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# Effectiveness of Special Education Teacher Preparation Programs to Teach Students with Autism Spectrum Disorders (ASD) in a Medium Southeastern Maryland School District

Donnie Renee Johnson  
[drjohnson821@gmail.com](mailto:drjohnson821@gmail.com)

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EFFECTIVENESS OF SPECIAL EDUCATION TEACHER PREPARATION PROGRAMS TO  
TEACH STUDENTS WITH AUTISM SPECTRUM DISORDERS (ASD) IN A MEDIUM  
SOUTHEASTERN MARYLAND SCHOOL DISTRICT

Donnie Renee Johnson

Dissertation Committee

Anthony Colella, Ph. D., Mentor

Gerard Babo, Ed. D.

Karl Johnson, Ph.D.

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of Doctor  
of Education

Seton Hall University

2018

**SETON HALL UNIVERSITY**  
**COLLEGE OF EDUCATION AND HUMAN SERVICES**  
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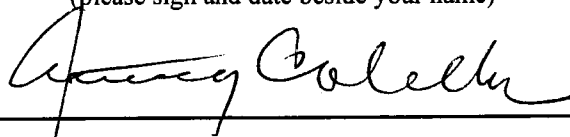
**Donnie Johnson**, has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ed.D.** during this **Spring Semester 2018**.

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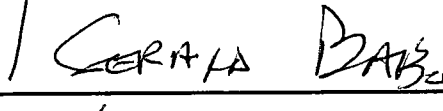
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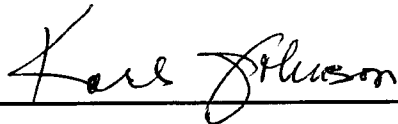
Committee Member:

Dr. Gerard Babo

 3/21/18

Committee Member:

Dr. Karl Johnson

 3/21/18

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## ABSTRACT

One strategy for improving teacher preparation programs for teaching Autism Spectrum Disorders (ASD) is to enhance the coursework offered at colleges and universities at the undergraduate level. The goal is to better equip college programs to provide effective and substantial preparation for teacher candidate to effectively instruction ASD students. Programs offered by colleges and universities to prepare new special education teachers with the appropriate skills is multi-faceted. First, a clearly defined curriculum or coursework design is required. Secondly, an extended student teaching schedule is needed for an authentic and practical application experience. Finally, offering a monetary incentive for special educators to become certified in autism, after successfully completing additional coursework, is needed. This paper reviews evidence on the effectiveness of teacher preparation programs to prepare special educators to teach students with ASD. Despite the limited research on this topic, the future of students with ASD relies on the instruction highly prepared and competent teachers specifically trained to support their needs. Otherwise, the cost to school district and K-12 education will rise significantly to prepare students with ASD for life-skills, college, or career readiness.

## DEDICATION

This research is dedicated to the three immediate family members that I lost during this three-year period. To my brother Joseph L. Johnson, January 26, 1959-August 15, 2015. Your love for communications and journalism has ignited my love for writing. To my mother, Elizabeth L. Williams, August 21, 1928-May 14, 2016. Your strength and wisdom has assured me that all your dreams can come true with determination and persistence. Lastly, my brother, Charles L. Harris January 11, 1951-February 19, 2017. The trailblazer of the family of ten children. Thank you all for the love. You are sorely missed!

## ACKNOWLEDGEMENTS

The last steps of this three-year journey have been exciting and exhilarating. I have hoped and prayed for this dream to come true. I would like to acknowledge many people for their support in this major feat. The relationships developed at Seton Hall University in Cohort XIX have been life-changing. I would like to thank the entire Cohort XIX for their love and support. I would like to personally thank a few women in this program, Ericka, Shonda, and Tiffany are three phenomenal women that I will always be grateful for their sound judgment and friendship.

God has always put angels in my path to help guide me along the way. During this quest for the doctorate degree one particular angel is Sheila Octavia. She has been a comfort and a confidant during this three-year period. Mere words cannot express the gratitude I feel for her support.

My dissertation advisor, Dr. Anthony Colella, has been extremely instrumental. Our first conversation lasted over an hour and I knew this was a “match made in heaven!” Dr. Colella, instituted a timeline of task completion that continued to propel me! Thank you Dr. Colella!

Dr. Gerard Babo, provided a consistent level of involvement during this process. I appreciate the education he has provided. It has truly been priceless. Dr. Babo has been relentless in ensuring all steps of the process were carefully evaluated.

My local committee member, Dr. Karl Johnson, Associate Professor Ramapo



College in Mahwah, New Jersey has been the calm in the midst of the storm. He has been available twenty-four hours a day seven days a week. His support has been immeasurable and his feedback has been noteworthy.

I am especially thankful for my first teachers, administrators and community leaders. Their support gave me a thirst for knowledge and a life-long desire for learning. I can remember going to school on snowy days when the option to stay at home was made available. I marvel at the level of commitment these educators exhibited to their students. As on these snowy days these teachers and administrators were present as well.

I would also like to thank the sorority sisters of Delta Sigma Theta Sorority, Inc. Trenton Alumnae Chapter branch. This organization of college educated women have poured into my spirit and offered words of encouragement that have motivated me to finish this race.

Finally, thank you to my siblings, family members, and friends. I appreciate your love and support during this enlightening three-year period. While we have endured as a family, your vote of confidence and persistence has been “the wind beneath my wings.” Thank you for your encouragement even when my frustration levels would wax and wane. I am inspired by your undying concern and devotion. I am looking forward to the celebrations of this milestone accomplishment. You all have made me “believe I can fly!”

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## CHAPTER I Introduction

Autism's estimated prevalence was 1 in 166 ten years ago. Today it's 1 in 68 – in one decade: an increase of more than 100% (Bashe, 2016). The prevalence is different for boys and girls; 1 in 42 for boys and 1 in 189 for girls. These rates yield a gender ratio of approximately five boys for every girl. Unfortunately, the diagnosed number of children with autism in the United States increased by 78% in a single decade. From 2002-2012, studies from the Centers for Disease Control and Prevention (CDC) reported 1 in 88 American children meet the criteria for some form of autism spectrum disorder (ASD). CDC researchers based these findings on data collected from children who live in the U.S. counties according to their health and school records for 8-year-olds (CDC, 2017).

The president of an advocacy group, Mark Roithmayr, shared that due to better awareness and diagnosis, along with broader diagnosis, more children are being diagnosed with autism (Autism Speaks, 2013). Autism, a disorder that involves brain, communication, social skills, and language, impairments, has a better response to intervention when it is diagnosed early (Goldstein, 2012). The CDC and the Academy of American Pediatrics recommend that children between the ages of 18 months and 24 months get screened for autism (Friedman 2012).

Due to the shortage of local facilities capable of teaching autistic students hundreds of them are being sent out of state and sometimes as far as the Midwest (Slonik, 2009). From 2005-2012 the increase of students with autism attending out of school district placements sharply increased. In contrast, there was a swift decline in students with emotional disturbance and a pivotal increase of students with autism sent to out of districts placements (Hehir and Associates, 2013).

While advocates and experts support keeping the children in their local districts, they contend that many schools are still not equipped to offer the specialized programs autistic children need to learn and interact socially with others (D'Amico, 2011). "We want children to be included (in regular programs), but not if they won't benefit from it," said Linda Meyer, executive director of Autism NJ. The annual cost for an out-of-district placement can reach \$100,000 per student, including transportation, tuition, and instructional classroom assistants if needed (D'Amico, 2011). Bedminster's Somerset Hills Learning Institute for autistic children currently costs more than \$116,000 per student, up from \$46,000 when it opened in 2000, according to the New Jersey Department of Education (2013). The highest disability category associated with per student total expenditure is autism, at \$32,336 per student (NJ SEEP 2001).

In 2012, Autism Speaks published that autism costs \$126 billion per year in the United States, and recent research reports this number has tripled from 2006 (Developmental Disabilities Institute, 2016). In New York, for example, students diagnosed with autism increased from 3,416 in 1996 to 15,471 in ages 4 to 21. Unfortunately, supply just hasn't kept up with demand for this student population (Slonik, 2009).

Early and efficient skills must be taught to ensure autistic children could eventually live on their own, otherwise, they'll cost taxpayers about \$3.2 million each year (Autism Society, 2012). Autistic children will cost taxpayers anywhere between \$200 billion and \$400 billion annually, in about ten years (Resmovits, 2014). Less than ten years ago, autistic students were placed in separate schools or self-contained classrooms and were rarely placed in classes with their non-disabled or general education peers (Education Next, 2017).

Trained special educators capable of teaching autistic students are reported at epidemic shortage levels. The most significant challenge of the autistic field is finding prepared, qualified

special educators (Simpson, 2003). Given the variety of services needed to teach students with ASD, the increase in teacher preparation programs may not possibly cover the vast curriculum required (Daily, 2005). Local School districts have strong motivators to keep students within the community attending their neighborhood schools.

Out-of-district placements for students with disabilities can cost three, four, and in some cases, five times as much as teaching regular-education students within the same district (Oglesby, 2001). The steep cost of educating autistic students and the growing number of children identified within the autism spectrum is fueling a flourishing of programs in public school (Carroll, 2006). Early intervention has allowed us to bring about a positive change of progression in the autism awareness population over the last decade (Davy 2006).

New Jersey has an outstanding reputation for providing services for children with autism, and some families have moved across the country to enroll their autistic children, which created a demand for additional services (Carroll, 2006). In 2010, New Jersey's State Department of Education reported that autistic students engaged in regular public-school placements performed better academically than those placed in special programs (D'Amico, 2011). Applied Behavior Analysis, or ABA, an individualized, highly structured therapy for autism teaches skills one at a time and includes frequent rewards guided twenty-nine school districts in New Jersey in 1995 and twenty plus years later these numbers are more than one-hundred forty school districts. (Ohanian, 2011).

Returning and integrating autistic students into the regular public-school setting has educators expressing concerns in a variety of ways. Positive teacher attitudes are essential indicators of the successful education of children with disabilities including those with ASD (Rodriquez, Saldana, & Moreno, 2012). Teachers trained as special educators often consider

themselves ill-equipped to deal with autistic students more than any other impairment (Rodriquez et al., 2012).

Sophisticated and vocal parents put additional pressure on administrators by insisting on state-of-the-art instruction, highly-trained teachers, 1-1 staff-to-student ratios, and extensive support services, such as occupational and speech therapy. When districts do not deliver the programs, or support the parent's demand or pay for private school alternatives, families are increasingly willing to seek legal resolutions (Smith, 2008). ASD is more than an educational challenge for many districts; it's also a legal nightmare. Autism is a leading legal problem and a primary source of lawsuits (Siegel, 2008).

Currently, most preparation programs in higher education provided in undergraduate training matriculation are offered as a generalist special education teacher. Few preparation programs specialize in either high incidence or low incidence preparation. Eighty-seven institutions of higher education reported preparation practices that resulted in a great deal of variability across institutions (Barnhill, Polloway, & Sumutka, 2011).

The conclusions of their survey showed that 41% of reporting institutions offered no ASD-specific coursework within the special education degree. Another interesting outcome was that 77% reported their ASD coursework was in place for only one to seven years. Also, 50% of the institutions indicated their states had not developed autism competencies for educators, 30% reported that their state had autism competencies, and 14% did not know whether their state had assessments for autism. A lack of training can also lead to the use of passive physical restraint (PPR). Students who are restrained often fall into the category of nonverbal children with autism (Adams, 2015).



The techniques carry significant risks to students physically and emotionally. Death is one of the severe consequences that can result from using PPR (Duncan, 2009). Finding experienced special education teachers and aides who are well trained in behavioral management can be difficult. Most of states in the U.S. have faced an acute shortage of special education teachers for decades, (Duncan, A. (2009). Also, special education teachers leave the profession at nearly twice the rate of general education teachers, according to the National Coalition on Personnel Shortages in Special Education and Related Services (2015).

### **Problem Statement**

Since the year 2000, the surge in autism has added up to massive costs placed on a budget of public schools, (Hellerman, 2014). Additionally, students with ASD, have traditionally been taught out-of-district, due to in-district public schools, allegedly not offering the appropriate programming to adequately educate the students, (Hehr, Grindai, Ng, Schifter, Eldelman, & Dougherty, 2013). In the 2008-2009 school year Jackson, New Jersey had 154 students receiving special educations services outside of the district, and in the 2013-14 school year, that number fell to 89 students.

By 2015, 78 students with disabilities, including those with autism, were attending out of district schools. There is a trend across the state to bring students back according to Special Education Director, Jackson Public Schools, (Cerco, 2015). The cost to fund out of district placement for students with autism would decrease significantly if special education teachers were better prepared by their colleges and universities to effectively teach students with Autistic Spectrum Disorder (Mader, 2017). Also, training for novice and veteran teachers suddenly faced with the responsibilities of teaching individuals with ASD is required, as most reported they are ill-prepared (Busby, Ingram, Bowron, Oliver and Lyons, 2012).

