Are Educators Prepared to Teach Students with Autism?

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Abstract

This study investigates the perceptions of educators regarding working with students with autism. It examines current educators’ perceptions of how prepared they are to teach students with autism. The study also examines teachers’ perceptions of how autism can affect an individual’s self-efficacy, coupled with teachers’ perceptions of their impact on students. General education and special education teachers from a rural, southern Appalachian school district completed an online survey designed to answer the research question, “Are Educators Prepared to Teach Students with Autism?” Results indicate that participants did not feel prepared to teach students with autism and believe that a student’s self-efficacy is affected in a negative way if he/she is identified as having autism. The majority of the teachers surveyed believe it is the special education teacher’s job to accommodate for these students’ needs.
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“Autists are the ultimate square pegs, and the problem with pounding a square peg into a round hole is not that the hammering is hard work. It’s that you’re destroying the peg.”

(Collins, 2004)

For many years, medical professionals, educators, and scientists have been working to understand the range and effect of autism. In the past, autism was often misdiagnosed and classified as having mental retardation/cognitive delays because people with autism were misunderstood. Thankfully, current society has a much different approach to the treatment of these disorders. With proper diagnosis, treatment, and education, people with autism can be integrated, contributing members of society. This research explored the preparedness of educators to work with students diagnosed with autism.

Review of the Literature

This review analyzes literature pertaining to autism and the increase in the numbers of individuals diagnosed with autism, change in definition and treatment, how it affects individuals’ lives, and suggestions for the future. In order to determine if educators are prepared to teach students with autism, one needs to understand the definition, history, characteristics, behaviors, strategies, and interventions used with students diagnosed with autism.

Definition

The APA (American Psychiatric Association) released an updated version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), in May of 2013, where a new definition of autism replaced the whole spectrum of pervasive developmental disorders with one disorder named ‘autism spectrum disorder’ (Mattila, Kielinen, Linna, Jussila, Ebeling, Bloigu, Joseph, & Moilanen, 2011). This was the first drastic revision in over seventeen years. Clinicians propose that this new definition could lead to fewer children being diagnosed with autism.
Autism is typically diagnosed during childhood and is categorized by its social and cognitive impairments regarding communication, coupled with fine and gross motor skill impairments. The effects of autism have been observed in clinical studies, and clinicians agree that autism spectrum disorders (ASDs) is a better definition because the effects of autism are different among individuals.

**History**

First described by Leo Kanner in 1943 in his paper titled *Autistic Disturbances of Affective Contact*, where he studied thirty-three children, Kanner termed the condition 'infantile autism.' Kanner used the term ‘autism’ because Eugene Bleuler had earlier used it to describe adult patients with schizophrenia who were inward and self-absorbed; however, Kanner did not believe that ‘infantile autism’ was related to schizophrenia because the clinical signs were not identical and his patients seemed to have autism from birth. Kanner’s diagnosis challenged the clinical norm that was rooted in Freudian psychology, which stated that autism was due to poor parenting skills, specifically mothers that did not bond and offered a cool response and interaction to their children, often termed “refrigerator mothers” (Fischbach, 2007).

**Characteristics**

According to Bradford (2010, p. 167), the following list of signs and symptoms should be considered when working with students with autism:

**Social**

- Has poor eye contact
- Lacks social smile and other expressions of happiness
- May not use pretend play
- Has trouble relating to others
• Prefers being alone; may ignore people
• May or may not want to hug or cuddle
• May appear unaware when talked to, but responds to other sounds
• Lacks interest in other children
• May be interested in people, but is impaired in relating or talking with them
• When older, misses social cues (gestures, expressions, idiosyncratic phrases)
• Has difficulty in interpreting other’s thoughts and feelings

Cognitive
• Seems to have poor attention
• Mental processing tends to be rote and rigid, not fluid
• Has difficulty generalizing
• May have excellent memory for details, but may not see the big picture
• Cannot prioritize the relevance of details
• Difficulty with symbolic or abstract language and ideas; concrete thinking
• Struggles with sequencing and organizing
• When older, has difficulty taking another’s perspective

