America, n.d.b, para. 5).

While the research literature largely supported inclusion, studies tended to focus on higher-functioning students (i.e., Asperger’s) being included. “Simpson et al. (2003) concluded that not all students with autism would benefit from or belong in the inclusion model” (McKelvey, 2008, p. 47). They argued that inclusion could be successful with students with ASD if the student is “able to participate in academic activities at an increasingly independent level,” “gain new skills, generalize information, and attend to group instruction” (McKelvey, 2008, pp. 47-48; Simpson, deBoer-Ott, & Smith-Myles, 2003).

Besides the question of academic gains, McKelvey (2008) mentioned Simpson et al.’s (2003) suggestion that teachers answer the following questions honestly regarding a student’s readiness for inclusion: (1) Will the student gain social benefits? (2) Does the student seem to be aware of his peers? (3) Does the student tend to imitate the actions of others? (4) Does the student “respond to the interaction of peers and seek social reinforcement for appropriate behaviors and task completions?” (p. 46).

While there are always exceptions to the rule, studies suggested that “no other trend in education will have more far-reaching effects than the inclusion of children with autism into the academic and social lives of their same age peers” (Lamberson & Shadburn, 2006, p. 20).

Current Teacher Perceptions of Self-Efficacy

While a strong case had been made in the research literature regarding inclusion of students with autism in the GE setting, research also suggested that GE teachers do not feel prepared to face the challenges of inclusion. There are several themes in the literature that impact teacher perceptions regarding their ability to teach in inclusive settings (self-efficacy).

In the first section, the research revisited issues of self-efficacy and inspected the overall attitudes of GE teachers regarding inclusion of students with autism. Because there was little literature that reflected the attitudes of teachers toward ASD specifically, attitudes toward children with disabilities in general were considered. In the next section, the research explored GE teacher perceptions regarding (1) Levels of Support, (2) Preparedness, and (3) Students with Autism.

Self-Efficacy

According to Messemer (2010), Bandura (1997) first described the concept of “self-efficacy” as “the belief in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). When referring to educators, Messemer believed those faced with daily struggles of teaching students with academic and behavior issues, “often develop a faltering sense of self-efficacy” (Messemer, 2010, p. 7; Bandura, 1997). Messemer noted that low perceptions of self-efficacy cause “lower level of instruction and commitment on the part of the teacher, ultimately leading to continued student non-achievement and disruptive behavior” (p. 7). In the same way, teachers with positive perceptions of self-efficacy create positive results and “maintain a positive atmosphere for learning and promote further self-efficacy for themselves and their students” (Messemer, 2010, pp. 7-8; Bandura, 1997).

Bandura (1993) postulated four main psychological contributions to teacher self-efficacy:

1. “Mastery experiences” (from which Mastery Motivation Theory is based) – “If one believes that one has completed a task successfully, a sense of mastery develops, self-efficacy is increased, and a precedent is established from which future expectations of success can be drawn” (Jamil, 2012, p. 1).
2. “Physiological and emotional cues” – “Feelings of excitement or anxiety can contribute to a feeling of mastery or ineptness” (Jamil, 2012, p. 1; Bandura, 1993).
3. “Vicarious experiences” – A person can watch another person have a positive experience with something, and based on that positive experience, expect personal success for themselves (Jamil, 2012, p. 1; Bandura, 1977; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).
4. “Verbal persuasion” – “Encouragement or praise can help create an expectation of future success, based on feedback from a trusted source” (Jamil, 2012, p. 1; Bandura, 1986; Tschannen-Moran et al., 1998).

According to Jamil (2012), these four sources can be used to “support strategies to increase teacher self-efficacy” (Jamil, 2012, p. 1; Bandura, 1986; Tschannen-Moran et al., 1998).

Bandura (1986) also suggested that self-efficacy can be split into two parts: efficacy expectations and outcome expectations. Efficacy expectations are a belief in one’s self to have an impact on a behavior (i.e., the belief in one’s ability to effectively teach in an inclusion setting); outcome expectations are beliefs that the impacted behavior would accomplish the desired results (i.e., the belief that teaching in an inclusion setting

will have a positive impact on those involved). For the purpose of this research, the main focus was on efficacy expectations or how prepared GE teachers felt to serve children with autism in inclusion settings (Messemer, 2010).

General Teacher Perceptions

In a research synthesis of literature regarding GE teachers' perceptions and efficacy expectations regarding inclusion (spanning over 40 years), it was found that teachers' beliefs were dichotomous; they "either highly supported or had strong reservations about inclusion" (McLeskey, Waldron, So, Swanson, & Loveland, 2001, p. 108). While opinions on the subject ranged from mostly positive to largely negative, evidence supporting the benefits of inclusion has continued to mount (Sailor, Gee, & Karasoff, 2000; Stainback & Stainback, 1990). This evidence has resulted in the designation of inclusion as the service delivery model of choice among federal and state education officials, whether educators are prepared or not (Angelides, 2008).

Scruggs and Mastropieri (1996) reported that of 28 educational studies, approximately two-thirds of GE teachers supported the concept of inclusion. Harriott's (2004) more current review of the literature also found most GE teachers are in support of inclusion, and Avramidis and Norwich (2002) agreed that GE teacher attitudes towards inclusion are "generally positive" (p. 199). In addition, Smith (2000) found that elementary school teachers were more positive overall than secondary teachers.

It is important to note two things about this literature: (1) teachers who supported the idea of inclusion did not necessarily feel prepared to implement it (Scruggs & Mastropieri, 1996). According to McLeskey and Waldron (2007), "more educators endorse the concept of inclusion than those willing to participate in inclusive classroom settings" (Jones-Wilson, 2011, p. 43); and (2) those with positive attitudes who have

accepted the challenge have an existing network of support and feel adequately prepared (Gibb, Allred, Ingram, Young, & Egan, 1999; Harriott, 2004; Villa, Thousand, Meyers, & Nevin, 1996).

For some GE teachers, the topic of inclusion is controversial (Cullen, Gregory, & Noto, 2010). “Research on teachers’ attitudes toward inclusion has repeatedly shown that an alarming number of general education teachers lack confidence and feel unprepared to effectively service students with special needs” (Jones-Wilson, 2011, p. 46). In fact, one of the most common excuses for resisting inclusion is the lack of readiness in GE to educate students with disabilities (Rosenweig, 2009).

Monahan, Marino, and Miller (1996) studied 342 GE teachers in rural South Carolina, and reported that over 60% of those teachers believed inclusion efforts would fail. Overall, there was a feeling of resistance from teachers due to a reported lack of skills necessary to serve students with disabilities (Harriott, 2004; Monahan et al., 1996). In addition, participants also held a strong belief that students with disabilities needed to be served in separate special education classrooms (Monahan et al., 1996; Vaughn & Schumm, 1994). Many other GE teachers have shared the same sentiment, expressing preference for “pull-out” programs and believing that teaching students with ASD is the role of the special education teacher (Booth, Ainscow, Black-Hawkins, Vaughan, & Shaw, 2002; Coates, 1989; Vaughn & Schumm, 1994).

Other exclusionists argued that inclusion is simply a ploy to save money. “They contend that general education is unprepared to meet the unique needs of students with disabilities and that inclusion is primarily a cost-cutting effort” (Jones-Wilson, 2011, p. 204). Furthermore,

Teachers have lamented relinquishing their autonomous roles and as a result,

given less credence to inclusive education. Sharing space, classroom management, resources, grading, assessment, goals, and the decision making process with another educator has led some teachers to resent and resist the collaborative process and the inclusionary concept. (Jones-Wilson, 2011, p. 44; Rea, McLaughlin, Walter-Thomas, 2002; Ripley, 1997)

While GE teachers with strong negative attitudes are the minority, teachers with poor self-perceptions of self-efficacy are not. Unfortunately, this trend has a negative impact on the students we are trying to include. “Lack of motivation and self-efficacy in teachers are often root causes of ineffective teaching of children with autism” (Busby et al., 2012, p. 28).

Perceptions That Impact Self-Efficacy

There remains a disconnect in the literature between overall GE teacher attitudes toward inclusion of students with ASD (and other disabilities) and their willingness to implement inclusion practices. Upon extensive review of the literature, there were three main themes that emerged that may help schools and their districts better understand the reasoning behind resistance to inclusion.

1. Perceptions of support. Stainback and Stainback (1984) advocated for a “merger” of general and special education; Biklen (1985) supported “integrating” general and special education; Wang and Walberg (1988) used the term “shared responsibility.” No matter how inclusion was described in the literature, educators seemed to agree it requires a team effort.

Teacher collaboration. Many GE teachers with poor perceptions of self-efficacy cited “lack of support” for resisting inclusion (Lee, 2013; Robbins-Etlen, 2007). GE teachers in the Hardy (2001) and Allsopp (1997) investigations stated openly that

inclusion would simply be “too costly in terms of time and effort to implement independently” (Deshler, Ellis, & Lenz, 1996, p. 273). Lamar-Dukes and Dukes (2005) found that even in “collaborative settings,” there exists a fuzzy line between “who does what,” and often needs clarification (p. 57).

As mentioned earlier, those with positive attitudes toward inclusion often had an existing support system. For example, in the Gibb et al. (1999) study, junior high school teachers displayed positive attitudes regarding students with behavioral disorders receiving their education in GE classrooms. In theory, these teachers’ perceptions should have been negative, as they were secondary school teachers dealing with students with severe behaviors. But, with structured support from special educators and special assistance from volunteers, these teachers felt prepared and supported, which greatly influenced their perceptions (Gibb et al., 1999; Villa et al., 1996).

The research showed that in order to meet the challenge of successfully educating students with autism in the GE classroom, clear, structured collaboration between general and special education teachers is essential (Keefe et al., 2004; Rainforth & England, 1997).

Administrative support. The success or failure of any inclusion program is highly dependent on the perspectives and beliefs of the principal. According to McKelvey (2008), “The school-based administrator is responsible for the training, common planning time, and development of the staff’s attitude toward inclusion” (p. 42). Falvey (1995) identified a principal’s role in inclusion as “identifying and articulating the needs of inclusive schools and providing an important link between the schools and the larger community” (p. 10). Unfortunately, the literature revealed a gap in the link between principals and their teachers (Robbins-Etlen, 2007; Strauss, 2012; Wilkerson,

2012).

According to Skuller (2011), “Principals traditionally have little experience in dealing with special education populations in their schools, and typically like it that way” (p. 48). This attitude “could limit or alter their individual perceptions of the inclusion model” (Skuller, 2011, p. 48). McKelvey (2008) explained that the contemporary diagnosis of Asperger’s (within the last 20 years) may have also had an impact on the lack of understanding and willingness for inclusion among principals regarding students with ASD.

The literature made it clear “that teacher attitude toward inclusion is mediated by teacher perception of the time and effort necessary for implementation” (Deshler et al., 1996, p. 273), yet without administrative support to provide these things for them, teachers will continue to have poor perceptions, and inclusion will not be successful (Scruggs & Mastropieri, 1996).

2. Perception of preparedness. Training. The research literature reflected GE teachers’ desires to receive ongoing information to meet evolving needs of students; have ongoing, open discussions with coworkers; and receive “systematic, intensive, well-planned in-service training” (Messemer, 2010, p. 85). In particular, teachers requested more knowledge on how to deal with specific learning difficulties as well as manage students’ behavioral and emotional needs (Messemer, 2010).

Unfortunately, teachers are currently receiving “one-size-fits-all” training. According to Lee (2013), there is “no significant statistical correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed during the current school year” (p. 2). According to the teachers in his study, inclusion was not a significant focus in their professional development activities (Lee, 2013). Even

teachers who did participate in professional development designed specifically for inclusion reported no mention of ASD specifics during training (Messemer, 2010). Specific training on ASD may not even be enough, according to Bruening and McCoy (2010), who stated, “The distinctive characteristics of individual students mean that general or broad-spectrum in-service about teaching approaches for those with ASD will not satisfactorily address student or teacher needs for supportive intervention” (p. 5).

According to Wilkerson (2012), a lack of adequate and formal training on autism is consistently related to less positive attitudes toward inclusion. Such a finding has clear implications for school districts wanting to increase positive attitudes toward inclusion of students with autism in regular education classrooms. (p. v)

Experience. Today, over 15 million Americans are directly impacted by ASD. These may include friends, loved ones, educators, caregivers, and healthcare professionals. Based on the increase in diagnoses and the rising numbers of students with ASD in schools each year, there is a large number of teachers impacted either personally, professionally, or both (Autism Society of NC, 2014).

There was a clear lack of research regarding teachers’ personal experiences with ASD outside of the classroom but plenty to support the impact of teaching a student with ASD. In many cases, interactions with these students in inclusive settings had a positive impact on perceptions of self-efficacy.

According to Messemer (2010), Teffs and Whitbread’s (2009) study of 655 GE teachers (2007-2008 school year) reported that over half of the teachers were assigned a student with ASD. Less than 30% had only one student with ASD, 20% had 2-3 students, and almost 20% had more than three. In addition, nearly half of these teachers reported having significant improvement in their attitudes regarding students with

disabilities and inclusion.

In a qualitative study of the inclusion of students with severe disabilities, teachers who initially held negative perceptions described themselves as being “transformed,” saying their attitudes improved and they became more positive overall (Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1993). McLeskey et al. (2001) compared the attitudes of teachers in both inclusive and noninclusive settings in Grades K-6. Teachers in the inclusive settings were found to be far more favorable toward the inclusion of students with disabilities in GE.

While experience with students with ASD helped improve teacher perceptions, there were still many general educators who had negative perceptions based on stigmas attached to the label.

3. Perceptions of students. Severity of disability. Studies in Australia (1985-1989), found teacher perceptions “vary considerably” regarding the type(s) of children that should be integrated. While their educational background had some influence on attitude, the nature of the disability and the level of educational challenges impacted their views even more (Ward, Center, & Bochner, 1994, p. 198; Avramidis & Norwich, 2002).

In a literature review of earlier research, Hannah (1988) also concluded that GE teachers tended to have more positive feelings towards certain types of disabilities. Students who were labeled with mental or emotional disabilities were perceived much more negatively than other students, including those with other disabilities. In Praisner's (2003) study of principals' attitudes, there were also certain categories that influenced more restrictive environments, including students with intellectual disabilities (ID), students with comorbid conditions, and students with autism. Students with learning disabilities (LD) and Down Syndrome were more welcome in inclusive settings.

The literature supported the idea that “gifted” students were perceived much more positively than those with disabilities (Avramidis & Norwich, 2002; McLeskey et al., 2001; Scruggs & Mastropieri, 1996). According to Marsh (2007), regular education teachers were observed favoring “those perceived as smart” by nodding, smiling, praising, and calling on them more often (p. 10). They also gave these students more time to answer than classmates with learning disabilities (Marsh, 2007). The same results were reported in the observational study of Brophy and Good (1984). Students with disabilities were seated further away, received overall less attention, were interrupted and criticized more often, and were given very little expectations for success (Marsh, 2007).

Among GE teachers with low perceptions of self-efficacy, one of the biggest concerns was how to handle behaviors in students with disabilities (Messemer, 2010; Robbins-Etlen, 2007; Sparks, 2009). According to Robbins-Etlen (2007), including students with emotional and behavioral disabilities in the GE setting presents challenges, but when special and GE teachers are not given opportunities to collaborate, “these challenges are exacerbated” (p. i). This seemed to be the basis for teacher anxiety when including students with autism in the general classroom. The overall perception was that things would “get out of hand” and there would be no one around to help.

According to Good (1981), Skuller believed “the behavior of these students can often become so severe that it is daunting to figure out the best teaching method for the classroom” (p. 418). This fear was best illustrated by Messemer’s (2010) script of a GE teacher’s point-of-view:

I know how to handle the typical behaviors of needing to sharpen your pencil to delay work, or asking to go to the bathroom, but what am I supposed to do with a child who is screaming and trying to leave the room when I’m alone with 20 other

students? I need to know how to handle this, how can I deescalate the situation or how could I have seen this coming? (p. 68)

According to the literature, teacher attitudes regarding students with disabilities do have a strong impact on the implementation and overall success of an inclusive program. According to Cullen et al. (2010), “Olson, Chalmers and Hoover (1997) found that positive teacher responses to students with disabilities were strong predictors of the success of inclusion,” while Stanovich and Jordan (2002) found that “teachers who subscribed to a ‘disease model’ of disability made consistent attempts to reduce the diversity in their classroom” (p. 3).

Teacher Strategies

Given the factors that impact teacher self-efficacy, the following strategies were recommended in the literature for improving teacher perceptions.

Improve perceptions of support. In order for effective professional development to take place, there must be administrative support (Villa, Thousand, Nevin, & Liston, 2005). According to Villa et al. (2005), “In a survey of educators’ attitudes toward inclusive education, the degree of administrative support for the practice [of inclusion] was the most powerful predictor of a general educator’s positive feeling toward inclusive practices” (p. 43). In addition to providing rich professional development opportunities, administrators should also provide ample opportunities for planning and collaboration and create an overall positive school environment that is accepting of all children (Barnett & Monda-Amaya, 1998; Cook, Semmel, & Gerber, 1999; Santoli, Sachs, Romey, & McClurg, 2008).

Even in the absence of administrative support, GE teachers can collaborate by sharing, discussing, and writing (personally or through “interactive online participation

and collaboration” ([Liotta, 2008, p. 21]). Research showed that efforts in collaboration helped combine knowledge and perceptions to create understanding (Bruening & McCoy, 2010). Overall, teachers’ perceptions of self-efficacy can greatly improve “by way of the ‘wisdom of the crowd’” (Liotta, 2008, p. 23).

