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Teachers and Their Perceptions Ab	bout Adaptive Skill	Training Within an	Early Childhood
Comprehensive Development (Classroom for Stude	nts with Intellectua	ıl Disabilities

A dissertation

presented to

the faculty of the Department of Early Childhood Education

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Philosophy in Early Childhood Education

by

Jennifer Lynberg

May 2018

Dr. Carol Trivette, Chair

Dr. Pamela Evanshen

Dr. Tina Hudson

Keywords: Adaptive Skills, Early Childhood, Special Education, Teachers

ABSTRACT

Teachers and Their Perceptions About Adaptive Skill Training Within an Early Childhood

Comprehensive Development Classroom for Students with Intellectual Disabilities

by

Jennifer Lynberg

This dissertation investigated teacher perceptions about adaptive skill training within an early childhood comprehensive development classroom for students with intellectual disabilities. The purpose of this study was to gain a better understanding about adaptive skills from a teacher's perspective. The aims of the study were to help educators understand the role of comfort level, importance of adaptive skills, planning for adaptive skills, and connecting adaptive skills to an academic outcome. A quantitative, cross-sectional design was used, and an online survey was completed by 254 special education teachers. The participants that completed the survey were 93% female and on average had 14 years of teaching experience. The survey gathered teachers' opinions about adaptive skills. It was reported that teachers felt adaptive skills were important to teach in the classroom environment. The teachers also reported that toileting was the most important adaptive skill. The survey also found that teachers explicitly teach adaptive skills on a daily basis. The survey also revealed that instruction might improve if access to a structured curriculum was more readily available and age appropriate. It was reported that there were very limited opportunities for educators to attend professional development about adaptive skills. These findings communicated that adaptive skills seem to be important to educators, and the lack of availability for structured curriculums should be addressed to further meet the needs of students with intellectual disabilities.

DEDICATION

This study is dedicated to my parents, Dr. Bill Gillenwater, Stephen Johnson, and Martha Gillenwater, who have always been so supportive throughout this process and given words of encouragement when they were needed. I would not have made it through this process without your love and support. I am the luckiest of all people to have the three of you in our lives.

This study is also dedicated in loving memory to the most vivacious, beautiful, wonderful grandmother I have ever known. May her legacy live on through all the children and grandchildren that loved her so very much. She will be missed always. Stella Olivette Kelly Gillenwater, may the red bird always take roost in your garden. Rest in peace; we will always love you.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

In a special education classroom, adaptive skills such as toileting, washing, dressing, and feeding oneself without the assistance of others are major components of everyday learning. Teaching adaptive skills in addition to academic skills to students with intellectual disabilities has been identified as a need from parents, administrators, and teachers (Alwell & Cobb, 2009; Bennett & Dukes, 2013; Hong, Ganz, Ninci, Neely, Gilliland, & Boles, 2015; Kauffman & Landrum, 2009; Reichow & Volkmar, 2009). The ability to access adaptive skills independently is a major component to helping students take the right steps along their journey into adulthood, both in the educational realm and in life. Adaptive skills also assist the students in gaining much needed self-esteem within their daily lives because without them, students might fall prey to poor self-esteem and other psychological issues that may cause distress later on in life (Bakker & Wyndaele, 2000; De Bildt, Serra, Luteujn, Sytema, & Minderaa, 2005; Gomez & Hazeldine, 1996; Nieuwenhuijezen & Vriens, 2011; Siperstein, Norins, & Mohler, 2007). In addition to selfesteem, the ability to care for oneself and make decisions about one's care also ensures that students have a better chance at being successful at gaining employment and living independently after they have finished school (Wehmeyer & Schwartz, 1997).

Independent living skills and self-care skills are components of personal independence and social responsibility within the domain of adaptive behavior. In 1973, Grossman discussed the functional definition for adaptive behavior as "The effectiveness and degree to which the individual meets the standard of personal independence and social responsibility expected for his

or her cultural group" (p. 11). Because of this expectation, parents and teachers have been focused on ensuring that the children they care for achieve independence through adaptive skills. Teachers are teaching students adaptive skills through evidence-based practices. Evidence-based practices are research-vetted techniques that have been tested by researchers and proven to be effective (U.S. Department of Education, 2003). Using these techniques ensures that the student is taught effectively through the use of strategies and techniques that have been tested multiple times in order to help students gain mastery of these important skills.

According to the American Psychiatric Association (2013), "Adaptive skills are defined as practical, everyday skills needed to function and meet the demands of one's environment, including the skills necessary to effectively and independently take care of oneself and to interact with other people" (p. 16). These skills might seem to come naturally to most adults; however, those with intellectual disabilities tend to have a more difficult time with them. These students often times are dependent on their caregivers to complete simple daily tasks that typically developing children complete independently (Mays & Heflin, 2011).

For the purpose of this study, students who have intellectual disabilities/developmental disabilities are those students that currently have an intelligence quotient below 70 with one or more areas of adaptive skills falling below the normal range of functioning. The U.S.

Department of Education (2003) defines an intellectual disability as "Having a significantly sub average general intellectual function with an Intelligence Quotient below 70, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance" (p. 1).

Adaptive skills are taught alongside academic skills and are included on the student's Individualized Education Plan. A student's Individualized Education Plan (IEP) is a legal

document that is agreed upon by all parties and encompasses the students' daily learning plan which can range from academic skills to daily needed adaptive skills. However, research suggests deficiencies in including adaptive skills within the IEP is common practice and therefore a continued deficiency into adulthood (Bruins & Thompson, 2011; Duijn, Dijkxhoorn, Scholte, & Berckelaer-Onnes, 2010; Langone & Burton, 1987; Temple, Brown, & Sawanas, 2013).

Purpose of the Study

The purpose of this study is to explore and better understand the current view of elementary school special education teachers in regard to their knowledge about adaptive skills and the relationship that their knowledge has on the inclusion of adaptive skills in the classroom environment. Furthermore, the researcher would like to describe the perception of teachers regarding the inclusion of adaptive skills within the classroom as well as their current comfort level with teaching adaptive skills to students through the use of evidence-based practices.

Students who learn adaptive skills within special education classrooms are more prone to be successful later in life when performing tasks independently as adults. Learning how to care for oneself is a lengthy process that the teacher and parents must spend time incorporating within daily routines in order to ensure that the child becomes independent with these skills (Harrison, 1991; Wehmeyer & Schwartz, 1997). In order to ensure that these skills are taught within the classroom and taught using an evidence-based practice, it is important to understand what teachers currently know about the practice of adaptive skills.

There are many ways that adaptive skills are being taught in the classroom today.

However, it is yet to be reported whether the methods teachers use to teach adaptive skills are

evidence-based in nature. A study completed by Mays and Heflin (2011) discussed the impact of self-operated auditory prompts on adaptive skills within school-aged students who had autism and intellectual disabilities. The authors reported that there are many prompts that they had used in the past to increase the independence of students with disabilities in the classroom and in everyday life in the area of adaptive skills. The study began by discussing the traditional means of assisting students with intellectual disabilities by using various prompts that have been used in the past to assist students in fostering independence in adaptive skills such as physical prompting, gestures or verbal prompts, and modeling. The study discussed the need for student-dependent prompts that would allow the student to gain access to a greater level of independence such as constant time delay, video self-modeling, and explicit instruction (Mays & Heflin, 2011).

Adaptive skills have been the focus of many studies, yet it is still unclear what evidence-based practices are used on a daily basis in the classrooms for students with intellectual disabilities. As required by state and federal laws, teachers must use practices that are evidence-based. According to Marder and Fraser (2012)

An evidence-based practice can be defined as an instructional strategy, intervention or teaching program that has resulted in consistent positive results when experimentally tested that incorporates experimental, quasi-experimental, or single subject research designs; is replicated multiple times; and is published in peer-reviewed journals. (p. 1)

Teachers use instructional strategies daily. However, it is questionable whether or not these practices are generalized to include adaptive skills. There are many developmentally appropriate strategies and practices that include adaptive skills in their systematic approach, but the question remains whether the teachers use them and if so, which ones? The paradigm shift from adaptive skill instruction to academic instruction within all classrooms has greatly changed the landscape

of teaching within special education, and with that change, the focus on adaptive skills has shifted as well.

The significance of conducting this particular study is to find out exactly which adaptive skills are being explicitly taught using evidence-based practices within the pre-kindergarten through third grade setting for students with intellectual disabilities and developmental disabilities. The study also aims to understand what knowledge and comfort level teachers currently have in the area of adaptive skills and how that knowledge is currently being used in their classrooms to benefit the students.

Research Questions

The research questions posed for this study are as follows:

- 1. What adaptive skills do teachers find necessary for students to learn in order to be independent in the classroom environment?
- 2. Do teachers of students who have intellectual disabilities perceive adaptive skills to be important to teach in the classroom on a daily basis? If so, which do they perceive as most important?
- 3. To what extent does teacher comfort level with adaptive skill knowledge impact their perception to teach adaptive skills in the classroom setting?
- 4. What evidence-based methods do the teachers use in teaching adaptive skills in the classroom?
- 5. What experiences have teachers had in gaining technical knowledge about adaptive skills?
- 6. To what extent do teachers track their success rate in the area of adaptive skills?

7. To what extent do teachers perceive that teaching adaptive skills in the classroom assists the students in reaching their academic goals in the classroom environment?

Definitions of Terms

- Adaptive Skills- Everyday skills that people use to function within society and care for themselves (Langone & Burton, 1987).
- Adult Independence- The ability to live and provide care for oneself once the age of 18 is reached in the United States (Department of Education, 2003).
- Alternative Assessment- The alternative assessment in the state of Tennessee is the
 assessment that those with an IQ below 70 take instead of the TN Ready test that
 measures grade level knowledge (Tennessee Department of Education, 2016).
- Alternative Performance Indicator- A way to assess state standards for those with limited cognitive functioning. An alternative performance indicator is a different version of the state standard but closely mirrors the expectations set for typically developing peers. The student must have an identified disability in one of the following categories: intellectual disability, developmental delay, other health impairment that includes an IQ score below 70 (Department of Education, 2003).
- Applied Behavior Analysis- Using interventions that are grounded in theory to decrease
 the likelihood of undesired behaviors and increase the likelihood of desired behaviors in a
 systematic and structured way that provides data to explain improvements (Baer, Wolf, &
 Risley, 1987).
- Developmental Disability- A developmental delay is a significant delay in the development of a child under the age of 8. The areas of development that could be

- delayed are speech, social-emotional, motor development, and intellectual development (Tennessee Department of Education, 2016).
- Evidence-Based Practice- A classroom strategy or skill that is taught to students that has been vetted through various means of research and has been shown to teach the skill (Langone & Burton, 1987).
- Explicit Instruction- Students are explicitly taught specific skills through various methods about skills that are meaningful to them as a learner. The teacher uses prompts, reminders, and routines in order to provide the students with the holistic understanding of the content that is critical to student success (Archer & Hughes, 2010).
- Gesture Prompts- A signal to a student such as pointing, nodding one's head, or smiling (Langone & Burton, 1987).
- Individualized Education Plan- A plan that is mutually agreed upon by all parties such as teachers, parents, or other service providers that provide educational services to a student. This plan can include academic goals, functional goals, adaptive goals, and behavior goals. This plan, once agreed upon by the above parties, becomes a legal binding document and must be carried out (Department of Education, 2003).
- Instructional Strategies- An instructional strategy is a way for a teacher to deliver standards to the students. There are many instructional strategies available to teachers, and prompting is a very popular one with special education teachers (Langone & Burton, 1987).
- Intellectual Disability- "Having a significantly sub average general intellectual function with an IQ below 70, existing concurrently with deficits in adaptive behavior and

- manifested during the developmental period, that adversely affects a child's educational performance" (Department of Education, 2003, p. 1).
- Intelligence Quotient- This number typically has an average falling between 90 and 110 and can provide useful information to teachers, providers, and parents about natural intelligence level. However, in order to be considered as having an intellectual disability, several factors must be met such as an IQ below 70 and two or more deficits in the area of adaptive skills (Department of Education, 2003).
- Physical Prompting- A physical prompt is when the teacher or caregiver provides
 physical assistance to the student. A type of physical prompt is hand-over-hand assistance
 to complete an activity. There are many types of physical prompts, and hand-over-hand is
 just one example (Langone & Burton, 1987).
- Self-Care- The ability to dress, complete personal hygiene skills, use the restroom independently, and feed oneself without the help or assistance of others (Langone & Burton, 1987).
- Self-Operated Auditory Prompts- A self-operated auditory prompt is anything that students can manipulate themselves that provides them a reminder of the activity that they are supposed to complete next. An example of this would be an alarm to wake up the student (Langone & Burton, 1987).
- State Standardized Assessment- This is an assessment that ensures that all students take
 the same test with similar or the same questions and is scored in the same manner. It is
 used to assess grade level knowledge and skill about grade level standards (Department
 of Education, 2003).

- Systematic Approach- This is an approach that has specific steps and can be completed
 multiple times in order to learn a skill or standard (Tennessee Department of Education,
 2016).
- Verbal Prompts- This is a prompt that is a verbal reminder to the student to complete an
 action. The teacher or parent might remind the student to place his/her backpack away
 before coming to sit down at the table (Langone & Burton, 1987).

Summary

In a special education classroom, the use of adaptive skills such as toileting, washing, dressing, and feeding oneself is paramount to everyday learning. The current evidence-based practices that are in use within the classroom are a component of independence that students need to have in order to become independent. Students who have adaptive skills are more likely to be successful at completing independent tasks as an adult and lead a more independent adult life (Harrison, 1991; Wehmeyer & Schwartz, 1997). Through the review of literature, the researcher will discuss studies related to adaptive skills currently in use within the classroom and the limitations to the research in its current practice within the early childhood special education classroom environment.

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this chapter is to review the literature that supports the study presented in Chapter 1 and also to review the characteristics of adaptive skill deficits for students with intellectual disabilities in the classroom environment in the area of adaptive skills. This chapter begins by defining adaptive daily living skills and the professional tools used to identify deficits in adaptive skills for children with intellectual disabilities. It continues with discussion around deficits that manifest in children with intellectual disabilities in regards to adaptive skills. The classroom setting will be where the researcher examines evidence-based practices that are currently used within schools. The literature around evidence-based practices will also be reviewed. Teacher attitudes and comfort level with adaptive skills will be included. Finally, a discussion of researched-based adaptive skill interventions that are currently used in a school setting for children with intellectual disabilities will be included in the review of literature.

Adaptive Behavior and Adaptive Skills

According to the American Association on Intellectual and Developmental Disabilities (2015), adaptive behavior "represents the conceptual, social, and practical skills that people have learned to be able to function in their everyday lives. Significant limitations in adaptive behavior impact a person's daily life and affect the ability to respond to a particular situation or to the environment" (p. 2). These skills are paramount to living independently for children with intellectual disabilities and include skills such as eating, washing, toileting, and dressing themselves without the assistance of others. In today's educational system, it is not only up to the parents to teach these particular skills, the responsibility also lies with the educators as well. In

the state of Tennessee, there is a service available for students that have a below 70 IQ that not only focuses on academics but that focuses on these skills daily in order to ensure independence for the students into adulthood. Borthwick-Duffy (2007) discussed the changes that took place within the latest edition of *The National Research Council Committee on Disability Research* brief that discussed the dimensions of adaptive behavior that are practical skills, social, and conceptual factors.