Communication
• Does not babble and point by 1 year of age
• Does not reciprocate sounds and facial expressions
• Does not speak by 16 months
• Does not combine at least two words by 2 years of age
• Loses language
• Uses echolalia—‘parrots’ or repeats phrases in a rote fashion
• Is not reciprocal and interactive; interactions tend to be one way
• Difficulty expressing needs using typical words (may use ‘stock phrases’)
• May talk at length about the same narrow topic

Behavioral
• Has an empty gaze or is unusually interested in watching something
• May not point at objects of interest (or look when another points them out)
• Does not seem to know how to play with toys or plays atypically
• Does not gesture (or may use rudimentary gestures instead of using words)
• May arrange or organize toys or other things compulsively
• May be attached to one particular toy or object
• Repeats actions such as hand flapping or twirling objects
• Has difficulty transitioning from one activity to another
• Has tantrums and is unduly distressed (sometimes for no apparent reason)
• Insists on sameness in environment and routines

Physical
• May have unusual reactions to how things smell, taste, look, feel or sound
• Often oversensitive to sensory input; to sound (holds ears), touch, heat, or light
• May have impairments in fine and gross motor skills (gripping, throwing)
• Gait may appear somewhat stilted
• Erratic sleep patterns (difficulty getting to sleep, wakefulness)

Detecting and Screening
Early detection of autism is critical because of the clinical evidence that intensive, early intervention can mean substantial gains in development and positive outcomes for the person’s future (Bradford, 2010). By diagnosing early, parents can make more accurate and informed decisions regarding the medical, emotional, educational, and social treatment for their child (Bradford, 2010). In 2009, the Center for Disease Control and Prevention recommended periodic developmental screening to identify children with developmental delays. However, in an earlier study, Glascoe (2000) reported that “professionals miss developmental delay at a rate of up to 70% when using clinical judgment alone” (Bradford, 2010, p.164) and that “professionals and caregivers may dismiss signs of ASD, reasoning that the child is perhaps a late bloomer” (Bradford, 2010, p. 164).

No one method is best when diagnosing children with autism; therefore, medical professionals must include the experiences of parents, coupled with diagnostic criteria, and ultimately include a thorough review that includes assessments and screening (Bradford, 2010). Some professionals use the *Ages and Stages Questionnaire* (Bradford, 2010) with children up to five years of age. The more widely used screening tools include the *Modified Checklist for Autism in Toddlers* (Bradford, 2010), which is a standardized instrument, used with toddlers sixteen to thirty months old. It assesses the social interaction, sensory sensitivity, eye contact, and verbal responsiveness of a child. For children up to the age of ten a different instrument is suggested called the *Autism Diagnostic Interview* (Bradford, 2010). It assesses social interaction, communication and language, and repetitive or restricted interests (Bradford, 2010).

**Academic interventions**
**Reading strategies.** The No Child Left Behind Act of 2001 (NCLB) and the Individuals with Disabilities Education Improvement Act of 2004 (IDEAIA) mandates that all children, including children with ASD, be taught to read in ways that are consistent with reading research. More specifically, findings from the National Reading Panel (National Institute of Child Health and Human Development ([NICHD], 2000) are cited in NCLB language requiring that all students be provided explicit and systematic classroom reading instruction that includes five essential components of reading: phonemic awareness, phonics, oral reading fluency, vocabulary, and comprehension strategies (Whalon, Otaiba, & Delano, 2009, p. 4).

The following is a summary of the five essential components of reading with definitions and examples (Whalon, Otaiba, & Delano, 2009) that should be used with all students.

**Phonemic awareness.** Phonemic awareness is defined as recognition and manipulation of spoken words in language. One example would be asking a child to identify the first sound in the word cat (Whalon et al., 2009, p. 4).

**Phonics.** Phonics is defined as understanding letter-sound correspondences in reading and spelling. A few examples would include the following: mapping letters to corresponding sound/phoneme and blending these sounds to form words; analyzing letter-sound relationships from whole to part; segmenting words into phonemes and writing corresponding letters to form words; using parts of known words to identify new words, using sound-letter correspondences and context clues to identify unfamiliar words in text (Whalon et al., 2009, p. 4).