According to the founder and CEO of New England Center for Children, treatment and education of children with autism is a national disgrace (Strully, 2008). The New England Center for Children is one of the largest and oldest schools for students with autism in the United States. Special educators and general educators share the sentiment that teaching autistic students is a challenge for both novice and veteran teachers in public school settings. Also, parental awareness of special education laws such as student's right to Free and Appropriate Public Education (FAPE), The Individuals with Disabilities Act (IDEA), increases advocacy and activism for school districts to finance out-of-district placements for children with disabilities (Strully, 2008).

Several methods are recommended to assist ASD in the classroom setting. Some of the ways for teaching ASD students include: offering positive behavior supports, reviewing an end of the class checklist, utilizing a schedule with integrated rewards, and developing a homework contract (CESA-7, 2017). Novice and veteran educators report lacking the confidence to educate students with ASD. General and special educators are completing college and university programs without learning and practicing the CESA-7 methods previously described (Baker, 2016).

As a result of failing to learn the essential strategies and methods for teaching ASD students, teachers must receive additional professional development activities to better support this population. The increased professional learning requires an extra cost for school districts. Employing and training special education teachers can be particularly expensive if one-to-one treatments are needed. Additional costs include purchasing special materials, technology, or programs to ensure effective instruction for children with autism spectrum disorders (Whitmer, 2013). The stress of securing these provisions causes anxiety and frustration for school leaders

and teachers. Stress is unavoidable in most teaching jobs but, particularly so when working with special needs students no matter how talented you are as an instructor (Erstad, 2015).

Special education federal grants along with autism diagnosis took a surge in the early 2000s (Hellerman, 2014). Special education funding increased from \$5 billion in 2000 to 12 billion in 2005. More recently, the amount of federal spending has caused cities and states to make up the difference from the reduced financial grants (Hellerman, 2014).

The number of students with autism increased from 26,603 in 2009 to 37,361 in 2012 reflecting a 40% increase over a three-year period (Phillips, 2012). Due to the decrease in funding for out of state and private facilities, public schools are required to provide education for individuals with disabilities, specifically ASD, within their local school district. Subsequently, special educators and general educators find that teaching ASD students requires many hours of student therapy, differentiated instruction, and a team of professionals, (Autism Speaks, 2012).

Typically, general educators teach ASD students in an inclusive setting with their nondisabled peers. However, when teachers have not been trained to instruct students with ASD or have not embraced the inclusion method of teaching, educating ASD students becomes more difficult (Avarmidis, Bayliss, & Burden 2000; Carrington, 1999, Hastings & Oakford, 2003; Norwich, 2002). Using evidence-based methods to educate students with ASD is a reliable indicator of the need for adequate preparation of teachers as ASD children receive the most specialized instruction in the public schools, (Doehring & Winterling, 2011).

This proposed research offers insight into the experiences of special education teachers based upon their preparation for teaching students with ASD. As we continue to examine the preparation programs for special educators, there is a gap in preparing teachers for the instruction of students with ASD, which indicates a need and purpose for this study. A review of the

literature revealed that most ASD studies are outdated and do not provide current practices or clarity on how to efficiently prepare special education teachers to offer meaningful instruction to students with ASD (Mader, 2017).

### **Purpose of the Study**

With autism spectrum disorder (ASD) growing at a 100% rate in a decade, it is crucial to provide in-depth research on the preparation of special education in public schools' settings. The ASD population initially attended specialized schools in out-of-state or private facilities due to the difficulty of effectively teaching this group in public school settings. When the cost of out-of-state placements became too costly for public schools to afford, many ASD students returned to their neighborhood or local school placements. As a result of this influx, special education teachers became inundated with ASD students and the responsibility of educating them without prior preparation.

Unfortunately, many colleges and universities have not adjusted their coursework or their preparation programs for special education teachers and have been unable to make curriculum revisions to keep up with the rapid increase of the ASD population. Because of the lack in preparation programs, certified special education teachers are graduating ill-prepared and ASD students are not learning in succession with their general education peers. The financial cost for public school systems is increasing in efforts to improve instruction for special education students, especially students with ASD (New Jersey Department of Education, 2014).

The alarming rate of growth of this population drives the need for this study, and the timeliness is crucial due to the ill-preparation of special educators. In addition to the cost factor for ensuring ASD individuals obtain a level of self-sufficiency that will decrease the overall line item expenditures. The purpose of this qualitative grounded study is to explore the levels of

preparedness for new and veteran special educators and their perspective on teacher preparation to meaningfully instruct students with autism.

### **Research Questions**

Researchers contend that qualitative studies answer concise and vital questions (Saini & Shlonsky, 2012). The following questions are asked in this proposed study:

- 1) How do veteran special education teachers perceive their abilities to teach students with autism spectrum disorders (ASD)?
- 2) What perceptions do special educators have about the differences between teaching students with ASD and students with disabilities in general?
- 3) How have special education teachers perceived their training to navigate these differences?
- 4) What skills/behaviors/strategies can be developed in teacher preparation programs to prepare new special education teachers better to meet the demands of serving students with ASD?

### **Theoretical Rationale**

The range of available interventions and research-based practices is the knowledge base needed for special educators that instruct students with ASD (Bennett & Dukes, 2013). Teacher preparation programs for students with ASD must contain several components. These characteristics are collaboration, community involvement, diversity, service work, and social responsibility. Being informed by evidence-based practices has continued to evolve the socialconstructivist collaboration framework (Bandura, 2000).

Defining the Behavioral Approach and Applied Behavioral Analysis is multi-faceted. Behavior therapy is a type of treatment approach predicated on the idea that abnormal behavior is

learned. It incorporates the principals of operant conditioning, classical conditioning, and observational learning to eradicate inappropriate or maladaptive behaviors and replace them with more adaptive reactions (Boundless, 2016). Behavior therapy is separate from insight-based therapies (i.e., psychoanalytic and humanistic therapy) because the goal is to teach clients new behaviors to decrease or eradicate problems, instead of digging deeply into their subconscious or uncovering repressed feelings (Bandura, 2000).

### **History of Behavior Therapy**

In 1911 Edward Thorndike coined the term “Behavior Modification used in research by Joseph Wolpe from 1940-1950. Three points of origin developed behavior therapy: South Africa (Wolpe's group), the United States (B.F. Skinner) and the United Kingdom (Rachman & Eysenck). The behavior problems were viewed distinctly by each approach. Skinner took the operant conditioning approach in 1937. When the rats learned through punishment and reinforcement, this ideology is known as Skinner’s box. Classical conditioning is related to Pavlov’s famous experiments with the dogs as most familiar.

Bandura is the founder of social cognitive theory and the theory of self-efficacy. Bandura is known for the “spillover” of behavior modification and the wide-range of behavioral effects to other areas of functioning. Bandura reports a life-changing model comes to fruition by incorporating a three-fold process: 1) Theoretical model 2) Creative implementation and a transformational model, which means putting the theoretical model into practice and 3) Diffusion model, which relates to how the models will be blended (Cherry, 2016). In general, Bandura expresses in his social learning theory that learning occurs through interactions and observations with others.

Bandura feels when others imitate what they have observed then you have actual knowledge through modeling (Bandura 2002). From this theory of applied behavioral analysis (ABA) therapy was developed. Applied Behavior Analysis (ABA) therapy is a scientifically proven behavioral treatment for ASD. One of the reasons why ABA is extremely helpful as an autism resource is because it breaks down complex social skill sets into manageable, teachable pieces, and then reinforces each one with consistent practice (Bandura, 2002).

After doing the research and witnessing testimonials from professionals, I have decided to make ABA therapy the theoretical rationale for this study. This therapy has a systematic process for ensuring the success of autistic students. Five comprehensive practices ensure this practice works. Practices include:

Practice #1: Teachers must receive education on the core principles of ABA.

If you want to help your students to succeed in their ABA therapy program, the first thing to do is ensure that you have a solid grasp on the subject yourself. To start, the core principle that guides ABA therapy is as follows: “Behavior is Lawful (guided by principles), Observable (we can see it), and Measurable (we can count it).”

All behavior happens for a reason, and appropriate behavioral analysis can influence and shape it. Changing what happens before or after a given action may alter the behavioral pattern. By shifting our behavior, we empower our students to make different choices. How does this translate into daily classroom procedures? We can record specific behaviors, as well as the events that preceded and followed those behaviors and use this information to figure out why that behavior occurs.

For example, one student may scream because he doesn't want to leave the park, and another child may cry because he or she is experiencing sensory overload. The screaming may sound the same, but the motivation behind the behavior is different. Behavior doesn't occur in a vacuum and a myriad of factors influence an individual's actions at any given moment. That's one reason why it's helpful to work with an ABA specialist: they are trained to see connections and deduce the functions of behaviors.

Practice #2: Take data consistently.

In partnership with your ASD student's ABA team of teachers and clinicians, decide which behaviors you will track daily. For example, perhaps your student has a problem behavior such as self-injuring by hitting himself or herself in the head with their fists. To find ways to decrease this self-harming behavior, you'll want to note each instance, as well as what was happening directly before the act and what happened immediately afterward. Note that this is a significant responsibility that you'll want to ask fellow team members for their participation and support in this area.

The ABA team clinician can provide you with ABC (antecedent, behavior, consequence) data sheets to track effectively. These data sheets will help you and your students support team to understand the motivations behind the behavior. Furthermore, the data will shape a Positive Behavior Support Plan (PBSP), which emphasizes prevention of problem behaviors such as selfinjury via antecedent management. Once you've discovered the function of the self-injury, the PBSP will help you to take steps to reinforce replacement behaviors (defined as socially appropriate behaviors that meet the same function as the problem behaviors).

Practice #3: Communicate with key support people, and be consistent.



When your ASD student begins working with an autism professional, he or she will learn new skills and practice modified behavior. As such, the time that your ASD student spends working with a clinician each week is valuable. However, your ASD student's time in ABA is outweighed by time at school or at home. That's why it's vital for the major players on your ASD student's support team to work together and send a consistent message regarding behavior.

It's up to you to communicate with your ASD student's ABA specialist and consistently implement your student's Positive Behavioral Support Plan at school. In turn, it's also important to ensure that your ASD student's team of teachers practice PBSP principles in school. This way, your ASD student will receive regular guidance and reinforcement, which helps tremendously in establishing new behavioral patterns.

**Practice #4:** Review PBSP data with your ASD student's support team on a regular basis.

If your ASD student is receiving ongoing behavioral support through ABA therapy and an inclass program, then professionals are keeping behavioral data. This data should regularly be reviewed to monitor progress. Examining the evidence allows you and your ASD student's ABA team to evaluate the effectiveness of the PBSP over time; it also helps point the way to possible modifications.

**Practice #5:** Be persistent and be patient.

ABA therapy is evidence-based and powerfully efficient, but even so, it may take time to discern a lasting change in your ASD student's behavior. In fact, it's common to see an "extinction burst" (a temporary increase in the targeted behavior) as a student tries harder to maintain their

existing behavioral patterns. It's difficult to see things get worse before they get better, especially if you've been dealing with your ASD student's problem behavior for an extended time before ABA therapy.

Adding practices of the ABA therapy model, in collaboration with videos can be added to an undergraduate special educators' course to enhance the preparation process of teaching students with ASD. The historical success achieved with the ABA therapy system can lead to an avenue that will cut costs for educating individuals with ASD. As this ASD population will lean self-efficacy and become contributing, productive members of society (First Path Autism, 2016).

Autism spectrum disorders (ASD) are a category of developmental disability that may cause substantial social, communication, and behavioral challenges. The CDC reports in the United States, 1 in 68 births record as autism spectrum disorder. In 2000, the identified prevalence was 1 in 150 for individuals having ASD (Science and Education Publishing, 2017). In just over a decade this number represents a 100% increase in children identified with ASD. Increases this significant have an overwhelming impact on our educational, social, and economic system.

The approximate cost to educate a student with ASD is \$18,000 per year, which is three times the amount to teach a student without a documented disability (National Transition Study, 2012). As the national data reflects rapid increases in the ASD population, data reveals a decrease in qualified and trained teachers available to instruct them. The urgency for employing qualified special educators creates an on-going challenge for school districts across the country. Forty-six percent of school districts were unable to locate qualified special educators to work with ASD students (McCulloch & Martin, 2011).

### **Limitations**

In this study years of college completion and experience in the field can influence memory and may impact the depth of the responses. As a researcher relying on the respondents, the answers they provide can offer limitations. Due to the shortage of the research, there may be gaps in the data about consistent years of investigation. Depending on the perspective of the respondents, one may provide an overly critical view of their college education preparation programs.

While experienced educators will have a wealth of knowledge of what experience they were lacking, novice teachers will not have had ample time providing instruction and may not be able to reconcile the gaps in their coursework with the practical implications in the field. Mainly, they will not know “what they do not know” or “should have known” and as a result will be limited in their responses. As the interviewer, I must remain objective and not entertain any biases I may have to interfere with the interviewing process. This factor may also provide a limitation to this data collection. Lastly, the amount of time and the sample size of 12 teachers also attributes to the constraints.