- Practical Skills: these skills include independence, daily living skills, and self-help skills.
 Included are: being able to function with money independently, ability to obtain basic access to health care, using a telephone, and keeping a schedule of their own (Borthwick-Duffy, 2007).
- Conceptual Skills: these skills include reading/writing, number skills, time, and the
 ability to use money in an appropriate fashion such as paying for their own purchases
 (Borthwick-Duffy, 2007).
- 3. Social Skills: these skills include the ability to follow the laws of the environment, avoid bullying or being taken advantage of by others, maintaining a level of self-esteem and understanding social rules (Borthwick-Duffy, 2007).

These three factors are primarily used in the measurement of adaptive behavior in a school setting and in identifying students with intellectual disabilities without solely relying on an IQ score. There is a natural progression that adaptive behaviors exhibit within child development and through this natural progression skill deficits are noted to help with the identification of students with intellectual disabilities and those who may qualify for special education services. Once areas of adaptive behavior deficiencies are identified, a way to measure adaptive skills in a standard format across settings is incorporated and measured by a

standardized checklist in the State of Tennessee (Borthwick-Duffy, 2007; Department of Education, 2003; Tasse' et al., 2012; Tennessee Department of Education, 2016).

Adaptive Skills and Intellectual Disabilities

In order to be considered as a person with an intellectual disability, the American Association on Intellectual and Developmental Disabilities manual defines it as

performance that is approximately two standard deviations below the mean of either (a) one of the following three types of adaptive behavior: conceptual, social, or practical or (b) an overall score on a standardized measure of conceptual and practical skills.

(AAIDD, 2010, p. 43)

There are three primary assessments used to identify adaptive behaviors and assist in making a decision about a student being identified as having an intellectual disability. These three scale assessments are the Adaptive Behavior Scale, Scales of Independent Behavior, and the Vineland Adaptive Behavior Scales (Borthwick-Duffy, 2007; Department of Education, 2003; Tasse' et al., 2012; Tennessee Department of Education, 2016).

The Adaptive Behavior Scale (ABS-S: 2) was created in 1975 and is currently the second edition of the scale. The scale is reported to assess the participant's independence within the community as well as the social proclivity and actual participation within the social realm (Lambert, Nihira, & Leland, 1993). This particular scale is used for children ages 3-21. It is given as a questionnaire or as an interview with a parent or guardian. The questionnaire is used to identify deficits or strengths in the areas of prevocational/vocational skills, responsibility, self-direction, self-sufficiency, independent functioning, community functioning as well as reading skills and numeracy ability in reference to time and money (Wells, Condillac, Perry, & Factort,

2011). This particular scale measures items such as self-efficacy, level of independent functioning in society, language and numeracy skills, language development, personal responsibility, and development of the participant.

The Scale of Independent Behavior-Revised (SIB-R) was created in 1984 and last revised in 1996. The SIB-R "is designed to measure functioning in school, home, employment and community settings" (Bruininks, Woodcock, Weatherman, & Hill, 1996, p. 1). This scale is used with participants ranging in age from 3 months to 80 years. It measures four adaptive behavior sections: social interaction and communication, personal living, community living, and motor skills (Bruininks et al., 1996). Underneath the four clusters are subsets that include social interaction, money, community living, work ethic, and personal livings skills such as toileting, dressing, and self-care. The scale also includes gross-motor development and fine-motor skills.

In 1935, Dr. Edgar A. Doll discussed the value of teaching adaptive skills in special education classrooms and advocated for all children to receive an education that would best fit their individual needs in the area of daily living. Doll (1930) discussed the idea that "the business of education in this country today is to prepare all children for enrichment of living as well as to provide them with the means of earning a livelihood which shall contribute toward their enjoyments of such enrichment" (p. 133). The idea that all children should be educated to their ability level within the classroom had not been well researched at this time as the public school system was just beginning to take shape in society. Often all students were taught the same material, and there was not yet a great deal of differentiation inside each individual classroom.

Doll (1930) described a system that all children, regardless of their socioeconomic status or mental or physical disability, should receive an education that would make them a productive member of society. He laid the foundation for what would become the Vineland Adaptive

Behavior Scales (VABS). Since its 2016 revision, the third edition of the scale, the questionnaire includes four major domain areas. These areas are communication, daily living skills, socialization skills, and motor skills.

These three scales are the primary forms of measurement of adaptive behavior within a school setting and help practitioners to gain a better understanding of the students' adaptive skill functioning level. They follow a natural progression of development for typically developing children and help to assess the areas of skill deficits for children with intellectual disabilities. For the purpose of this study, the researcher will focus on the adaptive skills that are included in the adaptive skill domain. These adaptive skills are toileting, self-feeding, and dressing.

Toileting

There are several methods for toilet training and how-to toilet train students with more significant disabilities. One of these methods is the *rapid toilet training* method that was created in 1971 by Azrin and Fox. This method was extremely intrusive and required the student to remain on the toilet for long periods of time, yet promised to complete training within a short period. The other method, *child-centered gradual training*, was created in 1962 and focused on readiness factors from the child and a path of child development, rather than a routine. The child would go through several steps in order to ensure readiness that required a longer period of commitment from the caregiver in order to be successful. The review of literature will discuss the characteristics of both methods, still in practice today.

Child-centered practice to toileting. Child-centered practice has been at the forefront of the toileting methodology for over 60 years and typically is used with students with intellectual disabilities who are higher functioning but still within the below 70 intelligent

quotient range. There are several readiness factors that are included in child-centered practice in regards to toilet training. The first sign is that the child will stay dry for an hour or more; second the child will let the caregiver know that he/she has urinated or defecated in his/her clothing. The child will make an announcement that he/she has gone to the bathroom and wants to be changed. The next sign of readiness is that they can get themselves undressed in order to use the toilet independently, and last they will want to go to the restroom independently.

These newly formed signs of readiness are attributed to the change from older, more traditionally-structured practice to a newer, more child-centered practice that depends on signs from the child that denote readiness. Staying dry for several hours, asking to go to the restroom, gesturing to go the restroom, and showing signs of distress about needing to go to the bathroom or the urge to go to the bathroom were included in the readiness factors (Bakker & Wyndaele, 2000; Bakker, Gool, Sprundel, Auwera & Wyndaele, 2002; Brazelton et al., 1999; Cicero & Pfadt, 2002; Kroeger & Sorensen, 2010; Luiselli, 1996; Macias, Roberts, Saylor, & Fussell, 2006; Post & Kirkpatrick, 2004; Smith, Smith & Yi Lee, 2000).

Brazelton (1962) completed a study to help professionals in the field of medicine to understand why and how to move toilet training to a more child-centered approach and help parents to understand that timing was and is paramount for the child's success. He complied medical records of 1,170 patients over a 10-year period. The sample was 672 male children and 498 female children. He found that 660 children who had trouble with toileting were first born and 450 were second or third born or greater. Brazelton (1962) stated, "The importance of timing the introduction of this method to the child's readiness, and allowing him freedom to master each step at his own pace in order to be successful" (p. 123).

Brazelton (1962) determined that the birth order mattered when it came to pressure placed upon the child to perform within certain given parameters in regards to toilet training. The parents of firstborn children seemed to harbor more stress and inner reluctance about allowing the child to go in their own time in regards to toileting. When given the option, children were completely toilet trained between 24 and 30 months of age with an 80 percent completion rate. This data was collected by the compilation of 10 years worth of patients' records and information supplied by the parents and or guardians.

Brazelton et al. (1999) completed a follow-up to the original study with additional parameters. The additional parameters included child-oriented gradual training, along with institutionalized day care for students with disabilities during the day, who still lived in their homes at night. Child-oriented gradual training places the child first in the process. When they are ready, it begins gradually as the child sits on the toilet fully clothed for a period of time, then flushing of the toilet is added while the child is still clothed. This process continues until the child can navigate his/her own clothing and ensure cleanliness. However, this child-centered method leads to the completion of toilet training well past the age that peers that were typically developing complete the process. This later age of completion creates a new problem for caregivers outside the home (Brazelton, 1999). Instead of one or two children out of 20 to be trained, the caregivers or teacher have many children who must be toilet trained. This creates groups of children who do not gain the skill of toilet training until well past the optimal age of other peers who are typically developing. The current age of toilet training averages to be about 36 months for children who are typically developing and five years of age for those with disabilities. There also seems to be a lack of parent-teacher communication that ultimately leads

to parental stress in regard to toilet training and thus adding additional pressure to the child to eliminate before he/she is emotionally and developmentally ready.

Behavior-centered approach to toileting. The second method for toilet training, from Arzin and Fox, was formulated in 1971, and it was based upon B. F. Skinner's principles and titled rapid toilet training or RTT. This method created a more behavioral approach that was based on applied behavioral analysis. The method requires the participant to adhere to a strict schedule that involves spending a majority of his/her time throughout the day in the bathroom sitting on the toilet waiting to void (Vermandel, Van Kampen, De Wachter, Weyler & Wyndaele, 2009). More and more researchers have been modifying the Arzin and Fox (1971) method to a less intrusive intervention. With the modifications, the researchers still hold true to the original programming of the method by having the child remain on the toilet for several days in a row with rewards but shortened the duration that the child had to remain on the toilet each time throughout the day (Bakker & Wyndaele, 2000; Bakker et al., 2002; Brazelton et al., 1999; Cicero & Pfadt, 2002; Kroeger & Sorensen, 2010; Luiselli, 1996; Macias et al., 2006; Post & Kirkpatrick, 2004; Smith et al., 2000; Tarbox, Williams, & Friman, 2004). Additional research using the Arzin and Fox (1971) method were single-subject or small case studies that focused upon one or two children in order to ensure fidelity to the toilet training methods with most of the studies proven to be successful (Bauer, Hogan & Scott, 1992; Lowenthal, 1996). The smaller case studies were mixed methods in nature with an experimental design and hard to generalize to larger populations. There were also added behavioral effects when using the Arzin and Fox (1971) methods with parents reporting higher incidence of outward behavior problems such as hitting or biting. However, the behavioral-centered approach was accompanied by resource guides and specific guidelines provided to parents and caregivers detailing how to move forward

with toileting and how to accomplish this skill through an applied behavioral analysis systematic approach (Bakker & Wyndaele, 2000; Bakker et al., 2002; Brazelton et al., 1999; Cicero et al., 2002; Kroeger & Sorensen, 2010; Luiselli, 1996; Macias et al., 2006; Post & Kirkpatrick, 2004; Smith et al., 2000).

Kroeger and Sorensen (2010), created an experimental study about toilet training that included participants with intellectual disabilities with additional behavior problems. The participants were a four-year-old boy who had an autism spectrum disorder along with an intellectual disability with no prior history of toilet training, and a six-year-old boy with autism and an intellectual disability who had made multiple attempts at toilet training prior to the study. These attempts at toilet training with the six-year-old boy were made in the home with parental participation and had previously caused multiple behavior problems. The data collected throughout the study was continuous and was collected on the accidents and use of the toilet, whether prompted or self-initiated. The procedure included increased fluids, reinforcement, redirection, and scheduled restroom breaks. The children were given increased fluids for three days before the study of the procedure began. The daily schedule for the toilet training protocol was 30 minutes sitting on the toilet and then a 5-minute break for using the toilet, 25 minutes on the toilet and then a 10-minute break, and finally 20 minutes on the toilet and then a 15-minute break when they used the toilet. When the participants used the toilet, they received positive reinforcement such as an edible item of their choice. The participants were allowed toys but not ones that were special to them or that caused an emotional reaction.

Once the parents and the trainer began the intervention, the four-year-old participant was completely toilet trained with zero accidents by day 10, and the second participant was completely toilet trained by day five. A three-year follow-up study was completed, and the

students showed maintenance of the behavior and had not had accidents at any time during the maintenance period with little to no incidents of behavioral issues.

Cicero and Pfadt (2002), discussed an applied behavioral analysis approach that was very systematic in nature using graduated guidance and systematic structured reinforcement. Cicero and Pfadt (2002), stated "procedures included a combination of positive reinforcement, graduated guidance, and scheduled practice trials and forward prompting" (p. 319). Forward prompting is a strategy used that allows the child to complete the first step in the process regularly until they have completed mastery and then build the more complex steps using graduated guidance. Graduated guidance is when the student begins to chain together one or more steps that is supported through guidance of an adult or peer once the initial step in mastered.

The use of forward prompting and positive reinforcement were included within the study's parameters. An example of forward prompting would be suggesting to the student that he/she goes to the restroom prior to any accident occurring. There were three participants who had autism and developmental delays who were included in the study; a six-year-old girl and two, four-year-old boys. All three participants did not, at the time of the study, have toilet training mastered and wore diapers throughout the day.

The study took place at the children's childcare center. The study was a single-subject design and included 3 days of baseline data where no prompts were given to the children, and date and time of accidents were recorded. During the 3-day baseline data phase, the teacher training took place. There was a prompting schedule that was implemented that required an immediate response when a child had an accident. The student was required to sit on the toilet every 30 minutes for a duration of three minutes. If the student did not use the restroom during

that time, the teacher stated a phrase to the student such as "okay, you don't have to pee" (Cicero & Pfadt, 2002, p. 323). The teachers collected the data and recorded how often the students had accidents and how often the students voided in the toilet. The three participants all were toilet trained by the end of the trial period. The students all completed this by day 15 and were allowed to go back to their regular classroom schedule. Students were also self-initiating bathroom requests, and through follow up it was noted that all three participants maintained the training after a six-month period.

Luiselli (1996), completed a study that used a participant with more significant cognitive disabilities who had both intellectual disabilities and behavior issues. The participant was a seven-year-old girl who had pervasive developmental disorder. The researcher completed the intervention within the school setting. There were some limitations involved in this study since the study was completed only using a single subject. The author did not use a variety of children from a multitude of different backgrounds, and there was no ethnic diversity within the population. He did, however, include follow-up data to provide the reader with assurance that the intervention did indeed have long-term benefits for the participant and that the participant maintained generalization of the skill.

Post and Kirkpatrick (2004) completed studies that used participants with more significant cognitive disabilities who had both intellectual disabilities and behavior issues. One participant was a three-and-a-half-year-old boy with pervasive developmental disorder. Post and Kirkpatrick (2004) stated, "We hypothesized that since the child spontaneously imitated peers in the school setting, the opportunity to join the class in toileting might occasionally transfer from the school to the home environment" (p. 46). The researchers began by checking the student every five minutes to acquire a baseline data set. Once this was completed, the student was taken

to the restroom every 30 minutes with 20 minutes on the toilet and then a 10-minute break. The student began with having 5.5 accidents per day and eventually after a period of 21 days, the student had zero accidents at both school and home.

Summary of toileting research. The methods of toilet training have changed, and this change has occurred over the last three decades (Bakker & Wyndaele, 2000; Bakker et al., 2002; Brazelton et al., 1999; Cicero et al., 2002; Kroeger & Sorensen, 2010; Luiselli, 1996; Macias et al., 2006; Post & Kirkpatrick, 2004; Smith et al., 2000). A longitudinal study about the maintenance of the behavior of children that are toilet training using different methods would be paramount to the success of the long-term effects of a behavior plan connected to toilet training. Currently, there is a gap in the research in regard to follow-up data and how long the children maintained their current level of toileting, and if they maintained the skill for months or years. The research also does not address what current knowledge teachers have in the field and how much time they currently spend on toilet training within comprehensive development classrooms where most children that have a below 70 IQ spend a majority of their time in the state of Tennessee. Overall, all of these studies discussed throughout the literature review show that when completed with a method in mind and with fidelity, toilet training can be achieved and maintained over time in order to give the child independence and a sense of control over his/her environment.