**Oral Reading Fluency.** Oral reading fluency is defined as reading text with speed, accuracy, and expression. This can be accomplished by repeatedly reading a text orally with
guidance from the teacher (choral reading, echo reading) or through independent reading practice with feedback (Whalon et al., 2009, p. 4).

**Vocabulary.** Students must understand words read by linking the word to oral vocabulary. This can be accomplished through active learning of vocabulary required for reading specific text or likely to be seen in a variety of texts; instruction in multiple contexts including making mental images of words, acting out definitions, using words in writing and searching and using context clues to aid understanding (Whalon et al., 2009, p. 4).

**Comprehension Strategy Instruction.** Comprehension strategy instruction means directly teaching students to be aware of the cognitive processes involved in reading. For example, the teacher models monitoring reading for understanding using think aloud through graphic organizers, story maps, questioning, summarization, and/or multiple strategies; guided practice is provided and faded as readers become increasingly more independent in using the strategies during reading (Whalon et al., 2009, p. 4).

While these five essential reading components provide the foundation for all learners, researchers have found the population of individuals with ASD appears to have relative strengths in the area of phonics or decoding; however, if students with ASD can read text accurately, but do not know the meaning of key vocabulary or cannot comprehend the concepts expressed, then reading comprehension will suffer (Whalon, Otaiba, & Delano, 2009). “Students use word recognition skills to identify written words while at the same time they are using general knowledge and language comprehension abilities to construct the meaning of what they are reading” (Gough et al., 1996, p. 5). Because some students with ASD may have further problems with word-level reading, and possibly even a greater issue with reading comprehension, additional interventions are recommended.
**Code-focused intervention.** Heimann, Nelson, Tjus, & Gillberg (1995) designed a code-focused intervention using computer-assisted instruction with a pretest/posttest design that includes ten lessons that teach students to build sentences in growing difficulty by clicking on a word or group of words. After the sentence is created, a picture is generated, students click on the sentence, and it is read aloud. All possible words that a student can select are animated. The program builds in difficulty and requires students to create a sentence representing the animated action. Heimann et al. (1995) found students were able to master the tasks and increase their scores. They concluded that students increased their comprehension of phonological awareness, word recognition, word spelling, sentence reading, and spelling and reported that students with ASD can “develop phonemic awareness and/or phonics skills regardless of IQ score” (p. 9).

**Meaning-focused intervention.** According to Kamps, Barbetta, Leonard, & Delquadri (1994) peer-mediated studies that focused on oral reading fluency and comprehension of students with ASD showed an increase in the number of words read correctly per minute and that comprehension questions were answered correctly. By providing students with ASD an opportunity to practice reading that is connected to text read aloud, their reading fluency increased. Kamps et al. also reported that one-on-one interventions increased appropriate social communication for both students with ASD and their peers. Since students with ASD may be strong in their decoding skills, but continue to have problems with comprehending text, meaning-focused instruction should be a priority in the early grades.

**Treatments**

**Behavioral.**

**Applied behavior analysis.** Applied behavior analysis (ABA) is a widely effective and accepted treatment for autism (Hillman, 2006). ABA is a method of reinforcing accepted or
desired behaviors and extinguishing undesired ones (Bradford, 2010). ABA teaches and reinforces communication and social skills such as: paying attention, language, imitating, interacting, and compliance (NIMH, 2013). ABA can be an intensive treatment that is provided by a trained professional and can be expensive.

**Relationship development.** Another type of behavioral treatment that is relatively new is called relationship development intervention (RDI). RDI focuses on the perceptual, cognitive, and emotional difficulties characteristic of students with ASD. Gutstein, Burgess, and Montfort (2007) emphasized that a primary goal of RDI is to teach students with ASD how to express friendship and empathy when trying to connect with others. This treatment is less expensive than ABA and can be delivered by parents with the proper training.

**Social.** For students with moderate to severe ASD, the focus treatment should be on more social conventions and should assist students with independent life and living skills, such as organization, personal care, handling money, grocery shopping, and following directions (Bradford, 2010).