### **Delimitations**

The purpose of this study is to research levels of teacher preparation for special educators that educate students with ASD. Due to the overwhelming rise of students diagnosed with ASD over the last ten years, a closer look at the preparedness of special education teachers is a point of interest. The subject matter discussed will be special education teachers that have attended a four-year undergraduate program and completed this course of study by earning a Bachelor’s degree. As a current educator in a Southeastern public-school district, data is collected from this school district, the New Jersey State Department of Education. In addition to the colleges and

universities, the interviewees attended to matriculate their undergraduate degree. This study is projected to take approximately six months to conduct.

### **Methodology**

In this qualitative research, I will utilize semi-structured interviews, which are particularly useful for getting the history behind a participant's experiences (McNamara, 2014). These interviews described as attempts to understand the world from the subjects' point of view and to unfold the meaning of peoples' experiences that uncover their lived world before scientific explanations (Kvale, 2018). This research was conducted as a qualitative grounded study, using an interview approach.

The significance of the qualitative design in explaining a special educator's point of view is that the approach can elicit a deep understanding, through multiple sources identifying preparedness of teaching students with ASD. Qualitative research is descriptive in essence. Patterns not foreseen by the researcher can emerge during the study. The qualitative design allowed for inductive reasoning as patterns emerged and assisted in gaining insights into the participant's perspectives (Bogdan & Biklen, 2014). The design further allowed the researcher to gain insight into the nature of the participants (Creswell, 2014).

The study participants were 12 special education teachers. Six came from a school in the Upper Marlboro, Maryland district that provides instruction for ASD students only. The other six came from an inclusive regular education school where there are general education, inclusive education and self-contained education classrooms for students with disabilities including ASD in Upper Marlboro, Maryland. The interview questions provided the opportunity for the participants to share primary demographic data, answer questions about their perceptions of special educators' coursework provided in undergraduate school that prepared them to teach

students with ASD. Additionally, there were questions that allowed the special educators to share information about behaviors, skills, and strategies needed for teaching students with ASD. The special educators also elaborated on what strategic enhancements will better prepare new special educators to teach students with ASD.

These questions were asked to gain information valuable to university professors in developing relevant coursework that will adequately equip new special educators to instruct and train students with ASD effectively. Data were collected to observe patterns in the coursework provided and the type of instruction or training to students with ASD. Additionally, undergraduate preparation programs for special educators' found to be influential to the development of expertly prepared teachers were provided on a list that offer undergraduate degrees in special education for efficiently and successfully instructing individuals with ASD.

### **Definitions of Terms**

**Autism Spectrum Disorder (ASD)**- Is a serious neurodevelopmental disorder that impairs a child's ability to communicate and interact with others. (Mayo Clinic, 2002, p. 5).

**Behavior Intervention Plan (BIP)**-a plan that targets a student's undesirable behaviors and includes prevention strategies, which stop the behavior(s) before it begins (Special Education Guide, 2017, p. 4).

**Behavior Management**- Responding to, preventing and de-escalating disruptive behaviors (Special Education Guide, 2017, p. 4).

**Collaborative Teaching** A teaching strategy in which two or more teachers work together and share responsibilities to help all students succeed in the classroom (Special Education Guide 2017, p. 4).

**Individualized Education Programs (IEP)-** The document developed for each publicschool child who needs special education. The IEP is created through a team effort, reviewed periodically (Special Education Guide, 2017, p. 4).

**Least Restrictive Environment (LRE)-** The environment in which students with disabilities must be educated, as mandated by The Individuals with Disabilities Act (IDEA). Students with disabilities must be educated in a classroom setting that is as close to the general education setting as possible (Special Education Guide, 2017, p.4).

**Mentor-** Someone who teaches or gives help and advice to a less experienced and often younger person (Merriam-Webster, 2017).

**Modifications-** Curricular adaptations that compensate for learners' weaknesses by changing or lowering expectations or standards (Special Education Guide, 2017, p. 3).

**Teacher Competencies-** Includes knowledge skills, attitudes, and experiences, which has to be the target category of the profession of educator. Ability to perform or carry out defined tasks in a particular context, at a high level of excellence (Milan Slavik, Institute of Education and Communication, 2008, p. 52).

**Teacher Preparation Programs-** A state approved course of study, the completion of which signifies that an enrollee has met all the State's educational or training requirements for initial certification or licensure to teach in the State's elementary or secondary schools. A teacher preparation program may be a regular program or an alternative route to certification, as defined by the State (U.S. Legal.com 1997).

### **Overview of the Chapters**

I have organized this dissertation in five chapters. Chapter one provides an introduction to the topic. Chapter two provides the review of the literature and a theoretical framework

present in the review of literature on this subject. Chapter three provides the methodology used in this study. Chapter four gives an overview and analysis of the data collection process.

Chapter five provides a summary of the main findings and recommendations for future research.

## CHAPTER 2

## Review of the Literature

Over the past thirty-five years, there has been attention to the field of special education regarding hiring and preparing highly-skilled teachers. Researchers have studied the issues contributing to the deficit of special education teachers. A United States survey (Boe, Bobbitt, Cook & Weber, 1995) stated, “The need for special education teachers is caused by high turnover rates for special educators versus general educators.

A lack of highly-qualified special educators to fill vacant positions. Whereas many noncertified, provisional teachers are being hired, thus creating a continuous demand for highlyqualified educators. Special educators' responsibilities are ever growing when compared to general educators. Therefore, our country is on an accelerated rate of establishing inclusive classrooms to aid in the outcome of teacher preparedness.

**Historical Overview of Special Education**

In the 1950’s equal rights concerning all students became a factor in social awareness. Before this era, students with emotional, mental, physical, or social disabilities learned separately educated from the mainstream. The special education population was not included in the mainstream of education (Nitcavic & Aitken, 1988). Disabled students were not allowed to attend public schools and parents were left to find private institutions or even worse, the children were not allowed to attend school at all. The United States Supreme Court Ruling in *Brown vs. Board of Education in Topeka (1954)* was the legal litigation that set a precedent of educational equality for students with disabilities and all students, (Salend, 1988).



With the inception of this legislation, parents of disabled students had the right to request public schools to provide additional support for their children, through The National Association for Retarded Children (now called The National Association for Retarded Citizens, or NARC) created in 1950. In 1972, the Free and Appropriate Public Education (FAPE) act was enacted and required that public schools provide education for all students, including those with disabilities. When FAPE is violated, parents are entitled to a due process hearing; this case was named Pennsylvania Association for Retarded Citizens vs. Commonwealth of Pennsylvania. Another example is Mills vs. Board of Education (1972), where the ruling resulted in a right to education for students with disabilities and was the catalyst behind the landmark legislation focusing on the education of children with disabilities passed in the 1970's.

In 1975, P. L. 94-142, the Education for All Handicapped Children Act, was passed by Congress (Anderson, 1998; Blenk & Fine, 1995; Parks, 1981; Silva, 1998). This act established clear guidelines and criteria set by the government for educating students with disabilities. Also, students identified as special needs would receive an Individualized Education Programmé (IEP) as outlined in FAPE. Students are placed in programs through non-discriminatory evaluations, and Least Restrictive Environments (LRE) would be the setting of the services received. Lastly, parents would have input and participation in decisions regarding the educational placement for their children. The premise by educators and lawmakers was the acceptance of this law would provide for all educational programs for all exceptional children.

Despite these laws and federal mandates, very little inclusion occurred (Wright, 1981). Another educational system became apparent which was an unforeseen phenomenon (Wang, Reynolds, & Walberg, 1988), special education services became more exclusive than inclusive.

Administrators designed separate budgets, dual educational systems, and different educational programs. A system for special education students and a program for general education students became the norm (Stainback & Stainback, 1984; Will 1986). There were distinct services that continued to keep special education students separate from their non-disabled peers, despite the federal mechanisms devised as laws (Shanker, 1994).

### **Teacher Shortage and Its Impact on Teacher Preparation**

The United States feared an impending teacher shortage in the mid-1980's (Grossman & Loeb, 2008). While teacher shortages differ between states, special education has consistently been an area where a nationwide shortage of certified teachers persists. In the Teacher Quality, Annual Report (2010), 3.75% of the countries' 406,848 special educators (i.e., 15,267 teachers) were hired on a provisional certificate a decade ago. Individuals with limited or no education coursework were employed to fill vacant teaching positions in special education was the practice of many school districts as a response to the deficit (Cook & Boe, 2007).

Across the United States, there is a severe shortage of special education teachers (Billingsley, 2004; Billingsley, Carlson, & Klein, 2004; Billingsley & Cross, 1992; Boe, Bobbit, Cook, Whitener, & Weber, 1997; McClesky, Tyler, & Saunders Flippin, 2004). The causes for the special education teacher shortage is complex and multifaceted (Billingsley, 2004; McClesky et al., 2004; Thorton, Peltier, & Medina, 2007). Research suggests a lack of administrative support, employment conditions, heavy caseloads, and a plethora of paperwork are common reasons special educators leave the field (Billingsley, 2004; Gehrke & McCoy, 2007). In the first five years in the profession, new teachers are vulnerable to attrition (Brownell, Hirsch, & Seo, 2004).

Special Education is not the only field that has a shortage of qualified teachers. Math and science in the secondary schools throughout the nation are also operating at a deficit. A national teaching epidemic exists with particular subject areas labeled as “hard to fill” positions and the impact is having a ripple effect in public school districts (Gimbert, Bol, & Wallace, 2007; Rosenberg, Boyer, Sindelar, & Mirsa, 2007; Rosenberg & Sindelar, 2001; Thornton, Peltier, & Medina, 2007). The lack of certified math and science teachers is partly related to the decrease in academic performance levels of the mathematics and science content areas (Rosenberg and Sindelar, 2001).

The certified teacher deficit has the potential to limit the ability of students to access the content to enter post-secondary education in the field of math and sciences (Gimbert et al., 2007). There is pressure to streamline and decrease the preparation time in employing qualified teachers to the classroom and expedite the process for teacher preparation programs due to the critical need for certified teachers. Large numbers of committed special education candidates are being prepared to complete teacher preparation programs to meet the demands for certified teachers in local schools.

This process is directly related to the critical and ongoing special education teacher shortage. All teacher preparation programs should ensure that candidates pursuing careers in education acquire the skills needed to overcome the challenges of novice teachers and demonstrate a sense of confidence and commitment to instruct students with disabilities.

### **Alternative Teacher Licensure Programs and Special Education**

Alternative Teacher Licensure (ATL) programs for special educators is of interest because of the critical shortage of certified teachers. There is a good reason for concern for

special education professionals. Per the Individuals with Disabilities Education Act (IDEA), students with disabilities taught by untrained personnel receive inadequate educational opportunities (Billingsley, 2004; Dai, Sindelar, Denslow, Dewey, & Rosenberg, 2007). The interest of the special education community is high for “fast-tracking” the certification process to ensure the adherence to mandates and laws.

### **Special Education Teachers of Autism Licensure Programs**

The Council for Exceptional Children (CEC) did not have a set of standards for training teachers for the category of autism until 2009. As recent as 2009, CEC convention in Seattle, decided that the CEC-DDD changed its name to the Division on Autism and Developmental Disabilities (CEC-DADD). Some believed that content knowledge was all that was necessary for teaching in the 1930s. Many teachers could be described as attending alternative licensure programs based on their prior preparation (Ziechner, 1993). However, very little is known about teacher preparation for autism even though lack of qualified personnel to serve students with autism has been successfully litigated under IDEA (Yell et al., 2003).

Over the last twenty-five years, ATLs have become more prevalent as a response to the shortage of “highly-qualified” teachers (Blanton, Sindelar, & Correa, 2006; Foster, Bishop, & Hernandez, 2008; Harvey & Gimbert, 2007). Teacher efficacy debate is the point of discussion about contemporary teacher education of different teacher licensure routes, in producing good teachers. A report entitled, "Meeting the Highly Qualified Teacher Challenge," by the U. S. Department of Education Office of Postsecondary Education, highlighted this decades-long debate when it was re-energized in 2002.

At that time, Secretary Rod Paige, U.S. Department of Education, stated, “Solid verbal ability and content knowledge are what matters most” (p. 9). This quote references thoughts of traditional teacher education programs were equally successful as ATL programs in producing effective teachers (Paige 2002). Paige further argued a more efficient way of filling the nation's classroom with highly qualified teachers is to provide an alternative and streamlined traditional teaching certification program.

For college-educated graduates without a teaching background, modern incarnations of ATL programs were developed to allow entrance to the field of teaching without having to enroll into a university degree program (Walsh & Jacobs, 2007). The goal of the ATL is to expedite the teaching certification process to allow teachers to enter the field quickly (Boe, Shin, & Cook, 2007; Walsh & Jacobs, 2007). Educational philosophy, focus on pedagogy and practice teaching are either abbreviated or eliminated by ATL programs (Boe, Shin, & Cook, 2007; Walsh & Jacobs, 2007).