Self-Feeding

In order to become completely independent, the ability to feed oneself is a key component. Without this ability, students must depend on others to care for them and provide them with assistance (Lovaas, 1981; Reese & Snell, 1991). The research is currently limited in the field of self-feeding in regard to children who have intellectual disabilities and other

significant cognitive disabilities. Teaching self-feeding in the classroom, using evidence-based strategies, is difficult for teachers because there are very few resources available and very little evidence about self-feeding procedures for educators (Darsaklis, Majnemer, & Snider, 2010).

The development of IEP goals in reference to self-feeding skills allows the teacher to ensure that the student is making real-world connections within the classroom environment by teaching skills that will be used after leaving school. Published studies revolve around students learning both the mechanics and functional ability to complete eating and drinking tasks within the classroom environment. McKirdy, Sheppard, Osborne, and Payne (2008), discussed the importance of teaching feeding through specific processes to students with intellectual disabilities. The researchers discussed the need to begin with non-food activities to ensure that the motor ability for self-feeding was developed enough to ensure that safety would be maintained through the entire process. The researchers provided some non-food example activities such as brushing the student's teeth without gagging or teaching the student to hold a spoon in the mouth without choking on the spoon itself. The next step would be to begin with swallowing a tablespoon of water without choking and understanding the function of drinking from a cup. The researchers attempted this process with two students in a classroom environment who were ages 5 and 9. The students began with not accepting any responsibility for self-feeding and used behavioral avoidance techniques such as vomiting or refusal in order to make their unhappiness known to the teacher and researchers. Despite early defiance, within seven weeks both students with intellectual disabilities were considered to be independent in self-feeding skills.

A study completed by Denny et al., (2000), discussed teaching functional skills in a single-subject design to a 2 ½-year-old child diagnosed with a significant developmental delay.

His cognitive level was measured to be at 12 months of age, and he was unable to feed himself without the assistance of a caregiver. Once daily the researchers conducted trials at dinnertime in the participant's home. There were four steps involving the process of eating that he was required to complete, and the researchers recorded data on the first five bites of food taken. The researchers collected baseline data during these visits. Once the baseline data was collected, the researchers and parents implemented a graduated guidance plan, which simply placed several single skills together to form a more complex skill. The researchers used physical prompts to encourage the participant to eat. First, the parent provided verbal prompts to the child then moved to the physical prompts. Then the parent used less intrusive prompts, and finally zero prompting was required. The hand-over-hand prompting, where the parent placed a hand over the hand of the child to assist the child in moving food toward his/her mouth was carried out for two weeks before moving to the less intrusive prompt of a hand on the elbow. The hand-on-theelbow prompt continued for 12 weeks before the parents were able to move to a shadow-style prompt, where the parent or caregiver shadows the participant in order to ensure fidelity. Finally, no prompt was needed for at least six weeks and eight weeks of maintenance. Overall, the skill was maintained, and after a year recheck, it was discovered that the participant learned other skills through graduated guidance. Graduated guidance is a strategy that helps students learn to complete many small skills and then string them together to be able to complete a larger task. At the completion of the study, the students were eating independently. This was achieved through explicit instruction through graduated guidance.

A study was completed by Luiselli (1993) that had two participants who were in the early childhood age range. Both participants had met the criteria for qualifying for services under the umbrella of intellectual disabilities. Mary was a 7-year-old female with a significant cognitive

disability as well as being both blind and deaf. Paul was a 6-year-old male with mild to moderate cognitive disabilities as well as being both blind and deaf. Neither participant could self-feed independently prior to the interventions. Baseline data was collected, and a training program implemented. The training program included several interventions that began with physical prompting and then faded or reduced physical prompts to include verbal reinforcement only. Mary was considered to be self-feeding at 100% after the training period of eight months. Paul's intervention was slightly different because he could partially feed himself at the beginning of the study. The researcher focused on using reinforcement for appropriate social behaviors within feeding times. Using the positive reinforcement method, Paul increased his feeding with appropriate behaviors to 91.5% after a 15-day period and once rechecked at the two-month mark, he had maintained the skill. Feeding skills are an important part of functional skills that is currently lacking in evidence-based or research-based practice interventions. These self-feeding skills are imperative to children with significant cognitive disabilities and their overall goal of living independently. Harrison and Boney (2002) stated, "for children with more severe disabilities, goals for functional skills typically revolve around preparing them to live life as an independently as possible" (p. 1171). There are many facets to living life independently, and self-feeding is one that seems to be important to both parents and caregivers alike.

Denny et al., (2000) completed a research study with a participant that allowed the parents to be the primary teacher of the skill within the home, instead of strictly learning within the confines of the school setting. The single participant had an intellectual disability and had difficulty feeding independently. The researchers created a program that included varying sequences for the child based upon his existing skill set. The researcher collected data during the first five attempts that the participant made to complete the task. There was also a parent module

created to assist with maintenance of the skill once the skill was mastered. Baseline data was collected, and it was noted that the student could not independently feed himself during the baseline data collection period. The participant was given four different levels of prompting during the trials. The first level was hand-over-hand prompting, where the adult had his/her hand over the participant's hand and guided the spoon to the participant's mouth in order to provide a model. The second level of prompting was hand over elbow, and this allowed the participant to have more personal control over the motor movements and allow him to control his wrist and hand. The third level of prompting was a shadow prompt that allowed the participant to still feel supported while he gained more muscle control over his movements. Finally, the student was able to complete the task of feeding independently and was able to maintain the skill over a follow-up period of at least eight weeks. The researchers completed a follow-up interview with the parents that confirmed a year later that the participant had indeed maintained the skill in the area of self-feeding (Denny et al., 2000).

Self-feeding requires many other functional skills in order to be successful. The students or participants must be able to hold the utensil, have an appropriate grip strength, as well as have the fine-motor skills to insert the utensil into their mouth. Researchers have noted that the assessment of the skills necessary to eat independently must be looked at first in order to gauge where the student is currently functioning in order to better plan a program that would best fit the student's needs in the classroom (Langone & Burton, 1987). Varying strategies can be introduced to students once their current level of functioning has been appropriately assessed. A few of the strategies mentioned that are used with students who have significant cognitive disabilities are backwards chaining, task analysis, video self-modeling, shadow modeling, hand-over-hand prompting, and peer modeling. (Langone & Burton, 1987).

Dressing

Dressing for students with intellectual disabilities became of interest to researchers in the early 1960's. One of the first researchers to provide educators with some insight to the functional skill of dressing for those with significant cognitive disabilities came from of a man named Gerard Bensberg. He began publishing in 1965 with a book titled *Teaching the Mentally* Retarded: A Handbook for Ward Personnel. This work was the first of 12 published studies that focused on teaching people with significant cognitive disabilities how to perform adaptive selfhelp skills. Bensberg (1965) discussed the need to teach adaptive skills to people with significant cognitive disabilities through behavior shaping methods. There is a large gap within the research in regards to teaching dressing and other adaptive skills in an academic environment, because there was a movement to ensure that students with disabilities were included in the regular education classroom and had access to grade level academic material thus limiting the time and availability for adaptive skill instruction (Swanson & Vaughn, 2015). The limitations of the following studies are that most of them are at least 25 years old, and some of them are with adults; however, those adults typically had a social age of anywhere from one to nine years of age as measured by the Vineland Adaptive Scale. Inglesfield and Crisp (2014) noted the lack of research available about the topic of dressing and instructing students on how to self-dress.

Bensberg, Colwell, and Cassel (1965), provided a pilot program to the educational and medical community that suggested that through behavior shaping, the participants of the program would be able to complete the adaptive skill of dressing independently without prompts. There were seven participants in the study. Of those participants, five were eight years of age, and the remaining two were 14 years of age. At the start of the study, baseline data was collected, and none of the participants could perform the skill of dressing independently. The staff of the

facility were trained about the operant conditioning procedures that were to be utilized during the study. They then returned and trained the other staff members. The data collection began, and the participants spent 15 to 30 minutes participating in the training sessions. During the training session, the staff members would provide the participant with both a gesture and a verbal prompt. When the participant properly completed the task, he/she was given an edible reward as well as verbal praise. As the participants increased their compliance with the requests, the time between rewards was lengthened. At the end of the seven-month period, one participant did not complete the trial due to illness. Three of the participants could dress themselves with buttons but were not able to tie their shoes. The other three participants were able to both dress and undress themselves independently. However, they were not able to tie or button. There were some limitations noted within the study. The first limitation noted was that there was still a question whether the intervention itself caused the increase in dressing ability or the increase of ability was caused by the additional attention of the caregiver. Also, the researchers noted that they saw a change in the attitude or perception of the caregiver. The caregiver felt that he/she was helping the participant learn new skills that were beneficial to their overall well-being; the caregiver therefore had an improved attitude towards the participant.

The skill of dressing oneself takes a great deal of time to learn for most children with intellectual disabilities. In 1972, Watson discussed the time that it would take to systematically teach those with significant cognitive disabilities and stated that anywhere from eight to 12 months would be necessary to complete the process (Watson, 1972). Bennett and Dukes (2013), also discussed the previous literature in reference to teaching adaptive skills such as dressing and feeding oneself in a public space. The researchers noted that teachers spent the most time teaching students how to dress based upon their own personal opinion of how well the students

would be integrated into society after school was completed. If the teacher felt the student would not be able to qualify for services after leaving school, they spent more time teaching him/her independent skills such as dressing and feeding. If the teacher felt the student would qualify for adult disability services once leaving school, the teacher spent less time teaching independent skills. Once the skills imperative to dressing were identified as to what was necessary to be able to learn to dress oneself, then other researchers began to build on the compilation of research about adaptive skills (Bennett & Dukes, 2013).

In 1976, through the use of a rapid method, people with disabilities learned to dress and undress in only 12 training hours. Previously, when teaching people with disabilities to dress themselves it could take as long as 80 hours using backwards chaining. The definition of backwards chaining is to begin with the last step and build the knowledge from that last step, and each time add a new step in order to build fluency with the procedure. However, in acquiring some more challenging skills this evidenced-based practice does not provide the results needed to ensure timely acquisition and retention of the self-help skill (Azrin, Schaeffer, & Wesolowski, 1976; Bennett & Dukes, 2013).

The rapid method of teaching dressing included a new format for instruction. Instead of backwards chaining, the new method used forward sequencing, taught all components of dressing together in one training session, began training with larger-sized clothing to make it easier for the participant to manipulate, incorporated verbal and physical praise (e.g., a pat on the back), continual instruction, 2- to 3-hour training sessions up to 2 times per day, and taught undressing first (Azrin et al., 1976).

Azrin et al. (1976), created this revolutionary rapid method, chose seven participants, and administered a pre-assessment. The seven participants chosen had a social age of 1.6 according

to the Vineland assessment but a chronological age of 31. At the beginning of the study they could not dress or undress themselves. At the conclusion of the study, all the participants learned to undress and dress using the methods that the researchers provided (Azrin et al., 1976).

Gardner and Wolfe (2015), took the rapid dressing method research a step further and discussed evidenced-based practices that would assist those with disabilities with being able to complete adaptive skills independently. The use of point-of-view modeling is the use of video prompting along with error correction. Through the use of video and point-of-view modeling, the student experiences the skill in the first-person point of view, as if actually seeing it for him/herself as the skill is being completed. The target skill is completed without the use of a student or teacher model and is error free. The use of this method increases the likelihood of success for students to be able to complete a skill independently. Through the use of video, repeated instructions are exactly the same each time and repeated each time the student is requested to perform the skill. This was an improvement with many benefits over traditional modeling examples. Using this video method, all four participants learned the particular self-help skill and retained it for at least four weeks (Gardner & Wolfe, 2015).

Summary. In the reviewed literature, researchers reported that short sessions for teaching dressing skills worked best and were the most effective. The researchers compared several different strategies in order to understand in a more comprehensive way how dressing independently is best taught in a classroom or institutional setting. The research compared invasive vs. non-invasive training for dressing skills. The authors noted that although both yielded results, the non-intensive or non-invasive treatment tended to show better results for the long-term maintenance of the skill for students with intellectual disabilities (Azrin et al., 1976;

Bensberg, 1965; Bensberg et al., 1965; Inglesfield & Crisp, 2014; Swanson & Vaughn, 2015; Watson, 1972;).

Teacher Attitudes

In education today, research about students with disabilities who are included in the general education classroom is a relatively new topic. Within the last few decades, inclusion has rapidly changed the classroom environment and the way teachers view students with disabilities and teaching adaptive skills. Teacher attitudes about students with disabilities in the current school environment are ever changing. As laws change and require teachers to incorporate students with disabilities into the traditional classroom, the attitudes and comfort level of teacher knowledge changes as well (Siperstein et al., 2007). Literature about teacher attitudes toward students with disabilities and teacher knowledge about how to teach this student population in the classroom is available (Allinder, 1994; Browder et al., 2007; Dalsen, Neeper, & Ruppar, 2016; Gordon, Rothlein, Schumm, & Vaughn, 1994; MacFarlane & Woolfson, 2013). Teacher attitudes about students with disabilities has influenced how teachers in special education classrooms learn about adaptive skills and other functional skills that are necessary for student growth (Bornholt, Lennon, & Levins, 2005).

Armet, Reed, and Wetzel (2013), discussed one theory about how teachers learn in the area of professional development. It is important to understand how teachers access professional development knowledge and use it within the classroom environment at a later date. There are five pieces to professional development that must be considered in order for it to be considered functional. These pieces are fluid and ever changing for each learner and include such components as gathering knowledge for later use, the learners themselves, the environment within the learning arena, and how assessment plays a part in the learning process. Teachers

often times mistake the idea that they already know how to teach since they know how to learn. Therefore, they also make the mistake of thinking that concepts learned in professional development are transferable to the classroom in the same way. However, not all people learn in the exact same format, and teachers must understand how learning acquisition occurs to maximize their students' learning in the classroom. For special education teachers, teaching presents a whole new challenge for cognitive mapping in order to gain access to grade level material within a context that students will understand and benefit while growing their adaptive functioning.

Teacher Comfort Level

Dalsen et al. (2016) stated, "limited research has been conducted on special education teachers' perceptions of preparedness to teach, and no studies have focused specifically on perceptions of preparedness to teach students with severe disabilities" (p. 274). There also seems to be an impact on teacher efficacy and comfort level with students that are included in the general education classroom setting (Abbott & Greenwood, 2001; Gallagher & Malone, 2010). According to Cook, Cook, Landrum & Tankersley (2000), teachers did not appear to consider students with disabilities as students that they felt attachment to or comfortable with within the classroom. In order to gauge teachers' attitudes toward students with special needs who were included in the general education classroom, the researchers requested that the teachers provide three names of students that fit the prompts for attachment, concern, indifference, and rejection. The researchers felt that by asking teachers to place students within these categories, they could get a better understanding about the current relationship between teachers and their students with disabilities. It also allowed the researchers to gain the teachers' perspective about inclusion and how they were currently supporting students with disabilities in the classroom. The teachers were

then asked to place one of the students within each of the category prompts such as attachment or concern. The teachers reported when they were asked to nominate students which they would retain in their classroom for another year, students with disabilities were chosen only 5.8 % of the time, even though the students with special needs made up 13.6 % of the overall sample. When asked to choose students who they would have removed from their room given the option, students with disabilities made up 30.8 % of those students who were chosen for removal. The teachers that had more experience in the classroom tended to nominate students with disabilities less for rejection. The teachers that had less experience in the classroom had a feeling of helplessness in regard to assisting students with disabilities in the classroom environment (Cook et al., 2000). Overall, classroom teachers felt that having students with special needs, while having little to no training assisting students with special needs, was a very difficult task for them and made them feel that they were not meeting the needs of the all the students in the classroom (Gallagher & Malone, 2010; Ismail, Basheer, & Khan, 2015; Soponaru, Paduraru, Dumbrava, Cristina, & Iorga, 2016).