**Pharmacological.** Currently, “Risperidone (Risperdal) and aripiprazole (Abilify) are the only FDA-approved medications for ASD and they are only medications approved for the treatment of irritability in five to sixteen year olds with ASD” (Lofthouse, Hendren, Hurt, Arnold, & Butter, 2012, p. 1), while no medications have been developed to treat the core symptoms of ASD. Sometimes, ‘off-label’ medications are prescribed to treat inattention, impulsivity/hyperactivity, sleep problems, repetitive/perseverative behaviors, anxiety, mood, agitation, aggression, and self-injurious behaviors, but all have significant side effects” (Lofthouse, Hendren, Hurt, Arnold, & Butter, 2012, p. 1). However, due to the limited medical treatments for ASD, there is a need for additional treatments.
**Complementary and alternative.** Additional treatments for autism have been examined by the National Center for Complementary and Alternative Medicine [NCCAM]. The NCCAM defines these additional treatments as complementary and alternative medicine and are a “group of diverse medical and health care systems, practices, and products that are not generally considered to be part of conventional medicine” (Lofthouse, Hendren, Hurt, Arnold, & Butter, 2012, p. 2).

Due to increasing parental concern regarding the side effects of prescribed medicines, the use of complementary and alternative [CATs] medicines has grown in the United States (Lofthouse et al., 2012). Some examples of ingestible CATs include the following: Melatonin, Vitamin B6, B 12, Multivitamin/minerals, Folic Acid, Omega-3, Probiotics and GI medication, Iron supplements, Chelation, L-Carnosine, Ascorbic Acid, Cyproheptadine, and immune therapies (Lofthouse et al., 2012). Examples of noningestible CATs include massage, acupuncture, exercise, music therapy, animal-assisted therapy, and neurofeedback (Lofthouse et al.).

While it is important that students with ASD receive early medical diagnosis, treatment, and best practices regarding academic instruction, it should also be noted that students with ASD need to be able to advocate for themselves. “According to social cognitive theory, when people feel that they are able to meet challenges, they put forth more effort, are more willing to persist and persevere, and are better equipped to cope” (Ruble, Toland, Birdwhistell, McGrew & Usher, 2013, p. 1151).
Efficacy

Bandura (1994) states that self-efficacy is defined as “belief in one’s abilities to carry out a desired course of action” (p. 71). Self-efficacy can be developed by four main sources of influence: mastery experiences, vicarious experiences provided by social models, social persuasion (genuine verbal boosts), and psychological and emotional reactions to specific tasks (anxiety) (Klassen & Lynch, 2007). A definition of self-efficacy, also provided by Bandura (1994), is the “belief in one’s capabilities to produce designated levels of performance that influences events that affect their lives” (p. 71). Thus, self-efficacy affects the way people think, feel, and behave.

Autism and self-efficacy. Individuals with ASD experience society differently than people without ASD. “There is a common misconception that individuals with ASD prefer to be alone and do not notice others” (Causton-Theoharis, Ashby, & Cosier, 2009, p. 84). Grandin (1986) indicated, “To say that an autistic child has absolutely no response to people is a misconception” (p. 88). Causton-Theoharis et al. (2009) explored these misconceptions using autobiographies of people with ASD. Most of the autobiographies described “a loneliness that was so oppressive and overbearing that death was preferable” (p. 88). This awareness of isolation, coupled with the difficulties of social interaction, was persistent throughout their entire lives. People with ASD “understand, feel, and experience loneliness in ways that do not differ from others” (Causton-Theoharis et al., 2009, p. 88). As described in their autobiographies, “people with ASD need predictability and training regarding social conventions and appropriate responses in order to navigate society successfully” (Causton-Theoharis et al., 2009, p. 88). The self-efficacy of people with ASD is greatly affected by social misconceptions and isolation.
In addition to the traditional challenges of life, students with ASD must also overcome obstacles unique to their experience; therefore, early screening and diagnosis is important so that intervention can be provided. Medical professionals, educators, and parents must collaborate in order to develop the best possible plan for a student with ASD. All individuals involved in the treatment of students with autism should be up to date regarding scientific studies and best practices. The following research furthers this discussion by assessing the attitude, ability, and training levels of current educators in a public school setting.