Through an ATL program, an engineer that desired to teach mathematics at the secondary level can be “fast-tracked” to earn a teaching certificate in place of completing a university degree teaching program. Commonly, teachers can receive a provisional teaching certificate and receive “on the job training” (OJT) to fulfill the requirements of student teaching. This jobembedded training is completed within classrooms. Before ending their teacher preparation programs, many ATL candidates take fulltime teaching positions (Turley & Nakai, 2000). Institutions of higher education (IHEs), local education agencies, non-profit agencies (i.e., Teach for America), and for-profit companies, are the general operators of ATL programs.

A university degree is not obtained when completing ATL programs. ATL programs allow for a diverse group of teacher candidates (Brownell, Hirsh, & Seo, 2004; Rosenberg, Boyer, Sindelar, & Mirsa, 2007; Tyler, Yzquierdo, Lopez-Reyna, & Flippin, 2004). ATL programs generally attract higher numbers of the following groups: (a) persons from multicultural backgrounds; (b) individuals who have had business, industry, or military experience; (c) males; (d) persons over 25; and (e) math, science, and foreign language majors, per the research (Mikulecky, Shkordriani, & Wilner, 2004).

### **Autistic Students Returning to Districts**

The cost is steep for educating the growing number of children identified as autistic, which is creating an explosion in public school programs (Carroll, 2006). As statistics on autism rapidly increase, the impact on public schools rises. The concern is that proper teacher training is absent from this growing influx of students (Dybvik, 2004).

The increase in autism diagnosis since the year 2000 has come with an exorbitant cost that is primarily burdened by the public-school system, according to researchers at the Harvard School of Public Health (2015). The cost to educate a student with autism is \$17,000 a year until age 17, with medical expenses composing almost 20%. The most significant portion of the tab, approximately \$8,600, is paid for by public school systems (Journal Pediatrics, 2014).

In Northern New Jersey, every school district includes an autistic student. In seven Northern New Jersey school districts, there are dozens of students with autism (Carroll, 2006). In New Jersey four organizations, The Arc of New Jersey, the Statewide Parent Advocacy Network, the Education Law Center and the Disability Rights New Jersey, teamed-up and brought litigation against New Jersey that focused on returning individuals with disabilities to

their home districts. A settlement was obtained with the State Department of Education resulting in special needs individuals educated in the "least restrictive environments" (Oglesby, 2015).

### **Undergraduate Preparation for Teachers of Autistic Students**

To date, most undergraduate colleges provide teacher preparation programs offer training as a generalist special education teacher. Few programs specialize in either high incidence or low incidence preparation. According to Barnhill, Polloway, and Sumutka (2011), teacher preparation practices from 87 colleges and universities were surveyed.

The survey results showed that 41% of reporting institutions offered no ASD-specific coursework within the special education degree and 77% reported their ASD coursework was in place for only one to seven years. 50% of the institutions indicated their states had not developed autism competencies for educators. Another 30% confirmed that their state had autism competencies and 14% did not know whether their state had competencies for autism (Barnhill, Polloway, Sumutka, 2011).

Only one college or university included coursework offered by a communication sciences and disorders program in the Autism degree. It was also the only institution of higher learning offering a course for augmentative and alternative communication within the Autism, degree major. While this study was conducted in a large western state, it is plausible that programs in other states are equally varied (Baker, 2009). Currently, there appears to be very little standardization for autism programs, and there seem to be even fewer accountability measures in place for teacher preparation in the field of autism (Boyd & Shaw, 2010).

### **Training Inadequacies are Yielding Ill-Prepared Teachers**

Without training, special education teachers are left to resort to restraint and seclusion, which are techniques that carry significant risks (Adams and Osborne, 2015). “The use of restraint and seclusion can have very serious consequences, including, most tragically, death,” U.S. Secretary of Education Arne Duncan said in 2012. Students who are restrained or secluded fall into two general categories: nonverbal children with autism or intellectual disabilities, and students diagnosed with an emotional disturbance, whose definition includes an inability to get along with peers and “a pervasive mood of unhappiness” (Adams and Osborne, 2015).

However, finding experienced special education teachers and aides who are well trained in behavioral management can be difficult. The country is facing an acute shortage of special education teachers for decades, according to the U.S. Department of Education (2015). Also, special education teachers leave the profession at nearly twice the rate of general education teachers, according to the National Coalition on Personnel Shortages in Special Education and Related Services (2016).

Also, professional development budgets are often limited, and public-school districts limit how much they can allocate to hire substitutes while teachers train. Some state offices of education, including states on the west coast, offer training in crisis intervention and prevention at no cost to district staff members. Some outside agencies will charge public school districts \$60 to \$1,000 per day per person or more for training sessions, causing cost to become a factor (Burness 2013).



### **Applied Behavioral Analysis Framework for Autism**

The Douglas Developmental Disabilities Center established in 1972 is a school on the campus of Rutgers University. This school serves students with Autism Spectrum Disorder (ASD). The framework practiced at this center is Applied Behavioral Analysis. The delivery model of this incorporates a variety of services, which include:

- Data-based decision making
- Well-trained staff, many whom are Board Certified Behavior Analyst
- Use of empirically supported strategies
- Interventions that span school, home, and community
- High intensity and continuous provision of learning opportunities
- Systemic assessment of the environment
- Competency-based staff training
- Parent training and support to promote collaboration and advocacy

(Rutgers, the State University of New Jersey, 2013. p. 7

The Douglass Developmental Disabilities Center also utilizes tailor-made strategies that are learner specific. This list is not conclusive, but may include:

- Antecedent interventions

- Augmentative communication
  
- Community Programming
- Discrete trial instruction
  
- Functional Assessment
  
- Functional communication training
  
- Incidental teaching
  
- Interventions using the language classification system of verbal behavior
  
- Natural environment training
  
- Precision Teaching and Rate Building Procedures
  
- Positive behavioral supports
  
- Strategic and contingent reinforcement
  
- Task analysis

(Rutgers, the State University of New Jersey, 2013).

### **Criticisms of ATL Programs**

ATL programs often fall short of their goals of preparing qualified teachers and shortchange students, according to the critics (Darling-Hammond, 2010; Laczko-Kerr & Berliner, 2002). Some program coursework resembling traditional teacher preparation programs

while other ATL programs barely offer enough coursework to meet emergency credential certification requirements and ATL inconsistencies are problematic. Nearly everyone who applies to an ATL program is accepted which maintains high acceptance rates. Some programs are more concerned about earning profits than producing effective teachers, whereas many ATL programs cost between \$5,000 and \$30,000, allege the critics (Walsh & Jacobs, 2007).

### **What We Know About Traditional Student Teaching**

Historically, acceptable teacher preparation programs provided training for general education and special education teachers. The typical undergraduate teacher preparation program is two years in length beginning in a student's junior year. Some universities also offer five-year standards that include a disciplinary major. Masters and doctoral level instructors teach child development, teaching pedagogy, educational philosophy, behavior management, and other related coursework in traditional teacher preparation programs. Intensive fieldwork is also required in conventional teaching programs.

In conjunction with a knowledgeable classroom instructor in a professional development school or local education, agency includes an intensive (unpaid) student teaching practicum (Darling-Hammond, 2000). When coursework is completed, traditional program candidates enter full-time (paid) teaching positions. Receiving a bachelors or master's degree in education with a teaching certificate is awarded when completing a conventional program.

Candidates benefit from traditional student teaching experiences, according to researchers. The belief is that having the chance to apply the pedagogy they studied in the coursework to the students within actual classrooms makes the student teaching experience important (Bain, Lancaster, Zundans, & Parkes, 2009). Expanded time in student teaching and

other complex field experiences is where teacher candidates learn *how* to teach (DarlingHammond, 2006). Grossman (1989) found relying on personal experiences to guide instructional methods, proved difficult when reflecting on their practices and lacked pedagogical expertise when structured field experiences were absent (Darling-Hammond, 2000).

Critical to the development of successful teachers is the amount of time candidates spend student teaching in structured field experiences. There is a higher likelihood that candidates would remain in the field when the special education candidates spent more time student teaching (Connelly & Graham 2009). Special educators stayed in teaching positions after one year when a reported 80% of in-service teachers had 10 or more weeks of student teaching experience.

In summation, teacher candidates who (a) spent more exclusive time invested in their own training; (b) completed a rigorous teacher preparation program and (c) spent more time in student teaching activities aimed to remain in their special education programs one year post graduation. The Public School Teacher Questionnaire examined a national sample of teacher self-reports and found teachers with 10 or more weeks of student teaching with feedback, educational psychology, extensive coursework in instructional methods, and opportunities for observations in various classroom settings, were significantly more confident in their ability to teach. These teachers are more likely to instruct in their certificated area as compared to teachers with little, some, or no preparation (Boe, Shin, and Cook, 2007).

Support and guidance from mentors and others appeared to play a role in the development of teaching skills in addition to length of time spent in student teaching activities. Cooperating teachers, regarding their first semester of field experience, examined the

perspectives of teacher candidates (O'Brian, Stoner, Appel, & House, 2007). The cooperating and the teacher candidate relationship is crucial in cultivating knowledge and foundational development. While teacher candidates found the experience complex and overwhelming, it was critical to the development of the teacher candidates, per the author.

Students in charge of the teacher candidates also benefit from the filtering down of the traditional student teaching model in addition to the student teacher, per the research. The notion that traditional programs better prepare teacher candidates more successfully than ATL programs span from thirty years of research. There is a curvilinear relationship to student outcomes as it relates to subject matter knowledge alone (Darling-Hammond, 2000).

### **Traditional Program Criticism**

Traditional teacher preparation programs receive criticism as well. Failure to attract and prepare good teachers is why traditional programs receive criticism. Making it difficult for teacher candidates to begin and end programs due to length is the assertion that traditional programs are too rigid. The need to forego employment and complete student teaching coupled with the cost-prohibitive tuition nature and related expenses take the traditional program out of the scope of many perspective teachers are negative factors attributed to traditional programs (Rosenberg & Sindelar, 2005). It is noted, cooperating teachers' top priority is to meet the needs of the children in their charge, the consistency of needs of the teacher candidates to receive the full teaching experience is denied, due to the first obligation (Grossman 1989). According to graduates, the majority felt ill-prepared by the traditional program for the challenges and the rigors presented by the classroom (Paige, 2002).

### **Alternative Versus Traditional Program Comparison Studies**

ATL research literature from 1987-2005 by Rosenberg and Sindelar (2005) was a completed critical review. A review of six program evaluation studies and four comparative studies occurred. Additional research is required to determine the effectiveness of ATL programs, given the ten studies, ATL programs suggest quality teachers are produced under certain circumstances, (i.e., institutes of higher education, adequate support from mentors, and programs developed by local education agencies). The long-term effects of these programs provide little research. Focus on teacher performance and longitudinal studies that look at attrition rates and teacher retention.

### **The Role of the Educators**

Principals must establish and positive and accept learning environment to assist teachers in demonstrating success in the classroom (National Joint Committee on Learning Disabilities, 1993). Characteristics that afford success are what inclusive schools have in common. Involving the entire staff of the school in planning and strategies that make the school successful is a crucial role of the principal. Principals should provide opportunities where teachers collaborate and change roles to offer an array of services to all students, create a sense of community where every student fully participates in school life, develop partnerships with parents, create learning strategies in continual, research-based staff development, and ensure high expectations for all students.

To make inclusion a successful reality, administrators must provide the vision, agenda, structure, organization, training, and allocation of resources (University of Northern Iowa, 1996). To convey the vision of the school to all members of the school, the principal needs to know how

the school will look if it educates all students in the regular class. For more than a quarter of a century the instructional paradigm of segregating special needs students is now being changed by inclusion. The school climate must be considered to affect change in the classroom. To integrate students with disabilities into the classroom, principals must create a positive school climate.

Through the promotion of full involvement, the students should not merely be present in the classroom but become integrated as a full member of the class (Hauptman, 1983). For teachers to recognize their strengths and weaknesses and use both to their best potential in educating all students, it is essential for educators to look carefully at themselves when working with disabled students. Time, resources to plan, implementation, and evaluation are what schools need to change. Regular education teachers do not feel equipped to accept the responsibilities of a special needs child, which is one of the main reasons for the separation between special education and regular education teachers.

The general education teacher is successful when multiple approaches to create a classroom environment where the learning-disabled student is integrated into the mainstream class occurs (Hauptman, 1983). The general education teacher needs to provide a place where a range of student abilities is supported and accepted for inclusion to happen successfully (Moore, Gilbreath & Maiuri, 1998). Celebrating the experiences and differences that each child brings in addition to producing kindness, consideration, empathy, concern, and care for others is the type of classroom teachers need to create (Staub, 1999).