Inclusion and Adaptive Skills

Often times, children with special needs require adaptive skill training or support in order to be included within the general education environment. This does not mean that the child must have complete control of adaptive functioning in order to ensure inclusion. However, according to the teachers surveyed, students with special needs must either self-prompt or have assistance of an adult one-on-one in order to ensure that they are gaining access to the general curriculum or grade level curriculum in addition to having their own personal needs met (Bornholt et al., 2005). The teachers noted that if the student with disabilities did not have one-on-one support or was not able to self-prompt, then he/she would not be welcome in the classroom. Inclusion or

mainstreaming students that have special needs is a goal of most educators and parents. However, the attitude of educators about mainstreaming or inclusion is a relatively new topic since children with special needs have only been included in the general education setting since 1975, when the Education for All Handicapped Children Act was passed into law (Scruggs & Mastropieri, 1996). According to MacFarlane and Woolfson (2013),

The inclusion of children with social, emotional and behavioral difficulties, [with intellectual disabilities] has consistently been reported as particularly problematic for teachers and is accompanied by negative attitudes. These are children whose learning in the classroom is compromised by complex and long term difficulties in managing behavior, emotions and relationships. (pp. 46-47)

The researchers completed a study that had a convenience sample of 12 schools regarding this specific topic. They distributed 283 survey packets with a return rate of 92. MacFarlane and Woolfson (2013) discussed trends within the results, such as the higher the positive attitude of the teacher towards students with special needs, the more likely the teacher would want to include them in the activities within the classroom environment. The results showed that through inclusive practices that occurred on a regular basis, students with intellectual disabilities would benefit from teachers' improved attitudes and increase the acceptance of those students by their peers.

In 1996, Scruggs and Mastropieri published a comprehensive research synthesis with differing views on inclusion. Teachers' perceptions about inclusion and mainstreaming had been studied prior to then, however, no studies since then in the United States have been this comprehensive and included this large amount of data. Scruggs and Mastropieri (1996) began this comprehensive study by combing through the databases in order to look for any available

peer-reviewed research articles or studies that discussed the topic of mainstreaming for students with disabilities. They found 28 studies that spanned almost 30 years. The researchers looked for surveys about teacher attitudes in regard to inclusion within the general education setting. The 28 studies that were included in the synthesis had a similar theme and questions on the topic of inclusion and mainstreaming. Scruggs and Mastropieri (1996) stated that "71.9 % of teachers supported mainstreaming for students with learning disabilities. However, 28.9 % of the teachers supported mainstreaming for students with emotional disturbances, and only 22.8% supported mainstreaming for students with educable mental retardation [sic]" (p. 62).

Teachers self-reported that lack of professional knowledge and comfort level with students with disabilities, and their own personal knowledge about how to handle classrooms disruptions, might be causing the students with disabilities in the general education setting to cease learning in a mainstreaming environment. Teachers felt that they did not have enough training to assist students with exceptionalities in the general education classroom (Scruggs & Mastropieri, 1996).

Inclusive Practices and Teacher Impact

Kauffman, Lloyd, and McGee (1989) looked at attitudes of teachers about inclusive school settings and the skills that general education teachers felt that students with exceptionalities needed to have in order to be successful with same-age peers. The researchers examined the answers to three specific questions to gain access to perceptions or attitudes that teachers had about students with special needs and their ability to teach them in the general education setting. Without adaptive skills, the researchers reported, teachers find it very difficult for students with special needs to assimilate into the general education classroom. The general education teachers noted that there were some skills that students must have in order to be

integrated into the regular education classroom. Skills such as following teacher directions and being able to access the restroom independently were noted from the research study (Kauffman et al., 1989). The researchers also noted that over 50 percent of the general education teachers would not accept assistance from others in teaching these critical adaptive skills to students who were deficient in areas such as: incontinence, deficiency with self-help skills, and those who were physically aggressive (Kauffman et al., 1989). Other general education teachers noted that they would be open to having students with disabilities in their classroom if they were provided support from the special education teacher. Overall, the teachers perceived students with disabilities as more challenging than what they could handle alone. The teachers surveyed felt that often times behaviors exhibited by students with special needs were more challenging than they were trained to encounter, and without assistance from the special education teacher, they would be unwilling to accept students that had disabilities in their classroom (Kauffman et al., 1989). The need for students with disabilities to have adaptive skills taught explicitly to them by the special education teacher is paramount to help students access the general curriculum and gain the same knowledge as same-age peers.

Teacher Attitude and Inclusion

One way for students with special needs to learn effectively is through inclusion, but without adaptive skill training, the likelihood of inclusion is lessened. Therefore, the need for students to have adaptive skills and be taught in the special education classroom is high on the priority list for parents and teachers. The integration into the regular education classroom has been shown to assist students with building their adaptive skills toolkit. All students are part of the greater community, and once they become a certain age, they either continue to receive disability services or their services cease (Soponaru et al., 2016). In order for children to build

adaptive skills, they need other students to be effective peer models. So, community inclusion will help students with special needs build adaptive skills by observing those skills being effectively modeled by their peers.

Dessemontet, Bless, and Morin (2012) noted that through inclusive settings, adaptive behavior and academic achievement increases based on the amount of time spent within the general education setting. The researchers first completed a review of existing research where they found nine studies that reported inclusive practices to be either really effective or not effective at all. The important piece of data to note was that the more time spent in inclusion, the more positive the results were noted to be in the research. The researchers also completed a study to further the information available about those students with intellectual disabilities in the general education setting in regard to their adaptive skills and academic achievement.

Dessemontet et al. (2012), completed two different types of assessments in order to capture the data. The 134 participants chosen were between seven and eight years of age, and all were identified as having an intellectual disability with an average IQ of 62. The first assessment was an academic achievement assessment that was norm-referenced, meaning it was measured against typically developing peers of the same age, and the adaptive behavior was measured with the Adaptive Behavior Assessment System. It was administered to the chosen students twice within the same academic year. The researchers had a control group and an experimental group; one group was included in the general education setting and the other was in a special separate setting. The group within the general education setting spent the entire day with their typically developing peers and received four to six hours of special education supports throughout the week. The other group was in a special day setting that received supports throughout the day from a special education teacher.

The researchers completed an academic achievement test and the behavior analysis and noted differences between the two groups in math were not considered to be significant, however the differences in reading were considered to be significant (F = 4.67, p < 0.05) at the conclusion of the study. The researchers reported that there was no significant difference in the adaptive behavior skills between settings. However, teachers and parents reported that students made gains independently without reference to their setting, and both sets of students made gains in the area of adaptive skills.

Teamwork and Inclusion

Malone and Gallagher (2010), discussed the teachers' perspectives from a teamwork standpoint and focused on how professional development can depend on the teamwork approach and add to teachers' comfort level in different professional developmental areas, such as adaptive skills. They completed research through both quantitative and qualitative means. The researchers completed three different surveys: a survey about attitude, a survey about acceptance of the team process, and a qualitative follow-up survey to access greater knowledge about the perceptions of attitude about teamwork. The teachers reported that sharing ideas and information was a key component that added to their professional development and assisted them in communicating with each other about various topics in the classroom. The researchers analyzed and reported that teachers felt like team collaboration about a multitude of topics assisted them in improving their overall skills in the classroom. The skills noted ranged from Individualized Education Plans to group collaboration about individual skills for students. Special education teachers felt that through teamwork, the students that received disability services would be given a higher priority in the classroom if general education teachers felt that they understood the overall goal of the

students. Ultimately, the general education teachers felt that they needed to have more input on the students' goals and objectives as well as their overall plan for behavior.

Summary

The missing piece of information in this collection of research findings is whether or not teachers feel that they are equipped or comfortable with teaching adaptive skills within the classroom environment (Cook et al., 2000; Dalsen et al., 2016; Siperstien et al., 2007). There are many available studies about teacher comfort level with academics, but the research is limited about the topic of teacher comfort level with adaptive skill instruction. In order to understand where teacher comfort level plays a pivotal role, we must understand how teachers learn to teach and how they become comfortable with content knowledge in their environment. Thus, in response to this need, the purpose of this research study is to bridge a gap in the current literature by reporting about the perceptions of comfort level of teachers today in regard to teaching adaptive skills in the classroom. The purpose is also to gauge which evidence-based methods are currently being used by teachers and what strategies teachers are using in the classroom with students with intellectual disabilities. The researcher hopes to gain a better understanding of what teachers feel and believe in order to better assist them in making positive decisions for their students with special needs in the classroom today. Chapter 2 discussed many different areas of adaptive skills and how adaptive skills play a role in the classroom environment within evidenced-based teaching, teacher attitudes, comfort level of teachers, inclusion, and the impact that those areas have on students in the classroom.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

This research study identified and described special education teachers' perceptions of adaptive skills, adaptive skill use in the classroom, and teacher comfort level with teaching adaptive skills. In a special education classroom, adaptive skills should be a component of everyday learning. They are typically taught alongside academic skills and are included on the student's Individualized Education Plan. A student's Individualized Education Plan (IEP) is a legal document that is agreed upon by all parties and encompasses the students' daily learning plan which can range from academic skills to daily needed adaptive skills. The need to teach both academic skills and adaptive skills to the population of students who have intellectual disabilities has been identified as a need from parents, administrators, and teachers. The ability to perform adaptive skills independently is a major component to adulthood and helps the student to take steps along his/her journey in the educational realm and in life. The research questions that follow assisted the researcher in gathering the information about how adaptive skills in the classroom are performed and how teachers are teaching adaptive skills in classrooms today.

Research Questions

The research questions posed for this study are as follows:

- 1. What adaptive skills do teachers find necessary for students to learn in order to be independent in the classroom environment?
- 2. Do teachers of students who have intellectual disabilities perceive adaptive skills to be

- important to teach in the classroom on a daily basis? If so, which do they perceive as most important?
- 3. To what extent does teacher comfort level with adaptive skill knowledge impact their perception to teach adaptive skills in the classroom setting?
- 4. What evidence-based methods do the teachers use in teaching adaptive skills in the classroom?
- 5. What experiences have teachers had in gaining technical knowledge about adaptive skills?
- 6. To what extent do teachers track their success rate in the area of adaptive skills?
- 7. To what extent do teachers perceive that teaching adaptive skills in the classroom assists the students in reaching their academic goals in the classroom environment?

Research Design

A quantitative, cross-sectional research design was selected in order to allow the researcher to focus on the perceptions of individual teachers and to gain a larger, overall picture of how adaptive skills were viewed and taught in special education classrooms. According to Creswell (2002), "A cross sectional survey can examine current attitudes, beliefs, opinions, or practices. Attitudes, beliefs and opinions are ways that individuals think about issues, whereas practices are their actual behaviors" (p. 398). Specifically, the researcher used this design with special educators in elementary schools that serve students with intellectual disabilities and students with developmental disabilities across the state of Tennessee. Background information, years of teaching experience, years of teaching special education, years since graduation, gender, type of classroom setting, highest level of education, and area of licensure, were collected from teacher participants. There were 19 questions that examined the perceptions of the teachers

regarding their current practice teaching adaptive skills, the training they have received around teaching adaptive skills, and how they integrated adaptive skills into the Individualized Education Plan.

Population

The study population was teachers who hold a license in special education, both modified and comprehensive licenses in the state of Tennessee. There are several licensing routes that a teacher can take when receiving a special education license in Tennessee. The first license allows the teacher to work with students who lack specific reading and/or math skills or deficits. The other is a more comprehensive license and that allows the teacher to work in a comprehensive setting that can focus on both academic and functional skills within the classroom environment (Tennessee Department of Education, 2016). The public schools currently have several different types of special education programs. The first is a comprehensive development classroom that provides more extended hours for students with more exceptional needs than can be met in the general education classroom. The second is the most restrictive setting available and is a different type of comprehensive development classroom, where students work on academics through learning life skills, such as functional math, functional reading, and more intensive adaptive skills. All settings serve students with intellectual disabilities. Teachers from these programs were asked to complete the survey.

Sample

The sample for this study were public elementary school special education teachers who taught students with intellectual disabilities and/or developmental disabilities in pre-kindergarten through a third-grade setting for the 2017-2018 school year. The sample came from 141 school

districts that offer comprehensive development classrooms. There were over 1,690 special education pre-kindergarten through third grade teachers across the state of Tennessee (Tennessee Department of Education, 2016). The names and emails of all of the teachers in the state of Tennessee were available through the public access website along with their subject areas of licensure. The teachers' names and email addresses were obtained from the Tennessee Department of Education and the local districts' public websites. The researcher went to each of the school districts' individual websites in order to access the email addresses and the names of the teachers that taught special education. The researcher received 254 usable surveys returned from participants which is a 15% return rate. Of those usable returned surveys, 100% of the participants that took the survey were special education teachers with an average of 13 years teaching experience in field of special education. Teachers were also recruited through social media outlets, which are described below.

Instrument Construction

A cross-sectional survey was used in order to collect information for this study. A survey method was chosen because the researcher specifically wanted to evaluate the attitudes and practices of teachers about adaptive skills. The researcher was interested in understanding the way teachers felt about adaptive skills and what their practices were in the classroom environment in regard to adaptive skills and student learning. A search was conducted to find a survey that measured attitudes and beliefs about adaptive skills. The researcher located two existing surveys that were generally related to this topic. The first survey that the researcher reviewed was a survey that was created by Kern (2006) titled, "Attitudes towards inclusive education questionnaire." The questionnaire did not measure the comfort level of the teachers that were surveyed. It discussed inclusion, but only on the most basic level, and asked questions

that did not relate to teaching adaptive skills A second survey that was reviewed for matching constructs was a survey created by Agran, Snow, and Swaner (1999). This survey was about selfdetermination and included some questions about adaptive skills within its makeup. However, the questions did not match the specific topics that the researcher was interested in studying. The questions discussed attitudes of the teachers about providing community-based instruction support through a pull-out service, where the students are pulled out of the classroom for 30 to 45 minutes for specific instruction for math or reading. The survey did not discuss the teaching of adaptive skills. Since no survey was found that measured the specific constructs of interest, the researcher went on to create and pilot a survey specifically about teachers' attitudes and perceptions regarding adaptive skills. This new instrument that was used for the final survey was created using the principles for instrument construction provided in Babbie (2012). These principles began with the most basic skill of creating a survey by using a questionnaire. Babbie (2012) noted that it was important for the researcher to identify which question types were included in the survey and that typically a survey has both statements and questions within its make-up. Babbie (2012) identified that there were two types of questions, open-ended and closed-ended questions, which the researcher included within the survey. He also noted several ways of formatting the survey to maximize efficiency and ease of use, as well as clear instructions in order to maximize the return rate. Babbie (2012) also noted that field testing the questionnaire is key to ensuring that an at-large population will understand the survey and be able to answer the questions accordingly. All of these principles were taken into consideration when creating the survey that was used for the final version for participants.