**Methodology**

An online survey was sent to special and general education teachers in a rural, southern Appalachian school district. The survey was designed to determine if teachers felt prepared to teach students with autism. Survey responses also provided insights into whether these teachers believed that students’ self-efficacy was affected by their diagnosis of autism.

**Background of the Study**

Over the past seventeen years, this researcher has had the opportunity to work with many highly educated and effective educators. Often conversations focus on best practices, changes in curriculum, and challenges being faced in the classroom. Over the past five years, the conversations seemed to focus on a lack of knowledge regarding working with students with autism or on the autism spectrum. The lack of training and resources created frustration in the classroom. Prior to graduate school training, the author had not received professional development, training, or support regarding how to work with students with autism. Unfortunately, this appeared to be the norm among educators; therefore, this research focused on teachers’ knowledge regarding working with students with autism.
Participants

An online survey was created using Qualtrics, an online survey tool, and a link to the survey was sent via email to all teachers (approximately three-hundred) in a rural, southern Appalachian school district. Four weeks after the initial survey, a follow-up email was sent to non-respondents requesting completion. Nineteen surveys were completed for a response rate of approximately 6%. Participants ranged in experience from one to twenty-five years (See Figure 1).

![Participant years of experience](image)

*Figure 1:* Participant years of experience.

Additionally, the respondents varied in the area they were licensed to teach ranging from vocational, general, and special education (See Figure 2).
Figure 2: Number of participants by area of licensure.

Instrumentation

A researcher-developed survey was created using Qualtrics, an online survey tool, and the survey contained a total of twenty-six questions with eighteen forced-responses, each followed by an open-ended question asking the participant to comment/provide explanation for the previous answer. An additional eight open-ended questions permitted respondents to describe various techniques they used in the classroom that worked for their students to achieve success. Forced-choice questions asked the respondents to rate their knowledge, interventions, effect of diagnosis on student self-efficacy, and who is responsible for educating students with autism, while the open-ended questions encouraged respondents to elaborate on their responses to the forced-choice questions. (See Appendix for survey.)

Procedures

The researcher submitted a formal request to the university Institutional Review Board (IRB) requesting permission to conduct research. After IRB permission was received, the researcher made an appointment with the superintendent of one rural Appalachian school district.
to obtain permission to conduct research in that district. After the superintendent approved the request, the researcher used the district email service to gather staff email addresses and an online survey, created using Qualtrics, an online survey tool, was sent. The link to the survey was sent to approximately three-hundred teachers in that school district. Four weeks after the initial survey was distributed, a follow-up to non-respondents was sent requesting completion of the questionnaire.

**Data Analysis**

For each survey question, means variances, and standard deviations were calculated when applicable. Based on aggregated responses, percentages were calculated to determine which strategy was perceived to be the most effective. The educators were asked to reflect on their responses to the force-choice questions and their comments were analyzed for common themes.

**Results**

The next section provides a detailed analysis of the responses given by the participating educators. The variables of the current study are shown and correspond to the questions asked. Respondents were asked how many students diagnosed with autism they taught, indicating specifically how many were male and how many were female. The majority of respondents taught boys (n) diagnosed with autism (n = sixteen) versus eleven females.

Next, participants were asked how prepared they felt to teach students with autism, using a rating scale of “not at all prepared” to “very prepared.” The majority of respondents reported feeling somewhat prepared to teach students with autism (see Figure 3).
Participants were asked to rate how much of an impact a diagnosis of autism would have on a student’s life. They were asked to rate on a scale from “no negative impact” to “extreme negative impact.” The majority believed that having a diagnosis of ASD had somewhat of a negative impact on a student’s life (See Figure 4).

Figure 3: Participants’ perceptions of preparedness to teach students with autism.

Figure 4: Participants’ perception of impact of a diagnosis of autism on a student’s life.
Participants were asked who they thought was responsible for meeting the needs of students diagnosed with autism. Participants were allowed to select as many individuals as appropriate. A majority of fourteen participants, all general education, believed that the special education teacher is responsible for the direct instruction of a student with autism (see Figure 5).