### Perceptions of Teachers

Differences and similarities in opinions of both groups did exist concerning inclusion when both regular education and special education elementary teachers were surveyed (Riden 1998). Concerns in training, collaboration time, and support personnel are the areas that differences in perceptions existed most between regular education teachers and special education teachers. Regular educators desired practice concerning inclusion and special education teachers wanted more time to collaborate with the regular educators. Both general and special education teachers agreed that integration was beneficial for the majority of all students.

The attitudes of students and their teachers toward integration were examined (Weiner & Manual, 1994). Results revealed that when students with disabilities were placed in their classrooms, general education teachers were eager to learn more teaching skills (Shin, Baker, Habedank, and Good, 1993). A teacher was significantly more willing to accept the students with special needs, if they found that students could read with a proficiency level greater than or equal to at least one other student in the classroom. When there was a belief of the teacher that students with disabilities should receive their instruction in the regular classroom settings, students preferred to receive their instruction in that setting. There was a direct relationship between teacher attitude and student's placement choice does exist was the finding.

Teachers perceptions examined nine comparative studies, five studies reviewed teacher perceptions (Duncan & Ricketts, 2008; Foster et al., 2008; Issacs, M.L., Elliot, E. M., McConney, A. Wachholz, P., Greene, M. (2007); Suell & Piotrowski, 2006; & Zientek, 2007). Through an evaluation of teacher performance and pedagogical knowledge, one study examined efficacy (Harvey & Gimbert, 2007). Through student outcomes, three studies measured teacher



effectiveness (Gimbert, Bol, & Wallace, 2007; Gimbert, Cristol, & Sene, 2007; Nunnery et al., 2009).

### **Special Education Attrition of Special Educators**

The special education teacher shortage required researchers to seek solutions, Boe and colleagues (1995) consulted data from the Schools and Staffing Survey (1991), and a similar experience resulted from the Teacher Follow-up Survey (1992) from the National Center for Educational Statistics (NCES). The attrition of special education teachers compared to regular education teachers through the discovery of specific components of retention and transfer were examined. From one year to the next, 89% of special educators stayed. Eleven percent (11%) resigned their positions. Six percent (6%) left the profession (i.e., attrition) and 5% transferred to general education. Meanwhile, 5% versus 6% left the general education profession and only 4% transferred from general education to special education.

The difference is a much higher rate of transfers between the two teaching fields occurs in special education. According to National Teacher Survey (1992), 15,000 special educators transferred to general education. However, only nine thousand 9,000 general education teachers transferred to special education. The results are a loss of six thousand 6, 000 special education teachers for the upcoming school year. This data informs us that 8% of vacancies each year are attributed to general education transfers whereas, 40% of special education vacancies each year come from transfers and attrition, while 8% of vacancies in general educators transfer to special education. This transfer imbalance lends itself to additional data being needed for related studies.

To examine special education attrition even closer, a study in Memphis, San Diego, San Jose, and other California urban school districts compared the attrition of special education teacher by two categories. A *voluntary leaver*, those who did not leave as a result of death, retirement, or reduction in force (RIF) and a *leaver*, a part-time or full-time special education teacher who left their position in the targeted year and did not start work in the following school year (Pyecha and Levine 1995). The exit rate for voluntary leavers ranged from 5.6% to 8.3% percent, while the exit rate for leavers ranged from 7.4% to 10.3%.

From the six urban areas, the average attrition was 9.1% as compared to the 24.4% rate for urban areas as determined by the California Department of Education. There are two categories that appear in the literature: a) transfer of special education teachers and b) special education teacher attrition versus general education teacher attrition. Attrition rates may differ among researchers due to the different definitions used to calculate and report findings.

Compared to general educators, attrition rates are much higher for special education teachers (Billingsley, 1993). Creating 18,000 open teaching positions, approximately 6.5% of special education teachers did not return to their jobs. Simultaneously, 14,500 transfers of special educators into general education, offset the transfers by 9,500 of general education teachers that transferred into special education (Boe et al., 1995).

Attrition of special education teachers has alerted national attention (US Department of Education, 1998) due to shortage of special education teachers. This increasing need for special education stems from a) the problems experienced by beginning teachers, b) a growing special education population and c) the reduction in the number of graduates that are special education

teachers. K-12 enrollment has increased more gradually. Unfortunately, special education enrollment has increased 3% per year (US Department of Education, 1996).

In the past ten years, the disability codes have changed, and the numbers of special education students have changed dramatically (US Department of Education 1998). Approximately, 50% of the special education population has specific learning disability as the primary disability code. Due to current medical, social, and economic trends, the special education population has increased (National Association of State Directors of Special Education, 1991). These increases attribute to a) children being born to drug-dependent mothers, b) babies with HIV or AIDS, c) children with severe disorders, saved by medical advances, d) children born to teenage mothers e) diverse ethnic backgrounds f) poverty and g) abuse and neglect.

The number of special education teachers is decreasing, while the number of special education students is increasing. The number of special education teacher graduates from teacher preparation programs has been documented as a decade of decline (The National Clearinghouse for Professionals in Special Education, 1992). There was a 37% decline in special education teacher graduates (The National Association of State Directors of Special Education, 1991). Due to the lack of certified special educators, large proportions of untrained replacements were hired. Until interventions become more efficient, the shortage is expected to continue into the future (Boe et al., 1995).

### **Conditions of Work and Rewards of Work**

Challenging work conditions is one of the problems that new special education teachers face. Continuing in teaching has a direct relationship to how well the individual copes with the

difficult transition (Gallagher, 1993; Westling & Whitten, 1996). There is little research in this area; however, the reports show previous experiences and work in non-educational settings, or as a paraprofessional in education can influence the coping skills and the career decisions of the special educator (Billingsley 1993). When the harsh reality of classroom life deflates their thoughts developed during teacher training, most teachers do experience a "reality shock" (Veenman 1984).

Novice teachers find the additional responsibilities of disciplining students, serving as parent-substitutes, and completing administrative paperwork are some of the non-academic duties that teaching includes (Gordon 1991). Teachers are expected to go beyond the curriculum to develop life-long learners. Focused on deeper student learning, administrators are expected to transform themselves and their staff into teams that are driven by the mission (DarlingHammond, 1996). Teachers' rewards, commitment, and retention have the most significant influence on their district, school, and work conditions (Billingsley et al., 1995). Working in an unsupported environment may lead to burnout and attrition among special educators (Lauritzen 1986).

### **School and District Environment**

Special education teacher attrition is influenced by many factors within the school environment (Brownell & Smith, 1992). Work load, environmental conditions such as administrative support, levels of collegial and parent support, and decision-making power, have been examined by researchers as common attrition factors. A teacher's decision to leave the field can be explained separately; however, it's key to remember that these factors often interact.

### Summary

A teachers' perception is associated with many variables that affect their preparation to teach special needs students. The resurgence of the ATL programs was birthed from the growing need for flexible teacher certification programs. A special educators' preparedness and traditional field-based experiences influence their likelihood to remain in the field.

Instinctively, under the tutelage of an experienced teacher, they will be better prepared to manage the demands of the classroom, a method closely aligned to how traditional candidates learn about the profession (Darling-Hammond, 2000, Darling-Hammond, 2006). Novice teacher candidates are sometimes left feeling ill-prepared for the demands of teaching special education, coupled with all the responsibilities of a full-time classroom teacher, thereby causing them to leave the profession. On the other hand, it may also be possible that the "on-the-job training" approach during pre-service, develops a realistic perspective of understanding and an accelerated comprehension of all the demands of teaching special education, maybe even more so than their traditional counterparts.

Based on the dearth of research in this area, a study of in-place and traditional special education teacher candidates seems warranted for a study that carefully examines the experiences. The purpose of this qualitative grounded study is to explore the levels of preparedness for new and seasoned special educators and their perspective on teacher preparation to teach students with autism.

## CHAPTER 3

### Research Methodology

#### **Purpose of the Study**

Autism Spectrum Disorder (ASD) is growing at a 100% rate in a decade. Therefore, it is crucial to provide some in-depth research on the preparation of special education teachers in public school settings. This ASD population is educated in out-of-state facilities. Due to the exorbitant costs that were no longer an option.

The influx of students returning to public school districts placed a burden on the special education teachers as it related to teaching responsibilities and levels of preparation to educate them. College and universities could not keep up with the rapid growth. Due to this crisis, coursework has not adequately prepared special education teachers to instruct students with ASD. Therefore, the certified special education teachers are graduating ill-prepared, and the ASD population are placing more substantial financial burdens on the operating budgets of public school education.

The goals of this research are to (1) determine how do novice, and veteran special education teachers feel about their abilities to teach students with autism spectrum disorders (ASD)? (2) What are the differences between teaching students with ASD and students with disabilities in general? (3) What are the skills required to teach students with ASD, which are needed by the teacher to be successful? (4) What skills are ASD skills developed in teacher preparation programs?

I used qualitative phenomenological research methodology to analyze and generate theory based on my interviews with novice and veteran teachers employed in Upper Marlboro,

Maryland. Qualitative data taken from individual discussions held with novice and veteran special educator candidates will provide in-depth descriptions of the preparation levels they described to teach students with ASD. Also, these interviews highlighted the recommended coursework that would benefit the preparation levels of special educators teaching ASD students.

### **Organization of the Chapter**

In the following chapter, I provide the rationale for the type of research used and my research approach, sources of data, and data collection. I will also provide information on the findings of the study, reliability, validity, confidentiality, and the ethical procedures.

### **Qualitative Research**

Dealing with phenomena that are difficult or impossible to quantify mathematically, such as beliefs, meanings, attributes, and symbols, that may involve content analysis, is the definition of qualitative research (Segen's Medical Dictionary, 2012). In general, there are four distinct characteristics of qualitative research: 1) based on rich and thick descriptions. 2) The researcher is the primary instrument for data collection and analysis. 3) The process is inductive whereby the researchers gather information to build theory. 4) The focus is on how people interpret and makes sense of their experiences (Merriam, 2009). Qualitative analysis is used to explore the preparation programs of the special educators that teach students with ASD.

### **Phenomenological Research**

In sociology, research focuses on understanding the point of view of the subjects (Bogdan, Biklen, 2007). Phenomenology is a broad discipline and inquiry method in philosophy, developed mostly by Husserl and Heidegger (2008), German philosophers. They based this ideology on reality consisting of objects and events ("phenomena") through the perception and

understanding of human consciousness, and nothing independent of human knowledge (Mastin, 2008).

There are three types of Phenomenology: realist, transcendental, and existential. The realist goal is to analyze the intentional structures of mental acts as they directed both ideal and real objects. The transcendental goal examines the intuitive experience as the starting point and attempts to extract the essential features in general, coupling the experiences and essence of those experiences without related questions to the natural world. The Existential goal incorporates a combination of real-world view and the observer's view. The observer cannot separate himself from the worldview, and therefore the required detached viewpoint is not obtained (Davidsen, 2013).

Theorists are associated with each type of phenomenology. Johanes Daubert led the realist from 1877-1970, Alexander Pfander from 1871-1941, and Nicoali Hartmann from 1882-1950. The transcendental theory is spearheaded by, Oskar Becker (1889-1964), Aron Gurwitsch (1901-1973), and Alfred Schutz (1899-1959). The existential theory is rooted in Hannah Arendt (1906-1975), Gabriel Marcel (1889-1973), and Maurice Merleau-Ponty (1908-1961) (2008 Mastin).

I used the phenomenological research approach to understand the special educator's ideas about preparation levels of teaching ASD student because this approach is the most appropriate for the research questions of this study. As the researcher, I wanted to know the details about their coursework programs and the levels of preparation they obtained from these undergraduate programs. I also wanted to know if these feelings were consistent among novice and veteran



special educators. Given the dearth of research in this area, the phenomenological research methodology approach was the best match for my research questions.

### **Sampling Procedures**

My sample for this study was purposeful and non-random. I intentionally targeted 20132017 hired special educators of a district in Upper Marlboro, Maryland. These educators were teaching in self-contained and inclusion classrooms at the elementary and middle school levels. They were also teaching in special and regular education schools. For consideration in this study, candidates must have effective evaluations and good employment status. Candidates identified in the novice category had four or less year of experience. A participant classified a veteran special educator had ten or more years of experience in this study. Special Educators having five to nine years of experience were excluded from this study to maintain defined lines between novice and veteran special educators.

### **Participants**

The study participants were 24 special education teachers. Twelve came from a school in the Upper Marlboro, Maryland district that provides instruction for ASD students only. The other twelve derived from an inclusive regular education school where there are general education, inclusive education, and self-contained education classrooms for students with disabilities including ASD in Upper Marlboro, Maryland. Out of the 24 teachers emailed, Principal recommendations were the determining factors for final participants selections.

### **Primary Research Questions and Related Interview Questions**

1. How do veteran special education teachers perceive their abilities to teach students with autism spectrum disorder?
  - a) What strengths do you possess as a special educator in the classroom?

- b) How have these strengths allowed you to teach students with ASD effectively?
2. How have special education teachers perceived their training to navigate these differences?
    - a) What undergraduate coursework been provided to prepare you to teach students with ASD?
    - b) How have these courses directly prepared you for teaching this population?
  3. What differences are perceived between teaching students with ASD and students with disabilities in general?
    - a) What are the educational needs of the students of ASD?
    - b) What are the educational needs of students without ASD and have a documented disability?
  4. What are the perceived skills/behaviors/strategies that can be developed in teacher preparation programs to prepare new special education teachers to meet the demands of serving students with ASD?
    - a) List one skill, behavior, and strategy needed for teaching students with ASD.
    - b) List additional skills, behaviors, and strategies that will better prepare special educators in

## **Procedures**

### **Qualitative Research**

Qualitative analysis is a process of examining and interpreting data to elicit meaning, gain understanding, and develop empirical knowledge (Corbin and Strauss 2008). Qualitative research has four distinct characteristics: (a) qualitative study is based on rich and thick descriptions; (b) the individual doing the research is the primary instrument for the collection of the data; (c) the focus is on how people interpret and make sense of the data; and (d) the process is inductive; researchers build a theory from the information gathered (Merriam 2009). Due to

my purpose, to explore the levels of preparedness for new and seasoned special educators and their perspective on teacher preparation to teach students with autism, I used a qualitative grounded study.

### **Initial contact**

I sent email messages to a total of 24 special educators who meet the study criteria. My email message described this study and included the interview questions and consent forms as attachments. I asked the email recipients to contact me if they were interested in participating.

### **Interviews**

I conducted semi-structured in-depth phone and in-person individual interviews with all 12 participants. Convenient locations were identified to facilitate the in-person interviews (i.e., local coffee shops, schools, libraries, or public parks) and on the phone. Meetings were held during and after school hours (i.e., planning periods, late afternoons, early evenings, weekends and school holidays). I will audio-record and transcribed the interviews. The interviews were semi-structured with four questions and eight sub-questions.

The questions intended to guide the participants' memory of their coursework and how that coursework provided specific preparation for teaching ASD students focused the discussion. Participants received advanced notification that they had the right to skip questions, temporarily stop the interview, or completely withdraw from the interview and this research study, if they decided.

### **Jury of Experts**

To ensure the interview questions thoroughly answers the research questions, I employed a panel of experts. These two individuals are certified special educators that between the two have over seventy years of experience in the field. These special educators received an overview

of the study and the theoretical rationale. They were then given a copy of the research questions and were asked to develop two interview questions for each of the four questions independently. Once completed we discussed the questions. Next, we compromised to ensure their input was reflected and collaboratively developed the eight interview questions asked of the participants for this study. The conversation was robust, and a meeting of the minds ensued.

### **Reliability and Validity**

In the following sections, I will describe how I confronted reliability and validity. I will discuss the process and procedures used to ensure reliability and validity of the study.

#### **Reliability**

Reliability is consistency between the data you collect and report and the empirical world you are studying. Reliability refers more to the accuracy of the researcher's description of the research site and subjects than with his/her interpretation of what the findings mean or how they relate to other research and theory (Bogdan & Biklen, 2007). The participants completed demographic questionnaires that asked the same questions for each, which provided consistency and reliability. Samples questions would include the number of years in the education profession as a special educator, and what undergraduate school did they attend? The location of the interviews was accurately documented and noted for each participant.

#### **Validity**

Maxwell (2005) states, "validity depends on the relationships of your conclusions to reality." (p.105). I used strategies to assist in the area of validity. One strategy includes addressing my own bias as a researcher and using phenomenological research methods. Qualitative research focuses on the ideology that "researchers bring their worldview, paradigms, or set of beliefs to the research project" (Creswell, 2007, p.15). Separating your research from

other components of your life cuts you from a significant source of hypotheses, insights and validity checks, (Maxwell, 2005).

Therefore, my role as a special education teacher for 13 years affected my research. My role as a special educator as well as a graduate student matriculating in a special education course of study provided me with insight as a researcher. These experiences shaped my questions and my follow-up questions. Also, my experiences allowed me to quickly comprehend the jargon used and what the participants conveyed as they communicated their experiences.

My bias also came from my experiences and insights. Bias by definition is "subjectivity of the researcher" (Maxwell, 2005 p. 105). The voice of the researcher is essential for the topic, in qualitative research (Bogdan & Biklen, 2007). Even though the researcher's voice is essential, researchers can guard against their own biases by recording detailed field notes that include reflections on their subjectivity (Bogdan & Biklen, 2007). I ensured my interview notes are valid as the interviews were audio-recorded and transcribed.

### **Confidentiality and Ethics**

In this study, I treated all participants by the ethical guidelines of the Seton Hall University's Institutional Review Board (IRB). Participation in this study was entirely voluntary. Participants reviewed the minimal risks in this study, including coworker and employer discovery participation. Pseudonyms were used for participants and employer to minimize risks in the interview and transcription process. Therefore, all parties involved in this study remain anonymous.

### **Role of the Researcher**

I was the data collector, and I was solely responsible for contacting and identifying the participants, completing the interviews, analyzing and disaggregating the data and composing the

analysis. Therefore, it is critical to understand my point of view and experiences in this area of the research because the perspective and experiences were analyzed and interpreted. Teaching special education is a second career for me. My first career was in human services.

I possess an undergraduate degree in Psychology and a Masters of Education in Special Education degree. My emphasis of this study was in undergraduate school; I did my internship at the Douglass Developmental Disabilities Center, a school for individuals with ASD. Teaching a student there left a profound impact on me. My consciousness raised, and my interest peaked of this population of individuals with disabilities.

With the current statistics of individuals with ASD numbers reaching 1 in 68 among school-age children, there is a need for research. While I enjoyed the Human Services field, education has always been my first love. I found education to be a direct roadmap for helping students with a documented disability. My emphasis in graduate school was in the variety of disabilities and particular strategies that were instrumental in assisting each type of disability and what strategies worked best.

I have also served as a school administrator in the roles of assistant principal, principal intern, director, and principal. When I reflect on the twenty-two-year span of my educational career, I enjoy the administrator's role more. As the administrator, I can assist a higher number of children and families with and without disabilities. Having been an educator in the Northern, Southeastern and the Southern areas of the country, I have decided that I enjoy the North and the Southeastern regions more.

In these regions, the ideas are more progressive, and students with disabilities are placed in a better position to have their educational needs met in the Southeastern and Northern areas of the country. I have experience providing the tools to promote the least likely individual to make

achievements and accomplishments at all levels. This occurs when the appropriate strategies are consistently provided, and the preparation has occurred.

## CHAPTER 4

## Findings

This chapter presents the findings and analysis of the research topic. The chapter also introduces the results obtained from the interviews conducted to investigate the coursework provided in undergraduate programs that prepared special education teachers to teach students with Autism Spectrum Disorders (ASD), in a Medium Southeastern Maryland School District. The following responses offered by the twelve respondents to these research questions are in this chapter.

Over the past thirty-five years, there has been attention to the field of special education regarding hiring and preparing highly-skilled teachers. A United States survey reveals special educators have more work to do than general educators. This factor causes high turn-over rates which yields a need for highly qualified special educators, an area that currently has a shortage (Boe, Bobbit, Cook and Weber, 1995).

The methodology used is a multi-step process. Initially, I sent an email to the two identified schools soliciting their participation. The emails stated in detail the eligibility criteria for participation. Purposeful sampling assumes the researcher understands gains, discovers insights and therefore, either has or will select a sample from which the most information can be learned (Merriam, 1986).

Upon securing the commitment of volunteers to participate, the researcher sent out a thank you letter to each participant that met the sample criteria. Once the consent was signed and returned, a follow-up email was sent requesting a meeting place, date and time. The researcher ensured the environment was conducive to the desires of the participant. Research questions



were developed based on the effectiveness of special education teacher preparation programs established for teaching students with Autism Spectrum Disorders (ASD). Once the researcher prepared the questions, they were reviewed, edited and approved by a jury of experts. The panel of experts included educators currently working in inclusive public education K-12 schools as special educators. Adjustments to the interview questions were made based on recommendations from the experts, and final approval given for the instruments used to collect quantitative and qualitative data.

Interviews were designed to help gather data on the beliefs, opinions, and perceptions of the Special Educator's undergraduate school preparation process. Locations were assigned to the 12 participants. An elementary school with a comprehensive special education program and a middle school that housed a city-wide ASD program were the educational settings chosen. Interviews were digitally recorded, and the researcher also wrote field notes. The data obtained from the interviews were analyzed by the demographic information connected with the respondent's interviews.

The researcher utilized semi-structured interview questions. This methodology aided the researcher in a better understanding of the participant's experiences at the undergraduate school where they majored in Special Education. This method helped the researcher develop a clear voice and an authentic view of the participant's experiences. The twelve special educators have varying degrees of experience and certifications.

Ten out of twelve responders had a graduate degree. All the responders taught special education students with different codes. This sample was unusual in that the majority completed their coursework for special education while in graduate school. The sample of special educators

interviewed became special educators through various routes. Some transitioned to special education after teaching general education classes and obtaining the endorsement for special education on their teaching certificate.

Others were in the Alternate Teacher's Licensure program. Some of these respondents came from different careers and were changing their profession to teaching. Still, others returned to school to obtain a special education Master's degree and were teaching special education while matriculating through these programs. As noted earlier, individuals with limited or no education coursework were hired to fill vacant teaching positions in special education, a practice of many school districts as a response to the teacher deficit (Cook & Boe, 2007).

### Demographic Data of Respondents

Table 1

#### *Demographic Data of Respondents*

| Code #            | 1  | 2  | 3  | 4  | 5 | 6 | 7 | 8 | 9  | 10 | 11 | 12 |
|-------------------|----|----|----|----|---|---|---|---|----|----|----|----|
| Years of Teaching | 14 | 10 | 48 | 14 | 2 | 3 | 3 | 1 | 12 | 4  | 12 | 20 |
| Years as SPED     | 12 | 8  | 48 | 14 | 2 | 3 | 3 | 1 | 12 | 4  | 12 | 20 |

The responses to the research questions varied in length from one sentence to two paragraphs and the average time of the interviews were fifteen to twenty minutes. During the planning periods of the interviewees, the researcher completed the sessions in the teacher's lounge.

□ RQ1: How do veteran special education teachers perceive their ability to teach students with Autism Spectrum Disorder (ASD)?

These responses varied in the degree of abilities to teach this ASD population. #1 stated that you must understand the academic and social challenges. Respondent #2 said that you must have a great deal of confidence to teach this population. Respondent #3 stated that they were fearful of teaching this population and did not feel equipped to do so. Respondent #4 said that you must be consistent with your practices and you must stay current on the research in the field.

Respondent #5 noted that patience is required to be equipped to teach this ASD population. Respondent #6 stated that you must utilize accommodations and differentiation to be effective with this ASD population. Respondent #7 said that you could be effective with this population when you use association and effective communication skills.

Respondent #8 stated that you must stay current on best practices and implement what works. Respondent #9 said that you must receive effective strategies from the coursework preparation.

Respondent #10 stated that you become effective in your abilities to teach this population from on-the-job training and experience in the field. Respondent #11 said that you must incorporate visual cues and practice consistent eye contact. Respondent #12 stated that experience with this population would make you effective.

Out of twelve respondents, three shared you must have experience with increased levels of effectiveness with the ASD population. The remaining nine responders had different opinions for how they perceived effectiveness for teaching this ASD population. All of the respondents are ATLS, a cadre of educators that are, by design, having less formalized training experiences.

Due to the varying degrees of characteristics represented by students with ASD, the teachers communicated what works with some students on the spectrum, may or may not work with other students on the spectrum. Even the veteran special education teachers, became concerned about their skills set when they experienced the recent influx in numbers of students presenting with an ASD diagnosis. I agree the strategies may differ depending on the location continuum of the spectrum when the ABA system is incorporated you have a roadmap for developing a well-educated and well-prepared ASD individual. As noted the teacher shortage increases the number of teachers that are ill-

□ RQ 2: What perceptions do special educators have about the differences between teaching students with ASD and students with disabilities in general?

Respondent #1 stated that when you teach ASD students, the focus is understanding their academic abilities while being sensitive to their socialization issues, whereas other disabilities can be addressed with appropriate differentiation and modification skills. Respondent #2 stated that you must have the proper amount of structure for ASD students and other disabilities, SLD specifically, requires more processing time. Respondent #3 said that you must be able to see the disability to address it, if the disability is invisible then you cannot adequately address the concerns.

Respondent #4 stated that you must promote cooperative groups, volunteering, and social interactions with other students, these are the most critical factors for autistic students. While on the other hand, you can use less involved interventions for other special education disabilities, like extended time. Respondent #5 stated that it's difficult to determine what the autistic student

needs due to being on a spectrum and including a wealth of characteristics. Students with other disabilities present with a clear outline of what they require to meet success.

Respondent #6 stated that the way an autistic student responds to assignments could be very different from other disabilities. Therefore, you must think outside the box to best assist this student. They may require physical therapy to meet with success in some instances.

Respondent #7 stated that patience is the primary factor for all disabilities regardless of the code. If you are patient with the student, you can make a breakthrough. Respondent #8 stated that there were no differences in the disability codes of the students.

You must meet the students where they are, and you can be successful. Respondent # 9 stated that it all depends on what's visible. Once again if it's not seen, then it will not be addressed. Respondent #10 indicated that it's difficult to recognize the differences at times. ASD requires you to use a consistent amount of accommodations and modifications. Respondent #11 said that one of the varying degrees of special education is what makes it a challenge. When providing instruction for ASD students, you must provide a host of accommodations and modifications, moreover with this population than other disabilities. It's important to understand each student's style of learning. Respondent #12 was unable to share, as this person has never taught autistic students.

The responses to these questions exhibited a clear divided answer, depending on the years of experience. More experienced special educators shared more concrete responses, whereas the less experienced special educators, provided more unconventional responses. Findings of question two were a matter of fact. The responders described these differences as none at all or, an extension of the interventions strategies they use with the non-ASD disabled students.

One factor discussed frequently was the aspect of socialization. This area is a problematic characteristic of the ASD disability to understand. The teachers are aware of the importance of the socialization skills. Both new and veteran special educators noted that teaching the ASD student social skills and the generalization of socialization skills is their biggest challenge.

I was somewhat surprised that none of the responders mentioned building the parental relationships as it relates to the progress of the ASD student. The parents rely heavily on the input of the school and their interventions and strategies. Again this speaks to a lack of formalized training and a diminished interest in pursuing a special education career. Simultaneously, the special educators can learn a great deal from the parents when they decide to incorporate their insights on a regular, consistent basis.

□ RQ 3: How have special education teachers perceived their training to navigate these differences?

Respondent #1 stated that they received more training from the non-public school they worked in before coming to this current district. This respondent also noted that the public schools do not offer enough training. Respondent #2 stated that the training provided a variety of everything as a result of the graduate program attended. Respondent #3 shared that the training provided by employer and coursework were inadequate.

Respondent #4 stated that training offered when they attended college was general and did not focus on a particular disability. Today, the ability to focus on a specific disability in a major or certification is an option. Respondent #5 stated that training is different in college due to receiving training for teaching a special needs population. Special education training includes the opportunity to study human behavior and personalities.

Respondent #6 stated that the navigation process is aided through differentiation training and implementation. Respondent #7 noted that training must be ongoing and continuous to navigate differences as this population continues to evolve. Respondent #8 stated that the practice is challenging because their undergraduate experience did not offer any coursework to navigate differences found in autistic students. Therefore, this respondent had to rely on trial and error at the unfortunate expense of the students.

Respondent #9 stated that visible disabilities receive more compassion and consideration than a student that has autism. On average the autistic student doesn't present with any physical limitations, which may place them in a position of being left out of receiving appropriate instruction. Respondent #10 stated that training offered by the district is not beneficial to teaching autistic students. There was no training provided in a college or university to address this population as well.

Respondent #11 stated that they had not received any training for autistic students in college or the district. Respondent #12 said that there is a current course offered in their graduate program that is effectively preparing them to teach students with ASD and considering all the varying degrees of the spectrum. Look at their learning styles and allow creativity and innovation to lead your instruction. Of the twelve respondents, there was one that received concrete coursework preparation in a graduate program for ASD. The other eleven spoke of receiving training provided by their employer and not provided at their colleges or universities.

According to this sample, the answers to this question made it evident that the training provided for ASD, of new and veteran special educators, is sub-standard. The undergraduate schools are not offering many disability specific courses. School districts are offering some

classes; however, the special educators are learning by trial and error. They can obtain disability specific training and exposure at the graduate school level.

A drawback of this practice is the undergraduate student completes their programs illequipped. The veteran special educators are relying on their school districts to keep them abreast of changes and best practices for this increasing ASD population. The cost factor is steep to incorporate this professional development. This sample offers dismal improvements for the future of students with ASD. If autistic children aren't taught early and effectively the skills that could eventually allow them to live on their own, they'll cost taxpayers about \$3.2 million each year (Autism Society, 2012). The most significant challenge of the autistic field is finding prepared, qualified special educators (Simpson, 2003). Currently, the level of confidence for this teaching population is dismal.

School districts are picking up the tab on professional development for special educators of ASD students. This group consists of teachers that did not major in special education in undergraduate school. These educators were provided minimal formalized training experiences and began special education teaching under a provisional certificate. They did not have any training for ASD students, and when offered, the public-school districts carried the bulk of the responsibility of preparation. The confidence level is low because this group does not hold any ASD specific certifications, yet they are challenged with preparing this population for independent, productive citizenship.

□ RQ 4: What are the perceived skills/behaviors/strategies that can be developed in teacher preparation programs to prepare new special education teachers better to meet the demands of serving students with ASD?



Respondent #1 stated that there is a severe need for more training. The training should consist of case studies, class trips to visit classroom and facilities that focus on ASD. Also, there should be guest speakers that are veterans in the field and whom may have also completed research projects on this topic. This respondent also stated articulation across the grade levels should occur when students transition from elementary to middle and from middle to high schools. Respondent #2 also stated class trips should happen for undergraduate students to visit classrooms and observe the different behaviors, skills, and strategies.

Respondent #3 stated that more information should be taught to the students about the particulars of varying degrees of ASD. Respondent #4 stated that the current offerings of disability-specific certifications and degree programs are a move in the right direction. This respondent noted the graduate programs offered are specific enough to address increased demands of ASD students. Respondent #5 stated that it's important for the person to genuinely like children and has the right amount of care, concern, and compassion to teach this ASD population.

Respondent #6 stated that real life experiences are needed, such as taking field trips and visiting places that work extensively with this population of ASD students. Respondent #7 indicated that it is required to provide hands-on opportunities that are offered through internships and student teaching courses that offer matriculation opportunities. Respondent #8 stated that they need to observe this population ensure they have the necessary skills that are necessary to teach the ASD population effectively.

Respondent #9 noted that the student needs to be introduced to the characteristics of the ASD population and exposed through an internship or student teaching opportunity. Respondent #10 stated that hands-on training through internships and student teaching experiences should be

offered in the undergraduate programs. This respondent also stated that new teachers should be paired with veteran teachers that can provide assistance and guidance for teaching this population, such as a mentoring program.

Respondent #11 stated that additional coursework is needed to provide new teachers with the necessary pedagogy and understanding required to effectively prepare this population for a global society effectively. Respondent #12 stated that new special education teachers should have training in behavior management planning and implementation. This respondent also noted that the new teachers need to learn strategies for gaining eye contact, effectively communicating directions and increasing the "wait time" for this ASD population. The types of additional training offered by the respondents varied; however, all respondents agreed that additional training is needed for new special education teachers that is not currently offered.

### **Summary**

In this chapter, the responses from the interviews were reported to answer the overarching research question, "Are undergraduate colleges and universities preparing special educators to teach students with Autism Spectrum Disorder (ASD)? The findings of the interviews, conducted with 12 special education teachers, were presented as applicable to the four research questions. The personal accounts of the special education teachers and their detailed answers provided a great deal of opportunity for the discussion of the findings. In Chapter V, a summary of the conclusions of the research questions is offered, also the recommendations for policy, practice and future research.

## CHAPTER 5

## Summary, Conclusions, and Recommendations

This chapter begins by restating the purpose of the study and the research questions that guided the study. The next section will connect the research findings to the literature base. Finally, this chapter will connect research findings the literature base with implications and recommendations for practice, policy, and future research. The purpose of this qualitative study was to explore the levels of preparedness for new and seasoned special educators and their perspective on teacher preparation to teach students with Autism Spectrum Disorders.

Throughout the responses, the themes of accommodations, confidence, modifications, and patience stood out. Providing coursework and training as stated by the interviewees, are critical ingredients for teaching students with ASD. The special education respondents repeatedly noted that the undergraduate programs did not provide coursework that prepared them to teach students with ASD.

The findings were substantiated by the base of this research. The majority of this sample did not major in special education in undergrad. Only one of the twelve interviewees majored in special education in college. This sample size was all, except one, Alternate Teacher Licensure candidates.

The sample must meet the criteria to measure the level of preparedness. This sample size did not. While ten of the twelve interviewees are current special educators, one received training in undergraduate school. The remaining interviewees attended special education certification programs and graduate programs. Further substantiating the base of undergraduate schools illequipping special educators to teach students with ASD,

As a result, the teachers are receiving their training as employees of the Southeastern Maryland School District. This factor highlights chapter two where the costs the school districts are incurring are magnanimous. The responses to question four were varied. The respondents stated that internships that focus on ASD populations, hands-on experiences, creativity, exploring case studies, and comparison studies that focus on ASD and a different disability needed as behaviors/skills and strategies for teaching effectiveness.

Students with autism require eye contact before engaging in conversation, immediate positive reinforcements, and step by step detailed instructions to complete class assignments. Whereas, students with SLD required additional time to complete the assigned tasks this will enable them to follow the instructions whether given verbally or in writing. Still, emotionally disturbed students do not require any modifications to the instructions but will need additional supports to remain calm and focused on class work.

This myriad of suggestions points to the fact that the professionals in the field have concerns and recommendations for additional behaviors, skills, and strategies needed. These preparation tools will enhance the skills set required for special educators to instruct this rapidly growing ASD population effectively. Very little is known about teacher preparation for autism even though a lack of qualified personnel to serve students with autism has been successfully litigated under IDEA (Yell et al., 2003).

This research question exposes that the teachers "don't know what they don't know." There were many recommendations for behaviors/skills/strategies that may or may not prepare ASD individuals to live independently on their own. The ABA model is research-based and proven, however not one of the interviewees mentioned it. The teacher shortage, ATL

candidates, limited ASD licensure programs and the rapid influx of ASD students puts this realm of education in a crisis that we must address.

The research questions were:

- 1) How does veteran special education perceive their abilities to teach students with autism spectrum disorders (ASD)?
  - 2) What perceptions do special educators have about differences between teaching students with ASD and students with disabilities in general?
  - 3) How have special education teachers perceived their training to navigate these differences?
  - 4) What skills/behaviors/strategies can be developed in teacher preparation programs to prepare new special education teachers better to meet the demands of serving students with ASD?
- These questions were answered from the interviews and collaborated by themes. These themes were used to provide a lens from a more direct perspective. The themes aligned with the most prevalent responses from the interviewees compared with the research topics from Chapter II.

The four themes are categorized in the following manner:

1. Accommodations and teacher shortage impact on teacher preparation.
2. Modifications and Alternative Teacher Licensure for special education
3. Confidence and special education teachers of autism licensure programs.
4. Patience and autistic students returning to districts.

The theme of accommodations and teacher shortage impacts teacher preparation along with modifications, and ATL programs of special education were highlighted throughout this research question. Some teachers called it differentiation and others called it intervention strategies. As

the special educators give viable reasons and ideas of distinguishing the differences between ASD and other disabled students; the alarming teacher shortage numbers, along with provisional certifications continues to provide evidence of ill-equipped teachers.

Accommodations and how teacher shortages impact teacher preparation are significant. Many accommodations are made to aid in the teacher shortage process. The research reports that teacher shortages differ from state to state. Special education has consistently been an area where a nationwide shortage of certified teachers persists (Annual Report, 2010).

3.7% percent of the countries' 406,848 special educators, (i.e., 15,267 teachers) with limited or no education coursework was hired to fill vacant teaching positions in special education; this has been the practice of many school districts as a response to the deficit (Cook & Boe, 2017). This factor was represented in the findings of this research study as well. The teachers interviewed were not education majors in undergraduate school. Teachers were not trained to teach special needs students of any code and were definitely not prepared to teach students with ASD.

The causes for special education teacher shortage is complex and multifaceted (Billingsley et al., 2004). In addition to professional responsibilities, minimal administrative support, and heavy caseloads, many special educators leave the field (Gehrke & McCoy, 2007). All teacher preparation programs should ensure their students pursuing careers in education acquire the skills needed to overcome the challenges of novice teachers. Also, they must demonstrate a sense of confidence and commitment to instruct students with disabilities, especially students with ASD.

Modifications and the Alternative Teacher Licensure (ATL) programs for special education expand on the idea of teacher preparation programs for ASD students. The special educators in

this study were not certified to teach special needs students when they began teaching this population. ATL programs for special educators are of interest because of the critical shortage of certified teachers.

Also, the Individuals with Disabilities Education Act (IDEA), students with disabilities taught by untrained personnel receive educational opportunities that are inadequate and may even be inappropriate in relation, according to the mandates of the Act (Dai et al., 2007). The special educators in this study consistently reported an overwhelming perception of being illprepared to teach the ASD population. Many stated that “trial and error,” has been the method they have found most successful as a teaching practice. Modifications are made to the curriculum to implement this strategy.

Confidence and special education teachers of autism licensure programs presents another challenge in this study. There was not one teacher interviewed in this study that held a teaching certification for students with ASD. The Council for Exceptional Children (CEC) did not develop a set of standards for training teachers for the category of autism until 2009.

Some believed that content knowledge was all that was necessary for teaching in the 1930s. Many teachers could be described as attending alternative licensure programs by the way they were prepared in the past (Ziechner, 1993). Very little is known about teacher preparation for autism even though lack of qualified personnel to serve students with autism has been successfully litigated under IDEA (Yell et al., 2003).

College-educated graduates without a teaching background and modern incarnations of ATL programs were developed to allow entrance to the field of teaching without having to enroll into

a college or university degree program (Walsh & Jacobs, 2007). Quick entry into the teaching field and expediting the teaching certification process is the goal of the ATLs (Boe et al., 2007). Unfortunately, ATLs incorporate practices whereby, educational philosophy, pedagogical focus, and student teaching are shortened or eliminated (Boe et al., 2007). Before completing their teacher preparation programs, many ATL researchers take fulltime teaching positions without a teaching certificate (Turley & Nakai, 2000). The interviewees in this research study did not have special education or ASD teaching certification when embarking upon the position. The endorsements were obtained after they received on-the-job training (OJT), operating under a provisional license.

Patience and autistic students returning to districts conclude the themes. The nature of this combination speaks to waiting and not having the luxury to wait. The rapid influx of ASD students and the minimal levels of teaching preparation highlights the cost factors at a glaring rate. Cost is steep for educating some children identified as autistic, which is creating an explosion in public school programs (Carroll, 2006).

An increase in autism diagnosis since the year 2000 has come with an exorbitant cost that is primarily burdened by the public-school system (Harvard School of Public Health, 2015). The cost to educate a student with autism is approximated at \$17,000 a year until age 17 with medical expenses composing 20%. The largest portion of the bill, almost \$9,000 is paid for by public school systems (Journal Pediatrics, 2014).

Autism diagnoses are determined at a higher rate than ten years ago. There is a greater degree of awareness and better and broader diagnosis which yields early detection and offers a direct opportunity for early intervention (Goldstein, 2012). This study has significance for



school administrators, special educators, professors and undergraduate students in determining appropriate curriculum that will benefit the preparation process of teaching students with autism spectrum disorders.

While advocates and experts support keeping children in their local districts, they contend that many schools are still not equipped to offer specialized programs autistic children need to learn and interact with others (D'Amico, 2011). Having autistic students in regular programs is a positive move, only if they will benefit from the inclusion. The annual cost for an out-of-district placement can reach \$100,000 per student, including transportation, tuition, and personal classroom aides if needed (D'Amico, 2011).

Bedminster's Somerset Hills Learning Institute for Autistic children currently costs more than \$116,000 per student, up from \$46,000 when the facility opened in 2000 (New Jersey Department of Education, 2013). The disability category associated with the highest per student total expenditure is autism, at \$32, 336 per student (NJ SEEP 2001). The shortage of trained special educators who are capable of teaching autistic students is at epidemic levels.

The most significant challenge of the autistic field is finding prepared, qualified special educators (Simpson 2003). Given the variety of services needed to teach students with ASD, the increase in teacher preparation programs may not possibly cover the vast curriculum required (Daily, 2005). Returning and integrating autistic students into the regular public-school setting has educators expressing concerns in a variety of ways. Special educators have maintained a level of success when they incorporate positive attitudes. This success has resulted in spite of undergraduate schools ill-equipping these educators to teach autistic students (Rodriquez et al., 2012).

Teacher shortage has imprinted a substantial impact on teacher preparation. This shortage has caused districts to have a lack of teachers in general and special educators in particular. ASD students will become successful with independent living when prepared by well-trained special educators. If we continue to take shortcuts, the ASD population will suffer. The public schools budget will continue to skyrocket, and the ASD students will suffer.

ATLs have been established for decades, and they have significantly reduced the teacher shortage. The drawback is this special education population is not sure of what they know and what they need to know. Once again, you have a cadre of special educators that are not effectively equipping this ASD population. An apprenticeship being added to this category of teacher preparation process will help stabilize this group and better aid them in teaching this ASD population.

Special education teachers certified through autism licensure programs must first present a knowledge base. Once this opportunity is offered, then they can be hired as consultants and trainers. Thus, providing skilled individuals that will aid in effectively educating the ASD population in a shorter period. New special education teachers can matriculate in these specified programs, while veteran teachers can receive this expert training that will effectively prepare the ASD student in the process.

Autistic students returning to the district is here to stay. The cost of educating ASD students out of state is obsolete. To sufficiently prepare for this transition we must gather the data, develop strategies and consistently implement a plan. We must regularly review the plan and make determinations that are in the best interest of the student.

### Summary of Findings

How do veteran special education teachers perceive their abilities to teach students with autism spectrum disorders (ASD)? The responses to this question informed the interviewer of many factors. Initially, the teachers represented little confidence in educating ASD students and the success they had achieved with this population. This finding substantiated the base that these teachers feel ill-equipped to teach this population. The veterans are under the impression that the novice teachers are being provided more undergraduate skills to teach students with ASD than they received in undergraduate school.

Simultaneously, the novice teachers believe the experienced veteran teacher is, better equipped than they are to educate each the ASD population. Teachers trained as special educators often consider themselves ill-equipped to deal with autistic students more than any other impairment (Rodriquez et al., 2013). A reason for these inadequate feelings could be, the teachers are not provided formalized training when they are ATL researchers. Another reason could be that teacher shortage has expedited the process of offering provisional licenses that makes OJT the first and most significant avenue for preparation.

What perceptions do special educators have about the differences between teaching students with ASD and students with disabilities in general? The responses to the questions provided the following findings. While the majority of the sample interviewed believed there are no significant differences when educating the two groups, this question also substantiates the base.

The concern here is if the special educators are not certain of their knowledge levels, how are they particular about effectively providing for the differences of ASD and other disabled students? Across the United States, teacher shortages have high numbers in some states and

lower numbers in others. As for special education, the nationwide shortage is consistent (Cook & Boe, 2007). This evidence substantiates the base at a deeper level. Special educators are not aware of precisely what they need to teach students with ASD effectively. Therefore, not having a firm grasp on what is required to teach autistic students effectively makes it difficult at best, to understand the differences between educating an autistic student and a student with a different type of disability.

How have special education teachers perceived their training to navigate these differences? This finding again provides evidence that the special educators are not receiving the proper training. The training that allows special educators to exhibit confidence in teaching ASD children when they don't understand how this student thinks. This yields to the ASD students being unable to take care of themselves or being self-sufficient. In turn, the school districts are paying additional funds to effectively prepare this population for self-sufficiency by offering professional development training to the teachers. Some outside agencies will charge public school districts \$60 to \$1,000 per day per person or more for training sessions, causing the cost to become a factor (Burness, 2013).

What skills/behaviors/strategies can be developed in teacher preparation programs to prepare new special education teachers better to meet the demands of serving students with ASD? The list of behaviors/skills/strategies is detailed and specific. The sub-content areas of teacher shortage impact, ATL programs, ASD special education licenses and returning ASD students to districts weigh heavily in contribution to this base. There are not enough special educators to know the behaviors/skills/strategies.

The ATLs are partially preparing the special educators. A concise list of behaviors/skills/strategies for licensing ASD teachers appears to be incomplete, and students are

returning to districts is as prevalent as the internet. In education, we have come to a crossroads with the ASD population. It's a ground-breaking time to explore our options and develop a plan that we will all be satisfied with, and which the ASD population will benefit. Across the United States, the concern is critical for the field of special education and the severe shortage of teachers (Billingsley et al., 2004).

### **Recommendations for Policy**

For the current special educator to receive additional support for teaching the ASD population, it will require districts to establish a system whereby a standard operating procedures manual is incorporated. This manual is created to provide a researched and proven list of accommodations that yield productivity for the ever-transforming ASD student. Congress can provide more grants to private colleges and universities to assist in meeting the needs of our ASD population. Federal and state education agencies will then have policies established, research-based and proven to empower the teacher of ASD students.

This is an expensive program that will be cost effective over a period when students with ASD are better able to take care of themselves as adults sufficiently. Another potential policy recommendation could be to aid colleges and universities that educate ASD students to develop a timeline program that requires so many hours of training. In this training program, there will be some hours completed before obtaining full-certification of teaching the ASD population. Completion of this certification offers an additional financial incentive to increase motivation for securing.

### **Recommendations for Practice**

Teachers earning undergraduate degrees in special education must have a modified coursework matriculation process. The typical student teaching process lasts for one year.

Teachers in degree bearing special education programs will require another six months of student teaching, whereby the location is a facility or school where special education students, preferably autistic students are taught. Providing an experienced mentor, special education teacher to the new educator of our ASD population will help with orientation. This position must be federally funded and consistently monitored. This supports the minimally trained, provisionally licensed special educator an opportunity to gain valuable experience.

### **Recommendations for Future Research**

A future study can compare the results of a secondary school ASD program that incorporates Bandura's (2000) ABA theory to a similar ASD program that does not use this theory and determine how well each group transitions into adulthood. The study would require a two-year tracking timetable and a list of criteria each group would be expected to achieve. The schedule would include the senior year in high school and one-year post-high school.

### **Summary**

ASD has proliferated in the past ten years. Ten years ago the prevalence was 1 in 166. Today's it's 1 in 68, an increase of more than 100% in one decade (Bashe, 2016). The cost for educating this population has been astronomical. ASD students have been returned to their local school districts because the out of districts placements was depleting district budgets. Effectively preparing special education teachers for this influx of ASD students have proven inadequate.

For this society to gain a firm handle on this epidemic of ASD students returning to districts that are unprepared, we must make a shift. This shift will consist of significant overhauls in the areas of colleges/universities, professors, administrators and special education teachers. Colleges and universities must change the process used to educate special educators at the undergraduate level. Professors must make the classroom come to life by providing concrete

learning experiences that will better equip the undergraduate special education degree seeking individuals.

Administrators must increase their knowledge of special education and provide adequate support, resources, and professional development to the special educators teaching ASD students. Special educators are required to accept the challenge of effectively educating this population and prepare them to be productive citizens in society. As educational leaders, we have a responsibility to ensure the level of education provided to and for the ASD student will yield self-sufficiency and the ability to live on their own in this global society.

### **Conclusions**

The initial design of this study was to determine if undergraduate colleges and universities are efficiently preparing special education teachers to teach students with ASD through the coursework provided in these programs. The sample of the twelve respondents interviewed, unanimously stated that additional coursework in a variety of methods is needed to instruct this ASD population. The rising costs of educating this population and assisting them to become independent and productive citizens in this global society is earth-shattering. Therefore, as the leaders in the field of education, we must take a just stand to uphold a definite position that will afford a rescue of the ASD population.

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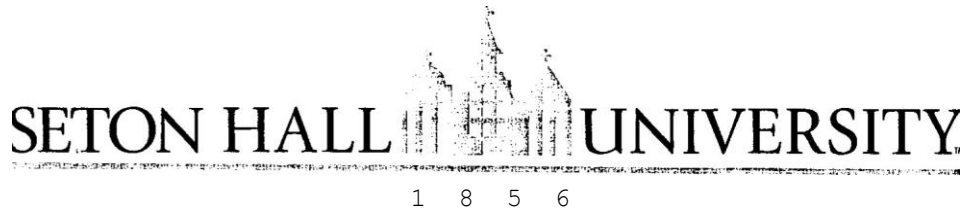
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December 12, 2017

Dear Ms. Johnson,

The Seton Hall University Institutional Review Board has reviewed the information you have submitted addressing the concerns for your proposal entitled "Effectiveness of Special Education Teacher Preparation Programs to Teach Students with Autism Spectrum Disorders (ASI) in a Medium Southeastern Maryland School District". Your research protocol is hereby approved as revised through expedited review. The IRB reserves the right to recall the proposal at any time for full review. Enclosed for your records are the signed Request for Approval form and the stamped original Consent Form. Make copies only of this stamped form.

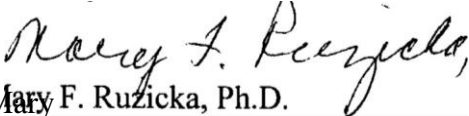
The Institutional Review Board approval of your research is valid for a one-year period from the date of this letter. During this time, any changes to the research protocol must be reviewed and approved by the IRB prior to their implementation.

According to federal regulations, continuing review of already approved research is mandated to take place at least 12 months after this initial approval. You will receive communication from the IRB Office for this several months before the anniversary date of your initial approval.

Thank you for your cooperation.

*In harmony with federal regulations, none of the investigators or research staff involved in the study took part in the final decision.*

Sincerely,

  
 Mary F. Ruzicka, Ph.D.

Professor  
 Director, Institutional Review Board

cc: Dr. Anthony Colella

Office of Institutional Review Board Presidents Hall • 400 South Orange Avenue • South Orange, NJ 07079 • Tel:  
973.313.6314 • Fax: 97.3.275.2.361 ' [www.shu.eill](http://www.shu.eill)