Field Focus Group One

The first field test was with seven special education school teachers who taught in comprehensive development classrooms in a district in East Tennessee. The school teachers provided feedback to the researcher via a small focus group. The teachers took the survey independently and then were brought back together for the focus group. The researcher asked the participants questions about the survey and if the survey was easy to understand. The focus group discussed each question in depth, and changes were made to the survey in order to make the questions align better to the research questions and gain better responses from the participants being surveyed.

The feedback from this first pilot group was positive and provided suggestions on how to improve the format of the survey and expand certain questions in order to gain better responses from participants. The first edition of the survey had 9 demographic questions and 25 questions about adaptive skills. There was an in-depth discussion regarding eight of the questions that needed some adjustment to make them more accessible to the reader. The first descriptive question was "What is the number of students with an intellectual disability on your personal caseload?" This question was expanded to include students with developmental disabilities, not just intellectual disabilities. In the state of Tennessee, developmental disabilities is a disability category that is similar to intellectual disability and is often used interchangeably in the school setting. The second question that was adjusted based on the feedback of the focus group was "Which strategies do you use to teach your children adaptive skills?" This question was adjusted to ask the participants to rank their top three choices and then check any others that they might use. In changing the format of the question, the researcher was able to get a better understanding of what teachers felt was most important instead of receiving a list of many important strategies.

The next question modified asked the participants to list the name of the curriculum that they used in the classroom instead of simply asking participants if they used a standard curriculum. In the original survey, there was one question that asked about teachers' participation in formal training teaching adaptive behaviors. This question was expanded to three questions to ask for more details about the formal training, if any, they received. Then the questioning shifted to ask the survey respondents if they felt that "A school/building level in-service to provide instruction about adaptive behaviors and how to teach them would be *important* to their teaching adaptive behaviors to students." One of the possible answers was changed to include school level/building level in-service. The next question that was adjusted as a result of focus group feedback was "Which adaptive skills below have you recorded data about either in a classroom or common area within the school in the last twelve months?" This question was expanded to allow for any anecdotal information the respondent wanted to provide. The final question that was changed based on feedback from the focus group participants was "What is your comfort level in teaching adaptive skills as a part of a daily curriculum in your classroom?" This question was adjusted to ask the survey respondents what their comfort level was in reference to adaptive skills in the classroom as part of their daily instruction. Focus group participants felt that the use of the word curriculum was not clear, and the participants were not sure of what the question was asking. At the end of the focus group, there were no changes in part one of the survey, and part two of the survey was reduced to 22 questions.

Field Focus Group Two

The researcher then held a second focus group of 13 special education teachers who taught in a comprehensive development classroom in a district in East Tennessee and had not been in the first focus group. These teachers took the survey independently and were then brought together to discuss all of the questions. They focused on the questions that were revised after the first focus group. The group reported positive feedback and felt that minimal changes needed to be made to the survey after the extensive changes that were made after the first pilot group. The changes included adding a line to the first survey question to provide space for the respondent to provide any details that he/she deemed relevant to the question "Please rank in order of 1 to 10 the adaptive skills which you deem to be most important to the children that you serve on your caseload?" The focus group participants felt by adding a line, it gave them more of a voice about the areas of adaptive skills that they felt were most important. The only other suggestion made by these focus group members was in regard to the question "How often do you collect data about adaptive skills in a setting outside of the classroom environment?" It needed to have an example placed within the question to ensure that the survey respondents understood the areas that the researcher was interested in gathering information about such as the cafeteria, hallway, or restroom.

Final Survey

The final survey had 7 demographic questions in part one and 19 questions in part two. There were seven overarching categories which aligned with the survey questions. The first category within the survey was about adaptive skills and which adaptive skills teachers deemed important. It contained one question that asked the survey respondents to rank in order the adaptive skills they deemed most important from 1 to 10. The second category included

intellectual disabilities and adaptive skill planning and contained four questions that asked the respondents about how important they felt adaptive skills were to their daily curriculum and their current planning strategies for students with intellectual disabilities. The next category included comfort level and asked the participants to rate their comfort level with teaching adaptive skills in order to gauge the current perception about adaptive skills in the classroom setting. The fourth category discussed evidenced-based practices and how teachers use them in reference to adaptive skill training. Category five included professional development and adaptive skills and asked questions about professional development and whether the teacher felt that more professional development would improve his/her comfort level with adaptive skills in the classroom. The sixth category, titled tracking success rates of adaptive skills, asked the participants to disclose their opinion about tracking success rates with adaptive skills and how their data collection took place in regard to adaptive skills. The category posed the question about using adaptive skills to reach academic goals in the classroom. These categories are listed in Table 1 below.

Table 1

Categories and Questionnaire Items

Categories	Questionnaire Items
Adaptive Skills	Part II-Item 14
Intellectual Disabilities and Adaptive Skills/Planning	Part II-Items 1,2,4
Comfort Level and Adaptive Skills	Part II-Items 17,18,19
Evidence-based Methods	Part II-Item 5

Professional Development about Adaptive
Part II-Items 6, 6.a, 7, 8, 9, 10

Skills

Tracking Success Rates of Adaptive Skills Part II-Items 11,12,13

Reaching Academic Goals Part II-Items 3, 15, 16

Data Collection

The survey link was emailed to all the special education teachers who teach in a comprehensive development classroom in the state of Tennessee. The total number of teachers that were emailed was 1,690. In order to collect the email addresses for the data collection, the researcher compiled a list of all counties within the state of Tennessee. The researcher then went to each districts' website and compiled a list of each school within that district. Once the list detailing each school was completed, the researcher went through each local school website and collected the names and email addresses of all the special education teachers for each school. The researcher entered the emails into a database in order to contact each possible participant individually and include the survey link. The email contained the recruitment letter (see appendix A), informed consent (see appendix B), and the link to the entire survey (see appendix C). As well as the researchers contact information and information regarding a gift card drawing for those that participated. The participants received an invitation and then three follow-up emails, reminding them to complete the survey. The researcher also used social media and placed an advertisement on the "Excellence for Educators" Facebook page requesting any special education teachers complete the survey. The researcher posted a short description of the survey and the survey link on the Facebook page. The survey arrived with an introduction email/cover letter and a link to a Google Forms Survey that took the participant to the informed consent document as well as the survey itself. Participants were assured that the survey was anonymous and that it had no link back to their identity or school. The survey remained live for three full weeks. At the end of each week, the researcher contacted all participants again through email and asked them to complete the survey if they had not done so already. Gift cards through Amazon were provided up to \$100 in order to maximize participation. There were 98 (5.8%) emails

returned for various reasons such as invalid email or the email recipient was no longer employed with the school. Once collected, coded, and analyzed, the data was stored using a locked file on the researcher's computer that is password protected/locked and will be stored for a minimum of six years.

Data Analysis

The survey used descriptive statistics to answer each of the research questions. Data analysis was completed using SPSS v.25. The analysis for part one of the survey questions 1, 2, and 3, was the mean, standard deviation, and range for each question. The analysis for questions 4, 5, 6, and 7 of part one in the survey used frequencies and percentages of responses for each question. Table 2 presents the research questions, the survey questions that match the research questions, and the type of analysis that was used on each item.

Table 2

Alignment of Research Questions with Questionnaire Items

Research Question	Survey Questions	Analysis Type
Research Question: 1		
What adaptive skills do teachers find		Descriptive Statistics-
necessary for students to learn in	Part II-Item 14	Frequency and percent of each
order to be independent in the		indicator in each question
classroom environment?		

Table 2 continued

about adaptive skills?

Table 2 continued		
Research Question: 2		
Do teachers of students who have intellectual disabilities perceive adaptive skills to be important to teach in the classroom on a daily basis?	Part II-Items 1,2,4,	Descriptive Statistics- Frequency and percent of each indicator in each question
Research Question: 3 To what extent do teacher comfort level with adaptive skill knowledge impact their perception to teach adaptive skills in the classroom setting?	Part II-Items 17, 18, 19	Descriptive Statistics- Frequency and percent of each indicator in each question
Research Question: 4 What evidence-based methods do the teachers use in teaching adaptive skills in the classroom?	Part II-Item 5	Descriptive Statistics- Frequency and percent of each indicator in each question
Research Question: 5 What experiences have teachers had in gaining technical knowledge	Part II-Items 6, 6a, 7, 8, 9, 10	Descriptive Statistics- Frequency and percent of each indicator in each question

Table 2 continued

Research Question: 6 To what extent do teachers track their success rate in the area of adaptive skills?	Part II-Items 11, 12, 13	Descriptive Statistics- Frequency and percent of each indicator in each question
Research Question: 7 To what extent do teachers perceive		
that teaching adaptive skills in the	Part II-Items 3,16	Descriptive Statistics- Frequency and percent of each
classroom assists the students in reaching their academic goals in the		indicator in each question
classroom environment?		

Summary

The researcher began the chapter by discussing the research questions that were used for the completion of the study. The explanations of the survey design, sample and pilot of the survey followed. The steps were listed that the researcher used to create the survey and pilot it with local special education teachers to assist with validity. Finally, the researcher outlined the plan for analysis and discussed the program for analysis.

CHAPTER 4

RESULTS

The purpose of this study was to better understand the perceptions of special education teachers regarding the teaching of adaptive skills for students who have intellectual disabilities, as well as to gain a better understanding of their comfort level. The information was compiled by surveying special education teachers in the state of Tennessee. Within this chapter, the results of the study are reported and discussed, as well as the research questions and the analysis for each question as it relates to adaptive skills.

Demographic Information About Participants

The final sample consisted of 254 participants who were in the field of special education in the state of Tennessee, which is 15% of those that received the initial invitation to participate in the survey. In the final sample, 100% reported that they worked in special education and worked with students with intellectual or developmental disabilities. The teachers reported the gender that they identified with in the demographic section of the survey. It was reported that 92.4% of teachers who took the survey were female, 6.8 % of the teachers who took the survey were male, and .8% preferred not to disclose their gender.

The researcher gathered information about the preschool to third grade setting in which the participants currently taught. Of the total participants, 59.8% reported that they taught in a resource classroom that served students with intellectual disabilities. A resource classroom is classroom that provides pull-out services for students with mild to moderate disabilities. The main focus of the resource classroom is specific skill development for deficits such as reading comprehension, fluency, or math. The service time is student-dependent, but generally services

are provided from 45 minutes to 1 hour. The majority (38.5%) of participants reported they taught in a self-contained classroom that included students with intellectual or developmental disabilities. A self-contained classroom typically provides students with more intensive services and also includes pre-vocational skills or adaptive skills within the curriculum structure. There were 26.4% participants who reported they taught in a self-contained life skills class, which typically focus on more functional-life skills training through academics. This placement usually provides students with the most service hours and is a more restrictive environment than the resource or comprehensive development setting. Finally, 31% reported that they taught in a special day school. A special day school is a placement that would be considered the most restrictive environment because it typically is not the student's home school and requires the student to be transported. There are usually no typically developing students that attend special day schools, therefore inclusion time with typically developing peers is no longer an option.

The participants were allowed to choose more than one setting because often within a school, teachers teach in more than one setting. The participants reported that 46.5 % taught within multiple settings in the school. The mean years of teaching experience for participants was 14.32 (SD = 9.33), with a range of 1-41 years. The teachers also reported years of experience within the field of special education, and the mean years of teaching experience in special education was 13.04 (SD = 9.19) with a range of 1-36 years. The frequencies and percentages for participants can be found in Table 3.

Table 3

Total Years Teaching

Total Y	Total Years Teaching		Total Years Teaching Special	
	Ed			ation
Years	Frequency	Percent	Frequency	Percent
0-1 years	5	2.0	8	3.2
2-3 years	25	10.2	33	13.2
4-6 years	31	12.6	42	16.8
7-9 years	23	9.4	22	8.8
10-15 years	63	25.6	52	20.8
16-20 years	38	15.5	36	14.4
21 or more years	60	24.7	55	22.0

Note. Total years teaching. n = 245

Note. Total years teaching special education. n = 248

The participants were asked to respond with their highest level of education obtained. The participants responded that 25.5% had at least a Bachelor's degree, 61.1% responded that they held a Master's degree, 10.2% completed an Educational Specialist degree, and 3.5% had a Doctoral degree. The frequencies and percentages for participants can be found in Table 4.

Table 4

Highest Level of Education Obtained

Level Of Education	Frequency	Percent
Bachelor's of Arts or Science	64	25.2
Master's Degree	155	61.1
Specialist Degree	26	10.2
Ph.D or Ed.D	9	3.5

The participants responded that 13% held an apprentice license, and 87% of the participants held a professional license. The researcher asked participants to state the total number of students in their caseload for the 2017-2018 school year. The following figures were reported: there were a total of 221 teachers that responded to the question. There were 170 teachers that reported they had a caseload of 0-20 students for the 2017-2018 school year, which made up 77% of the sample population. There were 38 teachers who reported they had a caseload of 21-40 students for the 2017-2018 school year, which comprised 17% of the sample. Only 6 (3%) teachers had a caseload of 41-80 and 7 (3%) teachers had a caseload that contained 81-140 students. The mean caseload for all participants was 17.37 (*SD* = 18.72) with a range of 1-140.

Results of Research Questions

The data analysis for the body of the survey is organized by research questions. Research question 1 asked special education teachers what adaptive skills they deemed necessary for students to learn in order to be independent in the classroom environment. These responses were

described by using descriptive statistics that included frequencies and percentages of each indicator in each question. Questions 2 through 7 were analyzed using descriptive statistics that included frequencies and percentages of each indicator in each question.

Research Question 1: What adaptive skills do teachers find necessary for students to learn in order to be independent in the classroom environment? The first research question discussed the value that teachers placed on adaptive skills and what adaptive skills are important for students to learn in order to be independent. To answer this question, the researcher asked the participants to rank the adaptive skills in order from 1 to 10, one being the least important and 10 being the most important. The participants stated that toileting was the most important adaptive skill on the list, with handwashing, eating, and drinking closely behind. There were 211 participants that responded to the question. There were 68 participants (31.5%) that rated toileting as the most important adaptive skill. There were 50 participants (23.3%) that felt handwashing was the second most important adaptive skill. The third most important adaptive skill was eating with 20.9 % of participants. There were 45 participants (21.3%) that felt that locating a space within the school setting was an important adaptive skill to have in the school setting.

Research Question 2: Do teachers of students who have intellectual disabilities perceive adaptive skills to be important to teach in the classroom on a daily basis? If so, which do they perceive as most important? In order to answer research question 2, there were three questions within the survey that addressed teachers' perceptions of adaptive skills in the classroom. In the first question, the participants were asked to rate how important they felt adaptive skills to be in their daily curriculum with choices ranging from not important to highly important. Frequencies and percentages were calculated. There were 254 teachers that responded to the question with

30.3% of participants stating that they felt it was highly important to teach adaptive skills within the daily curriculum, and 33.9% of participants that reported that adaptive skills were very important to teach in daily curriculum. Table 5 highlights the frequencies and percentages for those participants that responded to the question.

Table 5

Importance of Adaptive Skill in Daily Curriculum

Importance	Frequency	Percent
Not Important	5	2.0
Somewhat Important	34	13.4
Important	52	20.5
Very Important	86	33.9
Highly Important	77	30.3

Note. n = 254

The fourth question in the survey that was used to answer research question 2 gathered information about the importance of teaching adaptive skills to students with intellectual disabilities. The survey asked the participants to rate how important they felt adaptive skills were to teach. The choices the participants had ranged from not important to highly important. There were 253 teachers that responded to the question with an average of 46.2% reporting that teaching adaptive skills was considered to be highly important. There were 31.6% of participants who stated it was very important to teach adaptive skills; 16.6% of participants stated that they thought it was important to teach adaptive skills in the classroom. Table 6 reports the frequencies and percentages for those participants that responded to the question.