It is also important to note there are local agencies, such as the University of NC’s TEACCH (Teaching, Expanding, Appreciating, Collaborating, Cooperating, Holistic) Program and the Autism Society of NC, that are willing to assist GE teachers with strategies for academic instruction and behavior management for students with ASD.

Improve perceptions of preparedness. Developing an instructional format that supports the learning of students with ASD is an ongoing challenge (Messemer, 2010). GE teachers must continually adapt and refine instruction to simultaneously meet the needs of their students with and without ASD (Goodman & Williams, 2007; National Research Council, 2001). Because instructional practices for inclusion are always evolving, GE teachers need ongoing professional development (PD) to meet the specific needs of individual students with ASD (McKelvey, 2008).

According to the Center for American Progress (CAP), schools should not offer “drive-by” trainings, but rather “longer-term designs” (Bandura, 1997, p. 7). According to Yoon, Duncan, Lee, Scarloss, and Shapley (2007), of 1,300 studies regarding PD, the one with the most positive effect on teacher perception and student achievement involved ongoing teacher activity for 60 hours over a 6-month period.

CAP also strongly suggested PD that is “job embedded.” According to the National Council on Teacher Quality (2012), PD that is job embedded is grounded in day-to-day teaching, part of a continuous improvement cycle, intended to improve student learning, designed around content, and enhanced with teacher collaboration

(Bandura, 1997; Yoon et al., 2007).

Improve perceptions of students. According to Pehrson (2011), students placed in special classes or receiving special accommodations may be seen as “different,” putting them at risk for teasing and bullying. Unfortunately, the stigma of being “different” does not always come from the students. “Teachers are working so hard to help their regular students . . . that sometimes making the necessary accommodations or adaptations for students in special education may become overwhelming” (Pehrson, 2011, para. 6).

The CPD suggested that administrators enforce “zero tolerance for teasing and discrimination based on ability level and differences” among staff and students (Pehrson, 2011, para 11). They should also provide training for GE teachers to gain “skills to address the academic needs of students mainstreamed into their classes, and model treating all students with respect” (Pehrson, 2011, para. 12).

Mesibov and Shae (1996) believed that “for successful inclusion of children diagnosed as having autism, teachers need to develop an understanding of the disability and adapt the curriculum to meet the students’ individual needs” (p. 343). Harrison (1998) agreed that in order adapt the school environment to promote greater inclusion, GE teachers need to develop a greater understanding of ASD and how it affects the individual student.

With improvements in support, preparedness, and attitudes toward students with disabilities, teachers may begin to feel more prepared and willing to teach students with ASD in inclusion settings (Hanson et al., 1998; Harrison, 1998; Messemer, 2010).

Conclusion

From this review, it became evident that GE teachers need help in preparing

themselves for the increase of students with ASD in inclusion settings. While little research was done regarding the specifics of ASD in inclusion, the research of the past 20 years identified the social and academic advantages of inclusion for students with all disabilities.

The literature also showed how teacher perceptions and attitudes had a strong impact on the success or failure of an inclusion program for students with ASD. The current state of inclusion can best be summarized by Baker, Wang, and Walberg (1994-1995, as cited in Katz & Mirenda, 2002):

As schools are increasingly challenged to serve a diverse student population . . . the concern is no longer whether to provide inclusive education, but how to implement inclusive education in ways that are both feasible and effective in ensuring schooling success for all children. (p. 19; Baker et al.)

Chapter 3: Methodology

“Educational inclusion of students with disabilities has been widely promoted in recent years, resulting in ever-increasing numbers of students with disabilities receiving all or nearly all of their services in general education classrooms” (Mastropieri & Scruggs, 2001, p. 265). In a research synthesis of literature regarding GE teachers’ perceptions and efficacy expectations regarding this inclusion, it was found that teachers’ beliefs were dichotomous; teachers expressed either strong support or strong reservations about inclusion (McLeskey et al., 2001; Scruggs & Mastropieri, 1996).

According to the literature, those who supported inclusion did not necessarily feel prepared to implement it (Jones-Wilson, 2011; McLeskey & Waldron, 2007; Scruggs & Mastropieri, 1996). Those who shared positive attitudes and were already teaching in an inclusion setting expressed having a great deal of support and feeling adequately prepared (Avramidis & Norwich, 2002; Gibb et al., 1999; Harriott, 2004).

Those with strong resistance to inclusion felt a lack of preparation (Lambe & Bones, 2006; Schumm & Vaughn, 1991; Ward et al., 1994). Other reasons for resistance included lack of teacher and administrator support and low expectations of students with disabilities (Lee, 2013; Praisner, 2003; Robbins-Etlen, 2007). Because of this poor perception of self-efficacy, “there is compelling need to improve the preparation of teachers required to serve these students” in inclusion settings (Busby et al., 2012, p. 29).

While the research literature reflected teacher perceptions of self-efficacy in regards to teaching children with disabilities in general, there was a gap in the literature specifically examining inclusion of children with ASD. This research examined those perceptions among GE teachers in elementary schools.

Research Design

This chapter explains the methods of research and the context within which it was implemented. The demographics of the sample population and the overall population from which it came are also detailed. Finally, the instruments used to collect the data and the ways in which the data were analyzed are also described, including measures of validity and ethical practice.

Methods

The purpose of this study was to analyze K-5 GE teacher perceptions of self-efficacy in regards to teaching students with ASD in an inclusive setting. The researcher looked for factors that influenced these perceptions. Research was conducted using Mixed Methodology (“QUAN-Qual”). According to Terrell (2011), a mixed-methods approach

offers richer insights into the phenomenon being studied and allows the capture of information that might be missed by utilizing only one research design, enhances the body of knowledge, and generates more questions of interest for future studies that can handle a wider range of research questions because the researcher is not limited to one research design. (Caruth, 2013, p. 112)

While quantitative research involves specific, narrow questions presented in an unbiased, objective manner, it is void of descriptions and elaborations and prevents participants from fully expressing their opinions. Qualitative studies conduct inquiry in a more subjective manner and include broader, more general questions. They allow the researcher to gain more personal insight into perceptions and feelings of the participants. This naturalistic inquiry can also serve to support and validate the quantitative data. A popular method among educational research, mixed method answers both the “if” and the

“how or why,” using both words and numbers to enhance the research (Terrell, 2011, p. 258).

Phase One - Quantitative Research

A digital survey was used to collect demographic information and gauge teacher perceptions regarding teaching students with ASD in inclusion. The researcher created a digital version of an existing survey using Survey Monkey and emailed the link to all certified elementary school teachers in the district. The email included the purpose for study, impact of participation, and guarantee of confidentiality and anonymity.

The survey first determined whether the participant was (1) a GE K-5 classroom teacher, and (2) if so, whether he/she had ever taught a student with ASD. If neither of these qualifiers was present, the participant was thanked for his/her time and was prompted no further. For those teachers who qualified (answering yes to both questions), the survey continued.

Twenty-three questions were asked pertaining to general perceptions of self-efficacy regarding teaching students with ASD in inclusion settings. Four additional questions were asked for demographic purposes only. A final question was added to ask for volunteer participation in the qualitative interview. If, and only if, the participant was willing to be interviewed, he/she was directed to a separate link where they were prompted to provide name and contact information. This information could in no way be traced to the survey. At the conclusion, survey data were digitally collected and saved until the survey window closed (2-week period).

Phase Two - Qualitative Research

At the conclusion of the quantitative survey, personal (qualitative) interviews were conducted with 12 GE classroom teachers from the district from five participating

schools. All teachers who had indicated a willingness to participate and had provided their contact information were contacted. Once volunteers could (1) confirm they had previously taught a student with ASD and (2) were still willing to be interviewed, private interviews were set up at their earliest convenience.

The interview included six questions which addressed areas of support, preparedness, and overall experience with the student with ASD in inclusion. To allow for more candid answers, participants were not given the questions ahead of time. Each teacher was interviewed in strict confidence at a time and location that was most convenient and comfortable for her. Participants were told ahead of time that conversations would be recorded for accuracy in transcription.

Research Context

While there is no legal definition for inclusion, it is a term which expresses commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend. It involves bringing the support services to the child (rather than moving the child to the services) and requires only that the child will benefit from being in the class (rather than having to keep up with the other students). (Schultz, 2007, para. 8)

“Full inclusion” means that a student, regardless of type or severity of disability, participates in a regular education class or program full-time (Schultz, 2007).

In the State of NC and in the participating district, there is no specific policy on inclusion. It is left up to the discretion of the principals to implement inclusion as deemed appropriate. Inclusion for students with ASD in the elementary schools ranged from scheduled “specials” or “pull-outs” (i.e., music, P.E., computers) from self-contained classrooms, to regular education settings with scheduled resource services in a

separate setting, to “random inclusion” for field trips, parties, assemblies, and other special activities. For the sake of this study, participants who taught students with ASD could have either had students in full or partial inclusion.

Demographics

The sample population of GE teachers was chosen from a rural school district in Western NC. The district currently had 19 schools, including an NC Pre-K Program, Early College, and Alternative Placement High School. It was divided into three high school districts, averaged 431 students and 30 classroom teachers per school, and had a typical class size of 20.

It ranked higher than the state average in teacher qualifications and experience, with 99% of the district’s teachers fully licensed, 34% holding advanced degrees, and 100% considered “highly qualified” by the State of NC. In addition, only 12% had less than 3 years teaching experience, while 34% had 4-10 years, and 55% had been teaching 10 years or more.

The quantitative research was conducted among the entire population of GE K-5 classroom teachers from all 10 elementary schools in the district, while the qualitative research was conducted among 12 volunteer teachers from five schools. Because teachers who were willing to be interviewed had to provide their name, school, and contact information, the researcher excluded her school in order to avoid bias. All participants in the qualitative study were female. While the quantitative survey did not ask for disclosure of race, it is important to note that the teachers in this district were predominantly White females.

Research Ethics

Teachers in this study were willing participants who volunteered to answer the

survey and/or elected to be interviewed for research purposes. Details regarding the purpose and procedures of the research were fully disclosed, and participants were given the opportunity to “opt-out” at any time. The survey was both confidential and anonymous. While personal interviews forfeited anonymity between participant and researcher, participants’ names and locations were kept confidential at all times. The Institutional Review Board (IRB) approved the research and helped ensure the research code of ethics was followed.

Instruments and Procedures

The survey instrument used in this study was Antonak and Larrivee’s (1995) Opinions Relative to the Integration of Students with Disabilities (ORI). It involved a 6-point Likert Scale to reflect the degree with which participants agreed or disagreed with each statement involving perceptions of self-efficacy. The ORI, a revised version of the Opinions Relative to Mainstreaming (ORM), had been given credibility by researchers through their use of the instrument and had been analyzed and deemed reliable and valid (Whitaker, 2011).

With permission, the word “disability” was replaced with “autism” in each statement, changing the title to “Opinions Relative to the Integration of Students with Autism” (see Appendix B). To maintain the integrity of the instrument, nothing else changed. The researcher added four demographic questions to collect personal information, including age, gender, level of education, and years of experience (see Appendix C).

Interview questions were developed by the researcher and derived from three main themes found in the literature, including perceptions of support, preparedness, and overall attitude toward/experience with students with ASD. Interview questions were as

follows.

Regarding your first year of inclusion,

- How prepared did you feel to teach a student with autism? Why?
- What kind of support, if any, did you receive from teachers or administrators?
- What was the most helpful thing anyone did or said to help you during your experience?
- How did having a student with autism affect your class?
- How did having a student with autism affect you personally?
- If you had to teach that year over again, what would you need that you didn't already have?

Questions 2 and 3 addressed the support the teacher received during her year of teaching a student with ASD. Question 2 asked for the type(s) and source(s) of support, while question 3 asked which act of support was most helpful. While the research suggested that higher levels of support had a more positive impact on teacher perceptions, Villa et al. (1996) suggested that even teachers without existing support systems for inclusion can have positive experiences if both general and special educators believe they can “work together as partners” (Gibb et al., 1999, p. 136).

Question 1 addressed the overall perception of preparedness the teacher felt when faced with including a student with autism. Bandura (1997) believed that teachers who feel ill-prepared to tackle low-achieving or disruptive students often develop a poor sense of self-efficacy, resulting in poor instruction and continued disruptive behaviors. Those with a well-developed sense of self-efficacy maintain positive learning environments and promote further self-efficacy for themselves and their students.

Questions 4 and 5 pertained to the teachers' overall perceptions and attitudes

regarding their experiences with a student with ASD. McLeskey et al. (2001) found that elementary school teachers with inclusion experience are far more favorable toward overall inclusion of students with disabilities in GE, as most have had positive experiences with inclusion (Keefe et al., 2004).

Based on the research, the answers to the first three interview questions should directly impact questions 4 and 5. As discussed in the literature review, GE teachers who felt unprepared and/or experienced a lack of support while teaching students with autism tended to have negative experiences and maintained negative attitudes toward inclusion of students with ASD. Conversely, teachers who felt adequately prepared and/or received support from administration and coworkers reported positive experiences and even had greatly improved self-perceptions (Gibb et al., 1999).

Question 6 was created to either support the trends in teacher needs and/or to discover new needs that may not be reflected in the literature.

Data Collection

Using the instructions for the survey instrument provided by Antonak and Larrivee (1995), participant responses were scored under four categories, including benefits of inclusion, inclusive classroom management, perceived ability to teach students with disabilities (preparedness), and special education versus inclusive settings (see Appendix D). These results were analyzed to determine overall positive and negative perceptions of the teachers surveyed.

Next, the raw data were separated into categories for each of the questions in the demographic survey. For example, answers were categorized based on age or years of experience to help determine whether these factors had a significant impact on teacher perceptions. Upon conclusion of teacher interviews, the researcher conducted a thematic

analysis of the narratives by transcribing the recorded interviews verbatim.

Role of Researcher

It was the researcher's role to plan and implement the research including, but not limited to, receiving district and university permission to conduct the research, distributing and collecting surveys, conducting interviews, analyzing data, and maintaining research code of ethics.

Summary

Mixed-methods research was used to gain insight into the thoughts and feelings of participants while providing statistical data to support it. Using this approach, the researcher was able to answer the question, "What factors influence the perception of self-efficacy for K-5 GE teachers working with students with ASD in inclusive settings?"

The results of this study are discussed in Chapter 4.

Chapter 4: Results

ASD, a neurodevelopmental disorder that affects social communication and is accompanied by RRBs, is becoming more prominent in our public school systems (“Autism at 70,” 2013; Goodman & Williams, 2007). While student profiles can range from a severe, nonverbal, developmentally delayed child in a self-contained classroom to a high-functioning, academically gifted, fully-included child, “all students with autism, by definition of their diagnosis, have communication and social deficits” requiring some level of support (Autism Speaks, 2008).

According to Goodman and Williams (2007), the prevalence of autism at state, national, and international levels makes it very likely that most elementary teachers will teach a child with autism and should be prepared to include them in GE classes. Unfortunately, the research literature shows that schools seem “ill-prepared” for implementing “specialized instruction techniques, unique curriculum, and coordinated services to successfully serve these students in inclusive settings” (Busby, 2012, p. 28; Harter, 1978; White, 1959).

During the literature review for this study, there were three main themes that emerged regarding regular education teachers’ low perceptions of self-efficacy when dealing with students with autism or other disabilities in an inclusive setting: (1) lack of preparedness, (2) lack of support, and (3) overall perceptions of students with autism. The purpose of this study was to gauge current perceptions of self-efficacy when including students with autism and to help districts determine ways to better prepare GE teachers for inclusive practices. The researcher used mixed methodology to examine the themes that were present in the literature and to probe into the perceptions of self-efficacy of K-5 regular education teachers regarding their ability to serve students with autism in

the regular education classroom.

Quantitative Research

Surveys using Survey Monkey were sent in a group email to all certified teachers (approximately 570) in a small rural school district in Western NC. The survey was a slightly modified version of the ORI instrument by Antonak and Larrivee (1995). With permission, the word “disabilities” was replaced with “autism” to measure attitudes specifically towards students on the autism spectrum.

The purpose of the instrument was to “obtain information that will aid school systems in increasing the classroom teacher’s effectiveness with students with disabilities [autism] placed in his or her classroom” (Antonak & Larrivee, 1995, para. 1). Survey items were presented in statement form, and participants responded using a 6-point Likert scale, which ranged from -3 (strongly disagree) to +3 (strongly agree). Those statements that were “worded negatively” required the reversal of the response sign (i.e., from + to - or from – to +) for scoring purposes.

Once each item was properly scored (including sign reversal, where applicable), items could be divided into four themes, including (1) “Benefits of Integration” (Inclusion), (2) “Integrated Classroom Management,” (3) “Perceived Ability to Teach Students with Autism” (Preparedness), and (4) “Special Versus Integrated General Education” (EC versus Inclusion), to determine attitudes in more specific areas of inclusion.

Following the questions from the ORI, two screener questions were used to narrow the participants down to K-5 regular education teachers who had taught children with autism. Fifty-eight teachers initially agreed to answer the survey. Of those 58, 57% were regular education teachers in K-5 classrooms, only four of whom had not taught a

student with diagnosed ASD. Therefore, 24 participants were left to complete the survey.

Among the participants, there were representatives from each age group, with three respondents ages 20-29, eight respondents ages 30-39, seven respondents ages 40-49, five respondents ages 50-59, and only one respondent over the age of 60.