![Figure 5: Participants perceptions of who is responsible for direct instruction of students with autism.](image)

Next, participants were asked how much of a negative impact a diagnosis of autism would have on a student’s job search, ranging from “no negative impact” to “extreme negative impact.” The majority believed that students with autism would have some difficulties when searching and applying for jobs due to their disabilities (see Figure 6).

![Figure 6: Participants’ perceptions of the degree of negative impact an autism diagnosis has on students’ job search.](image)
Finally, participants were asked the degree to which a diagnosis of autism would have on
students’ lives ranging from “huge impact” to “no impact.” Participants were also given an
opportunity to respond as “not sure” or “don’t know enough about autism to make a decision.”
The majority of participants believed that a diagnosis of autism would have a huge impact on a
student’s life (see Figure 7).

![Bar Chart]

**Figure 7:** Participants’ perceptions of the impact of autism on a student’s life.

Participants responded to eight open-ended questions, which were provided as follow-up
to the eighteen forced-choice questions. Many participants responded that although they lacked
knowledge and felt only somewhat prepared to teach students with autism, they often seek
support from other professionals. Some participants stated that while in college, the diagnosis of
autism was not presented because it was considered extremely rare. The same participants
explained that professional development has not been provided by the school district; therefore,
outside investigation and research through use of the internet and collaboration with peers have
been their primary source of information.
All nineteen participants stated that having access to a student’s Individual Education Plan (IEP) and Evaluation Team Report (ETR) is important because they provide detailed information about students receiving special education services. Ten of the nineteen participants stated that direct involvement in team meetings, parent conferences, completion of student inventories, and paraprofessional support is necessary in order for the teacher and student to have a successful experience in the inclusive classroom.

Participants noted that students with autism do not appear to realize they are ‘different’ and are often overly confident with unrealistic goals and expectations regarding their future. Participants associated the unrealistic goals with the students’ social skills and group acceptance. For example, the participants stated that if a student with autism was remedial in social skills and lacked group acceptance, then the participant gave the student higher praise for minimal academic accomplishments with the intention of boosting confidence and showcasing the student’s contribution to the classroom and/or group.

When surveyed about the effects of a diagnosis of autism on finding a job, participants stated that in order for students with autism to be contributing members of society, they should be given jobs that are done in isolation. Participants’ rational for this statement was that people with autism do not like being in social situations and are not able to work with others.

When asked to expand on the type of interventions used with students with autism, participants listed the following: extended time, praise, use of colored paper, behavior checklists, less work, visuals, partnering with a buddy in the classroom, providing time-outs, allowing students to work alone, and use of story boards. Participants said they would like to incorporate more technology, but lack training and materials. Participants further explained that when trying
to meet the needs of a diverse population, regardless of the diagnosis, they often become frustrated and experience burnout.

**Discussion**

The results of this study provided interesting insight into the perceptions and preparedness of educators working with students diagnosed with autism. For example, participants stated they are often frustrated and experience burnout when working with a diverse population, regardless of the diagnosis. This directly relates to the research conducted by Ruble, Toland, Birdwhistell, McGrew and Usher (2013), who stated that “educators, specifically special education teachers, are often prone to higher stress, burnout, and attrition” (p.1151). Information available in the literature, and participant responses from the current study, confirms that burnout and self-doubt are prevalent among both general education and special education teachers.

The results of the current study parallel the research, which states that due to the increase in numbers of students diagnosed with autism, educators will likely encounter clients on the autism spectrum disorder and must be able to provide intervention (Bradford, 2010). “Moreover, ASDs have impact on the family as well as the individual, and there is a growing need for family-centered intervention and support services” (Bradford, 2010, p. 162) when developing the IEP team and education goals. The researcher concludes that educators and parents must operate as a team in order to provide the best intervention plans for academic success.