Table 6
Importance of Teaching Adaptive Skills to Students with Intellectual Disabilities

Importance	Frequency	Percent	
Not Important	1	.4	
Somewhat Important	13	5.1	
Important	42	16.6	
Very Important	80	31.6	
Highly Important	117	46.2	

The second question in the survey asked participants to rate how they currently plan for adaptive skills in the classroom. The survey question asked participants to indicate if they currently plan for adaptive skills by choosing whether they explicitly plan to teach adaptive skills on an hourly basis, daily, or weekly basis to students with intellectual disabilities. The participants could also choose whether they plan for implied or embedded teaching on a weekly or monthly basis or no planning for adaptive skills at all. There were 254 teachers that responded to the question with 18.1% of participants stating that they explicitly plan for adaptive skills on an hourly basis. There were 40.2% of participants that responded that they plan for adaptive skills explicitly on a daily basis. Table 7 reports the frequencies and percentages for those participants that responded to the question.

Table 7

Planning for Adaptive Skills

Planning	Frequency	Percent
Explicit teaching on an hourly basis	46	18.1
Explicit teaching on a daily basis	102	40.2
Explicit teaching on a weekly or monthly basis	28	11.0
Implied teaching on a weekly or monthly basis	41	16.1
I don't currently plan for adaptive skills	37	14.6

Research Question 3: To what extent does teacher comfort level with adaptive skill knowledge impact their perception to teach adaptive skills in the classroom setting? In order to answer research question 3, participants answered survey questions 17, 18, and 19. The questions focused on participants and their comfort level with adaptive skills in the classroom. Participants were asked to rate their comfort level using adaptive skills in the classroom by choosing a rating ranging from no comfort level in adaptive skills to being an expert in adaptive skills. There were 250 participants who responded to the question on the survey. Of the 250 participants who responded, 52% stated that they were very comfortable with teaching adaptive skills in the classroom, 30.8% reported that they were somewhat comfortable, and 8% reported that they had small level of comfort with teaching adaptive skills. Table 8 reports the frequencies and percentages for those participants that responded to the question.

Table 8

Comfort Level Teaching Adaptive Skills in the Classroom

Frequency	Percent	
11	4.4	
20	8.0	
77	30.8	
130	52.0	
12	4.8	
	11 20 77 130	11 4.4 20 8.0 77 30.8 130 52.0

Question 18 in the survey gathered perceptions from teachers about whether they felt a structured curriculum would assist students in becoming more independent in adaptive skills in the classroom. In order to answer this question, participants were asked to rate how much growth they felt would be shown by students if there was a structured curriculum available to assist in teaching the skills that would lead to independence. The participants were asked whether they felt a greater level of independence for students might occur if teachers had access to a structured curriculum by rating choices ranging from not at all to a large amount of growth might be shown. Of the 250 participants who responded, 139 participants (55.6%) stated they felt a large amount of growth might be shown with the use of a standardized curriculum in the area of independence. There were 101 participants (40.4%) who stated they felt that growth would improve somewhat, and 2.8% of participants stated they felt a small amount of understanding might be shown. Table 9 reports the frequencies and percentages for those participants who responded to the question.

Table 9

Independence Through Structured Curriculum of Adaptive Skill Training

Rating	Frequency	Percent
Not at all	3	1.2
A small level of growth might be shown	7	2.8
Somewhat	101	40.4
A large amount of growth might be shown	139	55.6

 $\overline{Note.\ n = 250}$

Question 19 on the survey asked the participants to rate the extent that they felt their understanding would grow if provided more training on adaptive skills and adaptive skill curriculum. The participants were asked to rate the extent they felt that if the school or district provided more training their understanding would improve from not at all to a large amount of understanding might occur. Of the 250 participants who responded, 109 participants (43.6%) indicated that a large amount of understanding might occur if provided training. There were 112 participants or 44.8% who responded that training would increase their understanding somewhat of adaptive skills in the classroom environment. There were 21 participants (8.4%) that indicated that a small amount of understanding might occur, and 8 (3.2%) that responded no understanding. Table 10 reports the frequencies and percentages for those participants who responded to the question.

Table 10

Understanding of Adaptive Skill Training

Rating	Frequency	Percent
Not at all	8	3.2
A small level of understanding and improvement might occur	21	8.4
Somewhat	112	44.8
A large amount of understanding might occur	109	43.6

 $\overline{Note.\ n=250}$

Research Question 4: What evidence-based methods do the teachers use in teaching adaptive skills in the classroom? In order to answer research question 4, the researcher asked participants to look at a list of evidence-based teaching methods. The participants were then asked to rank their top three teaching methods and choose any methods that they used. There were 239 participants who responded to the question; however, there were choices that participants skipped over or did not answer at all. The participants reported modeling, visual prompts, and social story training as their top three evidenced-based teaching methods. The participants also were asked to choose any that they used in the classroom environment. Table 11 reports the top three strategies chosen and the frequencies and usage. The table also reports the participants who responded to the question about the strategies that they used in the classroom environment.

Table 11

Reported Strategies Used in the Classroom

Strategies	Frequency	Rank	Use	Participants
				Don't Use
Modeling	239	1 st (94)	75	3
Visual cues	221	2 nd (52)	96	3
Social story training	219	3 rd (31)	112	59
Verbal prompt	232		94	2
Behavioral in-vivo	179		24	136
Audio cues	185		97	50
Antecedent based interventions	191		102	42
Scripting	180		97	59
Video self-model	191		42	127
Backwards chaining	186		53	108
Constant time delay	179		54	109
Least to most prompting	192		108	45
Social narrative	197		117	36
Forward chaining	185		58	108
Task analysis	200		104	44
Physical prompting	198		128	37
Target sequencing	182		80	81

Note. Not all rows will add up to 100% because the participants could choose not to respond or choose to not to rank the data.

Research Question 5: What experiences have teachers had in gaining technical knowledge about adaptive skills? In order to answer research question 5, a question on the survey asked about the use of a standardized curriculum. The question asked the participants to disclose whether or not there was a standardized curriculum about adaptive skills that was used in their district to teach adaptive skills in the classroom. If they did not have a standardized curriculum, the survey used skip logic to move them to the next question. If the participant responded that they did have a structured curriculum, the survey then prompted the participant to answer a question designed to give more information about the structured curriculum. There were 41 participants (16%) who stated they had access to a standardized curriculum and used it in the classroom. If the participants had a curriculum, they were then asked to rate the extent that they used the curriculum to help them teach about adaptive skills. From the participants who reported their district had a standardized curriculum, 2 participants said they never used it, 2 participants stated that they almost never used it, 23 participants sometimes used it, 8 participants almost always used it, and 4 participants always used the curriculum to teach adaptive skills. There were 2 participants who indicated that they had a curriculum but did not respond to the follow-up question.

The researcher included other questions within the survey to better understand how participants gained their knowledge about adaptive skills and what experiences shaped their adaptive skill knowledge. Survey question 7 asked participants to state how many times they participated in formal training about adaptive skills in the last 12 months. Table 12 reports the frequencies and percentages for those participants who responded to the question.

Table 12

Formalized Training for Adaptive Skills in the Last Twelve Months

Amount of Training	Frequency	Percent
Once	47	50
Twice	29	30.8
Three times	10	10.6
More than four	8	8.5

 $\overline{Note.\ n=94}$

The researcher then asked the participants to disclose information about how many hours they spent in trainings learning about adaptive skills within the last 12 months. There were 251 participants who responded to the question, with 61.7% of participants reporting that they received less than two hours of training, including self-study in the last 12 months. Table 13 reports the frequencies and percentages for participants who responded.

Table 13

Hours Training About Adaptive Skills

Total Hours Spent	Frequency	Percent
2 hours or less	155	61.7
3-4 hours	37	14.7
5-9 hours	30	12
10-14 hours	10	4
15 or more	19	7.6

Note. n = 251

Participants were then asked about the setting of their training. There were 179 participants who responded to survey question 9 by identifying places such as colleges, self-study, webinars, and school level in-service. There were also opportunities for participants to enter in their own choice within the survey. Other choices that were pre-populated into the survey were college or university, self-study, webinar, conference, professional learning community, district level in-service, or school/building level in-service. There were 21.2% of participants who reported they learned about adaptive skills in a district level in-service. and 16.2% learned about adaptive skills through professional learning communities, which is a weekly or monthly meeting in which the teachers get together and discuss professional topics in order to gain more knowledge about their profession. Table 14 reports the frequencies and percentages for those participants who received training.

Table 14
Setting for Instruction About Adaptive Skills

Setting	Frequency	Percent
District Level In-Service	38	21.2
Professional Learning Community	29	16.2
College or University	28	15.6
Other	22	12.3
Self-Study	18	10
Conference	17	9.5
School Level In-Service	16	8.9
Webinar	11	6.1

Note. n = 179

Question 10 on the survey asked the participants to rate from not important to important how they felt a school level in-service would be to their teaching of adaptive skills in the classroom. There were 236 participants who responded to the question. There were 83.8% of the participants who indicted that school level in-service would be in the important, very important, and highly important categories. There were 13.6% of participants that stated it was somewhat important, and 2.5% of participants stated school level/building level in-services would not be important. Table 15 reports the frequencies and percentages for those participants who responded to the question.

Table 15

Importance of School Level In-Service About Adaptive Behaviors

Importance	Frequency	Percent
Not important	6	2.5
Somewhat important	32	13.6
Important	90	38.1
Very important	69	29.2
Highly important	39	16.5

Note. n = 236

Research Question 6: To what extent do teachers track their success rate in the area of adaptive skills? In order to better understand the extent that teachers track their success rate in the area of adaptive skills, the researcher included three questions within the survey that targeted their specific answer to research question 6. Question 11 in the survey asked the participant to rate how often they took data about adaptive skills in the classroom environment. The answer choices ranged from daily to every six months. Of the 199 participants who responded, 30.7%

stated that they collected data in the classroom on a daily basis, 43.2% reported that they collected data on a weekly basis, and 18.6% on a monthly basis. Table 16 reports the frequencies and percentages for those participants who responded to the questions.

Table 16

Data Collection in the Classroom

Time Frame	Frequency	Percent
Daily	61	30.7
Weekly	86	43.2
Monthly	37	18.6
Quarterly	12	6.0
Every six months	3	1.5

Note. n = 199

The researcher was also interested in gaining a better understanding of how often teachers recorded data about their students' adaptive skills outside the classrooms in common areas of the school such as hallways, cafeterias, or restrooms. In order to better understand the extent that teachers track their success rate in the area of adaptive skills outside the classroom, the researcher asked a separate question within the survey. Question 12 in the survey asked the participants to rate how often they took data about adaptive skills outside the classroom environment. The answer choices ranged from daily to every six months. Of the 178 participants who responded, 25.3% stated that they took data in the classroom on a daily basis, 42.1% reported that they took data on a weekly basis, 23% on a monthly basis, 7.9% on a quarterly basis, and 1.7% every six months. Table 17 highlights the frequencies and percentages for those participants who responded to the questions.

Table 17

Data Collection Outside the Classroom

Time Frame	Frequency	Percent
Daily	45	25.3
Weekly	75	42.1
Monthly	41	23.0
Quarterly	14	7.9
Every six months	3	1.7

Note. n = 178

The researcher wanted to gain a better understanding of which adaptive skills participants record data about in the classroom environment or in common areas. In the survey question, participants were asked which adaptive skills they recorded data about in the last 12 months and to check all that applied. Toileting was the skill that most teachers collected data about either in the classroom or in common areas. There were 112 participants (55.4%) who responded that they collected data about toileting. The second skill that participants stated they collected data about was attending lunch independently or with assistance. There were 99 participants (49.0%) who stated that they collected data about students and lunch. The third skill that the participants reported that they collected data on either in the classroom or in the common area was handwashing. There were 91 participants (45%) who stated they collected data about handwashing in the classroom or in a common area. The adaptive skill that the participants stated that they collected data about the least was drinking with only 35 participants (17.3%) who responded they collected data about drinking. Table 18 reports the skill, frequencies, and the participants' response with data recording about adaptive skills.

Table 18

Adaptive Skills Data Collection

Skill	Frequency	Percent of Participants
		That Recorded Data
Toileting	112	55.4
Attending lunch with or without assistance	99	49.0
Handwashing	91	45
Eating	73	36.1
Indicating when wet or soiled	67	33.2
Dressing	61	30.2
Shoes (tied or untied)	59	29.2
Other	50	24.8
Locating the restroom	44	21.8
Drinking	35	17.3

Note. n = 202

Note. Values in percent of case will add up to more than 100% due to multiple response option in the survey.

Research Question 7: To what extent do teachers perceive that teaching adaptive skills in the classroom assists the students in reaching their academic goals in the classroom environment? The researcher wanted to better understand how teachers perceived adaptive skills and their perception about how adaptive skills helped students to reach their academic goals in the classroom. The researcher placed three questions in the survey that addressed adaptive skills and reaching academic goals. Question 3 on the survey asked the teachers whether adaptive

skills were on students' Individualized Education Plan. Question number 15 on the survey asked teachers whether they compared adaptive skills to an academic standard. Finally question 16, asked if teachers felt that teaching students adaptive skills assists them in meeting academic goals in the classroom environment.

Question 3 in the survey asked participants to describe whether adaptive skills are included on most Individualized Education Plans in their caseloads. The participants were asked to indicate how often adaptive skills are included on the IEP ranging from never to always.

There were 252 participants who responded to the question. Of the total participants, 28.2% responded that adaptive skills are always included on the IEP, 34.5% responded that they are almost always included on the IEP, 25.8% reported that they are sometimes included in the IEP. Table 19 reports the frequencies and percentages for participants who responded to the question.

Table 19

How Often Adaptive Skills are Included on the IEP

Amount	Frequency	Percent
Never	10	4.0
Almost Never	19	7.5
Sometimes	65	25.8
Almost Always	87	34.5
Always	71	28.2

Note. n = 252

Question number 15 on the survey asked the participants to rate how often they compared adaptive skills to an academic standard by using the terms daily, weekly, monthly, quarterly, or

every 6 months. There were 165 participants who responded to the question. There were 9.7% of participants who stated they compared adaptive skills to academic standards every 6 months. There were 21.8% of participants who reported that they compared adaptive skills to an academic standard quarterly, and 23.6% of participants reported that they compared adaptive skills to academic standards on monthly basis. Table 20 reports the frequencies and percentages for those participants who responded to the question.

Table 20

Adaptive Skills and Academic Standards

Time Frame	Frequency	Percent
Daily	23	13.9
Weekly	51	30.9
Monthly	39	23.6
Quarterly	36	21.8
Every 6 Months	16	9.7

Note. n = 165

Question 16 on the survey asked participants to rate how they felt about adaptive skills and academic goals. The question asked the participants to rate from strongly disagree to strongly agree that teaching students adaptive skills prepares them for meeting their academic goals. There were 247 participants that answered the question. There were 48.2% of participants who stated that they agree with the statement that adaptive skills prepare students for meeting their academic goals, 34% of participants strongly agreed, and 9.7% of participants who were neutral on the topic. Table 21 reports the frequencies and percentages for those participants who responded to the question within the survey.

Table 21

Teaching Adaptive Skills Prepares Them for Meeting Academic Goals

Agreement	Frequency	Percent
Strongly Disagree	15	6.1
Disagree	5	2.0
Neutral	24	9.7
Agree	119	48.2
Strongly Agree	84	34.0

Note. n = 247

Summary

In Chapter 4, the 254 surveys completed by teachers in the state of Tennessee and the findings of the quantitative survey were compiled and reported. Teachers reported that they believe adaptive skills to be important for students with intellectual disabilities and perceive it to be important to teach adaptive skills to students with intellectual disabilities through modeling, visual cues, and verbal prompts. Teachers said that toileting was the most important adaptive skill to independence, and planning for adaptive skills explicitly on a daily basis was important for independent student success. The teachers also stated that a structured curriculum would be beneficial to their teaching and a large amount of understanding about teaching adaptive skills to students might be shown if structured curriculums were more readily available to them. Teachers used evidenced-based methods to teach adaptive skills in the classroom and collect data about adaptive skills. The teachers stated that they collected data most often on a weekly basis and felt strongly about connecting them to academic goals. The evidence-based methods used most frequently to teach adaptive skills were modeling, visual cues, and verbal cues. Teachers also

perceive professional development to be important to their understanding of adaptive skills and how to teach adaptive skills in the classroom. The teachers discussed that they learned more about adaptive skills through district level in-service than any other setting. In conclusion, the findings of the survey suggest that teachers within the field of special education consider adaptive skills to be an important instructional tool within the classroom environment.

CHAPTER 5

DISCUSSION

Introduction

The previous chapters provide a better understanding of teacher perceptions of their ability to teach adaptive skills within an early childhood comprehensive development classroom for students with intellectual disabilities. The results of the survey will be discussed and linked to current research in the field of early childhood education. There were 254 teachers who responded to the survey, including those that teach within an early childhood special education classroom in the state of Tennessee. The students within those classrooms were between the ages of 4-10 at the time of the survey. The study was completed to gain a better understanding of how teachers felt about adaptive skills, and if they thought they were important. The researcher also was interested in understanding which adaptive skills teachers thought were important, what evidence-based practices the teachers were using, how frequently they planned for adaptive skills, and where they gained their personal knowledge about adaptive skills. The researcher attempted to draw conclusions and make recommendations for future research in the area of adaptive skills.

Summary of the Study

In this study, the participants gave their thoughts and opinions through a survey about adaptive skills in an early childhood comprehensive development classroom for students with intellectual disabilities. The researcher developed the survey to gain a better understanding about the special education teacher's perception of adaptive skill knowledge and perceptions of their comfort level with adaptive skills in the state of Tennessee's classrooms, and attempted to fill a

gap in the research literature regarding teachers' knowledge, perception, and comfort level with adaptive skills. The researcher was also interested in learning what evidenced-based methods teachers used in the classroom and determine what those methods were.

Purpose Statement and Research Questions

The purpose of this research study was to better understand perceptions of special education teachers and their perception on their ability to teach adaptive skills within a comprehensive development classroom. There were seven research questions that governed this quantitative research study:

- 1. What adaptive skills do teachers find necessary for students to learn in order to be independent in the classroom environment?
- 2. Do teachers of students who have intellectual disabilities perceive adaptive skills to be important to teach in the classroom on a daily basis? If so, which do they perceive as most important?
- 3. To what extent do teachers' comfort level with adaptive skill knowledge impact their perception to teach adaptive skills in the classroom setting?
- 4. What evidence-based methods do the teachers use in teaching adaptive skills in the classroom?
- 5. What experiences have teachers had in gaining technical knowledge about adaptive skills?
- 6. To what extent do teachers track their success rate in the area of adaptive skills?
- 7. To what extent do teachers perceive that teaching adaptive skills in the classroom assists the students in reaching their academic goals in the classroom environment?

The methodology for this research study was a quantitative, cross-sectional survey design that allowed the researcher to gain a better perspective about how adaptive skills are taught in special education classrooms. The data was collected through a survey that was distributed to 1,690 special education teachers of which 254 were returned. Once the data was collected, it was analyzed using descriptive statistics including frequency, percent, mean, and standard deviation.

The main findings from this research study were that teachers find adaptive skills to be an important component to learning for students with intellectual disabilities and feel that more professional development on the topic would improve their comfort level and self-efficacy.

Another theme that became apparent was that teachers use evidence-based methods to teach adaptive skills, yet there are some teachers that do not collect data on adaptive skills at all. The participants reported having a high level of comfort with teaching adaptive skills, however they noted that an increase in understanding might occur if they had more local learning opportunities. The researcher was interested in understanding these perceptions and which adaptive skills teachers were currently teaching, how often they collected data, if they compared it to an IEP goal or academic standard, and the level of importance they feel adaptive skills have in the greater scheme of curriculum in the classroom.

Findings Related to Current Literature

Adaptive Skills and Importance

Students with intellectual disabilities typically have adaptive skill deficits in the classroom environment. Adaptive skills have been noted within the current research as being an important part of the child development process as the mastery of these skills leads to lifelong

independence (Lowenthal, 1996). However, there are very few research studies that focus on what adaptive skills teachers find to be important to teach in the classroom environment (Bauer et al., 1992). Handwashing, toileting skills, and eating are those that are noted in the literature as being important for independence, and the use of strategies when teaching these skills is paramount to ensure success for the student (Howard, Whitney, West, & Young 1986). The educators surveyed agreed with the literature and responded to the survey with the top three adaptive skills that they felt to be important: toileting, handwashing, and eating. The participants also stated that they felt it was highly important to teach adaptive skills to students with intellectual disabilities. This is in alignment with the findings of Burton and Langone (1987) that discuss adaptive skills such as eating, dressing, grooming and toileting as being more important to independence. The least common choices for adaptive skills were attending lunch independently, tying shoes and locating the office.

Importance Level of Adaptive Skills and Planning

There is very little research currently available about adaptive skills and teachers' perceptions about the importance of teaching adaptive skills in the classroom environment. However, the importance of adaptive skills is becoming a priority to teachers that have students with intellectual disabilities (De Bildt et al., 2005). The survey found the majority of participants who responded felt that it was important to teach adaptive skills within the daily curriculum and that 46% of participants felt it was highly important to teach adaptive skills to students with intellectual disabilities.

It is also becoming more apparent that self-efficacy in instructional practices is a key factor in teacher planning and instruction. Those teachers that have high self-efficacy opinions tend to plan more explicitly and have more confidence in their ability to teach specific skills than

do teachers with low self-efficacy (Hoy & Woolfolk, 1990). Planning explicitly for adaptive skills is becoming more prevalent in the classroom setting among special education teachers. There were 40% of participants that stated they explicitly plan for adaptive skills on a daily basis for students with intellectual disabilities. Explicit planning for instructional tasks also connects to teacher comfort level in the classroom environment and planning for instruction.

Structured Curriculum and Comfort Level

A study by Ashdown and Bernard in 2012 asked that four teachers explicitly plan for teaching adaptive skills using a structured curriculum. The structured curriculum was used with 100 students and provided students with emotional, social, and various behavioral lessons that allowed them to practice specific skills within the classroom environment, where errors could be made, and modeling could be integrated. The students that received the structured curriculum had a higher rate of generalization and overall understanding of the skills being taught than the students who received no curriculum at all. The structured curriculum assisted students in learning both social-emotional skills and adaptive skills within the classroom (Ashdown & Bernard, 2012).

Special education teachers indicated that they felt if they had a structured curriculum, it would provide them more opportunities to improve student growth. There are structured curriculums available for instruction for adaptive skills in the classroom environment; however, only 41 out of the 254 participants that responded to the survey reported they have curriculum available to them in the classroom. There are some curriculums available to educators for little to no cost, yet those curriculums that are available for free or limited cost have very little research or evidence-based support provided. There are also many available curriculums that have

research-based support and provide daily instruction but are costly in their acquisition and are typically for middle- to high-school-aged students.

It is also important to note that if teachers believe a skill to be of value, then they are more likely to ensure it is included within the curriculum, whereas if the teachers believe it to be unimportant then they will not explicitly plan to include those skills within the daily curriculum (Brackett, Elbertson, Reyes, Rivers, & Salovey, 2012). Planning to teach adaptive skills in the classroom requires the teacher to have a level of comfort with the curriculum itself and instruction of that curriculum. In order to teach adaptive skills, one must feel comfortable with the material and the strategies that accompany those skills. Teacher comfort level in the classroom assists the students in becoming comfortable with the expectations of learning adaptive skills. Overall comfort level was reported by the participants that responded to the survey and 83% of participants responded that they were in the somewhat comfortable to comfortable range with adaptive skill instruction. With comfort level also comes self-efficacy, which is simply defined as the belief that one can complete a task with confidence that it will be successful (Allinder, 1994). The participants that responded to the survey noted that they are comfortable teaching adaptive skills in the classroom, but 56% of participants felt a structured curriculum might produce more growth within students' adaptive skills, along with school level training. It is alluded to within the literature that quantitative studies on teacher training and student achievement are few in number (Feng & Sass, 2013). The survey given to participants by the researcher showed that they believe adaptive skills to be important and that teacher training on adaptive skills is also important. However, whether that belief translates into practice within the classroom is a question that remains.

Adaptive Skills and Evidenced-Based Practices

As required by law, evidence-based practices are strategies that teachers are required to implement in the classroom when teaching students of all populations (Tennessee Department of Education, 2016). All strategies listed in the survey were considered to be evidence-based and used for students with intellectual disabilities (Wong et al., 2015). The evidence-based practices that the participants chose were also the ones that the literature rated as important tools for learning. In order to ensure understanding of an evidence-based practice, it is important to define them. According to Dunst & Trivette (2009), "evidence-based practice are defined as practice informed by research findings demonstrating a (statistical or functional) relationship between the characteristics and consequences of a planned or naturally occurring experience or opportunity..." (p. 41).

There were evidence-based strategies that the participants described to be particuarly helpful in teaching adaptive skills to students with intellectual disabilities. The participants noted that modeling, visual cues, and social story training were the strategies they used most often.

There is reported to be growth for students through the use of these evidence-based practices and repeated replication of evidence-based practices (Cook, Coyne, Therrien, & Travers, 2016).

Behavioral in vivo procedures, which is simply teaching the skill in the natural environment to assist with generalization, video-self modeling, constant time delay, and backwards chaining were the strategies they used the least.

Technical Knowledge and Adaptive Skills

There are many opportunities throughout the school year to access professional development and gain technical knowledge. The state of Tennessee requires school districts to

provide five professional development days within the school year to teachers that include direct instructional support for various aspects within the profession of teaching. Some examples of these allowed activities are workshops, seminars, instructional meetings, and direct coaching. (State of Tennessee, 2016). These professional development activities may include various aspects of evidence-based strategies in their design and are planned by the school. Professional developments can be designed in a way to assist or improve academic performance within the school by explicitly teaching students instructional strategies (Graham, Harris, & Sawyer, 1992). Of the participants who responded to the survey question, 38% felt that it would be important to have a school level in-service to support adaptive skill instruction through evidenced-based strategies.

There are many different ways to gain technical knowledge in the field of education. One of the newer avenues of professional development is through professional learning communities. Local professional learning communities are a cornerstone to improvement in areas of professional development topics and increase teacher knowledge and comfort level with new information (Edmons & Spradlin, 2009). However, when the participants reported where their training for adaptive skills took place, only 16% reported that they had gained knowledge from a professional learning community about adaptive skills.

Data Collection and Success Rate

In current research, it is noted that prior to 2004, there were very few expectations for students with intellectual disabilities and or other profound disabilities in regard to academic achievement through evidenced-based practices (Bobzien, 2014). There is very little research thus far to provide data to teachers about tracking success with adaptive skills and evidence-

based practices. There are teachers currently using a host of practices that are still being executed based on traditional teaching methods that are not grounded in research (Cook & Cook, 2011).

The law in the state of Tennessee requires teachers to teach academic content to the generalized population, but the interpretation of the law is not clear for students with disabilities due to the need to teach prerequisite skills that are connected to academic skills and the Individualized Education Plan (Tennessee Department of Education, 2016). The Individualized Education Plan allows the teacher to include within the IEP skills that specifically address academic deficits that the student possesses in the classroom environment. The No Child Left Behind Act of 2001 required all students to have challenging standards including those with significant cognitive disabilities that included skills based upon academic deficits in order to assist in creating equal opportunities to access general curriculum in the classroom. Historically school programming for students with significant cognitive disabilities had been based upon adaptive skills or functional life-skills with very little academic programming involved in the classroom environment. However, according to Browder, Courtade, Jimenez, and Spooner (2012) "There is nothing about learning to tie one's shoes or use a vending machine or eat with a spoon that must be mastered before learning to read or solve math problems" (p. 7).

Within special education there has been a change happening in regards to students with intellectual disabilities and their perceived ability to learn traditionally on standards-based instruction and how both adaptive skills and academic skills can be intertwined in the classroom to maximize student potential (Ayres, Douglas, Lowrey, & Sievers, 2011). In order for teachers to know if the student's maximum potential is being reached within the classroom data collection about skills must be completed with fidelity.

However, published research is minimal about data collection for adaptive skills once initial identification for the disability category of intellectual disability has been made in a school setting. Historically, adaptive skills have been taught as a group and not individualized by skill. Traditionally practitioners taught toileting, dressing, eating, and drinking together as a personal life-skills and did not focus on the prerequisite skills that might be required to obtain generalization of the skill. The data collection of the skill was also not as detailed in the past, where the teacher might have reported a simple response such as a yes or no in reference to a skill. In education classrooms today, the skill must be broken down in to multiple parts and assessed individually (Dixon & Sisson, 1986; Hasselt, Kilwein & Sisson, 1988; Howard et al., 1986; Spooner, Knight, Browder, & Smith, 2012). However, there is other literature that suggests teaching students the specific prerequisites that are required for each individual adaptive skill might be more appropriate for students with intellectual disabilities or other low incidence disabilities to ensure long-term generalization rather than teaching students academic skills without adaptive skills (Berger, Doyle, Marholin, O'Toole, & Touchette, 1979; Guess et al., 1978). There are ways that adaptive skills can be connected to academic skills and ensure that both academic and adaptive skills are being met in the classroom. An example of connecting adaptive skills to an academic skill is to complete a task analysis on the skill of handwashing and while completing the task analysis require the student to count the steps when complete. The student would be completing the adaptive skill as well as the academic standard of counting fluently from 1 to 10, all the while using an evidence-based practice.

Finally, this study finds that participants collected data about adaptive skills on a weekly basis with 43% of participants reporting that weekly is their most frequent time to collect adaptive skill data. The participants also responded that they collect data on daily basis (31%)

and a monthly basis (18%). The adaptive skills that the participants reported collecting data on are toileting (55%), handwashing (45%), attending lunch (49%), eating (36%), indicating wet or soiled (33%), and drinking (17%). Data collection for students with intellectual disabilities has changed rapidly in a short period of time and has become ingrained with evidence-based strategies and instructional techniques rather than solely on adaptive behaviors.

Adaptive Skills and Academic Goals

There is a movement in education to increase emotional and behavioral support through adaptive skills in classroom environments in order to help students to understand why and how to self-regulate through adaptive skills in order to reach academic goals (Binder, Clark, Fox, Hemmeter, & Snyder, 2011). There have been many different ways that teaching adaptive skills has been approached within the educational realm and the approach is ever-changing in special education. Effective instruction for adaptive skills within early childhood classrooms is one way that academic goals can be reached in the classroom but requires diligent planning and explicit instruction (Ashdown & Bernard, 2012).

Explicit instruction for students in early childhood classrooms has proven to be effective as a tool within the instructional toolbox for educators (Archer & Hughes, 2010). There are many other available tools for educators that can assist in the process for teaching adaptive skills. Preteaching academic language that accompanies adaptive skill teaching in the classroom is one way to assist students in succeeding in acquiring adaptive skills that are necessary for independence (Guess et al., 1978). Task analysis, graduated prompting, modeling, and verbal prompts advance student engagement and generalization of adaptive skills. However, these strategies and skills require explicit planning and instruction (Hasselt et al., 1988). Explicit planning and instruction could be influenced and adjusted through data collection and comparing

IEP goals to academic standards. The participants reported that they collect data on specific adaptive skills within the classroom or common area in the school environment. The researcher also asked participants if teaching adaptive skills helps students to reach their academic goal and 48% agreed that it does and 34% strongly agreed that it prepares students for meeting academic goals.

Conclusions

Limitations

There were several noted limitations of the study. This study used a convenience sample since the researcher sent the request to all special education teachers within the state of Tennessee and then the participants volunteered to participate. The participants completed the survey anonymously therefore the researcher does not know the area within the state of Tennessee each response represents. The participants could be all from one location in the state of Tennessee and it is also unknown the socioeconomic status and diversity ratio of the schools where the participants teach. Another limitation was the response size for the survey. The researcher sent out 1,690 surveys and had 254 returned therefore only representing roughly 15% of the special education teaching population in the state of Tennessee and since the researcher did not include ethnicity in the questionnaire on the survey, there is no way of knowing the diversity of the participants.

With special education teachers, there are many different methods that encompass data collection and connecting adaptive skill standards to academic goals. Another limitation to the study was that the researcher did not ask participants through the survey to state the data collection process that they personally use within their classroom. Collecting that information

might have led the researcher to gain a better understanding of how data collection is approached in multiple early childhood classrooms across the State of Tennessee. The final limitation was that the survey did not provide a follow-up question about how teachers connect academic goals and adaptive skill standards. Information about how teachers connect them within the classroom might have been beneficial to the study and given the researcher more insight for future studies.

Recommendations for Future Research

A recommendation for future research about adaptive skills and students with intellectual disabilities is to interview and observe those teachers that stated they connect adaptive skills to an academic goal in order to gain a better understanding how this is practiced in the field of special education. The use of observations and interviews would help insights about actual practices within classroom environments and allow researchers to better understand the process of teaching adaptive skills to students with intellectual disabilities.

Another recommendation for future research is to examine the existing curriculum used within the state of Tennessee. It would help the researcher to gain a better understanding about whether or not curriculum that is being used by teachers is evidence-based curriculum. This could provide special education teachers with valuable data that might be used to encourage a larger implementation of a standardized curriculum if evidence-based curriculum was shown to be successful.

A final recommendation for future research is to provide professional development to teachers and practitioners in the field that would increase their comfort level and understanding on how to teach adaptive skills. The future professional development could provide insightful data collection techniques in order to maximize teacher effectiveness in the classroom. The

researcher plans to expand upon the work in this dissertation and create professional development for special educators in a local county in Tennessee. The researcher also plans to undertake the writing of a research-based curriculum that might provide teachers with a research-based structure that is currently unavailable to them since most curriculum that is available is more for the middle-to high-school range.

Summary

Throughout the creation, implementation, and completion of this study the researcher has come to better understand teachers' perceptions of their comfort and knowledge in regard to adaptive skills and adaptive skill planning. The teachers that participated in the survey felt that adaptive skills hold an important place in their daily curriculum and data collection and felt that through professional development at the school level they could gain a better understanding on how to utilize adaptive skills in the classroom environment. The participants noted that they found some adaptive skills to be more important and that adaptive skills are almost always included on the Individualized Education Plan. There is currently limited access to evidencebased structured curriculum and it was the opinion of the participants that having access to curriculum might allow their students to show more growth in the area of adaptive skills. It is key that students with intellectual disabilities make yearly adequate progress on their goals and that special education teachers connect the learning of adaptive skills to academic standards in order to facilitate student success. Overall, the overarching theme from the participants of the survey was that through various evidence-based practices, whether academic or adaptive, student success is the expected outcome.

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APPENDICES

Appendix A

Recruitment Letter and Email sent to Special Education Teachers in Tennessee

Hello:

My name is Jennifer Lynberg and I am a doctoral student at East Tennessee State University, in Johnson City, Tennessee. I am writing to you in order to invite you to participant in a study about Adaptive Skills and how Adaptive Skills are currently being used in the classroom today in regard to students that have Intellectual Disabilities or Developmental Delays. This study consists of a survey that is online and the responses are anonymous and asks questions about how you, as the teacher, feel about Adaptive Skills in the classroom.

In order to participate in the study, the qualifications are as follows:

- a. A current Special Education Teacher
- b. Teach students that are pre-k through 3rd grade
- c. Teach students that have an Intellectual Disability or Developmental Delay during the 2016-2018 school years.

If you meet the criteria and would like to participate, please follow the link below that will take you to the consent page and the survey.

SURVEY LINK INSERTED HERE

All participants will have the opportunity to be placed into a drawing for a \$25.00 Amazon.com gift card. There will be a separate place at the end of the survey to complete the portion for the

drawing that will not be connected with the survey responses. The winner will be notified by email and the gift card will be sent by their method of request, either by mail or e-mail.

Please feel free to email this survey to anyone that might be able to assist in the research that we are currently undertaking.

The contact information for the researcher involved with this study is lynbergj@etsu.edu. Please feel free to contact me at anytime if you have any questions or concerns.

Sincerely,

Jennifer Lynberg

East Tennessee State University

Appendix B

Letter to Participants

IRB#

Dear Participant:

My name is Jennifer Lynberg, and I am a doctoral student at East Tennessee State University. I am working on PhD in Early Childhood Education. In order to finish my studies, I need to complete a research project. The name of my research study is Teachers and Adaptive Skill perception.

The purpose of this study is to better understand teacher perceptions about adaptive skills and how they are taught in comprehensive development classrooms in the Tennessee. I would like to give a brief survey to Special Education Teachers (to whom giving survey to/participant group) using Google Forms. It should only take about 15 to 20 minutes to finish. Since this study deals with adaptive skills, the risks are minimal as it is anonymous. However, you may also feel better after you have had the chance to express yourself about adaptive skills. This study may benefit you or others by gather information about adaptive skills, even since there are no direct benefits to you.

Your confidentiality will be protected as best we can. Since we are using technology no guarantees can be made about the interception of data sent over the Internet by any third parties, just like with emails. Google Forms has security features that will be used: IP addresses will not be collected and SSL encryption software will be used. Although your rights and privacy will be protected, the East Tennessee State University (ETSU) Institutional Review Board (IRB) (for non-medical research) and people working on this research Jennifer Lynberg can view the study

records. Taking part in this study is voluntary. You may decide not to take part in this study.

You can quit at any time and you can exit the online survey form if you want to stop completely.

If you quit or decide not to take part, the benefits or treatment that you would otherwise get will

not be changed.

If you have any research-related questions or problems, you may contact me, Jennifer Lynberg, at 423-788-3020. I am working on this project with our teacher Dr. Carol Trivette. You may reach her at trivettec@etsu.edu. Also, you may call the chairperson of the IRB at ETSU at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone who is not with the research team or if you cannot reach the research team, you may call an IRB Coordinator at 423/439-6055 or 423/439-6002.

Sincerely,

Jennifer Lynberg

Appendix C

Teacher Perceptions of Adaptive Skills for Students that have Intellectual Disabilities

Please complete the following questions about your own personal experiences or caseload as it relates to students that have intellectual disabilities. Thank you so much for your participation. It is greatly appreciated.

1.	Total years of teaching experience:			
2.	Total years of teaching Special Education:			
3.	Total years since graduation:			
4.	Gender: Male Female Prefer not to disclose			
5.	Type of Setting: Resource			
	Self-Contained			
	Self-Contained-Life Skills/Pre-academic skills			
	Special Day School			
	Other			
6. Highest level of education obtained:				
Bachelors of Arts or Science				
Masters Degree				
,	Specialist Degree			
]	Ph.D or Ed.D			
(Other (please specify)			
7.	Area of Licensure (please indicate all areas of current license):			

Part 2-				
According to the American Association on Intellectual and Developmental Disabilities (2016),				
"Adaptive skills are defined as practical, everyday skills needed to function and meet the				
demands of one's environment, including the skills necessary to effectively and independently				
take care of oneself and to interact with other people" (p.16).				
Number of students with an intellectual disability/developmental delay on your personal case				
management				
Caseload: (2017-2018 school year)				
1. How important would you consider adaptive skills to be in your daily curriculum:				
O Not important				
 Somewhat important 				
Important				
Very important				
Highly important				
2. How do you currently plan for adaptive skills in your daily instruction:				
 Explicit teaching on an hourly basis 				
 Explicit teaching on a daily basis 				
 Explicit teaching on weekly or monthly basis 				
 Implied teaching on a weekly or monthly basis 				
○ I don't currently plan for adaptive skills				
3. Are adaptive skills included on most of the Individualized Education Plans within your				

caseload with students that have Intellectual Disabilities or Developmental Delays?

O Never

\bigcirc	Almost never
\bigcirc	Sometimes
\bigcirc	Almost always
\bigcirc	Always
4. Ho	w important is it to you to teach adaptive skills to students that have Intellectual Disabilities
or De	velopmental Delays?
\bigcirc	Not important
\bigcirc	Somewhat important
\bigcirc	Important
\bigcirc	Very important
\bigcirc	Highly important
5. Wh	ich strategies do you use to teach your children adaptive skills? (Please rank your top three
and cl	neck and other that you use from the list)
	Video self-modeling
	Behavioral In-Vivo procedures
	Visual Cues
	Audio Cuing
	Antecedent-based intervention
	Modeling
	Prompting
	Scripting
	Social Skills Training
	Backwards Chaining
	Constant time delay
	Least to most prompting
	Social Narratives
	Forward Chaining

Task Analysis
Physical Prompt
Target sequencing
Other:
6. Is there a standardized curriculum that you or your district uses to teach adaptive skills to
students in your classroom or on your caseload?
No-go to question 8 if your district does not use a standardized curriculum
Yes-If the answer is yes, list the name of the standardized curriculum and answer 6.A.
6.a. Rate the extent that to which the standardized curriculum helps you teach adaptive skills in the classroom?
O Never
Almost Never
○ Sometimes
Almost Always
Always
7. During the last twelve months how often have you participated in formalized training for
teaching adaptive behaviors?
O Never
Once
O Twice
Three
O More than four
Please provide some details about your formalized training

8. Ho	w many hours have you spent in the last 12 months in learning about adaptive behavior
and ho	ow to teach them in the classroom?
\bigcirc	None
\bigcirc	2 hours or less
\bigcirc	2-4 hours
\bigcirc	5-9 hours
\bigcirc	10-14 hours
\bigcirc	15 or more
9. Wh	ere did the instruction about adaptive behaviors take place?
\bigcirc	College or University
\bigcirc	Self Study Course
\bigcirc	Webinar
\bigcirc	Conference
\bigcirc	Professional Learning Community
\bigcirc	District Level In-service
\bigcirc	School Level/Building Level In-service
\bigcirc	No training
\bigcirc	Other
10. If	school/building level in service was held to provide instruction about teaching adaptive
behav	iors would be to your teaching adaptive behaviors to students.
\bigcirc	Not important
\bigcirc	Somewhat important
\bigcirc	Important
\bigcirc	Very important
\bigcirc	Highly important

11. H	ow often do you collect data about adaptive skills for children with Intellectual Disabilities
in you	ar classroom in the last 12 months?
\bigcirc	Daily
\bigcirc	Weekly
\bigcirc	Monthly
\bigcirc	Quarterly
\bigcirc	Every six months
\bigcirc	Never
12. H	ow often do you collect data about adaptive skills in settings outside of the classroom
enviro	onment (an example is cafeteria, or the hallway in the last 12 months)?
\bigcirc	Daily
\bigcirc	Weekly
\bigcirc	Monthly
\bigcirc	Quarterly
\bigcirc	Every six months
\bigcirc	Never
13. W	hich of the adaptive skills below have you recorded data about either in class or in a
comm	on area within the school in the 12 months?
\bigcirc	Hand washing
\bigcirc	Toileting
\bigcirc	Drinking
\bigcirc	Eating
\bigcirc	Dressing
\bigcirc	Indicating wet or soiled
\bigcirc	Shoes (tied or untied)

\bigcirc	Locating the restroom
\bigcirc	Attending lunch with or without assistance
\bigcirc	Other
14. Ple	ease rank in order of 1 to 10 the adaptive skills which you deem to be most important to the
childre	en that you currently serve on your caseload.
	Hand washing
	Toileting
	Drinking
	Eating
	Dressing
	Indicating wet or soiled
	Shoes (learning to tie)
	Locating the restroom
	Attending lunch without assistance
	Locating the office without assistance
	provide any details that you deem relevate to the above on:
15. Ho	ow often do you compare their adaptive skill goals to an academic standard?
\bigcirc	Daily
\bigcirc	Weekly
\bigcirc	Monthly
\bigcirc	Quarterly
\bigcirc	Every six months
\bigcirc	Never
16. Te	eaching student's adaptive skills prepares them for meeting their academic goals.
\bigcirc	Strongly disagree

\bigcirc	Disagree
\bigcirc	Neutral
\bigcirc	Agree
\bigcirc	Strongly Agree
17. W	hat is your level of comfort in teaching adaptive skills as part of a daily instruction in your
classro	oom?
\bigcirc	Not at all comfortable
\bigcirc	A small level of comfort
\bigcirc	Somewhat comfortable
\bigcirc	Very comfortable
\bigcirc	Expert in adaptive skills
18. To	what extent do you feel that students that need adaptive skill training could learn a greater
level o	of independence by a structured curriculum that would teach those skills?
\bigcirc	Not at all
\bigcirc	A small amount of growth might be shown
\bigcirc	Somewhat
\bigcirc	A large amount of growth might be shown
19. To	what extent do you feel that if the school or district provided more training about adaptive
skills a	and adaptive skill curriculum would improve your overall understanding with adaptive
skills?	
\bigcirc	Not at all
\bigcirc	A small amount of understanding and improvement in my understanding might occur
\bigcirc	Somewhat
\bigcirc	A large amount of understanding might occur

VITA

JENNIFER LYNBERG

Education: Kingsport Christian High School, Kingsport, Tennessee

B.A. History and Social Studies, Secondary Education, Old

Dominion University, Norfolk, Virginia 2008.

M.E. Special Education, East Tennessee State University,

Johnson City, Tennessee 2010.

Ph.D. Early Childhood Education, East Tennessee State

University, Johnson City, Tennessee 2018.

Professional Experience: Teacher, Sarah Moore Greene Magnet Academy,

Knoxville, Tennessee 2014-present.

Teacher, Love Chapel Elementary School, Erwin,

Tennessee 2009- 2014.

Honors and Awards: College of Education.

Tuition Scholar of the Year, East Tennessee State

University.

Phi Kappa Phi.

Inducted, East Tennessee State University.

College of History.

Manga Cum Laude, Old Dominion University.