In regards to years of experience, four respondents had less than 5 years, another four had 5-9 years, 10 had 10-14 years, two had 15-19 years, three had 20-24 years, and one had greater than 25 years of experience in the classroom. According to this data, only 33% of the respondents had less than 10 years of experience. When comparing subgroups, age did not necessarily correspond with years of experience in the classroom. Among those ages 40-49, three teachers had less than 15 years teaching experience, and one had less than 10 years in the classroom. In the 50-59 age subgroup, three teachers had less than 15 years of experience, and one had less than 20 years in the classroom. The single 60+ respondent had only 10-14 years of service as a teacher.

Because only one respondent fell into the 60+ age subgroup, data were combined to make a 50+ age group. The “years of experience” demographic will now reflect a 20+ category, as only one respondent fell into the 25+ subgroup. Finally, because only one male teacher responded, gender was not used as a comparative factor. While race was not a demographic question, it should be noted that this district is made up of predominantly White females.

Survey respondents were evenly distributed among those with Bachelor’s Degrees (54%) and those with Master’s Degrees (46%). No respondents had obtained a Doctorate.

Qualitative Research

Twelve survey participants from five participating elementary schools were

available for interview. Questions were drawn from common themes found in the literature which have significant impacts on teacher self-efficacy, including preparedness, support, and overall perceptions of children with autism.

Overall Results

The instrument designers created a range with which to determine the “positivity” of each respondent, “with a higher score representing a more favorable attitude toward the integration of students with [autism] into general education classrooms” (Antonak & Larrivee, 1995, para. 1). Based on the quantitative data, the researcher outlined the overall positivity of each demographic based on the scoring of the ORI. Those specific responses were then broken down into four themes and supported with qualitative responses.

The researcher used both numeric score and “percentage of positivity” to reflect the overall attitudes of survey respondents in this study. Percentages are used to compare the actual responses to the highest possible score. The overall range of positivity for this survey was 0-138. Respondents’ overall average score was 86.99, which reflected a 63% level of positivity. Although there was a slight decrease in overall scores as teaching experience increased (up to 20 years), neither age, years of teaching experience, nor level of degree seemed to have a significant impact on the level of positivity (see Tables 3-5 below).

Table 3

Overall Respondent Positivity by Age

Age	ORI score (0-138)	Level of positivity
20-29	89	64%
30-39	93	67%
40-49	83	60%
50+	86	62%

Table 4

Overall Respondent Positivity by Years of Teaching Experience

Years of Teaching Experience	ORI score (0-138)	Level of positivity
<5	91	66%
5-9	90	65%
10-14	88	64%
15-19	80	58%
20+	86	62%

Table 5

Overall Respondent Positivity by Highest Degree Earned

Highest Degree Earned	ORI score (0-138)	Level of positivity
Bachelor's	89	64%
Master's	87	63%
Doctorate	No respondents	No respondents

As mentioned earlier, there were four themes that emerged from the ORI that reflected teacher perceptions of self-efficacy, including benefits of inclusion, classroom management, preparedness, and ideas of EC versus inclusion. While the researcher

continued to use the ORI range and percentages to reflect overall positivity within each category, she used average Likert scores (6-pt. range -3 to +3) to compare the positivity of each subgroup. Those with negative numbers (-3 through 0) reflected an overall negative view of inclusion, while those with positive numbers (0 through 3) reflected an overall positive view of inclusion.

1 - Benefits of Inclusion

Seven items were used in the survey to measure attitudes regarding opportunities for academic and emotional growth in a regular classroom and overall acceptance among peers. According to the results, this theme had an overall score of 34.06 on a 42-point scale, reflecting an 81% level of positivity towards the perceived benefits of students with autism being integrated into the regular education classroom.

This was by far the most positive of the four themes measured and produced the highest scores for each age group. All scores fell in the positive range, with item 3 being the highest-ranked item (average Likert score of 2.48), reflecting the belief that inclusion “will foster understanding and acceptance of differences among students.” In addition, item 11, which mentioned acceptance of differences among neurotypical peers, was the only item where all participants responded with at least a 2 on the Likert.

The average Likert score for each item is outlined in Table 6.

Table 6

Benefits of Inclusion – Average Likert Response per Question

Item	Question	Average Likert Score
#3	Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among students.	2.48
#7	The challenge of being in a general classroom will promote the academic growth of the student with autism.	1.50
#11	The presence of students with autism will promote acceptance of differences on the part of students without autism.	2.08
#14	Inclusion of the student with autism will promote his or her social independence.	1.75
#20	Inclusion will likely have a positive effect on the emotional development of the student with autism.	1.83
#21	Students with autism should be given every opportunity to function in the general classroom where possible.	2.38
#24	Isolation in a special classroom has a negative effect on the social and emotional development of the student with autism.	1.04

The average Likert response for this area dropped slightly with each age group. The highest overall score came from 20-29 year olds who scored 3s on numbers 11 and 21, which stated, “Students with autism should be given every opportunity to function in the general classroom where possible.” This age group also had the highest overall response for item 7 (2.33), regarding the advantages of students with autism being

challenged in a regular education classroom.

Table 7

Benefits of Inclusion – Average Likert Response per Age

Age	Average Likert Score for Inclusion Benefits
20-29	2.19
30-39	2.09
40-49	1.92
50+	1.45

The only negative response (-.33) for an individual item was for number 24 which reflected that teachers ages 20-24 feel more strongly about the social and emotional benefits of students with autism being in a separate setting.

Table 8

Benefits of Inclusion – Average Likert Response per Years of Teaching Experience

Years of Teaching Experience	Average Likert Score for Inclusion Benefits
<5	2.25
5-9	1.91
10-14	1.84
15-19	1.5
20+	1.71

Bachelor-level and Master-level teachers held the same positive views about inclusion. The biggest discrepancy was in the results of item 21, where Master-level teachers held a stronger opinion that students with autism should be given every opportunity to be included in a GE setting (2.64 versus 2.15).

Table 9

Benefits of Inclusion – Average Likert Response per Highest Degree Earned

Highest Degree Earned	Average Likert Score for Inclusion Benefits
Bachelor's	1.8
Master's	1.96

Impact on students. As mentioned earlier, the highest-ranked overall item for the entire survey was number 3, which stated, “Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among students.” Also among the top three highest-ranked items was number 11, “The presence of students with autism will promote acceptance of differences on the part of students without autism.”

All interview participants elaborated on the positive effects of inclusion on regular education students. Only one participant claimed that while her students gained an “appreciation of differences,” she “never felt like it got down past surface level,” describing her fifth grade class as “indifferent.” All other participants described students as “encouraging,” “considerate,” “understanding,” “supportive,” “kind,” and “nurturing.” Words with strong presence among two or more interviews included “loving,” “protective,” “accepting,” and “amazing.” Over half of the participants described the “helpfulness” of included students’ neurotypical peers and how they became “more compassionate.”

Student Preparation

Just as teachers’ attitudes toward inclusive students were directly affected by their perception of preparedness (which will be discussed later), there seemed to be a direct

correlation between the attitudes of students and whether they were prepared ahead of time for having a classmate with autism. Students who were taught ahead of time about the characteristics of autism reportedly had the most positive response to the inclusive student. Those who did not necessarily understand autism but were taught acceptance of differences also had a positive experience. While no teacher described inclusion as a negative experience, those classrooms without prior preparation for accepting differences had reports of students being “outcast” and “highly frustrated.”

Autism training. Respondent 1 (R1), a teacher who openly discussed autism with her class at the beginning of the school year, described her students’ interactions with a high-functioning student with autism (HFA) very positively. “They really loved her . . . they were really concerned about her.” If she got something wrong, students “would encourage her, ‘It’s okay, I got something wrong too. It’s okay.’” Even with a lower-functioning student with autism (LFA), the “other kids were real considerate of her and they were very understanding.” Overall, the experience made her students “more compassionate.”

According to R6, having a knowledgeable “peer buddy” not only “helped with the success of the student with autism” but was “such a great experience for the other child.” Aware of the included child’s autism diagnosis, students were “protective” with both the lower- and higher-functioning students and were encouraged to “defend” and “stand up for” them.

In yet another classroom, where students participated in an activity “about what autism is like” at the beginning of the school year, students were considered “sweet,” “nurturing,” and “protective” (R11).

Sensitivity training. While not all teachers disclosed information about their

student with autism to classmates, many created a culture of inclusivity at the beginning of the school year with positive results. R5 read a book *Someone Special Just Like You*, which helped students understand differences and “learn not to be afraid.”

R10, who admitted to being an EC person herself (ADHD), claimed to do lots of character building activities and keep open discussions about differences throughout the year, creating an environment of inclusivity. As a result, “kids were never mean” but rather helpful and “protective.” “They’re not going to let anybody bully (the student), and if something like that happens, they will let me know.”

R12 said,

I’m big about making sure the students understand that they have to care about everybody no matter, because when you get into the real world, they’re not all going to be like you or they’re not all going to be as smart as you, or they’re not going to act the same way you do, and that to me is an important life lesson.

No training. In situations where students were not made aware of an included classmate’s disabilities or struggles, students seemed to react negatively, especially in upper grades. According to R3, “Other students would get frustrated . . . they didn’t understand why small things like the color of a pencil or where they were sitting that day, why it made such a big deal to that student.”

R2 described her fifth-grade students as indifferent, saying, “I don’t think they noticed he stuck out for a reason, I don’t think they thought autism, I think they just . . . he does things a little differently than we do.” While she claimed her students “just rolled with the flow,” they got “really nervous” when the student with autism had a meltdown. “They kind of stood back and wondered what was going to happen next . . . those kids weren’t used to that kind of thing.”

When R2 had a student with autism in her second-grade class, she described her students as “shocked.”

“Why does he get to act this way and not have serious behavioral repercussions and not have the same ones that we would?” They didn’t work hard to include him, and they didn’t understand how to include him, and I didn’t understand how to help them include him.

Student Acceptance

HFA versus LFA. According to R9, first-grade students were more accepting with her LFA than with her HFA. While students were loving, accepting, and “so eager to help” the LFA, the HFA reportedly “played by himself,” was sometimes picked on, and had an overall “social difference.”

R7 recalled her older students being “very accepting . . . warm, and comforting” to an LFA and being equally as compassionate to a child with a facial disfigurement. “They just took her in and wanted to do stuff for her.” However, when an HFA was included, “there was really nobody that wanted to help him He kind of hung by himself on the playground. Just kind of did his own thing, didn’t really make any friends . . . kids tattled on his behaviors.” Because this student was “on the higher end academically,” dealing only with “social/behavioral issues,” R7 believed the students were less likely to understand his disability, because it “wasn’t as obvious.”

I often wondered if the child that was high functioning, that nobody knew there was something different about him, if he would have been pulled out (by EC) and went somewhere else, it would have been an indication to the students that, “hey, there is something different about him . . . he is not just a really strange kid that lashes out irrationally.” . . . They may have been a little more comforting to him, a

little more helpful, like they were to the low-functioning one.

She went on to describe her LFA's level of support, saying, "when they're around him they help him, they give him little bits of encouragement for the little things, whereas students that aren't as noticeable don't get that" (R7).

Age factor. In addition to student preparedness having an impact on student attitudes, there seemed to be a link between age and level of acceptance. Younger students seemed much more accepting of differences than older students. R5 and R8 both attributed their positive, accepting environment to the resilience of kindergarteners. According to R8, "at kindergarten age, they are just still that innocent and naïve." R5 added, "They know there is something different, and that's okay." R11 commented, "The kinders don't notice until second grade, and by then, they're family."

R4 spoke about her own pre-K son's relationship with a student with autism. "He talked about him all the time," but she did not realize until she visited the school that her son's friend was autistic. "I was excited, I thought that is an awesome experience that he has had, that relationship, that interaction. It's surprising that he doesn't know . . . that the child is different."

Both the quantitative and qualitative data show that teachers see inclusion as a positive thing for both the student with autism and his neurotypical students. There is an overall increase in acceptance and understanding among classmates as a result of inclusion practices. According to R5, "I think anytime children are exposed to children with differences . . . I think you are bound to have a more positive impact."

2 - Classroom Management

A large portion of the survey was designed to gauge attitudes toward anticipated behaviors of students with autism. Nine items addressed issues concerning disruption of

class, reaction of other students, and additional time and patience required by the teacher.

Those items and their average Likert scores can be found in Table 10.

Table 10

Classroom Management – Average Likert Response per Question

Item	Question	Average Likert Score
#1	Most students with autism will make an adequate attempt to complete their assignments.	1.20
#4	It is not likely that the student with autism will exhibit behavior problems in a general classroom.	-0.28
#6	The extra attention students with autism require will not be to the detriment of the other students.	0.80
#9	Increased freedom in the general classroom will not create too much confusion for the student with autism.	-0.44
#12	The behavior of students with autism will not set a bad example for students without autism.	1.96
#15	It is not more difficult to maintain order in a general classroom that contains a student with autism than in one that does not contain a student with autism.	0.29
#16	Students with autism will not monopolize the general classroom teacher's time.	-0.17
#22	The classroom behavior of the student with autism generally does not require more patience from the teacher than does the classroom behavior of the student without autism.	-0.63
#25	The student with autism will not be socially isolated in the general classroom.	0.96

Teacher perceptions of classroom management being affected by having a student with autism were neither highly positive nor highly negative. Teachers scored 30.60 (on a scale of 0-54), reflecting 57% overall positivity. This was the same level of positivity

reflected in the “EC Versus Inclusion” section of the survey.

The negatively ranked areas included items 4, 9, 16, and 22, which stated that students with autism are likely to exhibit disruptive behaviors, become disrupted by the freedoms of a regular setting, monopolize teacher’s time, and engage in behaviors that require more patience than nondisabled students. The most positively ranked item in this area by far (average Likert score of 1.96) was item 12, which stated that students would not set bad examples for those without autism.

When divided into age groups, overall scores in this area were relatively low, yet positive. The most negatively scored item was 22, with teachers ages 20-29 feeling most strongly about the need to have more patience to deal with children with autism in the classroom. Item 12 fared the highest Likert score average by far (2.05), as the next highest score was item 1 (1.25) – “Most students with autism will make an adequate attempt to complete their assignments.”

Table 11

Classroom Management – Average Likert Response per Age

Age	Average Likert Score for Classroom Management
20-29	.19
30-39	.79
40-49	.08
50+	.5

Years of teaching experience had no impact on attitudes toward changes in classroom management. The highest ranked areas reflected that all groups felt students with autism may not necessarily require extra time and attention and would not set a bad

example for classmates. The area of most negativity (-2.5 for <5 years of experience) was item 22, where most groups felt that autistic behaviors would require more patience from the teacher. As a whole, teachers with 5-9 years of experience was the only demographic that felt that this was not necessarily true.

Table 12

Classroom Management – Average Likert Response per Years of Teaching Experience

Years of Teaching Experience	Average Likert Score for Classroom Management
<5	.25
5-9	.61
10-14	.56
15-19	.28
20+	.33

Degrees did seem to have a slight impact on attitudes toward classroom management. The biggest discrepancy was with item 4, “It is not likely that the student with autism will exhibit behavior problems in a general classroom,” with Bachelor-level teachers scoring -.54, and Master-level teachers scoring 1.09. Teachers with a Master’s degree felt overall like there would be some level of difficulty maintaining order in a GE classroom (-.55), whereas teachers with Bachelor’s degrees felt it was less likely (1.0). Both groups agreed that having a student with autism would take more patience (#22), with Bachelor-level teachers feeling three times as strongly.

Table 13

Classroom Management – Average Likert Response per Highest Degree Earned

Highest Degree Earned	Average Likert Score for Classroom Management
Bachelor's	.5
Master's	.38

While classroom management was a legitimate concern at the beginning for over half of the interview participants, perceptions tended to change over time. Participants described students with autism as “eager to please,” “sweet-natured,” and “bright.” Three teachers mentioned setting “high expectations” and “treating them like everyone else.” According to R12,

My lesson plans . . . the way I worked my room, my proximity . . . all the things I learned to be a good teacher I made sure I was doing it. It wasn't an option. And it never has been. That child was just another child in my room that needed extra help.

R8 mentioned that having an inclusive student did not require extra planning, stating, “I really thought it would affect it more.” Another teacher claimed she “Basically did what I've always done. I tweaked things here and there . . . I would do that for any child” (R10). R9 described her lessons as the “same stuff, just modified.”

The biggest complaint in regards to inclusion was the difficulty to serve an entire classroom while meeting the exceptional child's needs. Five of 12 participants described this task as “stressful at times,” “tough,” and even “frustrating.” R5 claimed the “most difficult” challenge for her was “how to incorporate that one child in a class of 19-20 so-

called ‘normal kids,’ and still meet all their needs.” R8 admitted her kindergartener was most likely over-stimulated in her colorful room, but sighed, “I had to think about my other seventeen.” While discussing the balance between EC students and their nondisabled peers, R4 stated,

My biggest problems were how to deal with how well they interacted socially in the classroom . . . I wasn’t sure if my expectations were wrong or what they needed differently behaviorally or how to teach them to interact or what to let go or what to not let go . . . I think looking back on it I feel very guilty because I think it could have been a more positive experience for both of them (kids and other students), because I feel like I should have actively tried myself to find ways to try to model social interaction or help both sides understand the other side better.

HFA versus LFA

While attitudes toward inclusion were positive overall, there was a clear distinction made between students with higher- and lower-functioning autism. All teachers commented that there was little-to-no major change in lesson planning or classroom management for “higher-functioning” or “Asperger” students. R1 claimed her student “didn’t disrupt the normal routine, she just did like everybody else did. She was just right there in the mix . . . you would never know she was autistic unless she had a meltdown.” While the attitude towards lower functioning students was not negative, teachers did express more concerns regarding behavior and academics.

Behaviors. Consistent behaviors seen across the spectrum included need for “fidgets” and movement breaks, sensory processing issues, high levels of frustration, and occasional “meltdowns.” Most frequent concerns for the higher functioning students

included keeping consistent schedules, difficulty with transitions, need for sensory/movement breaks, and social awkwardness/isolation. Most common strategies for behavior included frequent breaks away from class, close proximity to the teacher, allowing for movement throughout the day (i.e., collecting notebooks, turning lights on/off), using visual schedules, adhering to familiar routine, and using high-interest activities for rewards/incentives.

Most frequent concerns for behaviors of LFAs included refusal to work, high distractibility, sensory issues, hyperactivity, high levels of frustration, and a need for constant repetition. Most common strategies for behavior were similar to those used with higher functioning students (frequent breaks, opportunities for movement, fidgets), and also included finding alternative materials to avoid sensory issues, using personalized behavior charts, and assigning a “peer buddy.”

Meltdowns. R12 described a lower functioning child as having physically aggressive meltdowns. “When she got older . . . she didn’t know her own strength.” R2 claimed her student’s “meltdowns are totally different than with lower functioning kids.” With her higher functioning child, “it was more like he just lost his pencil.”

Those who claimed to be proactive with meltdowns had fewer problems with classroom disruptions. For example, R3 created a “chill-out area” for all students and would send her student with autism there when he began to show signs of frustration. “I could tell when it was building up,” she stated. She would allow the student to retreat to a separate area and return “when he was ready.” In contrast, R2 claimed her student would become “extremely frustrated,” knock over chairs, throw papers, and storm out. At this point, he was “inconsolable,” and she was left feeling helpless.

During the interviews, there was actually little mention of meltdowns and other

inappropriate behaviors compared to the elaboration on the positive effects inclusive students had on the classroom as a whole. Even when these behaviors were mentioned, teachers were quick to explain that it was part of their job to be taken in stride. R2 claimed that while days could become quite difficult, “there are days like that with 20 so-called ‘regular kids’ as well.” According to R3, she had to focus on modifying herself as much as she modified for her student. “I have to modify *my* behavior so that he can be successful.”

Academics. R11 described academic challenges with students with autism as being much different from other students.

It’s different than a child that just has a learning disability because I usually just teach how I do reading differently. But (with a student with autism) I really have to look at how am I presenting this or how am I teaching something . . . It really changes how you present things.

While low academic achievement was a concern for LFAs due to lower cognitive skills, HFAs often exceeded academic expectations. In reference to her HFAs, R1 claimed “I don’t think I ever did anything different, because both of them were very smart and could do it.” One student began coming into R10’s classroom for core instruction and ended up fully included by the end of the year. “He is so bright and so smart, and can do great things if given the opportunity.”

While the quantitative instrument framed “behaviors” as disruptive and time-consuming, qualitative data revealed sensitivity to sensory processing issues, attention deficits, and specific interests and preferences among students with autism. As a result, the qualitative data reflected a much higher level of positivity and lower level of concern for inappropriate behaviors. Most interview participants described minimal disruptions

due to proactive measures and individualized planning. Participants who did describe meltdowns did not cite a need for significant increase in patience, time, or planning.

3 - Perceptions of Preparedness

The survey instrument had only three items to represent teacher perceptions of preparedness when dealing with students with autism in the inclusive classroom. All questions addressed the training/retraining necessary for GE teachers in order to better prepare for inclusion practices.

Among survey respondents, there was an overall score of 8.51 (scale of 0-18) for perceptions of preparedness, reflecting 47% positivity overall. Teachers felt a very low sense of preparedness and self-efficacy at the beginning. As reflected in the literature, teachers hold positive beliefs about inclusion but feel little prepared to teach students in an inclusive setting.

The items for measuring preparedness are displayed in Table 14.

Table 14

Preparedness – Average Likert Response per Question

Item	Question	Average Likert Score
#2	Inclusion of students with autism will not necessitate extensive retraining of general classroom teachers.	-0.17
#10	General classroom teachers have the ability necessary to work with students with autism.	0.56
#19	General classroom teachers have sufficient training to teach students with autism.	-0.88

The most positive Likert score within this theme was a mere .56 (question 10),

regarding a teacher's ability to teach a student with autism. The lowest score in this area (-.88), which was also the lowest response for the entire survey, showed teachers feeling inadequately trained to handle students with autism (question 19).

Age did seem to have an impact on preparedness. Respondents between the ages of 20-39 scored negatively, while those 40 and above scored positively.

Table 15

Preparedness – Average Likert Response per Age

Age	Average Likert Score for Self-Efficacy
20-29	-.33
30-39	-.05
40-49	.21
50+	.22

This is the only theme with a distinct difference in level of education. According to individual responses, Master-level teachers believe more strongly that teachers do not possess enough training to serve students with autism.

Table 16

Preparedness – Average Likert Response per Highest Degree Earned

Highest Degree Earned	Average Likert Score for Self-Efficacy
Bachelor's	.41
Master's	-.42

While age and education had an impact on perceptions of self-efficacy in the area of preparedness, years of teaching experience did not. Overall responses were negative

across the board, with the exception of those with 5-9 years experience.

Table 17

Preparedness – Average Likert Response per Years of Teaching Experience

Years of Teaching Experience	Average Likert Score for Self-Efficacy
<5	-.08
5-9	.81
10-14	-.37
15-19	-.17
20+	-.33

The most negative individual responses were collected from question 19, which states that GE classroom teachers have sufficient training to teach students with autism. All subgroups scored negatively on this question (-1 and below), with the exception of those with 5-9 years of experience, who averaged a neutral zero.

Even though perceptions of preparedness had the least representation in the survey, it became the main focus of the interviews and reflected the information found in the literature. During the interviews, one teacher felt “pretty prepared” (due to a background in EC), four teachers felt “OK” or “fairly prepared,” and two others felt “not very” prepared. Five of 12 participants emphatically claimed they were “not at all” prepared, with strong elaboration to support their claims.

Words with strong representation included “ill-prepared,” “frustrated,” and “nervous.” Other phrases that teachers used to describe themselves at the beginning were “inadequate,” “in over my head,” “at-a-loss,” “scrambling,” and “floundering.” One

participant elaborated on a continued “sense of guilt” and admitted to questioning her teaching abilities, while another went into great detail about being greatly intimidated throughout her experience. “I played the ‘I don’t know’ card, and I played it and played it . . . because I didn’t!”

Among interview participants, one teacher with 5-9 years of teaching experience felt “60-70% prepared academically.” She was a former Teacher of the Year and had received many high-profile grants and district-wide accolades, yet felt “frustrated” and “ill-prepared” to address the social needs of her students with autism. According to the interview, it was assumed she “could handle it,” and she received no preparation or support. She expressed a tremendous amount of “guilt” saying, “If I had had more knowledge, I might have felt more comfortable giving each student what they needed.”

Previous experience. R5 felt “fairly” prepared, as she had previous experience working with a pre-K self-contained class where she received training through TEACCH (Treatment and Education of Autistic and Related Communication Handicapped Children). In addition, she had two brothers with disabilities. R4 felt “OK” for her student to be in her classroom. She was a former school-based speech/language pathologist with prior experience working with students with autism. Because her two students had Asperger’s, “I didn’t feel that you needed any particular special training to teach them.”

R11 “felt pretty prepared for several reasons.” She was a former EC teacher who requested students with autism be sent to her class. In addition, she had a daughter who was a clinical social worker who worked closely with children with autism, and her own son was an EC student in school.

Ironically, even those self-proclaimed “go-to” teachers for inclusion claimed to be

no more than “pretty prepared” or “OK,” mostly because they were not told ahead of time about their students. R10 stated, “I knew that (if I was) as prepared as I could be, it would be a smoother transition for (my student) . . . but it was October, and they were like, ‘Here ya go!’ and there wasn’t really any time to prepare.”

Training. R1 felt “mildly prepared” after a “little one-day, 2-hr. training at school” from the EC director and his wife, where she felt she “got the information, but didn’t know how to use it practically.” Others cited generic professional development and minimal college courses as their “training,” yet did not feel “at all” prepared.

I mean, you learn about it in college, but when you actually get into a classroom where you have multiple things going on at the same time, and you have your EC kids, then there are your kids that aren’t EC but probably should be, and then you’ve got your AIG kids. (R7)

Scenarios like this left her feeling frustrated and “ill-prepared.”

During interviews, it was discovered that preparation was not necessarily synonymous with training. Unlike the survey, many other factors were addressed when discussing preparation for inclusion. Some cited having family members with disabilities, while others had worked with students with autism in other capacities (i.e., R6 was a former speech teacher, and R3 had taught swimming lessons for 7 years). Teachers tended to feel more prepared as their experiences with students with autism increased. After the “initiation” of having a student included for the first time, almost all participants mentioned feeling more at ease with succeeding students with autism.

HFA versus LFA. Much like the impact of an HFA/LFA on regular education students’ levels of acceptance, there is a distinct difference between an HFA/LFA and the amount of preparedness teachers feel is necessary. According to R7, preparation is

necessary, “especially if you have a very autistic child.” R10 “felt nervous, because I had never had a student to come in from a self-contained classroom,” yet she felt adequately prepared for her student with Asperger Syndrome. R5, R6, and R9 did not feel like much preparation was needed for their HFAs. “Two children I had with Asperger Syndrome, I didn’t feel that you needed any particular special training to teach . . . gosh, I think those kids normally just kind of blend in, you know? Unless you have a meltdown of some sort” (R6).

Preconceived notions. R5 recalled a time when her mother, who was involved in an early intervention program, had to keep a boy with severe autism.

She said he sat in the floor and all he did was rock back and forth . . . and he was sitting there and just rocking, and all of a sudden he jumped up and lunged at her and my dad had to get her. And when I talked to her about working with the autistic children, . . . she said that’s the only thing she could think of was the experience she had with that boy. It was a big eye-opener for me to see the difference in the autism spectrum.

Several teachers were “nervous at first” because other teachers had provided negative information about the children ahead of time. According to R9, “other teachers would just tell me things and it was *nothing* like they told me . . . it has not been what it made me feel like it was going to be . . . it’s been better.” R8 mentioned, “I would hear stories of the year before . . . of the loudness and the screams and the fits, and for whatever reason, we didn’t experience that.”

4 - EC Versus Inclusion

Four questions were used in the survey to measure teacher perceptions of the advantages and disadvantages of inclusion. On a scale of 0-24, the overall average score

was 13.73, or 57% positivity. The highest scoring statement was 5, “Students with autism can best be served in general classrooms,” with an average Likert response of .88.

According to the overall responses, there was a slight belief that students could best be served in special classrooms by specialized teachers (average for item 23 = -.33).

These items and their average Likert scores can be seen in Table 18.

Table 18

EC versus Inclusion – Average Likert Response per Question

Item	Question	Average Likert Score
#5	Students with autism can best be served in general classrooms.	0.88
#8	Inclusion of students with autism will not require significant changes in general classroom procedures.	-0.12
#13	The student with autism will probably develop academic skills more rapidly in a general classroom than in a special classroom.	0.64
#23	Teaching students with autism is not better done by special than by general classroom teachers.	0.33

All age groups averaged positively, with the lowest age group being 40-49. This age group was also the only group to score negatively on item 8 (-.43), reflecting a belief that the inclusion of students with autism will require significant changes in general classroom procedures. Teachers ages 50 and above remained neutral (average zero) regarding whether students with autism would fare better working with regular or special education teachers.

Table 19

EC versus Inclusion – Average Likert Response per Age

Age	Average Likert Score for EC vs. Inclusion
20-29	1
30-39	.83
40-49	.25
50+	.67

The amount of teaching experience had an impact on attitudes toward EC versus inclusion. The only group to fall into the area of negativity was that with 15-19 years of experience. The highest scoring group included those with <5 years teaching experience. In regards to item 8, the results varied, with <10 years teaching experience anticipating less significant changes in classroom procedures, 10-19 years experience anticipating more, and those with 20 years or more in the classroom remaining neutral on the subject. The 15-19 year group also remained neutral on issues of whether students with autism can best have their needs met in general classrooms and whether they were more likely to develop academic skills quickly in that setting.

Table 20

EC versus Inclusion – Average Likert Response per Years of Teaching Experience

Years of Teaching Experience	Average Likert Score for EC vs. Inclusion
<5	.94
5-9	.19
10-14	.5
15-19	-.5
20+	.63

Degree obtained had no impact on inclusive attitudes in this area. All items were ranked fairly similarly, with item 23 being the only negatively scored item in this theme. Those with a Master’s Degree were more likely to believe a special education teacher is more qualified to teach students with autism than GE.

Table 21

EC versus Inclusion – Average Likert Response per Highest Degree Earned

Highest Degree Earned	Average Likert Score for EC vs. Inclusion
Bachelor’s	.4
Master’s	.3

While all interview participants agreed before their experience that students with autism should have an opportunity to participate in regular education classrooms, three of the 12 had experiences with lower functioning children that left them in doubt. R2, who had inherited a child from a self-contained classroom, “treated him like everyone else . . .

but he didn't need that. He really needed some kind of separate instruction." R5, who had a student who eventually ended up in a self-contained classroom, explained her situation: "With my experience in the past, those kids were self-contained. Everything in that classroom was geared toward their developmental issues or toward their autism, and in a classroom with 20 other kindergarteners, it's not."

Even with a personal one-on-one, private therapists, and Applied Behavior Analysis (ABA) therapy within the regular education setting, R8 did not feel the school year was successful for her lowest functioning student. "They (parents) were in such denial and see, I couldn't get them past that, and I'm like, 'Who's going to get them past that?' And I realized, 'It's not going to be you, sister!'" As a result, she felt a sense of guilt, commenting, "Did I help (him) academically? No, I don't feel like I did. So, did I help him more socially? Yes. So do I feel like I helped (him) academically? No, no, and that's frustrating as a teacher."

Despite these few negative accounts, 11 of 12 interview participants felt they had participated in two or more inclusion success stories. Even with other lower functioning students, there were many advantages cited. R3 spoke of her student from a previous self-contained environment: "He grew so much in those first few months just from being in a regular classroom with his regular peers."

The qualitative data seemed to mirror the sentiments of the quantitative piece. While teachers believed all students deserved an equal opportunity to be served in a regular education classroom (and most are willing to be a part of it), there is a mutual understanding that not all children are best served in inclusive settings. According to the data, more severe children (LFA) may better be served in a classroom with more intense instruction and behavioral intervention.

Support

In addition to the four themes derived from the ORI, there was an additional theme that emerged based on the qualitative data. While the area of support was not addressed in the survey, it was a prominent theme that surfaced in the interviews and had a direct impact on the level of self-efficacy teachers felt in regards to inclusion.

Teachers mostly defined “support” as getting moral support, gaining new ideas from others, and having physical assistance (i.e., Teacher Assistants and EC Teachers working one-on-one with inclusive students). The amount of support described in each interview varied widely.

Perceptions of support ranged from “none” to “amazing,” while others claimed they “didn’t need much help” with higher functioning students. One teacher (R8) described her “support team” as a lifesaver. “There were days where I felt like, okay, I am going to end this day in tears, but I don’t ever remember a day going home in tears, so the support was great.”

Those who cited having a strong system of support also used words like “team” and “family” to describe their schools. Those who reported no support described themselves as “alone” and “guilty.” All teachers agreed that support is one of the main things needed for a student with autism to be successful and to make them feel more prepared. R6 said, “As long as you feel like all that support is behind you, there really shouldn’t be that huge amount of difference that you feel.”

While interview question 2 asked, “What kind of support did you get from teachers or administrators,” there were many different responses regarding support, which included neither teachers nor administrators. Table 22 shows the sources of support and the number of interview participants who referenced them. Those items

which were mentioned by the same number of teachers were then ranked according to the emphasis and elaboration placed on each one during data collection.

Table 22

Sources of Support (as cited by interview participants)

	Source of Support	Frequency of References
1	Parents	11
2	EC Teachers	11
3	Teacher Assistants	3
4	Speech/Language Pathologists	3
5	Occupational Therapists	3
6	Administrators	3
7	Outside Specialists	2
8	Previous Teachers	2
9	School Psychologists	2

Parents. “Parents” was the most mentioned resource for helping students become successful. It was also the source of support that led to the most elaboration. When speaking of her student, R2 commented, “I got more information from his mother than anybody . . . just to talk with her to see what she knew worked because she knew him better than we did and we sort of went with her plan.”

Even parents of EC in other schools were a helpful resource. R5 remembered a parent telling her that her son with autism did not like to go into Winn-Dixie “because of the buzzing of the fluorescent lights.” This led the teacher to be more aware of sensory issues she may not have otherwise thought about.

Only one participant did not experience active parent involvement, but “with both students, home life was not a good situation.” Another participant was “intimidated” and “nervous” by overbearing parents but said she understood where they were coming from. This same teacher cited the parents’ hired personal therapists as being her biggest helpful resource. R7 recalled a “big difference” in success stories between a student with parents who did not have “a whole lot of involvement or communication” and a student whose parents were “very involved.”

Ten of the 12 participants mentioned communication with parents as one of the keys to successful inclusion. Among the parent involvement described, fathers were mentioned equally as often as mothers. R3 mentioned, “I tried to make it as personal as possible with the parents . . . creating that relationship with them is what made the successes happen for me.” R12 added, “What I see is that the more the parents are involved with these kids with autism, the better they do . . . communication with the parents is the key.”

Administrators. Three teachers specifically stated they had no help from administrators, four mentioned their administrators in an unrelated capacity, one mentioned administration as “supportive, but not proactive,” and three never mentioned administrators at all, even during questions that specifically asked about administrative support. Several who claimed there was a lack of support from administrators also defended them, claiming they “don’t have the resources or tools they need to help understand” (R3).

When asked whether she experienced administrative support, R5 replied, “maybe not so much, because they were a little uncertain also.” R10 commented, “I think that a lot of administration, they don’t know either. They don’t know how to deal with autistic

children . . . they just throw that awful, ‘you went to school for it, you have a degree in this, you’re the expert.’” Similarly, R3 claimed her principal “was kind of like, ‘let’s put this student in her class because we know she is going to work hard to give them as much as she can, and that’s the best we can hope for.’”

Those who claimed to have administrative support described it in terms of handling behaviors, warning the class ahead of time about fire drills, and getting good substitute teachers. Five of 12 participants referred to administrators as disciplinarians only. When asked about a presence of administrative support, R7 replied, “I don’t recall having a whole lot of need for an administrator to step in, but there were a few occasions where there may have been some behavioral issues, and I always felt like I had support.” R9 said, “I have really not had to go to administration with my student this year. I think there was a bus issue, but that wasn’t really class.” R12 said, “I’ve never had an autistic child who had the behavior problems that would have me need administration over and over again,” while R10 said, “I tried to never ever take those children to the office.”

Collaboration. While the word “collaboration” was found in the literature to describe support, it was not a term used among participants.

EC staff. EC teachers and EC assistants were cited most often for pulling students into EC settings, “checking in,” and giving suggestions. Some EC teachers offered help, whereas some teachers had to seek out help from EC. Either way, 10 of 12 teachers mentioned them as available resources. Those with EC teachers within close proximity seemed to have the most support, with two mentioning resource classrooms “right across the hall.”

Related services. R10 cited her school occupational therapist (OT) as her biggest support, as she came in often “to observe kids on her caseload and give feedback . . . she

would assure me that I was doing the right thing. That helped because I didn't know what I was doing! I have never worked with an OT like that." R12 cited her school speech therapist as one of the best resources. "She has been through a lot of training . . . she would go to a training . . . and bring it (info) back to us at a teacher's meeting." R10 also mentioned district EC specialists as a valuable resource, although she learned about them too late. "I honestly didn't even know we had EC specialists until after I was already out of the classroom."

Outside agencies. In two instances, outside sources were found helpful. R8 drew suggestions and physical help from her student's personal hired one-on-one, while R11 got unsolicited help from her student's private OT. "They have a lot of background knowledge . . . and they are more than helpful."

Assistants. Assistants were most often mentioned as an "extra set of hands," and many teachers were thankful for their "constant presence." R1, who struggled with a female student with frequent meltdowns, was

fortunate to have a full-time assistant, because if not, that would have made it really hard to try to console her (student) and keep everybody else in line at the same time If she got upset, my assistant would just have to take her out and walk her around to calm her down, or take her into another room to do her work. R5 experienced a child with extreme hyperactivity, warranting an assistant "to stay with him just about the whole time." Academically, "she spent a lot of time with him doing one-on-one stuff with him and helping make the modifications."

When assistants were still available to upper grades, R7 claimed, it was nice to have an adult be able to sit one-on-one or to help with the discipline . . . so in that regard, I was able to plan a little bit more individualized. I think

now if I was to have an autistic student without any help, I feel like they would not get the attention they need.

Teachers in upper-grade levels agreed having much-needed “actual physical help from somebody” is not always present due to a reduction in paraprofessionals.

Previous teachers. Five participants mentioned students’ previous regular education teachers during the interview, only one of whom claimed to “get suggestions.” R4 exclaimed, “I could go to their teachers from previous years, but . . . they were in the same boat that I was, so it was like, ‘Yeah, we didn’t exactly know what we were doing either.’” R3 claimed that the level of support depended on how involved the teacher was before, as some were not as “nurturing.” Intolerant teachers described their experiences in a negative way, which attributed to low perceptions of self-efficacy for those going into inclusion for the first time.

Conclusion

Based on the quantitative data, teacher attitudes toward inclusion were generally more positive than negative. Qualitative data suggested that despite overall attitude at the beginning of an inaugural inclusive school year, teacher perceptions of self-efficacy improved as experiences with students with autism in inclusion settings increased.

Benefits of Inclusion

Both the quantitative and qualitative data show a strong belief in the benefits of inclusion, including fostering an “understanding and acceptance of differences among students.” During interviews, it was discovered that student perceptions are influenced by some of the same factors as teachers, including preparedness to have a student with autism in the classroom and the included student’s level of functioning (HFA/LFA). Just as older students were less likely to be accepting of students with differences, the

quantitative data showed a slight decline in positive attitudes towards the benefits of inclusion as teachers got older.

Classroom Management

Quantitative data reflected an overall concern with classroom management while having a student with autism, mostly due to anticipation of disruptive behaviors. The less teaching experience teachers had, the more patience they felt would be required to deal with behaviors associated with autism. On the contrary, qualitative data revealed very little change in planning and minimal disruptions due to behaviors. LFAs did require more intense academic instruction and more behavioral intervention, while HFAs “blended right in.” Regardless of level of student functioning, almost all teachers reported a much more positive attitude than reflected in the numbers.

EC Versus Inclusion

According to the quantitative data, teachers held the same level of positivity towards anticipated classroom behaviors as they did towards students with autism being best served in GE classrooms. The most positively viewed statement was “Students with autism can best be served in GE classrooms.” While almost every teacher detailed at least two successful inclusion stories during interviews, not everyone was convinced that LFAs were best served in a regular education setting.

Support

Although teacher perceptions of support were only reflected in the qualitative data, there was a great deal of need expressed by almost every participant. Parents were cited as the number one source for ongoing support. Effective collaboration with related services personnel (speech and occupational therapists) and outside agencies was referenced far more than collaboration with coworkers, including EC teachers and

previous classroom teachers. Administrative support was either mentioned in terms of discipline or was deemed nonexistent.

Preparedness

Qualitative and quantitative data corresponded with teachers having a low sense of preparedness overall. The quantitative instrument gauged preparedness in terms of training. Similarly, interview participants who felt the most unprepared sensed a need for more training; however, those teachers who had higher perceptions of self-efficacy did not mention training as a source of confidence for teaching students with autism in inclusion settings. Instead, three of the largest influences on self-efficacy were (1) personal experiences with children with autism or other disabilities, (2) open communication with parents before and during an inclusion experience, and (3) an established environment where all students are accepted and respected. The qualitative data also reflected an improvement in self-efficacy and preparedness that comes with an increase in experience in inclusion.

Chapter 5: Discussion

Autism has quickly become a household name, due its major news headlines, its vocal advocates, and its prevalence in our communities (CDC, 2014; Falco, 2014; Mercer, 2009; Roithmayr, 2012). It is a neurodevelopmental disorder that currently affects one in every 68 children in the United States. Considered a “spectrum” disorder, ASD affects individuals in numerous ways and in varying degrees. There is a common saying among autism communities, “If you’ve met one child with autism, you’ve met one child with autism” (Ellis, 2014, para. 1). Although no one is sure of its origin, the quote summarizes the complexity and heterogeneity of ASD (Autism Society of America, n.d.b; CDC, 2014).

ASD Behaviors and Their Impact on Inclusion

The research literature often defines autism using the DSM of Mental Disorders (1980), the manual created by the used by the American Psychiatric Association (APA) and used by clinicians and researchers to diagnose and classify mental disorders. The most recent DSM used in the literature is the DSM-IV, which describes autism using three main areas of concern: (1) social impairments, (2) communication impairments, and (3) RRBs and interests. Based on the new diagnostic categories presented in the DSM-V, released May 2014, the researcher addressed these issues under the two main category headings of (1) social communication and (2) RRBs (“Autism at 70,” 2013; Grinker, 2007; Ronald et al., 2006).

Social Communication

According to the National Research Council (2001), social communication is “the ability to communicate ideas and feelings, imagination, and the establishment of relationships with others” (p. 11). In nonverbal children with ASD, there is obvious lack

of social communication; however, social issues are less obvious in verbal students. It should not be assumed that children with ASD who are “fluently verbal” are socially competent. The IRCA has compiled a comprehensive list of social communication and language deficits found in high-functioning, verbal individuals with ASD (Vicker, 2009).

Here are just a few of the common characteristics the IRCA listed:

- Difficulty with figurative language.
- Mature vocabulary and “sophisticated command of the language system based on their verbal utterances,” which often gives the illusion that one is social.
- Difficulty understanding humor.
- Interprets and gives information in a literal manner.
- Difficulty understanding others’ perspective; tendency to interpret things from his own personal point of view.
- Speaks with inappropriate tone/rhythm (trouble with voice modulation).
- Difficulty with initiation and reciprocation in conversation.
- Tendency to focus on one topic and state factual information that may not necessarily be socially acceptable or appropriate.
- Difficulty maintaining eye contact to avoid additional sensory input.
- Misses nonverbal cues, facial expressions.
- Excellent memory and “recall of people’s names, facts, and/or trivial information.”
- High distractibility.

Additional characteristics of ASD may include the following:

- Obsessive-compulsive behaviors.

- Need for repetitive activities or rituals.
- Resistant to change in routine or familiar surroundings.
- Sensory processing issues (under or over responsiveness to sensory input; susceptibility to sensory overload).
- Physical and social awkwardness.
- Difficulty with fine motor skills (Vicker, 2009).

While these characteristics may be similar to those with language or learning disabilities, most of them “lessen or disappear for those who do not have an autism spectrum disorder.” It is the “frequency and persistence . . . into adulthood that exemplifies the syndrome of autism” (Vicker, 2009, para. 1).

RRBs

According to Quill (2000), many children with ASD engage in RRBs to help cope with the anxiety of changes in their environment. According to Grandin (2011), most children with ASD “feel good in some way” when caught up in these ritualistic behaviors (para. 2). “It may counteract an overwhelming sensory environment, or alleviate the high levels of internal anxiety these kids typically feel every day . . . it helps refocus and realign their systems” (Grandin, 2011, para. 2).

Most people in the autism realm refer to these behaviors as “self-stimulation,” or “stimming.” Grandin (2011) believed that everyone “stims.” Tapping a pen, twirling one’s hair, humming, or biting one’s nails are all examples of socially acceptable means of stimming. “The difference between acceptable stims and those we consider inappropriate is in the type and intense repetition of the stims” (Grandin, 2011, para. 1). Self-stimulation can include physical stims, such as rocking, flapping, bouncing, jumping/bending, spinning around, pacing, spinning objects or hitting objects together, or

hitting oneself. Verbal stims may include screaming or repeating words, phrases, or sounds over and over. Many times, children with ASD will engage in a combination of these behaviors simultaneously, i.e., jumping, bending, and making noise (Grandin, 2011; Verbal Stimming, n.d.).

It is important to understand that not all RRBs are necessarily “stims.” As already mentioned, some children engage in repetitive movements to soothe themselves, the opposite of self-stimulatory behavior (Penrod, 2013). Some movements are involuntary, due to Tourette Syndrome “tics” or side effects of antipsychotic drugs. Other movements may be part of a meltdown due to sensory overload. This looks like “a tantrum while exhibiting repetitive behaviors” (Grandin, 2011, para. 6).

Impact on Inclusion

Given the social awkwardness and RRBs of children with ASD, GE teachers are often hesitant to include them in their classrooms. The literature reveals a constant disconnect between the rising number of students needing inclusion and the number of teachers willing to help. “Educational inclusion of students with disabilities has been widely promoted in recent years, resulting in ever-increasing numbers of students with disabilities [including ASD] receiving all or nearly all of their services in GE classrooms” (Mastropieri & Scruggs, 2001, p. 265), yet GE teachers consistently express hesitation about inclusion, often stating they are not adequately prepared (Lambe & Bones, 2006; Messemer, 2010; Schumm & Vaughn, 1991; Scruggs & Matropieri, 1996; Ward et al., 1994). According to Rosenweig (2009), because of this poor perception of self-efficacy, “there is compelling need to improve the preparation of teachers required to serve these students” in inclusion settings (Busby et al., 2012, p. 29).

What Does Effective Inclusion Look Like?

According to “Learn NC,” an NC educator program from the UNC School of Education, there are five main research-based inclusion strategies that have proven successful in inclusion classrooms with children with ASD, including academic modification/differentiated instruction, socialization strategies, communication strategies, strategies for managing obsessions and compulsions, and strong support systems (Flynn, n.d.).

1. Academic Modification/Differentiated Instruction

Differentiation allows teachers to focus on essential skills in each content area, be responsive to individual differences, incorporate assessment into instruction, and provide students with multiple avenues to learning. The result is a classroom where specialized instruction is the norm for all students. (Hobgood & Ormsby, n.d, para. 3).

If executed effectively, students with disabilities have access to GE curriculum using appropriate modifications, while gifted students are constantly and appropriately challenged (Tomlinson, 1999).

Modifications. “Modifications change the construct through altering language load, content complexity, and/or cognitive complexity” (Perkis, 2010, slide 7). Examples include simplified reading passages, reduced response choices, and reduction in workload. Students with ASD will most likely receive some form of academic modification while in their GE class, regardless of intellectual ability (Wagner, 2002).

Just as with differentiated instruction, there is a presence of research literature regarding the need for modifying and individualizing instruction for students with special needs. Unfortunately, there are few specifics regarding *how* to modify instruction for

students with ASD. The general rule of thumb is to “modify the general curriculum while maintaining the integrity of that curriculum” (Inclusion: Round Pegs, Square Holes, n.d., para. 5).

Since students with autism tend to struggle with sequential memory, Grandin (2007) suggested that GE teachers avoid giving long verbal directions. Because those on the spectrum tend to think in “black and white,” she also suggested using more concrete language. To avoid sensory overload, Grandin also suggested respecting student sensitivities (such as insistence on eye contact) and giving students ample time to respond to questions (Autism Speaks, n.d.). Positive reinforcement, including use of high-interest objects or activities, is also a common practice among teachers with students on the autism spectrum (Cooper et al., 2007).

2. Socialization Strategies

“Social skills” are the verbal and nonverbal skills people use in order to have fluid interactions with each other. “This can encompass reading and giving nonverbal cues (such as body posture, eye contact, tone of voice, etc.)” (Smith-Michaels, 2008, para. 3). It also involves “taking another’s perspective, knowing what to and not to say, when to and not to say it, and to whom it should be said or not said to” (Smith-Michaels, 2008, para. 3). Considered the “hallmark” characteristic of ASD, students with ASD need intense interventions to develop these skills (Smith-Michaels, 2008).

Social skills can be gained through peer interactions, as children “develop social skills through shared interests” (Grandin, 2007, p. 31). Social interactions can also be enhanced using conversation scripts, guided stories, and role-playing (Hess, 2006; Loveland & Tunali, 1991; McKelvey, 2008). In 1991, Carol Gray created a tool called Social Stories. The goal “is to share accurate social information in a patient and

reassuring manner that is easily understood by its audience” (Gray, n.d., para 3). It is used to describe “a situation, skill, or concept in terms of relevant social cues, perspectives, and common responses in a specifically defined style and format” (Gray, n.d., para 3). These have since become a common tool used to teach social skills to students with autism (Gray, n.d.).

3. Communication Strategies

As mentioned earlier, children with ASD struggle with auditory processing, yet have visual-spatial strengths; therefore, the EUPAGT (2005) suggested three ways to utilize visual supports when teaching students with ASD: (1) picture schedules, “first/then” schedules, and visual timers help reduce anxiety, improve independence, skill generalization, and sequencing, and require less supervision; (2) visual supports for verbal instructions can “clarify the information for the student and increase comprehension;” (3) in the same way picture cards or other visuals can help a child with autism navigate his schedule, it can also help “provide reminders of what to do and say in a situation” (EUPAGT, 2005, slide 3).

4. Strategies for Managing Obsessions & Compulsions

According to Lewin et al. (2005), “Obsessions are persistent and intrusive thoughts, ideas, impulses, or images that result in anxiety. Compulsions are repetitive behaviors or mental acts that typically function to reduce or prevent anxiety, often in response to an obsessive thought” (p. 91). Some of the obsessive/compulsive characteristics of ASD have already been discussed, including insistence on routine, desire to stim or soothe through repetitive behaviors, and focused interests (North Shore Pediatric Therapy, 2014). Teachers should find ways to manage obsessions and compulsions, including offering “replacement behaviors” for inappropriate repetitive

behaviors (Penrod, 2013) and finding “ways to turn negative fixations into productive activities” (Grandin, 1987, p. 303).

Purpose of Study

This research study was designed to gauge K-5 GE teachers’ perceptions of self-efficacy when teaching students with autism in an inclusive setting. Bandura (1997) first described the concept of “self-efficacy” as “the belief in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Messemer, 2010, p. 7). When referring to educators, Messemer (2010) believed those faced with daily struggles of teaching students with academic and behavior issues, “often develop a faltering sense of self-efficacy” (p. 7). Messemer also noted that low perceptions of self-efficacy cause a “lower level of instruction and commitment on the part of the teacher, ultimately leading to continued student non-achievement and disruptive behavior” (p. 7). In the same respect, teachers with positive perceptions of self-efficacy create positive results and “maintain a positive atmosphere for learning and promote further self-efficacy for themselves and their students” (Messemer, 2010, pp. 7-8; Bandura, 1997).

This mixed-methods study examined GE teachers from a small rural school district in Western NC who were surveyed and interviewed to determine perceptions of self-efficacy in working with students diagnosed with ASD. Digital surveys were distributed to all certified teachers in the district via school email (approximately 570). Of the 58 teachers who responded, 57% were regular education teachers in K-5 classrooms, only four of whom had not yet taught a child with ASD. The remaining participants completed a survey based on Antonak and Larrivee’s (1995) ORI. The survey was based on a Likert scale with -3 being “strongly disagree” and +3 being “strongly agree.” As instructed in the instrument, the answers to those questions

negatively posed required reversal of the signs (+/-) to determine overall positivity. Additional questions were added for demographic purposes only.

At the conclusion of the survey, respondents were prompted to participate in an optional interview. Twelve teachers favorably responded and all were interviewed. Interview questions were drawn from common themes found in the literature, which have significant impacts on teacher self-efficacy, including (1) Benefits of Inclusion, (2) Classroom Management, (3) Preparedness, and (4) EC vs. Inclusion. An additional theme, Level of Support, emerged during the qualitative study.

Connection to the Literature

Upon review of the literature, three main themes emerged regarding teacher perceptions of self-efficacy, which aligned with the themes found in the ORI. Preparedness to teach students with autism was one of the most common threads between the research and the literature. Attitudes toward the benefits of inclusion, anticipated classroom management issues, and overall perceptions of EC versus inclusion were found in the literature and measured in the quantitative research. Perceptions of support, while not measured in the survey, were prominent in both the interviews and the literature review. For the purpose of this study, this chapter is divided into the three original areas of self-efficacy found in Chapter 2: (1) Perceptions of Preparedness, (2) Perceptions of Support, and (3) Overall Perceptions of Inclusion.

Perceptions of Preparedness

“Research on teachers’ attitudes toward inclusion has repeatedly shown that an alarming number of GE teachers lack confidence and feel unprepared to effectively service students with special needs” (Jones-Wilson, 2011, p. 46). While both the quantitative and qualitative data showed an overall positive attitude toward inclusion, the

lowest area of positivity fell under the theme of preparedness. Among survey respondents, there was an overall score of 8.51 (scale of 0-18) for perceptions of self-efficacy, reflecting 47% positivity overall.

During interviews, only one teacher felt “pretty prepared,” while two felt okay about going into inclusion. Five of 12 participants emphatically volunteered, “not at all” when asked about their level of preparedness. Words with strong representation included, “ill-prepared,” “frustrated,” and “nervous.” As anticipated, teachers felt a very low sense of preparedness and self-efficacy at the beginning of their inclusion experience.

The research mirrored the literature, showing teachers who supported the idea of inclusion did not necessarily feel prepared to implement it. According to McLeskey and Waldron (2007), “more educators endorse the concept of inclusion than those willing to participate in inclusive classroom settings” (p. 108; Jones-Wilson, 2011; Scruggs & Mastropieri, 1996). Similarly, teacher understanding of the benefits of inclusion far outscored (ORI) their feeling of preparedness to participate.

Experience. Today, over 15 million Americans are directly impacted by ASD. These may include friends, loved ones, educators, caregivers, and healthcare professionals (Autism Society of NC, 2014). Based on the increase in diagnoses and the rising numbers of students with ASD in schools each year, there is a large number of teachers impacted either personally, professionally, or both.

While there was a clear lack of research regarding teachers’ personal experiences with ASD and other disabilities outside the classroom, there was evidence in this study that shows it can have a positive impact on perceptions of self-efficacy. R5 claimed having two brothers with disabilities (one with Down Syndrome, and one with Traumatic

Brain Injury) helped her feel “fairly” prepared. R4 credited her speech/language pathology background (where she served many students with autism) for feeling “OK” about teaching a child with autism in the classroom. One of the reasons R11 “felt pretty prepared” was her daughter’s clinical social work with children with autism. Both R11 and R12 had sons who were EC students as well.

In addition to personal experiences outside the classroom, previous experience with students inside the classroom had an impact as well. Previous involvement in inclusion had a huge impact on self-efficacy, as all interview participants experienced some level of nervousness or anxiety with the “first one” but recalled being more comfortable with the following experiences. During data collection, it became clear that perceptions of the benefits of inclusion changed drastically from the beginning to the end of the school year and from the first experience to the following experiences. Teachers experienced positive benefits first-hand and described in great detail the personal impact they had on them and the rest of the classroom.

Training. As previously mentioned, qualitative and quantitative data corresponded with teachers having a low sense of preparedness overall. Past research and the quantitative instrument used in this study gauged preparedness in terms of training. Similarly, interview participants who felt the most unprepared sensed a need for more training; however, those teachers who had higher perceptions of self-efficacy did not mention training as a source of confidence for teaching students with autism in inclusion settings.

R1 recalled a “little 1-day, 2-hour training at school” where she felt she “got the information, but didn’t know how to use it practically,” leaving her feeling “mildly prepared.” Others cited generic professional development and minimal college courses

as their “training” yet did not feel “at all” prepared.

While even the bulk of the literature seemed to cite proper training as a need for better preparing teachers for inclusion, this study showed that preparation was not necessarily synonymous with training. Teachers’ personal experiences inside and outside the classroom greatly affected their perceptions of self-efficacy. In addition, self-efficacy improved as their experiences with students with autism increased. After the “initiation” of having a student included for the first time, almost all participants mentioned feeling more at ease with succeeding students with autism.

According to Lee (2013), there is “no significant statistical correlation between teacher self-efficacy for inclusion scores and the amount of professional development completed during the current school year” (p. 2). Lee also found that inclusion was not a significant focus of professional development for GE teachers, and those who did participate in inclusion training reported no mention of ASD specifics during training (Messemer, 2010).

Even specific training on ASD may not be enough, according to Bruening and McCoy (2010): “The distinctive characteristics of individual students mean that general or broad-spectrum in-service about teaching approaches for those with ASD will not satisfactorily address student or teacher needs for supportive intervention” (p. 5).

I mean, you learn about it in college, but when you actually get into a classroom where you have multiple things going on at the same time, and you have your EC kids, then there are your kids that aren’t EC but probably should be, and then you’ve got your AIG kids . . . it’s frustrating. (R7)

Perceptions of Support

According to the literature, many GE teachers with poor perceptions of self-

efficacy cited “lack of support” for resisting inclusion (Lee, 2013; Robbins-Etlen, 2007). Allsopp (1997) agreed that inclusion must be a team effort, as it is “too costly in terms of time and effort to implement independently” (p. 373).

Most GE teachers expect support from coworkers and administrators but must sometimes find ways to seek out support on their own (Allsopp, 1997; Hardy, 2001; Strauss, 2012). Some teachers seek mentorship by pairing up with an experienced teacher and “forming an agreement that they spend so many hours together throughout the course of the year” (Skuller, 2011, p. 9). Others may seek out special educators for occasional support (Murawski & Dieker, 2008).

Although the quantitative data did not measure areas of support, it became one of the main themes in the qualitative piece. As discussed in the literature, support can be offered to teachers in many different ways. In addition to EC teachers and administrators, interview participants cited school therapists, teacher assistants, and outside specialists as reliable sources of information and support.

Research showed that those with positive attitudes who have accepted the challenge have an existing network of support and feel adequately prepared (Avramidis & Norwich, 2002; Gibb et al., 1999; Ginagreco et al., 1993; Harriott, 2004; Scruggs & Mastropieri, 1996; Villa et al., 1996). Regardless of the fashion in which teachers work together for inclusion, Pierre (2010) advised, “No time or effort is wasted when quick and thorough communication is available or when problem-solving is needed” (Bruening & McCoy, 2010, p. 20).

Parents. The research literature framed support as coworkers and administrators. This study revealed that the most highly regarded source of support was parents, with 10 of 12 interview participants elaborating on the importance of parental support in

successful inclusion experiences. R2 claimed to gain “more information from (the student’s) mother than anybody.” From learning “what kind of behaviors I might see” (R6) to “reinforcing things from school at home” (R1) to getting “copies of her research she had done,” R3 claimed, “Creating that relationship with them is what made the successes happen for me.”

Teacher collaboration and co-teaching. According to the research literature, one of the most effective ways to reach children with ASD, while receiving ongoing support, is through co-teaching, “the collaboration between general and special education teachers for all of the teaching responsibilities of all students assigned to a classroom” (Gately & Gately, 2001, p. 41). The literature documented the benefits and challenges of co-teaching at the elementary level. Some of the benefits included an increase in manpower to teach, an enhanced level of expertise, increased confidence in working toward a common goal, and a decrease in overall workload (Bunch & Finnegan, n.d.; Cook & Friend, 1995; Jackson, Ryndak, & Billingsley, 2000; Keefe et al., 2004; Manset & Semmel, 1997; Murawski & Dieker, 2008; Pierre, 2010; Scruggs et al., 2007; Walther-Thomas & Bryant, 1996).

There were no instances in the qualitative data where interview participants mentioned co-teaching, perhaps because there was such a low level of administrative support. According to the literature, co-teaching is implemented effectively when teachers have administrative support, including allotted planning time and specific training (Scruggs et al., 2007).

Even without implementation of co-teaching, research showed that in order to meet the challenge of successfully educating students with autism in the GE classroom, clear, structured collaboration between general and special education teachers is essential

(Keefe et al., 2004; Rainforth & England, 1997). According to Robbins-Etlen (2007), including students with emotional and behavioral disabilities in the GE setting presents challenges, but when special and GE teachers are not given opportunities to collaborate, “these challenges are exacerbated” (p. i).

Among interview participants, all but one mentioned EC teachers as a resource for support, but only three went into detail about their effectiveness. In addition, EC teachers were mainly referred to for resource “pull-outs,” and not necessarily for help with behaviors or planning. Several did mention EC teacher assistants being utilized to take kids for walks or work one-on-one with students who were overwhelmed.

More often than EC teachers, nonclassroom personnel were mentioned as valuable sources of support. While all but one teacher mentioned EC teachers for “pull-outs” or “suggestions,” none cited EC teachers as her main source of collaboration. Two or more teachers mentioned the school speech/language pathologist, OT, or psychologist or an outside specialist (i.e., private OT and behavioral therapists) as one of their main resources for improved self-efficacy. The school OT was R10’s biggest support. “She would come in to observe kids on her caseload and give feedback . . . she would assure me that I was doing the right thing. That helped because I didn’t know what I was doing!” R11 was grateful for a private OT’s ongoing support and suggestions because “they have a lot of background knowledge and they are more than helpful.”

Administration. The success or failure of any inclusion program is highly dependent on the perspectives and beliefs of the principal. According to McKelvy (2008), “The school-based administrator is responsible for the training, common planning time, and development of the staff’s attitude toward inclusion” (p. 10). Falvey (1995) identified a principal’s role in inclusion as “identifying and articulating the needs of

inclusive schools and providing an important link between the schools and the larger community” (p. 40).

Unfortunately, the literature revealed a gap in the link between principals and their teachers (Robbins-Etlen, 2007; Strauss, 2012; Wilkerson, 2012) as did the qualitative data in this study. Only three teachers mentioned administrators as “support,” and five of 12 referred to administrators as disciplinarians only. While most teachers seemed to relate the role of the principal to behaviors, R3 commented, “I need an administrator that understands that this child has autism; it’s not just a behavior issue.” R3 described past teachers sending kids with autism to the office. “The administrator didn’t know how to handle it other than putting them in a room by themselves, or sending them home for the day . . . they didn’t have the information.”

According to Skuller (2011), “Principals traditionally have little experience in dealing with special education populations in their schools, and typically like it that way” (p. 48). Several teachers agreed that while they were “frustrated” with the lack of administrative support, they understood that principals might feel equally unprepared for inclusion, and/or feel like teachers are better prepared than they are. R10 commented,

I think that a lot of administration, they don’t know either. They don’t know how to deal with autistic children . . . they just throw that awful, “you went to school for it, you have a degree in this, you’re the expert.”

Skuller (2011) believed this attitude “could limit or alter individual (teacher) perceptions of the inclusion model” (p. 48).

Teacher Perceptions of Students

“Teacher attitude toward inclusion is mediated by teacher perception of the time and effort necessary for implementation” (Bulgren, 1996, p. 273). According to the

quantitative data, teachers were on the fence regarding whether extra time and effort would be needed to deal with included students. Teachers scored 57% positivity on the ORI (30.60 on a scale of 0-54) in the areas of “Classroom Management” and “EC vs. Inclusion.” Both themes addressed perceptions regarding changes in classroom procedures, disruptive behaviors, and whether students with autism would monopolize the teacher’s time. One of the most negatively rated individual items in the area of classroom management reflected that teachers expected behaviors that would take up too much of their time.

The qualitative data reflected a much more positive attitude overall, with teachers reporting little-to-no change in procedures or planning for HFAs and typical differentiation strategies (not much different from regular teaching practices) with LFAs. According to R12,

My lesson plans . . . the way I worked my room, my proximity . . . all the things I learned to be a good teacher I made sure I was doing it. It wasn’t an option. And it never has been. That child was just another child in my room that needed extra help.

R8 mentioned that having an inclusive student did not require extra planning, stating, “I really thought it would affect it more.” Another teacher claimed she “Basically did what I’ve always done. I tweaked things here and there . . . I would do that for any child” (R10). R9 described her lessons as the “same stuff, just modified.”

Those teachers who set “high expectations” for students and aimed to “treat them like everyone else,” reported more positive classroom dynamic and student success overall. Similarly, Busby et al. (2012) stated,

When teachers begin to feel competent in their abilities to teach children with

autism, they may be more motivated to address the challenges and accept their responsibilities for teaching these children. Once this cyclical effect has evolved, teachers may begin to view teaching children with autism as equivalent to facing any other challenge they may encounter in their classroom. (p. 28)

Behaviors. Among GE teachers with low perception of self-efficacy, one of the biggest concerns was how to handle behaviors in students with disabilities (Messemer, 2010; Robbins-Etlen, 2007; Sparks, 2009). Teachers often assumed students with ASD would present a myriad of behaviors in the classroom, creating time constraints and challenges beyond their abilities (Higginson & Chatfield, 2012; Horne & Timmons, 2009; Maccini & Gagnon, 2006). Negatively ranked survey items included statements that students with autism are likely to exhibit disruptive behaviors, become disrupted by the freedoms of a GE classroom, and engage in behaviors that require more patience than nondisabled students.

Skuller (2011) explained, “the behavior of these students can often become so severe that it is daunting to figure out the best teaching method for the classroom” (Good, 1981, p. 418). This fear can best be illustrated by Messemer’s (2010) script of a GE teacher’s point of view:

I know how to handle the typical behaviors of needing to sharpen your pencil to delay work, or asking to go to the bathroom, but what am I supposed to do with a child who is screaming and trying to leave the room when I’m alone with 20 other students? I need to know how to handle this, how can I deescalate the situation or how could I have seen this coming? (p. 68).

R2 reported a similar situation where a student would become “extremely frustrated,” knock over chairs, throw papers, and storm out. At this point, he was

“inconsolable,” and she was left feeling helpless. R12 described her student as having physically aggressive meltdowns. “When she got older . . . she didn’t know her own strength.” Other teachers reported much less concerning behaviors and took proactive measures to address these behaviors before they became problematic. In all three instances, students were lower functioning.

While these behavioral issues were a legitimate concern at the beginning for over half of the interview participants, perceptions tended to change over time. Perceptions improved from the first inclusion experience to the last and from the beginning of any inclusive school year to the end. No participants expressed negative feelings in regards to their overall inclusion experiences.

Finally, there was a distinct difference in behaviors between HFAs and LFAs that was never addressed in the literature. Researchers such as Skuller (2011) made generic statements to describe the behaviors of students with autism without considering the vast spectrum of students with ASD.

EC Versus Inclusion

According to the literature, teacher attitudes toward students with disabilities had a strong impact on the implementation and overall success of an inclusive program.

“Olson, Chalmers and Hoover (1997) found that positive teacher responses to students with disabilities were strong predictors of the success of inclusion,” while “Stanovich and Jordan (2002) found that teachers who subscribed to a ‘disease model’ of disability made consistent attempts to reduce the diversity in their classroom” (Cullen et al., 2010, p. 3).

The literature fairly represented a wide variety of support. Some educators felt a strong belief that students with disabilities need to be served in separate special education classrooms (Monahan et al., 1996; Vaughn & Schumm, 1994). Others expressed

preference for “pull-out” programs, believing that teaching students with ASD is the role of the special education teacher (Booth et al., 2002; Coates, 1989; Vaughn & Schumm, 1994; Villa et al., 1996). Still others strongly supported inclusion and “maintained a positive atmosphere for learning and promoted further self-efficacy for themselves and their students” (Messemer, 2010, pp. 7-8).

The quantitative data reflected 57% positivity among teachers when presented with statements regarding students being best served in EC settings. The qualitative data revealed some concerns regarding LFAs being included. R5, who served a student who eventually ended up in a self-contained classroom, explained her situation. “With my experience in the past, those kids were self-contained. Everything in that classroom was geared toward their developmental issues or toward their autism, and in a classroom with 20 other kindergarteners, it’s not.” R2, who had inherited a child from a self-contained classroom, “treated him like everyone else . . . but he didn’t need that. He really needed some kind of separate instruction.”

Biklen (2000) believed that children with more significant disabilities were often defined by their label, becoming stuck in a “calcifying vein” of stigma (p. 339). Some GE teachers assumed that children with significant disabilities cannot learn (Biklen, 200, p. 339; Klierer et al., 2006). Because of these preconceived notions, “disability becomes an idea that precludes the possibility of human development” (Biklen, 2000, p. 339). As a result, there are lower expectations and higher resistance to inclusion.

In contrast, the literature supported the idea that “gifted” students were perceived much more positively than those with disabilities (Avramidis & Norwich, 2002; McLeskey et al., 2001; Scruggs & Mastropieri, 1996; Ward et al., 1994). While the quantitative data did not distinguish between LFAs and HFAs, there was a clear divide

that emerged consistently in the qualitative data. Because students who are Asperger or HFA are most often intellectually gifted and present fewer behavioral issues, they are usually viewed in a more positive light.

HFAs “didn’t disrupt the normal routine” but “just did like everyone else” (R1). Several teachers claimed, “you would never know (the student) was autistic unless she had a meltdown.” Even then, “meltdowns” among HFAs were not as disruptive. R2 claimed her student’s “meltdowns are totally different than with lower functioning kids.” With her higher functioning child, “it was more like he just lost his pencil.”

“Simpson et al. (2003) believed that not all students with autism would benefit from or belong in the inclusion model” (McKelvey, 2008, p. 47), arguing that inclusion could be successful with students with ASD if the student is “able to participate in academic activities at an increasingly independent level,” “gain new skills, generalize information, and attend to group instruction” (McKelvey, 2008, pp. 47-48).

While the data of this study may support the literature that implies HFAs are more successful in inclusion, there was no evidence of Stanovich and Jordan’s (2002) “disease model” (p. 185). Instead, teachers held high expectations and every participant seemed to approach inclusion with a positive attitude. Those who questioned their effectiveness seemed genuinely concerned for the student getting the most out of his education. R8 worried about her LFA, “Did I help (him) academically? No, I don’t feel like I did. So, did I help him more socially? Yes. So do I feel like I helped (him) academically? No, no, and that’s frustrating as a teacher.”

Benefits of Inclusion

Quantitative data revealed that teachers understand the benefits of inclusion. Participants scored highest on the ORI for positive attitudes toward inclusion, with an

81% level of positivity (34.06 on a 42-point scale). The highest ranked item on the entire survey stated, “Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.”

Student impact. According to Messemer (2010), “current research on best practices for instructing students with [an] autism spectrum disorder has shown that integration with general education peers can be effective for students with ASD” (p. 1; National Research Council, 2001). While McCarty’s (2006) review of the literature showed varied opinions on the matter, conclusive studies showed great benefits, including both social and academic gains in the students being included. More specifically, researchers found included students to have improved language development, social skills, and self-confidence; and those involved in the inclusion process reported increased awareness and acceptance (Autism Society of America, n.d.b; Klinger et al., 1998; Lerner, 1997; Nauert, 2014).

Qualitative data strongly supported the literature, with 11 of the 12 interview participants reporting the positive effect inclusion had on neurotypical peers. Over half of the participants described their increase in “helpfulness” and went into great detail about how they became “more compassionate.” Several described student interactions as “amazing.” As a result, included students seemed to “blossom” in response to social interactions with nondisabled peers. After describing the positive dynamic of her classroom, R10 claimed her student “grew so much in those first few months just from being in a regular classroom with his regular peers.”

A few teachers mentioned a social awkwardness in HFAs, which prevented them from creating social bonds and left them feeling “outcast.” R10 admitted,

I think looking back on it I feel very guilty because I think it could have been a

more positive experience for both of them (kids and other students), because I feel like I should have actively tried myself to find ways to try to model social interaction or help both sides understand the other side better.

According to the research, “mere exposure to typically developing children is not the mechanism by which students with autism gain meaningful social experiences. Creating inclusive experiences that result in social interactions likely require additional, systematic interventions designed to facilitate those interactions” (Gutierrez et al., 2007, p. 29).

Unfortunately, some teachers did not feel equipped to deliver systematic interventions to help foster social exchange between included students with autism and their neurotypical classmates.

While there are always exceptions to the rule, studies suggest “no other trend in education will have more far-reaching effects than the inclusion of children with autism into the academic and social lives of their same age peers” (Zager & Alpern, 2010, p. 97; Lamberson & Shadburn, 2006).

Teacher impact. One other area of impact, which had not been mentioned previously, is the personal impact on the educator. In a past qualitative study of the inclusion of students with severe disabilities, teachers who initially held negative perceptions described themselves as being “transformed,” saying their attitudes improved and they became more positive overall (Giangreco et al., 1993). In Teffs and Whitbread’s (2009) study of 655 GE teachers, nearly half reported having significant improvement in their attitudes regarding students with disabilities and inclusion (Messemer, 2010).

Every interview participant in this study detailed the personal impact that inclusion had on her. While two teachers mentioned that inclusion improved their

teaching skills and another three mentioned that inclusion “made me a better teacher” overall, most teachers felt a personal connection to their students. Comments about inclusion included “it melted my heart,” “it opened my eyes,” and “it changed the way I saw kids with autism.” Teachers described themselves as becoming a “better person,” becoming “more compassionate,” and claiming to be “forever impacted.”

According to information gathered in the qualitative study, relationships with students with autism lasted beyond the inclusive year. According to R1, “(I) still love them both to this day. They always give me hugs when I see them.” R8 claims to “still have a bond in the hall” with her student, and R10 makes sure to “check on him every day – I am going to lunch as he is leaving lunch and he will meet me.”

Recommendations for Further Study

Alternative Subjects

Nonclassroom staff. There are several things that surfaced during this study that would make excellent considerations for further research. Current studies on inclusion focus only on the GE teachers’ perceptions in the classroom. However, classroom teachers are not the only staff members to serve and assist the included child. “Specials” teachers such as librarians, P.E. teachers, and music teachers could also give valuable input into the quest for better inclusion practices. Assistants who work with student behaviors and academics daily could also be a valuable resource. Parents of EC could also be studied, as they have already been considered a valuable resource for information regarding ASD.

EC teachers. While EC teachers are a noted resource for support, both the literature and qualitative data reflected a need to seek out their support. Resource teachers often have heavy caseloads, and self-contained teachers often deal with

behaviors of their own. A study could be conducted to gauge EC teachers' opinions on inclusion and their own personal impact on successful inclusive practices with students on the autism spectrum.

Neurotypical students. Research reveals the positive impacts that inclusion can have on neurotypical students, but there is still little research on the impact of students specifically with autism. In addition, isolated schools or grade levels were used to measure student impact. Because there was a distinct difference in attitudes between age/grade-level in this research study (with younger students being more resilient and accepting), further research could be done to determine the factors that age have on a student's level of acceptance towards others.

HFA versus LFA. Based on the distinct differences in experiences between HFA and LFA (although all seemed to be positive) found throughout the qualitative data, further research may need to make a clearer distinction in the cognitive levels of students included in these studies. LFAs require more intense academic instruction and behavioral interventions, often requiring one-on-one assistance, whereas HFAs "just normally kind of blend in" (R6).

In addition to teacher perceptions, student perceptions were equally influenced by the ability level of the student with autism. Those with "more obvious" disabilities tended to get more support and attention from peers than those who were "less obvious." According to R7, if her students had known ahead of time that her child with Asperger Syndrome had a disability, "They may have been a little more comforting to him, a little more helpful, like they were to the low-functioning one."

Personal experiences of inclusion teachers. Finally, several teachers volunteered how much being a parent had an impact on their perceptions of self-efficacy.

When asked about her preparedness to teach a child with autism, R12 claimed, “it was not necessarily something that I was taught through education, I learned as being a mom of a sensory processing child” who has some similar needs. One participant claimed her own diagnosis of ADHD helped her be a better teacher overall by creating an environment where they “move a ton,” which is a conducive learning environment for not only students with autism but other disabilities as well. Further study could gauge how personal characteristics can influence self-efficacy.

Alternative Setting

The literature shows research conducted in regular public school systems. The ratio of EC students is phenomenally lower among Charter Schools, due to “counseling out” low-performing students (Ravitch, 2012). When discussing her included student, R2 described the Charter School from which the student had recently transferred.

They requested he leave because they felt he didn’t mesh with the kind of kids that they were teaching. They strongly encouraged her (mother) to take him out and put him somewhere in public school. They just said it wasn’t for him . . . I think it crushed her. It absolutely crushed her.

Given the recent reputation of Charter Schools, it would be interesting to (1) determine the ratio of students with autism to the general population in comparison with regular public schools, (2) gauge staff perceptions of inclusion, and (3) determine any differences in inclusion practices.

Alternative Research Design

The research largely reflected teacher perceptions of inclusion regardless of whether or not the teachers had participated in inclusive practices. In this study, participants were chosen who had already participated in inclusion. The qualitative data

revealed overall improvement in teacher attitudes over time. An experimental design could gauge teacher perceptions before and after an inaugural year of inclusion. In addition, student attitudes could be gauged at the beginning and end as well.

Parents as Support

There was no mention in the literature of the importance of parental support on the success of inclusion practices, yet there were rich data from the qualitative research in this study that showed parental support as a strong influence on teacher self-perception. R1 claimed her “parents were really, really helpful. In both of my experiences, really helpful.” Almost all of the teachers shared the same sentiment. Therefore, further study could be used to determine the impact on parents and teacher collaboration and to help design parent/teacher programs for inclusion.

Student Preparation

Both the literature and this study closely examined the effect of teacher preparedness on perception of self-efficacy in inclusion settings, but there exists little consideration of student preparation. As mentioned earlier, students who knew ahead of time that a classmate had autism were most likely to be accepting to the student. Those who had a form of “sensitivity training” were also more positive towards the student with autism. Classroom environments with little or no preparation toward including students with differences did not report an environment that was particularly welcoming.

Prompt-Dependency

One third of the participants mentioned that while students were very helpful and supportive to the included child, students with autism tended to become dependent on those helping them. A common issue with all children is “prompt-dependency,” where a child becomes dependent on cues from peers or adults to complete common tasks.

The challenge for those involved in developing new skills for learners with autism, then, is to help them display new functional responses, provide frequent and immediate feedback, and arrange many opportunities for skills to be practiced under conditions in which they will eventually be used. All of this must be done in such a way as to ensure that the skills can be performed independently, without frequent extra cues from others. (MacDuff, Krantz, & McClannahan, n.d., p. 37)

Dugan and Kaufman (2006) believed students with ASD who participate in inclusion settings learn independence and self-regulation skills. According to the qualitative data, a classroom full of nurturing peers makes it difficult to avoid constant prompts and promote independence. According to R8, a young girl who had an uncle with autism took to her student right away. “She was just drawn to him and it was amazing. However, it got to a point where I had to say, ‘(Child’s name), let’s step back.’ She always wanted to do everything for him.” R9 said that while her students were “so eager to help” and she “loved the way they interacted,” students often held his hand, carried things for him, and reminded him what to do. She had to constantly remind peers to “let him do it by himself.”

According to R10, students tended to treat her LFA “like the pet. I kind of stopped that though, because I didn’t want him to get used to everybody doing everything for him or telling him exactly what to do.” Finally, R11’s students were described as “sweet” and “nurturing,” but sometimes “too nurturing and I have to remind them not to do everything for him.” Even when she assigned a knowledgeable “peer buddy,” the buddy became “too protective,” and hindered the student’s independence. Further study is needed to determine the level of support needed from neurotypical peers to establish a healthy balance between help and prompt-dependency.

Recommendations for Improvement

When teachers were asked, “If you had to teach that year over again, what would you need that you didn’t already have,” there were many different responses. In addition to the expected responses of support and training, teachers also felt they needed an “extra set of hands” to help implement modifications and assist with behaviors, extra space for students to “calm down,” ideas for modifying curriculum and activities to meet student needs, and more time to plan and collaborate with others. Table 23 outlines the needs according to the number of teachers who cited them. While two teachers mentioned items 4-7, the researcher ranked them according to the amount of emphasis placed on each need during the interviews.

Table 23

Perceived Areas of Need (as cited by interview participants)

	Need	Frequency of References
1	Support	4
2	Training	4
3	Supplies/Sensory Materials	3
4	More Time	2
5	“Extra Set of Hands”	2
6	Curriculum/Activities	2
7	Extra Space	2

Training

While it has been established that training is not synonymous with preparedness, the literature reflected its necessity. According to Wilkerson (2012),

a lack of adequate and formal training on autism is consistently related to less positive attitudes toward inclusion. Such a finding has clear implications for school districts wanting to increase positive attitudes toward inclusion of students with autism in regular education classrooms. (p. v)

The literature reflected GE teachers' desires to receive ongoing information to meet evolving needs of students; have ongoing, open discussions with coworkers; and receive "systematic, intensive, well-planned in-service training" (Messemer, 2010, p. 85). In particular, teachers request more knowledge on how to deal with specific learning difficulties as well as manage student behavioral and emotional needs (Messemer, 2010). Of those interview participants who requested more training, suggestions included training about modifications, sensory processing, and behavioral interventions. R8 cited a need for ABA training: "The parents were adamant about it, and I didn't know what it was."

R4 suggested that professional development activities should be followed by knowledgeable people available to "come in and meet with you . . . somebody to go to, not only that can help, but are willing to come into the classroom and see what you're talking about." R7 felt PDs were necessary, "especially if you have a very autistic child." R11 felt it was important to note that in order for a teacher to get the most from her training, "First of all, they need to *want* to do it."

Because both the literature and this study found little-to-no correlation between training and improved self-efficacy, it is imperative that districts revamp the idea of "training." While training may increase knowledge, it does not affect attitude. Activities that can include sensitivity to differences may be helpful to improve self-perceptions among inclusive teachers and other staff members.

Staff-wide training for improved perceptions. Sensitivity training could be useful to improve attitudes toward inclusion practices among all staff members. Six of the 12 interview respondents expressed concerns about the poor perceptions of other teachers. “Some teachers work with you well. Some teachers get frustrated too easily.”

There are good people and good teachers, but I think they have to realize the world is not black and white and you have to look at every child as an individual and change the way you’re used to doing things. (R11)

Three participants referred to other teachers’ impatience with the students’ need to move around. “When kids stand up or have to move, it doesn’t bother me. There are other teachers that it bothers them a lot” (R2). R3 recalls teachers complaining, “‘He won’t sit down, he just won’t do this,’ he won’t . . . well, physically, he cannot.”

Another teacher noticed teacher resentment towards EC students.

Teachers always say, “The children who are low or the children who have needs or the EC kids, they get tons of help. We never help the really bright ones.” I get tired of hearing that. You’re supposed to help the bright ones too. That’s what we do.

R11 also noticed resentment towards involved parents.

I hear those teachers say, “Those parents are too controlling, I can’t believe they’re over here” . . . not, this parent loves their child dearly and wants them to be successful and they know their child better than you, and so you need to try to accommodate.

Teachers have lamented relinquishing their autonomous roles and as a result, given less credence to inclusive education. Sharing space, classroom management, resources, grading, assessment, goals, and the decision making

process with another educator has led some teachers to resent and resist the collaborative process and the inclusionary concept. (Jones-Wilson, 2011, p. 44)

R10 made similar comments about teacher resistance to “let people in.”

I know a lot of times, teachers are afraid to even let other people in their room.

Let them in your room, because they’re going to help you. They are going to be able to give you the assistance and advice you need.

R11 attributed poor attitudes to strong personalities, stating, “It’s a personality trait. I think certain people in life, things are just black and white, there’s no middle ground. There’s just right or wrong. I think you have a hard time dealing with children when you’re that way.”

Staff-wide training for consistency. Three of the 12 participants detailed their struggles with perceptions of self-efficacy due to negative reports from previous inclusive teachers. According to R3,

I felt like some students came to me and they were just in the classroom and not really nurtured. That special time wasn’t taken out for those kids, and they needed it . . . a lot of times, the battles were not picked, and with students with autism, you have to pick your battles.

Other teachers were “nervous at first” because other teachers had provided negative information about the children before they ever arrived. According to R9, “other teachers would just tell me things and it was *nothing* like they told me . . . it has not been what it made me feel like it was going to be . . . it’s been better.” R8 mentioned, “I would hear stories of the year before . . . of the loudness and the screams and the fits, and for whatever reason, we didn’t experience that.”

Staff-wide training for common knowledge. During the interviews, R12

described an instance where a kindergartener was heading toward the road. Not realizing she was a special needs child who met her mother early at the road every day, she fussed at the girl to sit down with the other students. As a result, the mother “wrote an ugly note.” “I didn’t know. Nobody had informed me she had any problems. All I knew was that she was in the regular setting and that she was outside trying to walk across that road and was going to get hit.” She strongly emphasized a need for all staff to be aware of their special needs students.

Just because those kids don’t show things, like they’re not in a wheelchair or they’re not on crutches, they’re not outwardly autistic, it’s not fair to the rest of the team of staff to not know what’s going on because there is something inside going on.

“Specials” teachers who may serve inclusive students for art, music, or P.E. should be made aware of EC students and their needs. Staff serving morning and evening duties or who encounter students in the hall should be made aware of possible triggers for behavior and ways to address those behaviors. “I don’t even see this child (for class), so it may seem like it’s none of my business, but it is my business when it becomes where we are in a common area and I am in charge of that child in that common area” (R12).

Another teacher mentioned a student having a meltdown in the hallway, which was translated as poor behavior. Not realizing he was a student with autism, she “placed (her) hands on his shoulders, but he wasn’t having that.” Behaviors reportedly worsened, and the student became aggressive. Given the tools to calm a student from a meltdown, the scenario would have played out better.

Finally, administration should be involved in training as qualitative data reflect perceptions that principals are not “in the know.” Many teachers who claimed to have no

support from administrators also defended them, claiming they “don’t have the resources or tools they need to help understand” (R3). R10 commented, “I think that a lot of administration, they don’t know either. They don’t know how to deal with autistic children.” R5 agreed administration could not help because, “they were a little uncertain also.”

Student training. As previously mentioned, students are more accepting when prepared ahead of time for included students. It had also been mentioned that students are more resilient and acceptant at a younger age; therefore, it is suggested that sensitivity training not only be delivered to students at the beginning of a school year but also concentrated more with younger students.

Collaboration Beyond the Classroom

Two of the 12 interview participants mentioned outside agencies as reliable, knowledgeable sources of support for inclusion; however, in both cases, there was a clear conflict between the school system and the agencies involved. In one instance, a teacher cited her students’ hired personal assistants (ABA specialist and one-on-one tutor) as a great resource but admitted that the school EC staff criticized her strategies. “I did feel support, but I sometimes felt kind of torn because I’m like, ‘which way do I go?’ Is it best what the family is suggesting and their specialist, or what the school specialist says?” R5 recalled an ongoing battle between a renowned pediatric specialist in autism and the local EC program specialist.

I felt like I was being bounced back and forth, back and forth, and in the meantime I’ve got this kid that I am not sure I am benefitting. It was frustrating. I didn’t feel like anyone was giving me the answers that I needed.

District-Wide Models for Inclusion

According to Dybvik (2004), “There are few, if any, mandated guidelines for what [inclusion] should look like . . . the concept of ‘place’ has taken priority over ‘how’ children are taught” (para. 28). In order to implement effective inclusion practices, an inclusion model should be followed that incorporates all of the elements of a successful program. For example, The New Jersey Department of Education published a guide in 2004 entitled “Autism Program Quality Indicators: Self-review and quality improvement guide for programs serving students with autism.” This model takes into consideration personnel, curriculum, effective instructional methods, community collaboration, family involvement and support, program evaluation, and individualized student needs (Librera, Bryant, Gantwert, & Tkach, 2004).

With a district-wide model in place, there would be more clarification of each person’s role in the inclusion process. The literature showed that in order to meet the challenge of successfully educating students with autism in the GE classroom, clear, structured collaboration between general and special education teachers is essential (Keefe et al., 2004; Rainforth & England, 1997); yet, the qualitative data in this study strongly suggested that teachers are implementing inclusion practices on their own with little preparedness or support. Even administrators often assume teachers can “handle it” alone. “They just throw that awful, ‘you went to school for it, you have a degree in this, you’re the expert’” (R10).

R3 claimed her principal “was kind of like, ‘let’s put this student in her class because we know she is going to work hard to give them as much as she can, and that’s the best we can hope for.’” Lamar-Dukes and Dukes (2005) found that even in “collaborative settings,” there exists a fuzzy line between “who does what,” and often

needs clarification. An inclusive model would help distinguish staff roles and clarify best practices for each.

Limitations

This study had a small sample size and was limited to the perspectives of elementary school teachers in a small rural school district. The quantitative data represented a variety of ages and years of experience but lacked gender and racial diversity. While the number of intended interviews was obtained, the response rate for the quantitative research was less than expected.

During interviews, it was discovered that the definition of “administrative support” did not mirror that in the literature; therefore, the qualitative data may have been affected. For example, several teachers who claimed to have principal support had expectations that did not exceed help with discipline issues. There was also a clear distinction between behaviors and experiences of HFAs and LFAs in the qualitative data. Given this information, it is unclear how survey participants interpreted “students with autism.” Those with experience with HFAs or Asperger Syndrome may have had a more positive response than those who picture autism as a lower-functioning child.

Conclusion

The purpose of this study was to gauge K-5 regular education teacher perceptions of self-efficacy in regards to teaching students with autism in inclusive settings. Research past and present revealed a constant disconnect between teachers’ support of inclusion and their comfort level when faced with implementing inclusive practices in their own classrooms. While there had not been many studies on the subject, the research literature could be broken down into three main factors: (1) perceptions of preparedness, (2) perceptions of support, and (3) overall perceptions of inclusion.

Both the past research and the quantitative instrument used in this study tended to define these factors of self-efficacy in narrow terms. Across the board, a lack of preparedness was assumed to be the result of a lack of training. The literature tended to describe “support” as simply administrative guidance and “co-teaching.” The survey instrument restricted autistic behaviors to disruptive acts that “monopolize the general classroom teacher’s time” and steal attention “to the detriment of other students,” placing a pigeonhole on the idea of what interactions with a student with autism might be like. In addition, nowhere were the positive characteristics of ASD highlighted nor was the vast spectrum of autism taken into consideration when researching inclusive experiences.

The qualitative data in this study did reveal a much broader spectrum of experiences and a wider variety of influences on teacher perceptions of self-efficacy in inclusive settings. As a result, three specific things emerged that had the largest influence on teacher perceptions, none of which were represented in the literature. They have been discussed in this chapter as (1) personal experiences with children with autism or other disabilities, (2) open communication with parents before and during an inclusion experience, and (3) an established environment where all students are accepted and respected.

Of these three factors, there was one area that had a lasting effect on GE teacher perceptions of self-efficacy in general. The qualitative data strongly supported the idea that including students with autism in a regular education classroom can result in deep personal connections between the teachers and their included students. Two participants broke down in tears during interviews while describing the impact their students had on them. Many continued to keep in touch with their students and families even beyond the elementary school years.

Two participants also mentioned feeling a stronger connection to their own kids as a result of their relationship with their included student(s). Having seen the struggles her student's parent went through, R2 mentioned, "it just made me think about my kids and how teachers affect them. I mean, it really made it personal." R5 said,

I will forever be impacted . . . the heartbreak of those parents. No parent wants to hear their child is broken. It made me so thankful for my healthy children . . . I will never forget it. I will never forget the family. I will never forget him.

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Appendix A

Examples of Visual Aides for Students with Autism



Daily Class Schedule - <http://livingandlovingincalifornia.blogspot.com/2010/09/my-classroom-part-2.html>

Personal Student Clipboard Schedule - <http://www.nwresd.k12.or.us/autism/VisualStrategies1.html>

“First”/“Then” schedule - <http://www.eup.k12.mi.us>

Feelings Chart & “My Funk Book” Social Story - “TheAutismShop” - www.etsy.com



I want 

 big wheel	 golf	 trampoline
 bubble blower	 sand and water table	 sidewalk chalk

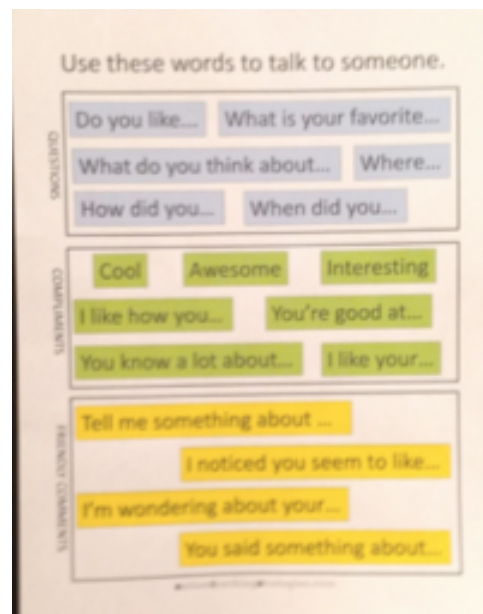
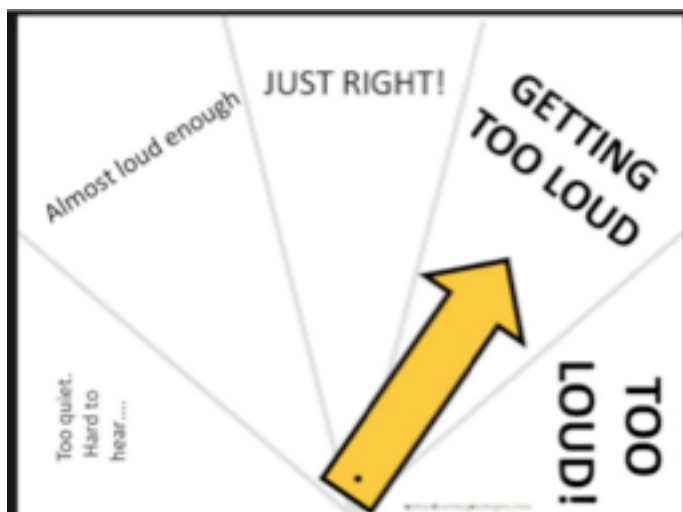
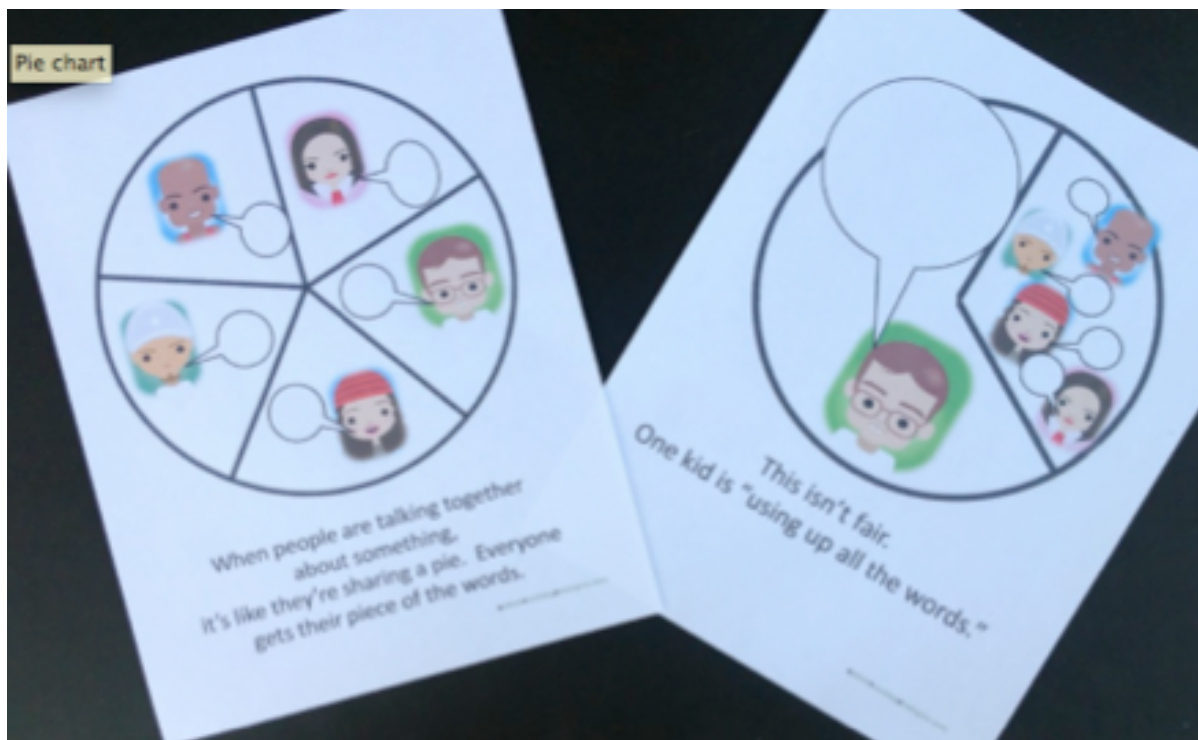
5	I am not safe. I need to leave before anyone gets hurt.	
4	I am losing control. I need a Chillville break to calm down.	
3	I am not fully in control. I need to take deep breaths.	
2	Things are ok. I can handle it.	
1	I feel super	

Traffic Light Behavior Chart - "The Autism Shop" www.etsy.com

Visual Timers - www.timetimer.com/autism; www.mayer-johnson.com/time-tracker-visual-timer-clock

"I Want" Chart - <http://milestones.org/personal-planning/visual-supports/>

Personalized Superman Self-Regulation Chart - [interventionforkobi.weebly.com/self-regulation---5-point scale.html](http://interventionforkobi.weebly.com/self-regulation---5-point-scale.html)



Conversation Pie Chart, Voice Modulation Chart, & “Question, Comment, Compliment” Chart - <http://autismteachingstrategies.com/autism-strategies/14-simple-conversation-social-skills-kits-for-children-with-autism-free-games-prompts-worksheets-activities/>

Appendix B

Opinions Relative to the Integration of Students With Autism

Educators have long realized that one of the most important influences on a child's educational progress is the classroom teacher. The purpose of this questionnaire is to obtain information that will aid school systems in increasing the classroom teacher's effectiveness with students with autism placed in his or her classroom. Please choose the answer to the right of each item that best describes your agreement or disagreement with the statement. There are no correct answers: the best answers are those that honestly reflect your feelings. There is no time limit, but you should work as quickly as you can.

Response Key

-3: I disagree very much	+1: I agree a little
-2: I disagree pretty much	+2: I agree pretty much
-1: I disagree a little	+3: I agree very much

1. Most students with autism will make an adequate attempt to complete their assignments.
2. Integration (inclusion) of students with autism will necessitate extensive retraining of general classroom teachers.
3. Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.
4. It is likely that the student with autism will exhibit behavior problems in a general classroom.
5. Students with autism can best be served in general classrooms.
6. The extra attention students with autism require will be to the detriment of the other students.

7. The challenge of being in a general classroom will promote the academic growth of the student with autism.
8. Integration of students with autism will require significant changes in general classroom procedures.
9. Increased freedom in the general classroom creates too much confusion for the student with autism.
10. General-classroom teachers have the ability necessary to work with students with autism.
11. The presence of students with autism will not promote acceptance of differences on the part of students without autism.
12. The behavior of students with autism will set a bad example for students without autism.
13. The student with autism will probably develop academic skills more rapidly in a general classroom than in a special classroom.
14. Integration of the student with autism will not promote his or her social independence.
15. It is not more difficult to maintain order in a general classroom that contains a student with autism than in one that does not contain a student with autism.
16. Students with autism will not monopolize the general-classroom teacher's time.
17. General-classroom teachers have sufficient training to teach students with autism.
18. Integration will likely have a negative effect on the emotional development of the student with autism.
19. Students with autism should be given every opportunity to function in the general classroom where possible.

20. The classroom behavior of the student with autism generally does not require more patience from the teacher than does the classroom behavior of the student without autism.
21. Teaching students with autism is better done by special- than by general-classroom teachers.
22. Isolation in a special classroom has a beneficial effect on the social and emotional development of the student with autism.
23. The student with autism will not be socially isolated in the general classroom.

This questionnaire was based on the Opinions Relative to Mainstreaming Scale by Barbara Larrivee & Richard F. Antonak © ORI 1993

Appendix C
Demographic Survey Questions

1. What is your gender? Male; Female
2. What is your age? 20-29; 30-39; 40-49; 50-59; 60+
3. Not including this school year, how many years of teaching experience do you have? <5; 5-9; 10-14; 15-19; 20-24; 25+
4. What is your highest degree earned? Bachelors; Masters; Doctorate

Appendix D
ORI Scoring Guidelines

Scoring Key

Item #	+/-	Factor
1	+	Classroom Management
2	-	Preparedness
3	+	Benefits of Inclusion
4	-	Classroom Management
5	+	EC vs. Inclusion
6	-	Classroom Management
7	+	Benefits of Inclusion
8	-	EC vs. Inclusion
9	-	Classroom Management
10	+	Preparedness
11	-	Benefits of Inclusion
12	-	Classroom Management
13	+	EC vs. Inclusion
14	-	Benefits of Inclusion
15	+	Classroom Management
16	+	Classroom Management
17	+	Preparedness
18	-	Benefits of Inclusion
19	+	Benefits of Inclusion
20	+	Classroom Management
21	-	EC vs. Inclusion
22	-	Benefits of Inclusion
23	+	Classroom Management

To score the entire ORI:

1. Positively score the items that were worded negatively by reversing the sign of the response (i.e. from + to -, or from – to +).
2. Sum all 23 responses.
3. Add a constant of 69 to the total to eliminate negative scores.
4. Scores range from 0-138, with a higher score representing a more favorable attitude toward the integration (inclusion) of students with autism into general education classrooms (the higher the score, the higher the level of “positivity”).

To score each of the four factors (themes):

1. Positively score the items that were worded negatively by reversing the sign of the response (i.e. from + to -, or from – to +).
2. Sum all responses within a specific factor range (i.e. Benefits of Inclusion, Classroom Management, Preparedness, EC vs. Inclusion)
3. Add a constant (see chart below) to the total to eliminate negative scores.
4. Refer to chart below for score ranges to determine level of positivity.

Factor	Constant	ORI Score Range
Benefits of Inclusion	21	0-42
Classroom Management	27	0-54
Perceptions of Self-Efficacy	9	0-18
EC vs. Inclusion	12	0-24

Scoring based on the Opinions Relative to Mainstreaming Scale by Barbara Larrivee &

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