Of the nineteen participants, 27.78% have been teaching for more than fifteen years. Only eight of the nineteen felt somewhat prepared to teach students with autism. While this falls below an acceptable level, the researcher must consider that the results did not indicate if those eight participants were newly trained or veteran teachers since twenty years ago autism was not a topic of study during teacher preparation courses; therefore, further research is required.
All educators should be knowledgeable of best practices and feel confident when entering their classrooms; however, this is not always the case. Based on the results of the survey, teachers that have been in the field fifteen years or more need professional development and support from administrators because ASD was not addressed during their teacher preparation programs. Meanwhile, recent graduates of teacher preparation programs will need continued exposure to best practices and scientific research regarding working with students diagnosed with autism. All teachers should be knowledgeable of best practices when working with students with autism because of the inclusive classroom model and federal regulations regarding educating students with disabilities in a least-restrictive environment (“Public Law 108-446”, http://idea.ed.gov/download/statute.html).

**Recommendations**

The research provides evidence that building administrators should be proactive and provide professional development that dovetails the education level of seasoned veterans and newly trained teachers with current trends and best practices for working with students with autism. This training is paramount because of the inclusive classroom model and the federal law regarding educating students with disabilities in a least-restrictive environment (“Public Law 108-446”, http://idea.ed.gov/download/statute.html).

Findings of this study indicate 83.33% of the participants believe that it is the special education teacher’s responsibility to teach students with autism. The researcher recommends that building administrators address this misconception because according to federal law, the general education teacher is also responsible for providing instruction in the least-restrictive environment and inclusive classroom model (“Public Law 108-446”, http://idea.ed.gov/download/statute.html).
Causton-Theoharis et al. (2009) researched the effects of autism on teenagers and the need to involve the family in the development of academic plans; therefore, the researcher also recommends that teachers should include parents as partners and sources of information about their child and how the characteristics of autism specifically manifest in their child. Parents should be involved in the process when seeking to better know a student and determine what interventions have already been tried and the success rate of each. It is the researcher’s opinion that when parents and teachers work together to create plans for the student with autism the student will experience a smoother transition between school and the real world.

Limitations

Several limitations presented themselves throughout this study. First, of the approximately three-hundred surveys distributed, only nineteen participants responded, and not all of those educators responded to all of the survey questions, leading to a very low response rate. Therefore, findings cannot be generalized to other settings, and is not representative of all teachers in this one school district.

Another limitation of this research is the unclear connection between the number of participants who stated they lack knowledge about autism and their number of years teaching. The researcher would need to adjust the questioning and provide for different statements which would force participants to answer subsequent questions relative to their level of experience. This would provide for a much clearer evaluation of the results.

This study left unanswered questions that should be addressed in future research such as whether self-monitoring techniques might be successful and which specific techniques were the most successful in the participants’ classrooms. Another question that needs to be addressed is related to consistency among educators. For example, are all teachers that work with a particular
student using the same techniques to benefit that individual? Another question to explore might be whether or not parents and teachers rely too heavily on medications to control the symptoms of autism. Thus, further research needs to be conducted to answer these questions.

**Implications for Practice**

Consistency is a major factor in the lives of children with autism because they do not like change, so educators need to ensure they are kept on a consistent routine on a daily basis, and to try to use the same techniques and behavior beneficial for all educators. Most educators will do everything within their power to improve their students’ success and are always looking for best practices to include in the classroom; therefore, the more information educators have, the more successful their students can be both in school and life. From an educators’ point of view; more professional development needs to be created and delivered for all educators (both general and special education) in order to learn best practices, including how to individualize for students’ needs.

If professional development is not provided, then educators can access information by building a relationship with the parents, interviewing school psychologists, collaborating with special education teachers, participating in college courses, reading scholarly articles, reviewing special education state and federal laws, and contacting the Rehabilitation Services Commission.

**Conclusion**

“There is no known cure for autism. Autism is a lifelong condition that requires individuals with autism to develop adaptive coping skills, strong support networks, and guidance from medical specialists” (Bradford, 2010, p.169). The Centers for Disease Control and Prevention estimates that roughly 1 in 88 children in the US are diagnosed with autism, with many more boys affected than girls (Baio, 2012). According to the Simons Foundation Autism

As experts continue to evaluate the May, 2013 release of the DSM-5 and its new definition of autism, the future of treatment for autism and effects of these changes are left unanswered. For example, as stated earlier, experts believe the new definition will result in fewer people being diagnosed. Concerns are also arising regarding the medical care and fees for people diagnosed under the old definition versus the new definition; however, experts agree that the new DSM-5 supports what they have long believed, which is that females have different symptoms and characteristics than males with the same disorder (“Simons Foundation,” http://sfari.org). Overall, research is making strides in the area of autism and its related disorders, but there is still much that is left unanswered. All educators must remain up-to-date on the latest research and best practices for working with students with autism and continue to provide support and direction for parents of children with autism. In order to ensure that each student with autism has the proper placement and education, it is imperative that an IEP team collaborate with families, medical professionals, community resources and actively involve the student when making plans for his/her future.
References


Appendix

Question 1: Gender?
Male
Female

Question 2: Age?
21-29
30-39
40-49
50-59
60+

Question 3: Race/Ethnicity?
African American
Asian
Bi-racial
Latin American
Caucasian
Native American/Other

Question 4: Highest degree completed?
Bachelors
Bachelors +150
Masters
Masters +30
PhD

Question 5: How many years have you taught?
1-3
4-6
7-10
11-15
15-20

25+

**Question 6: Environmental setting where you most often teach?**

Virtual Classroom

Inclusion/General Education Classroom

Resource Room

Other: Please Explain

**Question 7: Type of teaching position/license held?**

Special Education

General Education

Vocational Education

**Question 8: Subject area(s) you currently teach? (Check all that applies.)**

Mathematics

Reading

Science

Language Arts

Social Studies

Fine Arts/Foreign Language

Vocational

Health/PE

Business
Question 9: Grade level currently teaching? (Check all that applies.)

PreK
Elementary
Middle/Junior High
High

Question 10: Number of students you are responsible for in a typical day?

1-25
26-50
51-75
76+

Question 11: Number of students that you have worked with in the past year that have been diagnosed with autism?

Number of girls

Number of boys

Question 12: How prepared do you feel to meet the needs of a student (s) with autism in your classroom on a scale of 1-5 (1=not at all prepared; 3=somewhat prepared; 5=very prepared)?

1=not at all prepared
2
3=somewhat prepared
4
5=very prepared
Question 13: Please elaborate on your reason for the rating in the previous question

Please explain:

Question 14: In your opinion, how great is the impact of autism on a student’s self-esteem, on a scale of 1-5 (1=extreme negative impact; 3=some negative impact; 5=no negative impact)?

1=extreme negative impact
2
3=some negative impact
4
5=no negative impact

Question 15: Please elaborate on your reason for the rating in the previous question.

Please explain:

Question 16: In your school, who is responsible for accommodating the needs of a student with autism?

Special Education Teacher
General Education Teacher
Guidance Counselor
School Psychologists
I am
Not sure
Other

Question 17: Have you received formal training about autism? (Check all that applies.)

Never
Never, but heard it mentioned in undergraduate/graduate coursework

Completed autism-specific undergraduate class

Completed autism-specific professional development

Read books/articles on autism

Surfed the internet for information

**Question 18: When teaching a child with autism in my classroom, I am (choose one):**

By myself

Co-teaching

A paraprofessional is present (Aide)

Not currently teaching students with autism

Other (Please explain):

**Question 19: What resources do you use when meeting the needs of a student with autism?**

Please explain:

**Question 20: What strategies/materials do you use when teaching students with autism?**

Please explain:

**Question 21: As a teacher, what are your responsibilities (if any) in meeting the needs of a student with autism?**

Please explain:

**Question 22: If you do not feel adequately prepared to work with a student with autism, what affect do you think this would have on the student’s self-efficacy?**

Please explain:
Question 23: How might autism affect a student in high school when applying for and getting a job on a scale of 1-5 (1=extreme negative impact; 3=some negative impact; 5=no negative impact)?

1=extreme negative impact

2

3=some negative impact

4

5=no negative impact

Question 24: Please elaborate on your reason for the rating in the previous question.

Please explain:

Question 25: Does autism impact a student’s life on a scale of 1-5 (1=huge impact; 2=some impact; 3=no impact; 4=not sure; 5=do not know enough about autism to make a decision)?

1=huge impact

2=some impact

3=no impact

4=not sure

5=do not know enough about autism to make a decision

Question 26: Please elaborate on your reason for the rating in the previous question.

Please explain: