

UTILIZING NATURAL SETTINGS TO REINFORCE SOCIAL SKILLS INSTRUCTION IN  
STUDENTS WITH DISABILITIES

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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## ABSTRACT

A large proportion of students with disabilities (SWD) have social skills deficits that make it difficult for them to succeed in school, work, and life. This quantitative, quasi-experimental, non-equivalent, pretest-posttest, control group study was designed to explore whether SWD can better transfer their learned social skills to natural settings, improving their chances at independence and success, with the use of reinforcement in natural settings. The researcher included 86 students with disabilities from a school district in a predominantly white, middle class, rural Utah town. The researcher and teachers used Social Skills Improvement System (SSIS) in this study to provide instruction in social skills to SWD. The Social Skills Rating Scales (SSRS) are scales that were created to measure the success of the SSIS. The researcher used these scales to determine the baseline data for each of the students and to measure the change in social skills behavior of the participants from the pretest to the posttest. The difference in pretest to posttest scores of the control group was compared to the difference in pretest to posttest scores of the experimental group. The researcher used an ANCOVA to determine if there was a significant difference in the amount of change in the pretest to posttest scores of the experimental and control groups upon completion of the study. The results showed an improvement in the social skills scores for both groups after the SSIS program. The experiment group achieved better results, although these results were not statistically significant. Future research should replicate the study while focusing on different demographics and specific disabilities. The theoretical framework for this study was Bandura's social learning theory.

*Keywords:* social skills, deficits, social learning theory, direct instruction, natural settings, reinforcement, students with disabilities

### **Dedication**

This dissertation is dedicated to my wife and my children, without whom, I would have never been able to succeed in this journey. My wife, Vonna, has helped me more than I can express. She has been a constant source of support. Vonna has sacrificed greatly in order for me to achieve this dream. My children have also been hugely instrumental as I sought to complete this degree. Their constant encouragement has been a driving force. Arista, Cuyler, Trey, and Valena, this accomplishment is for you, and would not have been possible without you.

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**List of Abbreviations**

Autism Spectrum Disorder (ASD)

Developmental and Cognitive Disorders (DCD)

Emotional and Behavior Disorders (EBD)

Free Appropriate Public Education (FAPE)

Individualized Education Program (IEP)

Individuals with Disabilities Education Act (IDEA)

Individuals with Disabilities Education Improvement Act (IDEIA)

Institutional Review Board (IRB)

Learning Disabled (LD)

Least Restrictive Environment (LRE)

Other Health Disorder (OHD)

Physical Impairment (PI)

Social Skills Improvement System (SSIS)

Students with Disabilities (SWD)

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

Social skills deficits are prevalent among students with disabilities (SWD) (Mikami, Jia, & Na, 2014; Scharfstein & Beidel, 2014). The effects of social skills deficits are varied in type and severity. Social skills deficits have been a major focus when individuals with disabilities, particularly SWD, are involved in the situation (Adibsereshki, Vernosfaderani, & Movallali, 2015). How society has dealt with this issue has changed and improved over time. Society has become more tolerant and more sympathetic to the needs of SWD. Research has shown ways to improve the social skills of SWD but has not been extended beyond the school environment.

### **Background**

Researchers have established that students with disabilities (SWD) often have social skills deficits (Mikami, Jia, & Na, 2014; Scharfstein & Beidel, 2014; Smith & Matson, 2010). Extensive research has been conducted to address social skills deficits in SWD (Otero, Schatz, Merrill, & Bellini, 2015). Researchers have conducted numerous studies to examine how to assist SWD to improve their social skills (Banda & Hart, 2010; Beauchamp & Anderson, 2010; Kempe, 2014; Laugeson, Frankel, Gantman, Dillon, & Mogil, 2012; Mikami et al., 2014). Students with disabilities commonly have social skills deficits and need additional instruction in order to develop social skills (Adibsereshki, Vernosfaderani, & Movallali, 2015; Banda & Hart, 2010; Johns, Crowley, & Guetzloe, 2012). The severity of social skills deficits in SWD also contributes to researchers' focus on social skills instruction in order to mitigate both the prevalence and severity of social skills deficits in SWD (Otero et al., 2015; Sullivan & Sadeh, 2015). Social skills are necessary, and SWD have typically not acquired social skills without assistance (Adibsereshki et al., 2015; Otero et al., 2015; Seevers & Jones-Blank, 2008).

Many researchers have acknowledged the importance of acquiring social skills (Liu, Moore, & Anderson, 2015; Mathews, Erkfritz-Gay, Knight, Lancaster, & Kupzyk, 2013; Stanton-Chapman, Voorhees, & Snell, 2014). Otero et al. (2015) stated that social skills were critical for success in social, emotional, and cognitive areas of life. Social skills are the “foundation of personal and social adjustment in life” (Johns et al., 2012, p. 1). Social skills are also considered the keys to the future success of children in academics and employment, as they enable students to learn the skills that are required for successful functioning in school and out of school (Lynch & Simpson, 2010; Sullivan & Sadeh, 2015).

Social skills can significantly impact an individual’s educational journey, as well as his or her future employment opportunities (Potera, 2015). Early detection of social skills deficits is important, and early intervention programming to assist students in acquiring social skills is necessary (Bohlander, Orlich, & Varley, 2012; Potera, 2015). Using data from the Fast Track Project that examined aggression in kindergarten students, Potera (2015) interviewed the students who were examined in kindergarten, when they were 25 years old, and analyzed the results. The students who had exhibited appropriate social skills were more likely to graduate from college and keep a stable job, while students who had exhibited poor social skills in kindergarten were at additional risk of chemical dependency, incarceration, and relying on welfare or other public assistance (Nedim Bal, 2015; Potera, 2015). Kauffman and Kinnealey (2015) found that social skills deficits placed an individual at higher risk for loneliness, depression, and marital problems. It is important for students, especially those who have disabilities, to be identified early as exhibiting social skills deficits (Nedim Bal, 2015). The deficit then needs to be addressed in order to facilitate the improvement of a SWD’s chance for

success in academic, social, and occupational aspects of life (Nedim Bal, 2015; Otera et al., 2015).

The focus on social skills training is relatively new to education, with it being a focus only in the last 50 years. Safford (2015) stated that in the 19<sup>th</sup> century many students were deemed to be different. Students who were deemed to be different were described as “feeble-minded” and suffering from “moral idiocy” (para. 7) and were confined to asylums. This changed in 1975 when Congress passed the Education for all Handicapped Children Act (EAHCA) requiring that SWD be allowed to be educated in public schools (Spaulding & Pratt, 2015). The EAHCA is now called the Individuals with Disabilities Education Act (IDEA). Following this, Congress passed No Child Left Behind (NCLB) in 2001 (Frey, Mandlawitz, & Alvarez, 2012), which was replaced with Every Student Succeeds (ESS) in 2015.

Once SWD were integrated into the schools, school professionals (e.g. teachers, therapists, psychologists) became more aware that SWD often had social skills deficits. “Poor social relationships is an identifiable characteristic of children labeled” (Gallagher, 2011, p. 1). Social skills deficits became one indication that a student may have a disability (Kaufman & Kinnealey, 2015). Students without disabilities typically had no social skills deficits. This difference in SWD and their non-disabled peers was apparent. It is rare for students without disabilities to have social skills deficits (Gresham, Elliott, & Kettler, 2010). Students with disabilities are far more likely to exhibit social skills deficits than are their non-disabled peers (Kauffman & Kinnealey, 2015). Furthermore, SWD are unlikely to acquire social skills independently (White, Koenig, & Scahill, 2010). Since SWD are unlikely to acquire social skills independently, educators must teach SWD social skills through direct instruction (Otera et al., 2015; Walker, Shea, & Bauer, 2007). Due to the extensive need SWD had concerning social

skills, several states mandated that schools meet the social skills needs of their students in special education (Dwight, 2010).

As people became more aware of the phenomenon of social skills deficits in SWD, they began to take steps to ameliorate the issue. Congress began enacting laws requiring schools to include all students in K-12 education, even those with disabilities. The first step in ensuring education for SWD was the Education for All Handicapped Children Act in 1975 (Spaulding & Pratt, 2015). The rights of all students were strengthened in 1990 with the passage of the Individuals with Disabilities Education Act (IDEA) and with Free Appropriate Public Education (FAPE). FAPE was reauthorized in IDEA. FAPE requires schools to provide an education that meets the unique needs of SWD. Spaulding and Pratt (2015) stated that the laws, including FAPE, began to require that education be “tailored to the needs of the children with ... disabilities” (p. 102). Zirkel (2013) describes FAPE as the cornerstone of IDEA, and states that the IEP documents that FAPE has been achieved for SWD. School districts must provide SWD with education taught at a level commensurate with their abilities (Zirkel, 2013). IDEA was reauthorized as the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004. IDEA and IDEIA require that students with disabilities must have their disabilities addressed in their Individualized Education Programs (IEP) and that the instruction must effectively educate students with disabilities (Spaulding & Pratt, 2015; Zirkel, 2013). Subsequent legal rulings clarified the application of some of the laws. In *Hendrick Hudson Central School v. Rowley* (1982), and in *Ridgewood Board of Education v. N.E.* (1999), the courts ruled that education must be meaningful and benefit the student (Zirkel, 2013).

With his social learning theory, Bandura (1989a) concluded that people’s learning and development occurred mainly due to their experiences. People learn how to act, determine what

is right and wrong, and learn how to control their own thoughts and actions through social interactions (Bandura, 1969, 1989a, 1989b). Skinner (1958) noted that people are reinforced positively or negatively for their actions. Children observe this reinforcement and decide whether they want to imitate the action in order to receive the same reinforcement. If the reinforcement is positive, the child is likely to imitate that action. If the reinforcement is negative, then the child is likely to avoid imitating the observed action (Miller, 2011). Bandura (1989a) argued that change is a choice made by the individual. However, in order for change to occur, the individual must understand the concept, and then choose to change. Social behaviors are modified through this concept of understanding the choices and then choosing to change (Bandura, 1993). The student learns what appropriate behaviors are, and then he or she is able to change his or her behaviors in order to reflect the desired behavior. Students with disabilities often do not learn social skills independently through observation and imitation. They require direct instruction in social skills in order to understand what changes they need to make in their behaviors (Johns et al., 2012). Bandura (1989b) found that people must believe they can change, and believe that they can be better. When people believe they can change, then they will change. Students with disabilities are often allowed to believe that they are incapable of changing their social interactions for the better. They suffer from self-doubt, struggle to learn socially acceptable behavior, and thus do not improve their social skills (Johns et al., 2012).

Goleman (2011) also advocated for teaching social skills. In his research on emotional intelligence, Goleman determined that social skills were important, were attainable through learning, and should be taught. He proposed four important domains of emotional intelligence: self-awareness, self-management, social awareness, and relationship management. Goleman

(2011) and Quigley (2007) found that success in these areas was more predictive of future success than IQ scores were.

### **Problem Statement**

The issue of social skills instruction has been well researched (Liu et al., 2015; Otero et al., 2015; Ross & Sabey, 2015). There are numerous studies showing a variety of ways to teach social skills to children (Freeman, 2015; Lee, Huh, & Reigeluth, 2015; Mikami et al., 2014). Researchers found that direct instruction was appropriate for students with disabilities (Banda & Hart, 2010; Laugeson et al., 2012). Direct instruction provides structure and predictability, both of which are important for SWD (White et al., 2010). The methods used to teach social skills are varied, but in successful programs, social skills are explicitly taught (Laugeson et al., 2012; Milner & Haslam, 2013). Using computer-based instruction for social skills instruction can be effective (Liu et al., 2015; Smith, Williamson, & Siegel-Robertson, 2005). Hartigan (2012) used performing arts in a theater class to impart social skills to SWD with promising results. Role-playing and social stories are also effective methods of social skills instruction (Cumming et al., 2008).

Simply providing social skills instruction to SWD is not sufficient. The instruction needs to focus on teaching the students in a manner that equips them to use the social skills in numerous contexts (Johns et al., 2012). Mikami et al. (2014) argued that while current practices in social skills interventions focus on providing in-session practice, this does not provide much of an increase in generalizing the skills in other settings. This increases SWD's ability to demonstrate prosocial behaviors in session, but not in a naturalistic setting. It is important for students to know what proper behavior is and how to exhibit that behavior across a variety of settings (Otero et al., 2015). It is equally important for students to be able to take the social skills

they know in one situation and to transfer those skills to a new situation (Mikami et al., 2014). Research has not determined how to prepare SWD to generalize their social skills to multiple contexts. White et al. (2010) suggested that researchers “focus on developing strategies to promote generalization and maintenance of social skills” and that researchers should look at improving “social behavior in naturalistic settings” (pp. 216-217). The current research suggests methods of teaching social skills to SWD, as well as ways to increase the abilities of SWD to transfer those skills to other areas beyond the classroom, within the school environment (Kasari, Rotheram-Fuller, Locke, & Gulsrud, 2012; Mikami et al., 2014). Kasari et al. (2012) studied how SWD were able to transfer learned social skills to the school setting of the playground. Kasari et al. (2012) took the research beyond the classroom but did not address anything beyond the school setting; therefore, there is limited research regarding the transference of social skills to non-school settings. Research indicates that the research gap needs to be addressed with a study that focuses on ways to help SWD learn to transfer social skills to settings beyond the school environment and to settings that are natural for the student (Mikami et al., 2014; White et al., 2010). The problem is that current research reports methods of teaching social skills and the transfer of those skills to SWD within the school setting, but research is still needed regarding the transference of social skills to environments outside that of the school.

### **Purpose Statement**

The purpose of this study is to increase the body of knowledge concerning whether SWD can increase their ability to generalize their learned social skills. This quasi-experimental, non-equivalent, pretest-posttest, control-group study seeks to determine whether reinforcing learned social skills in natural environments will improve SWD’s ability to transfer appropriate social skills behaviors. Specifically, the transferability will extend to natural settings. A natural setting

refers to real-world settings (White et al., 2010), or any environment where the students are likely to spend time throughout their lives. This can be anywhere the students will encounter and interact with other people. SWD often struggle to transfer learned social skills from the school to natural settings outside of the school environment.

This study will examine the use of social skills pedagogy reinforced in a natural setting for SWD, which will be the independent variable. Reinforcement will be defined as the “process in which a behavior is strengthened by the immediate consequence that reliably follows its occurrence” (Miltenberger, 2008, p. 73). When the experimental group is taken out to a natural setting, the teacher will be there to provide on-the-spot interventions and reinforcement to strengthen the likelihood of SWD repeating a desired behavior or reduce the likelihood of SWD repeating an undesired behavior.

The dependent variable is the generalization of social skills which will be measured by the students’ standard scores from the teacher form scales which will be used as the posttest. The covariate will be the pretest. The pretest will be administered prior to the intervention and it will be identical to the posttest. Following the completion of the program, the experimental group will have an opportunity to have their learned social skills reinforced in a natural setting. When this has been completed, all students will take the posttest to determine growth and difference in growth, between the two groups. These groups will be made up of students with any disability in grades six through eight. This will be measured against the scores of each group on the pretest given at the beginning of the study to determine whether any change has occurred. Both the control and experiment groups will receive the pretest and posttest at the same time as each other.

### **Significance of the Study**

This study is significant to an increasingly large section of the population: specifically, the disabled population. This study may benefit students with disabilities. There are many examples of SWD being rejected by peers because the SWD failed to act in a socially appropriate manner (Johns et al., 2012). Learning how to successfully interact with others may improve SWD's well-being and reduce rejection by their peers (Segrin, McNelis, & Swiatkowski, 2016). This study may also benefit students without disabilities. Poor social skills in SWD negatively impact students who do behave appropriately. When students exhibit poor social skills, they “often exhibit disruptive and destructive behavior that interferes with the process of education” (Westling, 2010, p. 48). By improving the ability of students with disabilities to generalize their learned social skills, classroom interruptions may be minimized. This classroom benefit may also help reduce stress on teachers. Poor student social skills cause teachers to experience elevated stress levels (Westling, 2010).

This study will add to the body of knowledge regarding social skills instruction for SWD, which may in turn help teachers make a more informed decision on how to provide social skills instruction for these students. The study will also provide evidence concerning one method of improving transferability of social skills. Since SWD spend a significant portion of their lives out of school, it is important for them to learn how to interact with people in multiple environments. Social skills are necessary for SWD to achieve success in their schooling and in their vocations (Johns et al., 2012; Lynch & Simpson, 2010; Sullivan & Sadeh, 2015). Students with disabilities are often unable to acquire social skills independently, and need direct instruction to learn social skills (Gresham et al., 2010; Quigley, 2007; White et al., 2010).

### **Research Question**

**RQ:** Is there a difference in the generalization of social skills, as assessed by teachers, of SWD in grades six through eight who experience reinforcement of social skills in a natural setting and those who do not, while controlling for pretest scores?

### **Definitions**

1. *Natural Setting*- Natural setting refers to any setting where SWD are likely to spend time, away from school, interacting with other people. Some examples are parks, restaurants, malls, stores, or concerts. For the purposes of this study, natural setting will refer to a national park where students will interact with park rangers and workers.
2. *Social Skills*- Social skills refers to any skills that society expects to be exhibited, and that enables an individual to interact with others in a socially acceptable manner.
3. *Social Skills Deficits*- A social skills deficit occurs when an individual lacks a socially acceptable skill. This often results in difficulties interacting with others.
4. *Reinforcement*- Reinforcement is the act of helping students remember what they have been taught, and when to use it. It is seen in this study when the experiment group goes to the national park. The teachers and paras monitored the SWD to help them appropriately perform the social skills they had learned.

### **Assumptions**

Based on current research indicating the likelihood of SWD having social skills deficits (Kauffman & Kinnealey, 2015), the researcher assumes that all of the students who participate will have social skills deficits since they will also have a disability. Research also indicates that direct instruction is needed to teach SWD social skills (Otero et al., 2015). Therefore, the researcher also assumes that the participants will benefit in their social skills learning from direct

instruction in social skills. This study is not designed to be longitudinal in nature, so it is assumed that any progress shown at the end of the intervention will be maintained over time. This claim will not be tested.

### **Limitations**

This study has several limitations. The sample size will not be large enough to generalize the findings beyond the population being researched. The study should not be used to extrapolate the findings to other populations. The location of the study is minimally diverse. The majority of the population is Caucasian, with 84% of community members in that category. Unemployment within the district's community is slightly high, with 6.7% unemployment reported in 2015 (City-data, 2018). The results are not applicable to diverse students. The results are also not applicable to low income students. This study addressed middle school SWD. The results of this study are not able to be generalized beyond the middle school population; grades 6-8. This study does not show long-term effects of the intervention. It cannot be ascertained from this study that the results will be maintained by the SWD once they have left the school environment. No conclusions of their continued educational or occupational outcomes can be made.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

Social skills are a necessary part of functioning in society. SWD often struggle with acquiring and/or utilizing social skills appropriate for a given situation. An individual who lacks social skills is unable to interact with others in a manner that is conducive to the situation. Within this chapter the need for studying social skills in a natural environment, the learning theories upon which this study is built, and the current research in to social skills deficits of SWD are established.

### **Introduction**

The acquisition of social skills is necessary for success in life, for personal well-being, and for appropriate functioning in society (Johns et al., 2012; Lynch & Simpson, 2010; Segrin et al., 2016; Sullivan & Sadeh, 2015). People need to know how to interact appropriately with other people in order to function well in society (Johns et al., 2012; Potera, 2015). Quigley (2007) argued that there are three areas in which SWD need to be instructed in order to “function independently” (p. 5). The first area that Quigley mentioned was conceptual skills. These skills are academic in nature. Skills such as reading, writing, and math are under the heading of conceptual skills. The third area was practical skills, which includes hygiene, job skills, and daily living skills. It is evident that a student needs to know some academics and possess some basic personal care and job skills in order to become an independently functioning adult. However, the second area where instruction is needed, social skills, falls between academics and practical skills. Social skills are not limited solely to interactions with other people. According to Quigley (2007), social skills also encompass things such as an understanding of rules and laws, as well as a proclivity to following the rules and laws. Elliott and Gresham (2007)

included following the steps, paying attention to one's work, and doing the right thing as important social skills for students to master.

Johns et al. (2012) stated that social skills are the “foundation of personal and social adjustment in life” (p. 1). Social skills are also called the keys to the future academic and job success of children (Lynch & Simpson, 2010). Sullivan & Sadeh (2015) state that social skills are what students need in order to gain the academic and work skills that allow for success in school and society. They believe that these are the skills that must be acquired in order for success to be developed. Without social skills, it is unlikely that students will be able to achieve success in academic and occupational settings.

Recent studies indicated that early development of social skills was significant for the integration and appropriate behaviors to be exhibited as adults (Nedim Bal, 2015; Potera, 2015). Potera (2015) concluded that kindergarteners with social skills deficits were more likely as adults to become dependent on welfare, suffer from chemical dependency, and become incarcerated; conversely, kindergarteners who exhibited no social skills deficits were more likely to become college graduates and keep a job. Social skills deficits are a strong predictor of struggles such as juvenile delinquency and isolation throughout life (Freeman, 2015; Matson & Wilkins, 2009; Potera, 2015; Stanton-Chapman et al., 2014). Social skills help to resolve conflict and increase collaboration (Lee et al., 2015). Lee et al. (2015) emphasized using cognitive interventions for students with disabilities. Their research indicated that “social and emotional skills are as important as cognitive skills in determining long-term outcomes” (p. 15).

Once the importance of social skills is understood, it becomes clear why there should be a focus on children acquiring proper social skills. Smith et al. (2005) state that it is common for students who receive special education services to exhibit deficits in social skills. Gallagher

(2011) claimed that a characteristic that is often indicative of a disability is that of having poor social relationships with peers. Sullivan and Sadeh (2015) stated that it is common for SWD to have serious social skills deficits and regularly describe SWD as having severe deficits in social skills areas. These students lack the ability to learn social skills without instruction as effectively as their non-disabled peers. These deficits do not disappear as the student with a disability develops, but are likely to remain, and could become more severe (White et al., 2010). Social skills instruction is necessary because SWD are often unable to independently learn these skills, and the acquisition of these skills is crucial to success in life (Quigley, 2007). While it is common for SWD to have social skills deficits, it is very uncommon for students with no disability to have a social skill deficit. Gresham et al. (2010) described it as a “rare phenomenon” (p. 814) for non-disabled students to have social skills deficits.

### **Theoretical Framework**

Bandura’s work on social learning theory developed out of Skinner’s behaviorism theory (Miller, 2011). Behaviorism is a theory that teaches that behaviors can be modified as desired through a stimulus-response method (Miller, 2011). By reinforcing behavior, the behavior can be changed to what is desired. Positive reinforcement will increase the likelihood of a behavior being repeated while negative reinforcement will decrease the likelihood of a behavior being repeated. The foundation of social learning theory is that people are social creatures. Social learning theory is readily applicable to the concept of SWD learning social skills. Social learning theory is focused on explaining how social expectations and actions are learned. Miller (2011) concluded that the focus of social learning theory was on socialization. This is the “process by which society attempts to teach children how to behave like the ideal adults” (p. 233). Bandura (1989b) noted that pre-existing knowledge helped determine how an individual

behaved. People act and react based on the knowledge that they have. Students with disabilities often lack the knowledge needed to act in a socially appropriate manner (Adibserenski et al., 2015). Bandura (1977) noted that learning social skills was based on observing and imitating the behaviors of others. Social interactions with others are important in the development of children (Miller, 2011). One key conclusion of social learning theory is that social skills can be learned, and that schools should teach these skills (Adibserenski et al., 2015). These skills are important to learn, but SWD are likely to need additional instruction. This additional instruction provides SWD with an opportunity to observe and imitate in order to effectively learn social skills (Adibserenski et al., 2015).

The theory of emotional intelligence is also useful in the acquisition of social skills. Emotional intelligence is the ability to understand and interpret one's own feelings and emotions, as well as the ability to recognize, interpret, and respond to the social cues given by others (Walton, 2012). Goleman (2011) provided four domains of emotional intelligence. Each domain is important for success in life, and these domains include self-awareness, self-management, social awareness, and relationship management. According to Goleman (2011), self-awareness is the ability to recognize and understand one's own feelings. Self-awareness is needed in order to empathize with others. Self-management is the ability to maintain control of one's emotions and actions. Social awareness is the ability to recognize the emotions and moods of others. Social awareness is needed in order to appropriately interact with others. The final domain that Goleman (2011) described is relationship management, which describes how one person affects the emotions of another person. The theory of emotional intelligence indicates that it is important to be able to recognize one's own emotions, control one's emotions and actions, recognize the emotions of others, and understand how one's actions will affect others. Emotional

intelligence is what social skills instruction attempts to improve (Adibserenski et al., 2015; Goleman, 2011).

### **Related Literature**

Within the current literature, a need for a study on improving the abilities of SWD to transfer learned social skills to natural settings is evident (Adibsereshki et al., 2015; White et al., 2010). This section will include a description of the constructs of social skills, examples of social skills deficits, the history of special education, the legal requirements for special education services, the utilization of direct instruction to teach social skills, and the importance of transference. These areas are necessary to understand the need for social skills and the need for being able to transfer skills to various settings.

### **Social Skills Definition**

Gresham and Elliott (2008) stated that social skills may be described as any skills that are necessary for individuals to function in society using the acceptable expectations of that society. They include skills for interacting with people, cooperating with others, and doing what is expected in specific situations. They can be verbal or non-verbal and require active involvement of the participants. Kauffman and Kinnealey (2015) defined social skills as those that enable people to get along well with each other. Social skills include working with each other, playing with each other, learning together, and building friendships. Social skills include both interpersonal and communication skills, which are essential for children's learning (Kauffman, 2015; Segrin et al., 2016). Elliott and Gresham (2007) noted that social skills are behaviors that increase positive social interactions. Elliott and Gresham (2007) identified multiple social skills, including following the steps (or directions), doing the right things, and paying attention. Social skills include the requisite knowledge and the ability to use that knowledge to determine the

correct behavior in a given circumstance (Adibserenski et al., 2015; Johns et al., 2012). Social skills provide predictable interactions with people (Beheshtifar & Norozy, 2013). Quigley (2007) included understanding and following rules and laws in her description of social skills.

### **Social Skill Deficit Areas**

Social skills deficits are divided into three distinct areas. SWD are likely to exhibit the following social skills deficits: (a) skill deficits, or acquisition deficits; (b) performance deficits; (c) self-control deficits, or competing problem behaviors (Adibsereshki et al., 2015; Gresham et al., 2010; Ross & Sabey, 2015). Social skills domains are classified into three areas: peer acceptance, social behaviors, and social validity (Beheshtifar & Norozy, 2013; Gresham & Elliott, 2008). Skill deficits occur because students lack the ability to engage correctly, and they have not learned how to act in certain situations. Some students possess the skills, but they do not consistently utilize those skills. This is referred to as a performance deficit. Self-control deficits are those deficits that are exhibited when students fail to control their actions. This could be due to their inability to control these actions, or it could be a failure to control behavior due to the difficulty of the task. The competing problem behaviors deficit is defined as a behavior that interferes with the correct performance of a learned social skill (Beheshtifar & Norozy, 2013; Gresham et al., 2010).

A visit to a restaurant provides an opportunity to see the differences in each of the social skills deficits (Mannix, 2014; Shepherd, 2009). For example, a student with a skill deficit may not know how to order food. This could be due to not knowing what is expected at a restaurant. She may not know that she needs to choose her food and let the server know what she wants. She may lack the social skills necessary to function properly in this environment. Gresham et al. (2010) described this as the individual's inability to perform the desired skill. Another student

may know what he needs to do. He may understand that he has to choose his food, and that he needs to inform someone of his decision, but he does not follow through with this. He may be scared to talk to a stranger, or he may be too uncomfortable in a new setting to do what he knows he is supposed to do. Gresham et al. (2010) stated that this occurs when an individual refuses to perform the skill. An individual with a self-control deficit may know what to do, and may even do it, but refuses to do it properly. Instead of being polite, he may be rude. He may speak inappropriately to the server or interact inappropriately with other diners. He may lack the ability or have difficulty controlling his behavior in a manner that is consistent with social norms. This is due to competing behaviors (Gresham et al., 2010)

Many SWD have at least one of these social skills deficits, which may make it extremely difficult for them to function in society. Not only does the student suffer from a lack of social skills, but also people in the student's environment may have negative experiences because of the lack of social skills in the student with disabilities (Beheshtifar & Norozy, 2013; Gresham et al., 2010). Students with disabilities often "exhibit disruptive and destructive behavior that interferes with the process of education and places great stress on teachers" (Westling, 2010, p. 48).

It is evident how each of these social skills deficits may cause problems. Some people fail to recognize self-control deficits as social skills deficits; however, an inability to control one's actions, or an inability to force oneself to adhere to social customs, will clearly negatively impact social interactions (Walker et al., 2007). Walker et al. (2007) described an individual with a self-control deficit as being "viewed by peers, teachers, parents, and others as socially incompetent" (p. 234).

Social skills are a complex set of skills that require significant adaptation and transference. Social skills can be verbal or non-verbal behaviors (Elliott & Gresham, 2007), require the use of complex communication skills (Freeman, 2015), and can require the ability to understand and utilize different skills for different situations (Elliott & Gresham, 2007).

Social skills include both verbal and non-verbal behaviors. Communication includes more than talking and requires two parties to engage in a give-and-take conversation. It is as important to know how to listen as it is to know how to talk. Similarly, listening is more than simply hearing what is being said. Listening is an active process where a person has to hear what is being said, pay attention to how it is being said, and note the body language being used (Elliott & Gresham, 2007). The individual must be aware of how his body language is being perceived by the others involved in the conversation (Freeman, 2015). Certain social skills are only appropriate in particular situations, and the individual must be able to discern when one social skill is appropriate and when one is inappropriate. Elliott and Gresham (2007) used accepted school behaviors, particularly those behaviors dealing with sharing information, to provide an analogy for this concept. They stated that cooperation is an important social skill to develop; however, it is not always appropriate to use the skill of cooperation. For example, when students are working on a group project, it is important that they cooperate with each other to produce a quality project. This same spirit of cooperation would be frowned upon and have serious consequences if it were used during achievement testing. The skill is the same, but the context determines whether it is appropriate to use.

Social skills play an important role in education. Students with disabilities are more likely to experience negative feelings such as low self-esteem and loneliness. They are also at an increased risk of being friendless and bullied (Bohlander et al., 2012). Students with poor social

skills are less likely to do well in school and are less likely to complete their education. Sullivan and Sadeh (2015) found that any student who had a social skills deficit was unlikely to perform at his best level, and that “students with poor social skills were 12.5 times more likely to be suspended than were students with better social skills” (p. 109). Bohlander et al. (2012) and Nedim Bal (2015) argued that social skills deficits played a significant role in low academic achievement and poor job performance. The likelihood of negative consequences greatly increases if a student has a disability. These students are at risk for dropping out and being suspended from school (Potera, 2015).

As noted in the literature, social skills are important, and a significant sector of society (i.e. SWD) is unable to independently acquire these skills; therefore, the necessity that children be taught social skills becomes evident (Adibserenski et al., 2015; Beheshtifar & Norozy, 2013; Gresham & Elliott, 2008; Potera, 2015). Quigley (2007) argued that social skills were so important that they should be taught to all students.

### **History of Special Education**

The widespread focus on educating SWD to enable them to live and interact in mainstream society in appropriate ways is relatively new. Only relatively recently have people with disabilities been granted the opportunity to be educated with their peers (Nash-Aurand, 2013; Safford, 2015; Spaulding & Pratt, 2015). Prior to 1975, it was common to send children with disabilities to asylums (Spaulding & Pratt, 2015). If it was determined that an individual was “feeble-minded,” or had a condition known as “moral idiocy,” the person would likely be confined in an asylum (Safford, 2015). In 1975, the Education for all Handicapped Children Act was passed. This act improved education for SWD by requiring public schools to provide education for all SWD (Kauffman & Kinnealey, 2015). This act has since undergone numerous

changes, with each revision expanding or clarifying the instruction the students with disabilities were entitled to receive. All students, including those with disabilities, are entitled to a free appropriate public education. Since social skills are important, and SWD cannot independently acquire social skills, SWD need to receive instruction in social skills (Adibsereshki et al., 2015). Since the adoption of IDEA, a “greater emphasis has been placed on educating students with disabilities within the general education setting” (Nash-Aurand, 2013, p. 12).

The focus on educating SWD within the general education setting, known as inclusion, has reallocated time away from individual student needs, and has begun to stress more collective student needs. As a result, individualized student instruction in areas such as social skills has become difficult to provide. Most general education classrooms do not directly teach social skills. As SWD spend more time in the inclusive general education setting, there is less time available to spend on other areas such as social skills instruction (Spaulding & Pratt, 2015). These areas of instruction are unique to the needs of each student and are mandated instructional areas on students’ IEPs. Some important areas of instruction are sacrificed in order for inclusion to occur, and social skills instruction is one of the areas that has been negatively impacted. This is one of the reasons that some educators and researchers have called for social skills to be taught to all students (Quigley, 2007). Quigley (2007) argued that teaching social skills to all students in the general education classroom would allow all students the opportunity to acquire the skills needed for daily interaction in life. While inclusion does provide some benefit in the area of social skills, allowing SWD opportunities to interact with other students, this environment is inadequate for those students who need explicit instruction in acquiring these skills (Quigley, 2007).

Many researchers have argued for the importance of developing the social skills of SWD, and that these skills need to be taught as part of the curriculum for students with social skills deficits (Adibsereshki et al., 2015; Banda & Hart, 2010; Johns et al., 2012; Botsford, 2013). The inability of certain students, particularly SWD, to independently acquire these skills has been established by multiple researchers (Adibsereshki et al., 2015; Kauffman & Kinnealey, 2015; Kozlowski, Matson, & Belva, 2012). Social skills are foundational for appropriate interactions throughout life. Gallagher (2011) postulated that social skills are needed for healthy relationships, and that many SWD lack social skills. This deficit causes SWD to have conflicts with others; both adults and peers. Researchers and educators have recognized the need for social skills instruction and have sought to determine effective strategies for teaching these skills (Adibsereshki et al., 2015; Kauffman & Kinnealey, 2015; Kozlowski et al., 2012).

### **Direct Instruction of Social Skills**

Students with disabilities are often unable to acquire social skills on their own (Adibsereshki et al., 2015; Kauffman & Kinnealey, 2015). It is wholly inadequate to attempt to teach SWD these skills in any manner that excludes the use of direct instruction. Direct instruction is necessary, but is not sufficient without combining other strategies (Otero et al., 2015). Providing SWD opportunities to see people interacting appropriately in society is insufficient in itself to educate students with disabilities. Direct instruction of social skills is the medium that is most effective for most SWD to learn the skills needed for living a life that is similar to that of their non-disabled peers (Otero et al., 2015). Direct instruction of social skills, specifically concerning self-control deficits, focuses on increasing the “awareness and understanding of personal emotions, values, and attitudes through educational activities” (Walker et al., 2007, p. 234). It is important that SWD who struggle to succeed in the area of social

interaction receive direct instruction of social skills (Adibsereshki et al., 2015; Kauffman & Kinnealey, 2015). This increases the likelihood of a student who has social skills deficits successfully integrating into a society built upon human interactions (Adibsereshki et al., 2015; Kauffman & Kinnealey, 2015). Kauffman and Kinnealey (2015) found that using direct instruction to teach social skills had a positive effect on the ability of SWD to interact appropriately with others. They also found that teaching social skills through direct instruction helped to improve social skills and thus decreased problem behaviors.

Social skills deficits are common in most SWD, regardless of the disability exhibited by the student (Adibsereshki et al., 2015; Kauffmann & Kinnealey, 2015; Liu et al., 2015; Mikami et al., 2014; Scharfstein & Beidel, 2014). Students with autism spectrum disorders, emotional behavioral disorders, mental retardation, developmental and cognitive disorders, attention deficit/hyperactivity disorder, other health disorders, and anxiety disorder are all likely to have deficits in the area of social skills (Kauffman & Kinnealey, 2015; Liu et al., 2015; Peterson, Slaughter, Moore, & Wellman, 2016). While formal evaluation of social skills may not be required for all disability areas, it is an important part of the eligibility criteria for some of them. This does not mean that it is uncommon for a particular disability to have a social skills deficit. Mikami et al. (2014) stated that social skills are not used to diagnose students with ADHD, but “impairment in social functioning is a prominent associated feature of this condition” (p. 775). Researchers have also noted that social skills deficits are a major part of the autism disability, even though there is no consistent manner in which they manifest across the spectrum (Bohlander et al., 2012; Otero et al., 2015).

The prevalence of social skills deficits found in SWD suggests that it is wise to use social skills instruction for all students with disabilities. This instruction should be tailored to the

students being taught and be designed to meet the unique needs of those students (DiPerna, Lei, Bellinger, & Cheng, 2015; Otero et al., 2015). Many social skills interventions have been designed to help SWD learn appropriate social skills. These interventions vary and should be based on the needs and functional level of the child (Bohlander et al., 2012). IDEA mandates that all SWD receive instruction designed to meet their unique needs. The need for social skills instruction has prompted some states to require that the IEP team consider the social skills needs of SWD. (Dwight, 2010; Kauffman & Kinnealey, 2015). The No Child Left Behind Act, recently replaced by the Every Student Succeeds Act, mandates that schoolwide programs to teach behavior skills and social skills be implemented (Kauffman & Kinnealey, 2015).

### **Legal Requirements**

IDEA mandates that education meets the needs of the students, in this case social skills instruction, and leads to the focus that has been placed on social skills instruction (Kauffman & Kinnealey, 2015). IDEA requires that SWD be educated, that the education must cover the same core areas as non-disabled students, address the unique needs of each of the SWD, occur in general education classrooms whenever practical, and that the SWD remain in their least restrictive environment (LRE) (Burnett, 2010; Spaulding & Pratt, 2015).

Spaulding and Pratt (2015) described some of the challenges in educating SWD. They noted that school districts need to balance educating students in their LRE while also including them in the general education when possible. Schools must provide as much time as is possible and reasonable for SWD to be with their peers in the general education classroom. Districts also have to provide as much individualized education as is necessary for the student to be successful. While this double placement of inclusion and individualized instruction is important, it does complicate things. This dichotomous relationship in the education of SWD has made it difficult

for students to be appropriately educated and has made adequate time to teach non-core areas a challenge. Placing SWD in the general education classroom has made it difficult to ensure that the individual needs of the SWD are met (Spaulding & Pratt, 2015).

A key aspect of the LRE mandate is that students receive educational benefit from the instruction. Educational benefit refers to appropriate education. Students need to receive education that will help them, and they need to receive it in a location that promotes learning. It is not always best for the student to be in the general education classroom. In these cases, or for specific reasons, schools may remove students from the general education classroom and educate them in a more appropriate environment. The 1982 case of *Hendrick Hudson Central School District v. Rowley* legally established the preceding standards (Poitras Tucker, 1983).

Students with disabilities must have up-to-date IEPs that address their needs as reflected in their most recent evaluation, which often describes social skills deficits. If this is the case, then social skills instruction is mandated. Kauffman and Kinnealey (2015) stated that IDEA (2004) requires behavior and social skills deficits be addressed and included within the IEP. Legal rulings on free appropriate public education (FAPE) and LRE have stated that meaningful educational benefit must be received by the student. Meaningful educational benefit refers to a benefit that lasts beyond the environment of school. The benefit should be evident in environments away from teachers, students, and the school, and should permeate all of the relevant experiences of the student. The *Hendrick Hudson Central School District v. Rowley* case (Poitras Tucker, 1983) also established the definition of what appropriate education entails. The court defined FAPE as education that meets the educational needs of SWD as well as the education that meets the educational needs of non-disabled students (Poitras Tucker, 1983). Providing education is not sufficient, therefore, schools must ensure that all students, regardless

of ability, are receiving an equitable education. If a student needs more services or requires different teaching methods in order for equity to be achieved, then the school must reasonably provide for those needs.

### **Teaching Social Skills with Direct Instruction**

Social skills, specifically social skills instruction for SWD, has received greater attention in recent years. It is commonly accepted that SWD need varied and differentiated instruction strategies (Banda & Hart, 2010; Laugeson et al., 2012). Numerous studies have delved into the issue of educating SWD regarding social skills deficits, and as a result, several effective instructional practices have been implemented (Bicknell, 2009; Burnett, 2010; Hartigan, 2012; Kempe, 2014; Spradlin, 2009).

A study conducted by Bicknell (2009) showed that specialized instruction is effective in improving math scores of SWD. Spradlin (2009) found that computer-based instruction benefitted SWD. Alternative schools can also be effective in improving student behavior and academic achievement (Burnett, 2010). Researchers concluded that SWD needed direct instruction in social skills since they often do not learn social skills indirectly as their non-disabled peers do (Bicknell, 2009; Burnett, 2010; Hartigan, 2012; Kempe, 2014; Spradlin, 2009). Bicknell (2009), Burnett (2010), Hartigan (2012), Kempe (2014), and Spradlin (2009) noted that SWD should receive instruction that is different, delivered in a different format, or delivered in a different environment other than the general education classroom.

This view that SWD need direct instruction is supported by the research. Quigley (2007) concluded that SWD “need direct instruction in various life skills” (p. 58). Otero et al. (2015) contended that SWD need instructional interventions, reinforcement, and explicit social skills training in order to reduce their social skills deficits. Life-skills is a term used for skills that are

needed for independent living, such as washing hands, brushing teeth, and dressing. Other life-skills are more advanced, and include shopping, cleaning, and taking medicine. Life-skills also refer to skills that are needed to appropriately interact with others.

When social skills are taught to students with disabilities using explicit, focused, direct instruction, positive results have been experienced. An intentional, designed, and focused, instruction of the social skills in which there is a deficit is needed in order for the instruction to be effective (Otero et al., 2015). This is true in most, if not all, academic areas. Math and language arts skills are needed by all students. Schools provide instruction in these subjects to all students regardless of disability, or lack thereof, but they often provide SWD with instruction that is differentiated in some way. Schools do not typically provide social skills instruction in the general education classroom, and consequently, must provide this instruction directly to the student who struggles with independently obtaining social skills (Otero et al., 2015).

Direct instruction in social skills provides SWD with structure and predictability (White et al., 2010). This predictability enables the students to focus on the desired change in behavior (i.e. social skills improvements). One instructional method used to improve social skills in SWD is computer-based instruction (Liu et al., 2015; Smith et al., 2005). DiPerna et al. (2015) recognized the importance of direct instruction and sought to make it more effective through the use of role-playing, and computer-based instruction. These researchers found that most of the students in the study showed improvement in their social skills. They concluded that using multimodal presentations and providing more opportunities for student participation and engagement may lead to improvement in prosocial behaviors. It is also effective to use drama and acting to teach social skills. Hartigan (2012) attempted to teach social skills to his students on the autism spectrum and noted that these students did not respond favorably to his

instructional methods. Hartigan (2012), who enjoyed theater, decided to try something different and used acting to teach social skills. He used acting games, such as improvisation, with the students. The students became engaged in the process, and Hartigan (2012) reported “They began using some socially appropriate skills” (p. 30). The students had to use social skills in order to fit their characters and learned some social skills as a result. Hartigan (2012) was able to effectively teach students who exhibited deficits in the performance area of social skills. The students knew what to do intellectually, but they were not following through with actions. Theater provided them with an opportunity to utilize what they knew.

Similar to using theater to teach social skills is the practice of role-playing. Role-playing provides SWD with opportunities to practice their learned social skills (DiPerna et al., 2015). In role-playing the students are taught appropriate social conventions. Following this, the students are given a scenario and they act out their roles. This can be done by having others act out the roles, while the students being taught are analyzing the actors. The actors act with exaggerated examples of inappropriate behavior, making it easy for students to see what is wrong. Another way to engage in role-playing is by having the student act. Typically, the teachers will act out the inappropriate behavior, while the student gets to act out what is supposed to happen (DiPerna et al., 2015). This requires a script and allows the student to see an inappropriate example of behavior, while practicing appropriate behavior. Using role-playing increases the chance of SWD acquiring and using prosocial behaviors (DiPerna et al., 2015).

Cumming et al. (2008) concluded that social stories are another effective method of teaching social skills. They stated that teachers develop stories that are relevant to the students’ areas of struggle. The teacher and student then review the story through reading, acting, role-

playing, or other methods, and then discuss the stories. This may lead to the student developing an understanding of appropriate behaviors.

If SWD are disrupting the classroom due to their lack of social skills, then other students are also failing to receive the education that they need. The student who is disrupting the class also suffers. As teachers spend more time addressing inappropriate behavior, they are spending less time teaching academics. Misbehavior caused by social skills deficits is a circular issue. Students misbehave because they do not understand how to behave. Others see them as problems and treat them as such. The student then feels out of place and misbehaves because he does not belong. This causes further ostracism, resulting in more misbehavior. It has been shown that improving social skills may be helpful in improving behaviors (Johnson, 2009).

King (2013) conducted a study using advance organizers to minimize inappropriate classroom behavior. Many times, students became disruptive because they were not aware of what was supposed to be happening. They started to feel anxious, which produced inappropriate behavior. Advance organizers are one method used to assist students with handling this anxiety in a socially appropriate manner. An advance organizer is an item that provides information to the student concerning what will be happening during the instructional period. King (2013) used a checklist as an advance organizer, and stated,

Expository advance organizers offer students one or all of the following: an agenda or schedule of the learning activities, how those activities interrelate, important materials needed for specific activities, and the estimated time designated for each portion of the lesson (p. 32).

King (2013) noted that students were able to see what was happening, what was going to happen, and what was expected of them. This helped to remove the SWD's anxiety and reduced their

behavior problems. King (2013) suggested that advance organizers may be modified. Blanks may be inserted, which allow students to listen for specific information and write it down when it is heard. This increases engagement, thus reducing inappropriate behaviors. King (2013) found that this fill-in-the-blank method effectively treated some students with a self-control social skills deficit. King (2013) cautioned that this method may not work for all students, but it was shown to be effective in some instances.

There is a varied and broad methodology that is effective in teaching social skills (DiPerna et al., 2015). Liu et al. (2015) stated that there have been several other studies conducted, all of which show effective methods for teaching social skills to students who struggle in acquiring the social skills necessary for successful interactions with other people. There are many instructional approaches regarding the effective delivery of social skills instruction, some of which are group instruction, individual instruction, and on-the-spot interventions. All of these methods have been shown to be effective when used in the right circumstances with the right students, who may have a wide variety of disabilities (Liu et al., 2015). It is impossible to state that one method is effective for all students. Students' distinct learning and behavioral needs are also relevant factors and preclude making a claim of sufficiency for a certain disability.

The teaching of social skills is not limited to school-aged children but is important for all people. China has had a one-child policy in effect for approximately three decades, which was meant to reduce population concerns in that country. An unintended consequence of this policy was that Chinese college students showed social skills deficits in the area of communication because they were unable to communicate with siblings (Xulian & Yoshio, 2014). They were not able to have the continual communication practice that is present when other children of a similar age are in the same household. Xulian & Yoshio (2014) argued that this has presented a

concern for many in the Chinese community and has made it difficult for students to succeed when they reached college. They struggled with the social aspect of college and were more inclined to mental health issues (Wang & Sugiyama, 2014). Wang and Sugiyama (2014) examined the teaching of social skills in a college physical education course. They used a PE program with social skills to see if there was any improvement in the social skills of students who had been raised as the only child. They used one experimental group and two control groups. The control groups received PE training through a traditional course offering. Wang and Sugiyama (2014) found that the experimental group improved in the social skills exhibited while the two control groups had no change. After the program, the experimental group participants were more likely to engage in interpersonal communication and problem solving and apologize after making mistakes.

Social skills are important for all people to possess (Liu, Moore, & Anderson, 2015; Mathews, Erkfritz-Gay, Knight, Lancaster, & Kupzyk, 2013; Stanton-Chapman, Voorhees, & Snell, 2014). Social skills are what allow people to interact with each other without interpersonal problems developing. Most people learn these skills through living, observing, correction, or simply through the normal course of life. Some people are unable to acquire these skills in this way. Many SWD have struggles with acquiring social skills. Many times, they are unaware of their deficits. At other times they are painfully aware of their social deficits, but they are unable to correct them. Researchers have discovered many effective methodologies for improving social skills within the school environment (Bicknell, 2009; Burnett, 2010; Hartigan, 2012; Kempe, 2014; Spradlin, 2009). These methodologies range from specialized instruction (Bicknell, 2009), to computer-based instruction (Spradlin, 2009), to alternative schools (Burnett, 2010), and to theater (Hartigan, 2012).

Each of the instructional methods described to teach social skills may be used but should be seen as a teaching tool and not as the teacher itself. With the success of a wide-ranging set of strategies used to teach social skills, it is evident that there is not a one-size-fits-all method (Mikami et al., 2014). Whatever method the teacher utilizes, including computer-based instruction, theater, role-playing, social stories, advance organizers, group instruction, individual instruction, or on-the-spot interventions, is dependent on many variables. These are strategies available for use, but the strategies are not sufficient without someone to teach them. Pillai (2012) stated, “Technology cannot teach, only teachers can teach” (as cited in Kerala, 2012, para. 2).

All of these researchers have shown the effectiveness of social skills instruction on SWD’s behavior, regardless of the instructional method examined (Bicknell, 2009; Burnett, 2010; Cumming et al., 2008; DiPerna et al., 2015; Hartigan, 2012; Kempe, 2014; King, 2013; Spradlin, 2009). Johns et al. (2012) concluded that social skills instruction should promote generalization in natural settings. All of these researchers have shown that direct instruction in social skills results in improvement of social skills among SWD in the school setting (DiPerna et al., 2015; Hartigan, 2012; Kempe, 2014; King, 2013). School ceases to be a natural setting when a student graduates, which is at age 18 for most students. Some SWD remain in school until they are 21. After this time the student ceases to be a student and life is spent outside of the school. In spite of the amount of research that has been conducted in the school setting, little research has been conducted to show the effects of social skills instruction in the lives of students outside of school in a natural setting. It is not enough that social skills are taught in the school setting; the student needs to be able to generalize the instruction to environments outside of the school (White et al., 2010).

Schools desire to provide students with the skills they need to be successful. These skills are typically academic; however, social skills are also involved (Quigley, 2007; Spaulding & Pratt, 2015). This is especially true for SWD. Schools need to provide the tools for success in all areas of life, not just academics. Social skills instruction is one way to do this. Social skills instruction seeks to teach skills that are used in social settings (Gresham et al., 2010). This is not confined to social settings at school. It encompasses much more than that. Social skills instruction seeks to provide students, specifically students with disabilities, with the skills needed to function properly in society (Gresham et al., 2010).

### **Transference of Learned Skills**

Students must receive educational benefit (i.e. a benefit of learning what is appropriate for them to learn) from their schooling. This benefit should be seen in environments outside of the school. Students should be able to acquire knowledge and skills that assist them in their natural settings. Students with disabilities should receive instruction in social skills that allows them to transfer and utilize them in natural settings (Johns et al., 2012). Transference of these social skills to different settings is needed. Students need to learn the skills, learn how to use them, and transfer that knowledge to other settings.

Transference is important in many areas of living and is needed in more areas than just that of social skills (Colaianne, & Powell, 2011; Ferland, Larente, Rowland, & Davidson, 2013; Kerala, 2012). Individuals regularly evaluate their ability to transfer skills. This occurs most frequently when an individual looks for a job (Greisler, 2008). The individual reflects on the skills, whether they are academic, vocational, or physical. Once the skills needed for a particular job have been determined, the individual assesses whether the skills are possessed, or can reasonably be expected to be gained quickly. The individual will then choose whether to apply

for or accept the job based partially on this determination (Miller, 2002). Miller (2002) stated that in *Draegert v. Barnhart*, the courts determined that transferability is the ability to take learned skills from one job and use them at another job. This definition was for an individual in a work environment, but the general terms would remain the same. The goal of transference is to take something that has been learned in one situation, apply it to a different situation, and have it remain effective. Social skills and occupational skills are important in the work environment, and both need to be transferred to the work environment (Beheshtifar & Norozy, 2013). It may be the same job in a new location, or it could be a different task that requires the same skills. It is necessary for the individual to adapt the learned skill to meet the needs of the new setting (Greisler, 2008). Education also seeks to provide students with the ability to transfer knowledge and skills to new settings (Colaianne & Powell, 2011). It does not benefit the student to have knowledge that they are unable to use in an environment other than the one where it was learned.

Transference also exists in the medical world. Patients receive treatment for their various ailments and are then sent out of the hospital. When the treatment requires rehabilitation, it is important that the patient learns how to effectively use the skills from the therapy setting in different settings (Stroke Sourcebook, 2013). This can cause serious problems. Dr. Tamara Bushnik stated that people are often independent within the therapy setting; they are not always able to transfer those skills to their lives away from therapy (Stroke Sourcebook, 2013). The Stroke Sourcebook contains information about studies that were conducted to improve the success of rehabilitation. It was found that when people are able to successfully transfer the skills learned in the hospital, they experience fewer disabling moments, fewer long-term problems, and better quality of life (Stroke Sourcebook, 2013). The success of transferring these skills is crucial to the ability of the patients to have a long-term recovery. Without the ability to transfer the skills

learned in the hospital, little improvement is expected. The treatment provided to the patients was focused on three areas: changing behavior, changing physical abilities, and transference (Stroke Sourcebook, 2013). The effectiveness of the training was dependent upon the transference. Patients who received transference training were able to improve significantly, while those who did not receive transference training did not show significant improvements.

Many researchers emphasize the importance and desirability of transference of skills (Beheshtifar & Norozy, 2013; Colaianne, & Powell, 2011; Ferland et al., 2013; Kerala, 2012). The ability of an individual to transfer job skills to a new job can be important in determining whether the person is eligible for disability benefits (Miller, 2002). Without the ability to transfer job skills, it is difficult to find a new job when the physical demands of the current job cause the worker to become debilitated. This importance does not solely belong to the domain of vocational needs. Transference plays a large role in academics as well.

One of the purposes of education is to prepare students for life outside of school. Dr. Pillai, the Principal Secretary to the Department of Science and Technology of the State government in India, stated “Education should impart globally transferrable skills to students” (Kerala, 2012, para. 1). It is important for educational institutions to provide students with the ability to transfer what is learned to new settings. The settings to which the skills should be transferred are unlimited. Transference should be able to occur anywhere. Students should be able to apply their skills to other academic settings and to new vocational opportunities. The ability to apply their skills should not be bound to the environment in which they were learned. Skills should be learned in a manner that allows the individual to use the skill in any setting where use of that skill is appropriate (Kerala, 2012). Transference is important in social skills,

occupational settings, healthcare, and education (Beheshtifar & Norozy, 2013; Colaianne, & Powell, 2011; Ferland et al., 2013; Kerala, 2012).

Similarly, transference is important for public servants. Greisler (2008) explained the importance of transferrable skills in public administration. He said that it is “healthy” for public administrators to be “professionally lithe” (p. 518). He described being lithe as having skills that can be used across the spectrum of administration services. People should be able to work in any public, quasi-public, or private institutions with the public administration skills they learn. People should not be limited by their ability to transfer skills.

Beheshtifar & Norozy (2013), Greisler (2008), and Kerala (2012) have shown the importance of transference of learned skills within one domain. It is important to be able to transfer learned job skills to another job within the same discipline (Colaianne & Powell, 2011). This allows for improvement and mobility. Without the skill of transference an individual may be unable to improve beyond the current position. It is also important for skills to be learned for one position, and have those skills be transferrable to a similar position in a unique setting. There are differences between public and private organizations, but the skills needed for success in one should transfer to the other (Greisler, 2008). It is vital for the success of medical rehabilitation for patients to transfer the skills learned at the therapy center to their own homes (Stroke Sourcebook, 2013). This enhances the likelihood of therapy being successful. It is also possible, and desirable, to learn skills in one discipline and be able to transfer those skills to another discipline. Cross-disciplinary transfer of skills is needed in academics (Kerala, 2012).

Geology is a discipline that requires certain skills, including spatial ability. Geologists have to be able to spatially understand the world. The Earth is a sphere that is perceived in a two-dimensional format. Geology requires the geologist to perform cognitive manipulation of

objects rather than manual manipulation (Colaianne & Powell, 2011). It is important for geologists to develop this skill. One manner of developing this skill is through taking geology courses that teach geospatial skills. However, it would be more beneficial to be able to learn these skills in disciplines other than geology and use those skills within the academic and vocational field of geology. It is possible to take spatial skills learned in other disciplines, such as the fine arts, and use those skills to enhance geologic understanding (Colaianne & Powell, 2011). With this ability, it becomes valuable to expose geology students to other disciplines. They are then able to learn multiple subjects and use the knowledge to improve their ability to comprehend geological concerns.

There is a significant focus on the transference of skills. This need is evident in the workforce and in the medical realm. Individuals who do not have a disability need to be able to transfer skills they learn in one venue to utilize those skills in a different venue. They need to learn to use these skills in other areas, and in other ways, in order to be successful. Students with disabilities need that same skill in order to be successful in vocational and academic pursuits. They need to learn how to transfer social skills beyond the classroom and out into society.

### **Summary**

The concept of special education is relatively new. Researchers have only studied it in depth for about 40 years, and it is constantly changing. As they conduct their research, highlighting effective methods and pointing out ineffective practices, special education instruction continues to adapt and improve. Students with disabilities have gone from not attending school, to attending school with no needed accommodations being made, to being removed from the general education classroom and isolated from other students, to an inclusive environment (Spaulding & Pratt, 2015). Inclusion is now practiced for SWD, while allowing for

them to be pulled from the classroom when it benefits them. While this practice may be a good one in theory, and the intent is honorable, it may cause other problems in different areas.

Subjects that all students study, (e.g. math, science, language arts), require differentiation when presented to students with disabilities. SWD often struggle acquiring knowledge in areas that are not formally taught to students without disabilities (e.g. social skills) (Otero et al., 2015). Life-skills and social skills are some of the areas that are difficult for students with disabilities to master (Banda & Hart, 2010; Otero et al., 2015). Many SWD find it difficult to understand why hygiene, cleaning, cooking, shopping, are important. For others it is difficult to perform these activities. It is also difficult for SWD to understand body language, non-verbal cues, tonal meanings, and other aspects of social interaction. These skills need to be taught to SWD using direct instruction (Banda & Hart, 2010; Otero et al., 2015). In this way, SWD may learn independence by grasping social skills. Students with disabilities will also have a better chance of staying in school and learning academic skills that will help them as they seek to succeed in life (Potera, 2015).

With the focus on inclusion of SWD, it has become difficult to provide students with instruction in social skills. Time is spent on the core academic subjects, and less time is available for instruction in the necessary, although non-academic areas (Spaulding & Pratt, 2015). There is not time available to teach social skills in environments outside of the school; consequently, social skills instruction focuses on improving social skills in the school environment. This is an improvement from earlier educative paths, but it falls short of what is needed. Students only spend a small portion of their lives in the school setting. It is crucial that they be able to interact appropriately with people outside of the school environment (Johns et al., 2012; Quigley, 2007). This will involve people that they do not know. It will involve settings

that are different from settings where they are comfortable. This will involve settings that are potentially uncomfortable. It will also involve individuals who do not understand how people are different from each other. Any effective instruction of social skills will enable the student to interact with these people, interact in these settings, utilizing appropriate social norms (Johns et al., 2012). This will allow the students a greater opportunity to live a life that is as close to that of their peers as possible. Special education is designed to provide instruction that allows SWD to develop along lines similar to those without disabilities (Kauffman & Kinnealey, 2015). More research needs to be conducted to determine what methods are effective in achieving these goals.

Discovering effective methods of teaching social skills is an important and necessary first step. The next stage of research needs to consider the effectiveness of social skills instruction to adequately enable the student to interact in environments outside of the school (Johns et al., 2012). This will provide teachers with improved practices and students with improved results. It is only through more research that schools will be able to effectively provide quality services to their SWD.

## CHAPTER THREE: METHODS

### Overview

The purpose of this study was to examine the effect of reinforcing learned social skills in a natural environment has on SWD. This study is a quasi-experimental, non-equivalent, pretest-posttest, control group design. A pretest was given, and then the intervention took place. Following the intervention, a posttest was given to the participants. The researcher used an ANCOVA to determine whether any change occurred throughout the study, and whether the intervention was responsible for that change. This chapter includes the research design used, the number and description of participants, the instrumentation used for the intervention, the data collection procedure, and the results of the data analysis of the study.

### Design

The researcher used a quasi-experimental, non-equivalent, pretest-posttest, control-group research design. Due to the difficulty of using an experimental approach in educational research, the researcher used a quasi-experimental design. Quasi-experimental designs allow the researcher to conduct a form of experimental research in settings outside of a lab or clinical setting (Campbell & Stanley, 1963). Quasi-experimental designs use convenience sampling (Gall, Gall, & Borg, 2007). In this study it was not feasible to randomly sample the population; therefore, a convenience sample was used instead. A quasi-experimental, non-equivalent control-group is appropriate to use when convenience sampling will occur, and when both the control and experimental groups receive a pretest and posttest (Gall et al., 2007). The design is also appropriate when the groups are similar, but there are still enough differences to warrant the need for a pretest (Campbell & Stanley, 1963). The independent variable was the use of social skills pedagogy reinforced in a natural setting. Reinforcement was defined as the “process in

which a behavior is strengthened by the immediate consequence that reliably follows its occurrence” (Miltenberger, 2008, p. 73). The dependent variable was the students’ standard scores from the teacher form scales that were used as the pretest and posttest. A pretest provided a baseline for the abilities of the students prior to any interventions being used. This allowed for the posttest scores to make comparisons about the change each student exhibited after the interventions. The pretest being used is the standard scores from the teacher form scales. At the end of the intervention, the teachers filled out the teacher form scales again. The researcher used these scores as the posttest.

### **Research Question**

The following question was addressed in this study.

**RQ:** Is there a difference in the generalization of social skills, as assessed by teachers, of SWD in grades six through eight who experience reinforcement of social skills in a natural setting and those who do not, while controlling for pretest scores?

### **Null Hypothesis**

**H<sub>0</sub>:** There is no statistically significant difference in the generalization of social skills, as assessed by teachers, of SWD in grades six through eight who receive reinforcement of social skills in a natural setting and those who do not, while controlling for pretest scores.

### **Participants and Setting**

The researcher used convenience sampling of middle school SWD, grades 6-8, in a school district in northeastern Utah during the 2017-2018 school year to gather participants for this study. The students were drawn from classes where the teachers agreed to participate in the study. The school district is located in a small town of 10,844 people, with an average income of \$59,507. The majority of the population is Caucasian, with 84% of community members in that

category. Unemployment within the district's community is at 6.7% reported in 2015 (City-data, 2018).

The researcher included a sample of 104 participants, which exceeds the minimum requirement for a medium effect size. According to Gall et al. (2007), 66 participants is the minimum requirement for a medium effect size, with the statistical power of .70 at the .05 alpha level. Of the 104 participants who began the study there were 86 who completed it. This sample came from two schools within the district. The researcher used the middle school special education classes in the two schools to gather participants. Random sampling was used to create the control and experiment groups. Since the study focused on students with disabilities, the sample was drawn from schools, specifically special education classes in the schools. The researcher sought to analyze what effect the treatment, reinforcing the learned social skills in a natural setting, had on students with diagnosed disabilities. There were 51 males and 35 females participating in the research. Of the participants, 22 were sixth graders, 33 were seventh graders, and 31 were eighth graders.

The control group included 43 students; 25 were male and 18 were female. The control group and the experimental group were randomly assigned. The student ID's were used to randomly pick the groups without having any indication of demographics of the groups.

The Social Skills Improvement System (SSIS) instruction occurred in special education resource rooms. In these classes students received the SSIS instruction. Upon completion of the SSIS program the experimental group was taken to a natural setting (a local national park) to practice the skills they learned. The experimenters accompanied them and provided on-the-spot interventions, reinforcing the desired social skills.

The researcher trained all teachers and paraprofessionals, participating as experimenters,

in the implementation of SSIS, and also on what to do during the students' practice time in the natural setting. In addition, the researcher taught the experimenters which social skills to address and how to address them during the reinforcement stage. Randomly determined observation times were utilized to increase the fidelity of the implementation of the program. The SSIS also has fidelity checks within the program to increase the likelihood of faithful implementation. Intervention Integrity Forms are provided with the program (See Appendix A). These forms consist of questions that encourage the instructors to evaluate their performance after each lesson. The intervention integrity forms ask questions concerning how closely the program guidelines were followed. These forms allow for fidelity to the program to be analyzed using the SSRS. There is also a form that allows an observer to track the fidelity of the lesson implementation, further increasing the accuracy of the fidelity information that is gathered.

The SSIS is an inclusive program designed to teach social skills. The researcher received permission to reproduce any of the teaching materials for those using the materials, but permission was denied to reproduce any testing materials or scales (See Appendix B). The social skills targeted are skills that educators have chosen as the 10 most important social skills for school (Elliott & Gresham, 2007). This program includes performance screening guides, lesson plans, student booklets, an overview letter, intervention integrity forms, video modeling clips, top 10 skills progress charts, notes to parents, skill steps cue cards, certificates of accomplishment, and a letter of completion. These components were all designed to increase the effectiveness of the SSIS program.

The performance screening guides allow a teacher to document how class members are performing in both behavior and academics and how much progress they are making throughout the intervention (Elliott & Gresham, 2007). This step occurs at the beginning of the program.

The performance screening guide can be used in special education classrooms or in general education classrooms, and it is a form that the teacher fills out on the entire class. The performance screening guide is a 5-point Likert scale that addresses prosocial behavior, motivation to learn, reading skills, and math skills (SSIS, 2008). It is a qualitative tool used to determine which students are in need of direct social skills instruction.

The lesson plans are comprehensive and designed to give teachers a guide to follow. The lesson plans use several different strategies of instruction: reinforcement, modeling, role-playing, and problem solving (DiPerna et al., 2015). This increases the likelihood of SWD making social skills gains (DiPerna et al., 2015). Everything is explicitly written out, and the lesson plans explain when and how to use the video modeling and student booklets (Elliott & Gresham, 2007). The video clips provide positive and negative video modeling of social skills. The video clips are provided due to the important role that modeling plays in social skills acquisition (Elliott & Gresham, 2007). The student booklets provide activities designed to engage students and increase their retention of the lesson. There are also 23 letters included in the program that keep the parents/guardians informed about the SSIS program at various stages throughout its implementation (See Appendix C). There are two overview letters, the first of which was sent home prior to beginning instruction. The second overview letter was sent home after instruction had been completed. There are also two letters for each unit of instruction. One letter was sent home at the beginning of each unit, and the other letter will be sent as a review upon completion of each unit. These letters help improve sustained focus on the intervention (Elliott & Gresham, 2007).

Throughout the study, progress charts were used to monitor student progress (See Appendix D). The teacher filled out the first progress chart. Upon completion of each unit, the

teacher filled out the progress chart, rating the level of competency each student exhibited in the skill taught during that unit. These progress charts are different than the rating scales and provide indications of whether the SWD are making gains. They did not provide data that the researcher analyzed. The students filled out the second progress chart. This chart is different than that used by the teacher. This chart allowed the students to see how they were progressing, in their own minds, throughout the course. The students used this progress chart to rate themselves on each social skill taught. They rated their level of competency after each of the three lessons for all 10 social skills that were taught. This helped to encourage the class to continue on in the program (Elliott & Gresham, 2007). The skill step cue cards provide visual reminders of the steps for each of the skills that were discussed (See Appendix E). These cue cards were displayed in a prominent location to provide a visual reminder to the students of the steps they needed to take to successfully implement the social skills learned. This allowed the students to more thoroughly learn and internalize the steps to the skills (Elliott & Gresham, 2007).

### **Instrumentation**

The SSIS Rating Scale is the instrument that was designed to be used by the SSIS, and was used in this study.

The SSIS Classwide Intervention Program provides a structured, yet flexible and efficient way to teach 10 of the most important social skills to students from preschool to early adolescence. The program has been designed in conjunction with the SSIS Performance Screening Guide to provide a coordinated system for improving social skills. (SSIS, 2008, para. 1)

Gresham and Elliott (2008) state that social skills deficits are common among SWD.

When these deficits are not addressed effectively they will persist or worsen over time. The SSIS and the accompanying rating scales were developed to improve the ability of teachers to screen and classify social skills deficits of SWD. This system also increases the ease of teaching social skills to SWD. This program is grounded in emotional intelligence theory. The social skills deficits of SWD are often caused by not understanding appropriate prosocial behaviors. They may have difficulty understanding how their attitudes and actions affect others or what behaviors others are using.

The 10 social skills and their definitions as described by Elliott and Gresham (2007) in the SSIS program are: (a) Listen to Others; (b) Follow the Steps; (c) Follow the Rules; (d) Pay Attention to Your Work; (e) Ask for Help; (f) Take Turns When You Talk; (g) Get Along with Others; (h) Stay Calm with Others; (i) Do the Right Thing; and (j) Do Nice Things for Others. Listen to Others is defined as all “nonverbal behaviors that indicate active listening, followed by verbal or motor responses that indicate comprehension” (p. 147). Follow the Steps is the ability to do what is asked in the order it is asked. Follow the Rules is listening to what is said, followed by actions that are in accordance with the rules. Pay Attention to Your Work is the ability to focus on the work regardless of potential distractions. Ask for Help is exhibiting “behaviors that facilitate getting a person’s attention and then requesting his or her help in a positive way” (p. 195). Take Turns When You Talk teaches students to “take turns in conversation,” listen to what others say, and respond appropriately (p. 207). Get Along with Others occurs when students are able to “exhibit verbal and nonverbal behaviors that indicate positive interactions with peers during structured and unstructured classroom activities” (p. 219). Stay Calm with Others is the ability to “identify persons and situations that make him or her angry and use anger-reduction strategies” (p. 231). Do the Right Thing is the ability to do what is supposed to be done in any

environment. Do Nice Things for Others occurs when students are being nice to others “in a variety of situations” (Elliott and Gresham, 2007, p. 257).

The SSIS is a comprehensive program providing lesson plans, materials, and scoring instruments. The scoring instruments are the SSIS Rating Scales (SSRS, Elliott & Gresham, 2007). The rating scales are not attached due to copyright issues. Researchers have used the SSRS in other studies and found them to show positive effects, although not statistically significant, on students’ social skills (DiPerna et al., 2015; January, Casey, & Paulson, 2011; Mathews et al., 2013). The SSIS Rating Scales were created in conjunction with the program and are valid for measuring the objectives of the program (Gresham & Elliott, 2008). The SSIS Rating Scales utilize national norms that were obtained through a nationwide sampling of 4,700 children aged 3-18. The sample population was derived from 36 states and 115 sites (Gresham & Elliott, 2008).

The SSIS Rating Scales went through rigorous reliability and validity testing. The following information can be found on page 48 of Gresham & Elliott (2008). The three types of reliability testing used on the SSIS Rating Scales were internal consistency reliability for scales and subscales, by form, age, and norm group; test-retest reliability for scales and subscales by form; and interrater reliability for scales and subscales by form. There were also three categories of validity evidence used in the SSIS Rating Scales development. The three categories are convergent and divergent evidence, evidence based on correlations with other measures, and evidence based on clinical groups. The measures used for validity evidence based on correlation with other measures are the original SSIS Rating Scales, the BASC-2, the Teacher Rating Scales, the Parent Rating Scales, the Self-Report of Personality, the Vineland-II, the Teacher Rating Form, the Survey Interview and Parent/Caregiver Rating Form, the Walker-McConnell Scale of

Social Competence and School Adjustment, and the Home & Community Social Behavior Scales.

The SSIS main tests on the rating scales have reliability coefficient alphas in the mid .90s. The subscales have reliability coefficients ranging from .81 to .97 (National Center on Intensive Intervention, n. d.). See Table 1 for the reliability of the SSIS. The three SSIS rating scales are easy to administer. There are three different scales, but the teacher scale was the only one used in the study. The raters did not have to assign or interpret motives for actions; they simply record the frequency with which a certain action occurs. They are also able to assign a level of perceived importance to that action. The special education teachers were the only teachers who filled out the rating scales.

Following completion of the rating scale, the data were analyzed by entering the raw scores into a computer program, and a report was generated. This report breaks down the data into the nine subscales: Communication; Cooperation; Assertion; Responsibility; Externalizing; Bullying (will not be used due to low reliability); Hyperactivity; Internalizing; and Autism Spectrum. The report provides a level for each of the subscales. This level is a five-point scale, with possible answers being Well-Above Average (5), Above Average (4), Average (3), Below Average (2), and Well-Below Average (1). A written explanation is also provided, giving information as to why the student received a particular score. This information was not part of the data being analyzed; it is produced by the software to provide direction for further instruction. In addition, recommendations for specific social skills that need additional attention are included.

The SSIS Rating Scales assist educators in determining which students exhibit social skills deficits. The scales are also helpful in developing interventions for students who have

social skills deficits. The scales can use a multi-rater approach, but only the teacher standard scores will be used.

Gresham and Elliott (2008) described the standard score as being derived from the raw score. The standard score shows a student's relative placement compared to others in the same age group. It is an equal interval scale with a mean of 100 and a standard deviation of 15. The social skills scale assesses positive behaviors. This means that a student with a higher standard score on the social skills subscales exhibits appropriate social skills more frequently than a student with a lower standard score. Any number greater than 115 indicates above average social skills, and any number below 85 indicate below average social skills. Use of the standard score allows for comparisons to be made across groups (Gresham & Elliott, 2008). This makes it possible to compare growth evenly between students.

Table 1

*Internal Consistency Reliability: Coefficient Alpha for the Teacher Form Scales and Subscales, by Age and Norm Group*

Teacher Form	Ages 5-12			Ages 13-18		
	Female	Male	Combined	Female	Male	Combined
Social Skills	0.96	0.97	0.97	0.97	0.97	0.97
Communication	0.85	0.85	0.86	0.86	0.85	0.86
Cooperation	0.9	0.92	0.91	0.89	0.9	0.9
Assertion	0.82	0.84	0.83	0.88	0.87	0.87
Responsibility	0.91	0.9	0.91	0.88	0.9	0.9
Empathy	0.89	0.93	0.92	0.93	0.88	0.91
Engagement	0.81	0.85	0.84	0.9	0.87	0.89
Self-Control	0.89	0.91	0.9	0.94	0.91	0.93
Problem Behaviors	0.94	0.95	0.95	0.95	0.96	0.96
Externalizing	0.94	0.93	0.93	0.95	0.93	0.94
Hyperactivity/Inattention	0.9	0.9	0.9	0.88	0.89	0.89
Internalizing	0.82	0.83	0.83	0.9	0.9	0.9
Autism Spectrum	0.87	0.89	0.88	0.87	0.87	0.87
Academic Competence	0.97	0.97	0.97	0.97	0.94	0.96
Median scale reliability	0.96	0.97	0.97	0.97	0.96	0.96
Median subscale reliability	0.88	0.9	0.89	0.89	0.89	0.9

Note. Adapted from <http://www.intensiveintervention.org/chart/behavioral-progress-monitoring-tools/13150>

The standard score provides a scale with a nationally-normed mean of 100 and a standard deviation (SD) of 15. The scale has a range of 40-160, which equals four standard deviations. A score of 40 is four standard deviations below the mean. This places the student in the well-below average range for that component. A score of 160 is four standard deviations above the mean and places the student in the well-above average range for the component. This is an equal-interval scale, which indicates that “each score unit represents the same increment of change at every level of the scale” (Gresham & Elliott, 2008, p. 19). A change of five represents the same amount, whether it is from the below average section, the above average section, or any other section of the scale, allowing accurate comparisons to be made about the effectiveness of the intervention (Gresham & Elliott, 2008).

The rating scales include validity indexes, which help determine whether the rater exhibited bias in the rating and whether a response pattern was used by the rater (Gresham & Elliott, 2008). A high level of *never exhibiting* positive behaviors, and *always exhibiting* negative behaviors indicate potential rater bias and will be evident in the report. There are also checks on response patterns and response consistency. When a response pattern is detected it is possible that the rater did not accurately answer the questions, and that the score may be invalid (Gresham & Elliott, 2008). Any usage of a pattern to respond (e.g. 1,1,1,1; 1,2,3,4) will result in a score on the report. The score measures the response distribution to see if the responses fall within the normal pattern of the sampled population. If a rater uses a pattern to respond to the questions, it will change the response pattern score and provide a caution on the report. If the pattern is too unusual, in either the pattern or lack of pattern, then the score will reflect that as a high or low caution. If the pattern occurred in less than 5% of the population a score of extreme caution is issued. This allows the interpreter to see whether somebody was thoughtfully

answering or just marking answers without considering them. It is expected that certain questions will be answered similarly by the same rater. When the rater does not answer these questions in a similar manner, the report will show the level of discrepancy (Gresham & Elliott, 2008). These checks allow the interpreter of the results to see if there are any issues of concern with regards to the validity of the ratings.

Permission has been granted by Pearson to describe the rating scales, or tests, including the function, process for administering, analysis, summary statistics, and results. Permission was not granted to attach any portion of the test or include any actual test items in the document.

### **Procedures**

Before beginning the research, the researcher obtained permission from the Liberty University Institutional Review Board (IRB) to conduct the research. Once IRB approval was secured, permission was granted by the school(s). School permission was requested by contacting the Director of Student Services and explaining the study, the purpose of the study, and what the researcher needed from the district. Teachers were recruited to implement the program. The teachers recruited were the sixth, seventh, and eighth grade special education teachers from the two middle schools in the district. Each grade had one teacher in each school. This resulted in a total of six teachers participating in the study. Some students from each class were randomly assigned to the control and experiment groups. Once licensed special education teachers were identified and agreed to participate, the researcher trained the teachers in using SSIS. This was accomplished by following the directions for implementation of the program found in the SSIS-CIP Teacher's Guide (Elliott & Gresham, 2007). The researcher trained the teachers and paraprofessionals in what behaviors to respond to, and how to respond to them, prior to the reinforcement phase of the program. Once the program was completed, and teachers

and paraprofessionals were trained, the teachers and paraprofessionals took the experimental group to a natural setting to practice their learned skills and reinforce the desired social skills. The teachers then provided anonymous data to the researcher, who entered the data into the computer and conducted the data analysis. In order to maintain student anonymity and confidentiality, the ID numbers of the students were used rather than their names.

The SSIS Teacher's Guide provides instructions on proper implementation of the SSIS program (Elliott & Gresham, 2007). Teachers and paraprofessionals were instructed to follow this guide. Teachers first completed the screening guide, which is designed to provide baseline information concerning the social skills abilities of the students in the class. It is important that the teacher is aware of each student's abilities in social skills prior to completing the screening guide; therefore, teachers will complete the guide at the beginning of the second trimester. The back of the screening guide has a section to be filled in containing the teacher's name, school, grade(s), number of students, dates, and the purpose of the evaluation. After that section was completed, the teacher listed the students in the class, utilizing the students' ID numbers. The teacher then used the screening guide to rate the students on their prosocial behaviors, motivation to learn, reading skills, and math skills (Elliott & Gresham, 2007). The teachers then filled out the teacher form of the SSIS rating scales. This was the pretest. The same form was completed again at the end of the study as the posttest. The SSIS rating scales ask the teacher to rate the student on different aspects of social skills. For example, there may be questions concerning how often a student asks for help, how often they get embarrassed, how well they share, if they look at the person while talking. The teacher responds based on how frequently they observe these behaviors. This is why it is important for the teacher to know the students for a few weeks before filling out the pretest. The results from the teacher scales pretest were entered into the SSIS

Rating Scales ASSIST scoring and reporting program. The program then issued a report for each student based on all three rating scales. This was used as the baseline when analyzing the results of the study.

After the teachers completed the screening guide, they began the intervention. The SSIS was the intervention tool. The teacher's guide provides everything needed for implementation. The teachers used the lesson plans to provide the instruction. Each unit has three lesson plans provided in the SSIS for the teachers to teach. In order to increase the likelihood of implementation fidelity, the teachers and paraprofessionals completed the intervention integrity rating scale after each lesson. This scale asks whether the program components were fully implemented, partially implemented, had limited implementation, or no implementation (Gresham & Elliott, 2008).

The researcher also trained the teachers and paraprofessionals in the reinforcement phase of the study, which enabled them to recognize the prosocial behaviors to reinforce. The researcher provided training for the teachers in one session lasting approximately four hours. Following the completion of the intervention, the teachers and paraprofessionals took the experimental group into a natural setting, a local national park, to receive reinforcement of the learned social skills. The reinforcement occurred with five of the learned social skills from the intervention. These social skills include listen to others, follow the steps, follow the rules, ask for help, and take turns when you talk. The teachers and paraprofessionals took the control group to the gift shop, visitor center, and attraction of the local national park. They instructed the SWD to go to the establishment and ask questions of the park rangers. If SWD could not think of a question to ask, the teachers or paraprofessionals helped them come up with a question. They instructed the SWD on what steps they needed to take. First, they needed to

think of a question. Next, they needed to find a park ranger. Then they waited in line, if there was a line, until it was their turn to speak to the ranger. They then asked their question. Upon receiving their answer, the students were to thank the ranger. The teachers and paraprofessionals explained these steps to the SWD and provided them in written form for a reminder. While the experimental group was completing the reinforcement stage, the control group continued to receive reinforcement of social skills within the school setting. Following completion of the study, the control group was also allowed to go on the field trip. This trip was designed to provide the experiment group with an opportunity to practice some of the social skills they had learned. Students asked questions in order to practice taking turns when they talked, listening to others, following directions, and other skills. The practice is what was important.

The teachers and paraprofessionals were trained in reinforcing these skills. If the students were unable to complete the task, and did not ask for help, they were reminded that when they do not know what to do they should ask for help. If at any time the students failed to listen to the ranger, or others who talked to them during this time, they were reminded to listen when someone is talking to them. The teachers and paraprofessionals reminded the students to follow the steps they have been taught if they become unsure of what to do. The teachers and paraprofessionals reminded the SWD of the rules, (e.g. waiting in line, asking questions, being courteous) if they failed to follow the rules. The teachers and paraprofessionals also reminded the students to take turns when they talk to other people. This occurred any time the students interrupted someone, or if they failed to respond when they should be responding. After the reinforcement was completed, and two weeks had passed in order to observe the students following the reinforcement phase, the posttest was administered. The teachers completed the rating scales again. The teachers answered the same questions about how frequently these

behaviors were observed following that reinforcement phase. The results of these scales were entered into the ASSIST scoring program. At this point, the researcher analyzed the data to look for any change.

### **Data Analysis**

The ANCOVA is the statistical technique that the researcher used to analyze the data. The ANCOVA controls for any initial difference between the groups prior to the implementation of the intervention (Gall et al., 2007). This made the groups equal based on the pretest (covariate) that was administered. This helped determine if any difference found in the posttest between the control and experimental groups was due to the intervention. The ANCOVA adjusts the means on the posttest to what they would have been if all scores were equal on the pretest (Tabachnick & Fidell, 2013). This increases the chances that any difference seen will be caused by the reinforcement of social skills in a natural setting. It removes the likelihood of random fluctuations in the data causing the difference in scores.

The researcher conducted several assumption tests with the ANCOVA. The researcher tested the homogeneity of variance by using Levene's Test. This tested the variance within the groups to ensure it was representative of the population. Assumption testing also included examining the histograms of each data set to determine normal distribution. Homogeneity of regression of slopes was used to determine if the relationship between the dependent variable (y) and the covariate (x) is linear and parallel. Finally, data was examined to ensure that there are no bivariate outliers.

Descriptive statistics, mean, and standard deviation are reported below. Also, the number of participants (N), number per cell (n), and degrees of freedom, observed *F* value (F),

significance level ( $p$ ), effect size expressed as *eta* squared ( $\eta^2$ ), and power are reported. The null hypothesis will be rejected if the observed  $p < .05$ .

The *eta* squared ( $\eta^2$ ) is the statistic used to report the effect size. This is done with the level of significance, alpha, set at  $p < .05$ . If the result is  $p < .05$  the null hypothesis will be rejected. The descriptive statistics, mean, and standard deviation are included in the analysis.

## **CHAPTER FOUR: FINDINGS**

### **Overview**

The purpose of this study was to examine the effect that reinforcing learned social skills in a natural environment has on SWD. This was done by using a quasi-experimental, non-equivalent, pretest-posttest, control group design. A pretest was given, and then the intervention took place. Following the intervention, a posttest was given to the participants. The researcher used an ANCOVA to determine whether any change occurred throughout the study, and whether the intervention was responsible for that change.

Chapter Four includes the descriptive statistics of the study, the results of the assumption tests, and the results of the ANCOVA. Each of these will be presented and then summarized within this chapter.

### **Research Question**

**RQ:** Is there a difference in the generalization of social skills, as assessed by teachers, of SWD in grades six through eight who experience reinforcement of social skills in a natural setting and those who do not, while controlling for pretest scores?

### **Null Hypothesis**

**H<sub>0</sub>:** There is no statistically significant difference in the generalization of social skills, as assessed by teachers, of SWD in grades six through eight who receive reinforcement of social skills in a natural setting and those who do not, while controlling for pretest scores.

### **Descriptive Statistics**

#### **Sample Population and Demographics**

The sample consisted of 104 students with disabilities. These students were drawn from the sixth, seventh, and eighth grade special education classes of two middle schools in a school

district in rural Northeast Utah. There were 61 males and 43 females participating in the research. There were 26 sixth grade, 40 seventh grade, and 38 eighth grade participants.

### **Instrumentation and Descriptive Statistics**

Of the 104 students who began the study, 86 completed the study and had appropriate paperwork completed for the study. There were 14 students who moved or tested out of special education during the study. Two students were excluded due to missing information on the SSIS rating scales. The remaining 86 students from the original convenience sample were randomly assigned to the experiment or control group for the last phase of the study. There were 43 students in each group. The experiment group comprised 10 sixth graders, 18 seventh graders, and 15 eighth graders. There were 26 males and 17 females in the experiment group. The control was made up of 12 sixth graders, 15 seventh graders, and 16 eighth graders. There were 25 males and 18 females included in the control group. Table 2 shows the mean, standard deviation, and N for the control and experiment groups. The posttest scores resulted in a higher mean for the experimental group than the control group.

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Table 2

*Descriptive Statistics for the Posttest Scores for the Control and Experiment Groups*

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Dependent Variable: Posttest	Descriptive Statistics		
	M	SD	N
Group			
Control	79.63	24.346	43
Experiment	92.40	24.574	43
Total	86.01	25.149	86

---

## Results

### Null Hypothesis

**H<sub>0</sub>:** There is no statistically significant difference in the generalization of social skills, as assessed by teachers, of SWD in grades six through eight who receive reinforcement of social skills in a natural setting and those who do not, while controlling for pretest scores.

Data screening was conducted on the standard scores for the control and experiment groups. Two histograms were used to examine the distribution of the scores. Table 3 shows the histogram for the control group. It shows that there is nearly normal distribution for the control group. Table 4 shows the histogram for the experiment group. It indicates nearly normal distribution within the experiment group scores. A scatterplot and a box and whisker plot were also used to help determine normal distribution and check for outliers. Table 5 shows the scatterplot used to check for outliers. Table 6 shows the box and whisker plot. Both of these tests indicate that there are no significant outliers. Levene's Test was used to test the homogeneity of variance. Table 6 shows the results of Levene's Test. Additionally, a test was run to determine the homogeneity of regression of slopes. Table 7 indicates the results of this test. The histogram and scatterplot showed normal distribution for the control and experiment groups. The scatterplot also indicated the absence of outliers that would need to be excluded. Levene's Test was run to test the assumption of homogeneity of variance. The results were significant with  $p = .027$ . However, the variance ratio was calculated and found that the variances are similar enough to conduct ANCOVA. The variance ratio is calculated by squaring the standard deviations and dividing the largest by the smallest. If the result is less than 2, the variance can be assumed to be homogeneous.  $\frac{(24.574)^2}{(24.346)^2} = 1.0$

An interaction variable between the pretest and the variable was run. The interaction was not significant  $F(1, 86) = .889, p = .348$ . Homogeneity of regression of slopes can be assumed based on the data run. These tests indicated that the study should be analyzed using an ANCOVA.

An ANCOVA was run to investigate the effect of reinforcing learned social skills in a natural setting for SWD. The independent variable was the reinforcement in a natural setting of SWD. The pretest scores were included as a covariate. The dependent variable was the posttest scores of the SWD (see Table 7). The results of the study were inconclusive,  $F(2, 83) = 3.700, p = .058, \eta^2 = .043$ . The change in scores for the experiment group was not significantly different from the scores for the control group. This study failed to reject the null hypothesis.

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Table 3

*Histogram Showing Normal Distribution of Posttest Scores of the Control Group*

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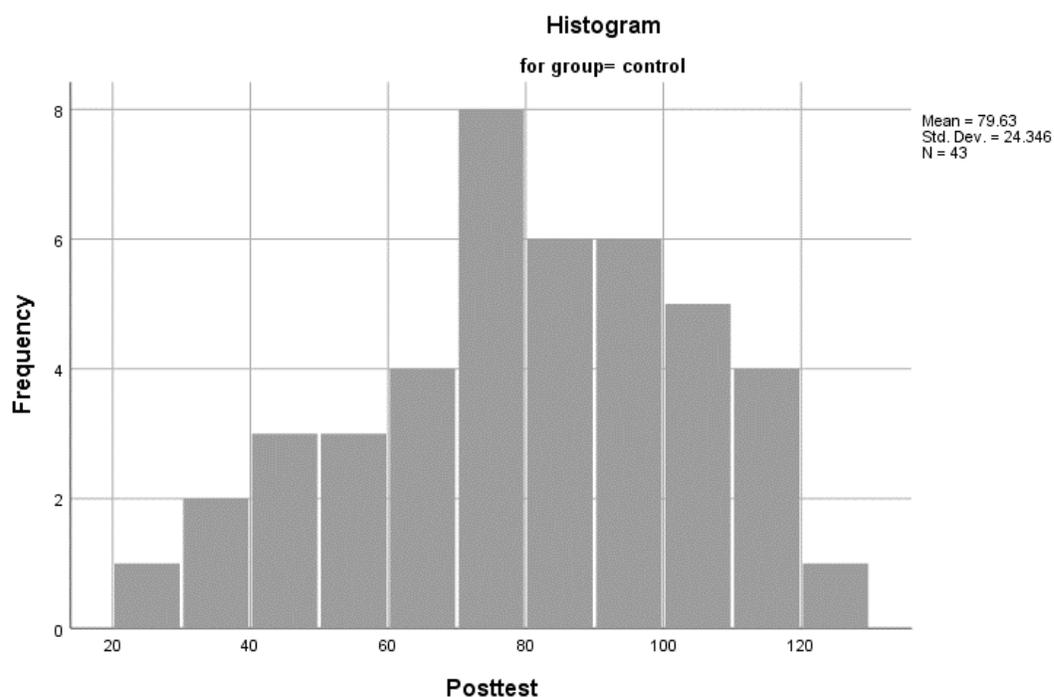


Table 4

*Histogram Showing Normal Distribution of Posttest Scores of the Control Group*

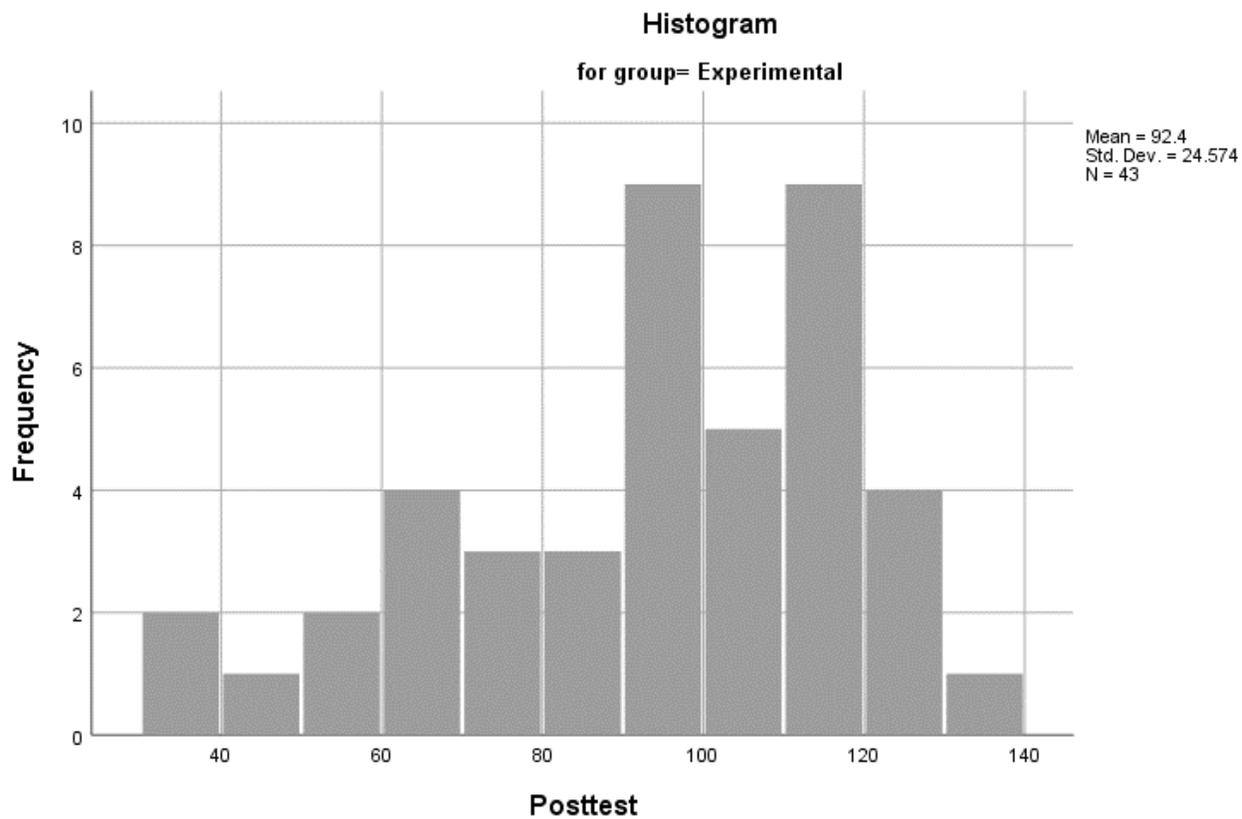


Table 5

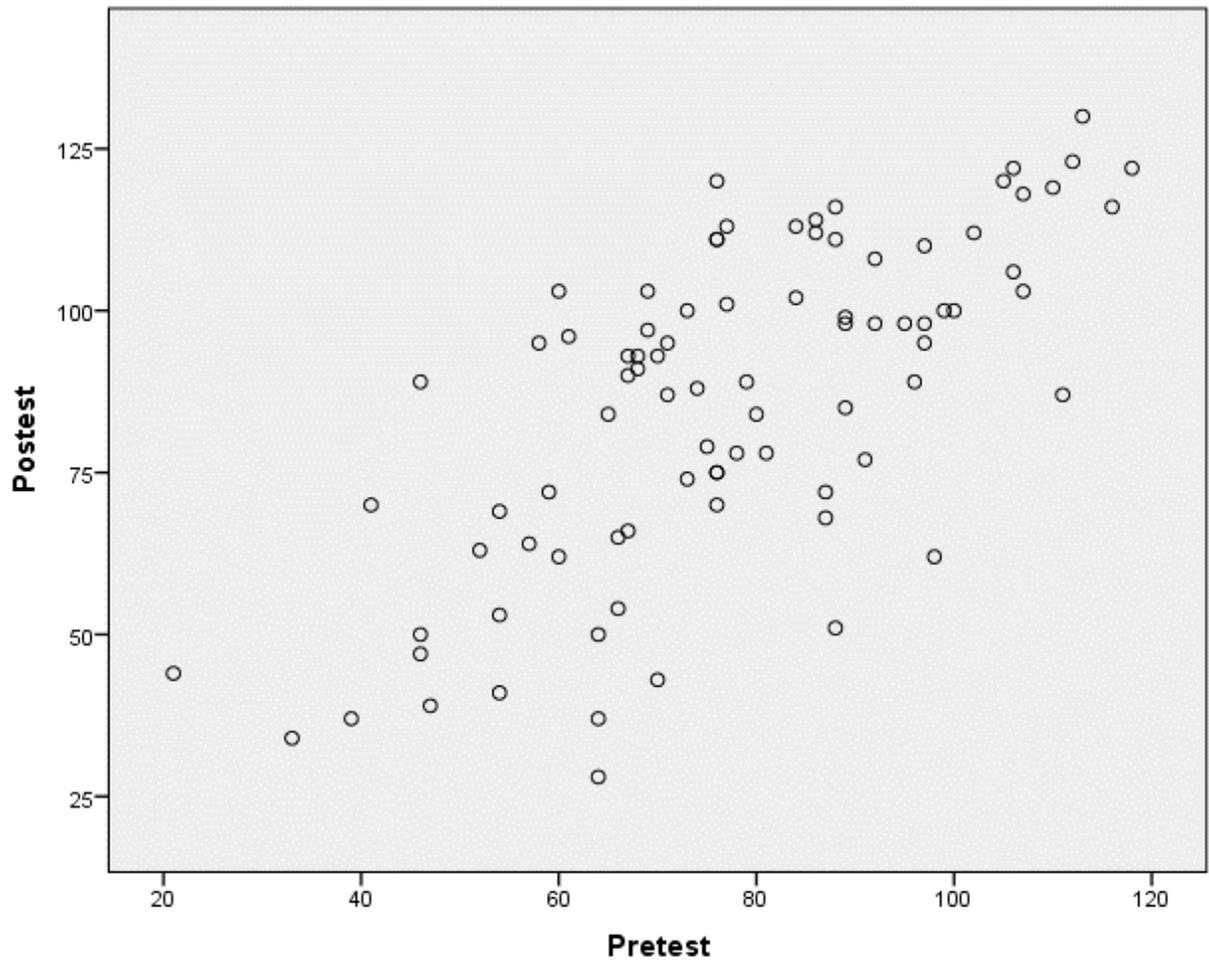
*Scatterplot of Posttest Scores*

Table 6

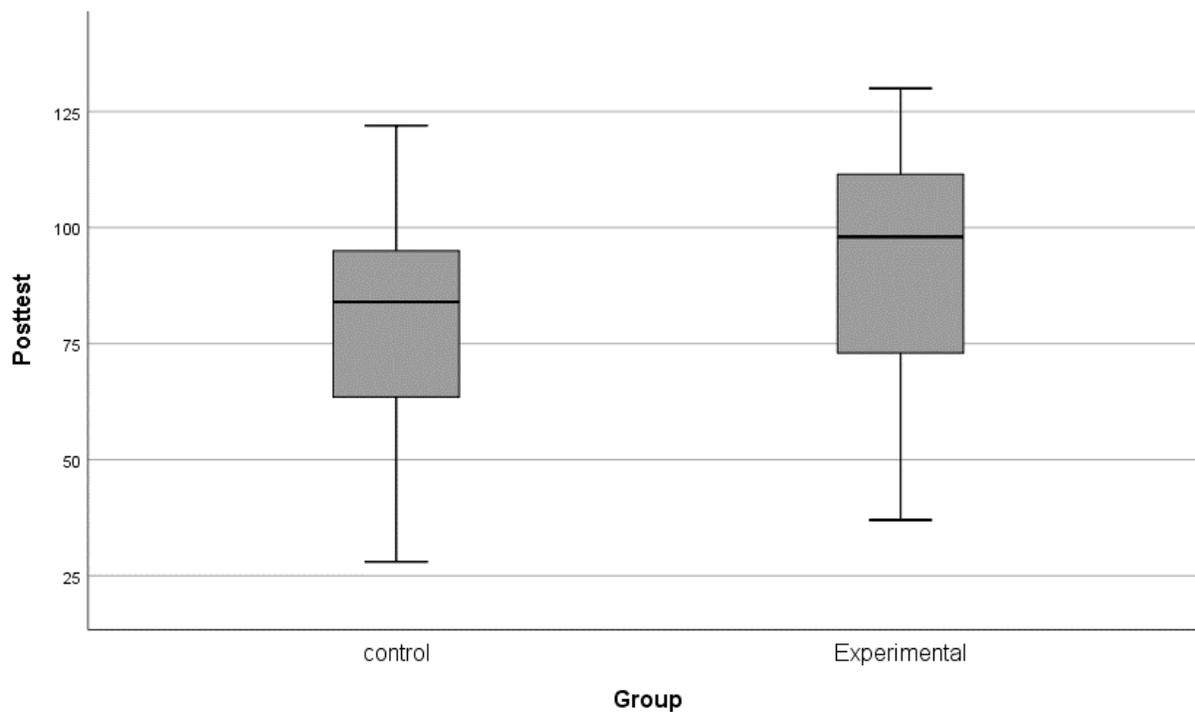
*Box-and-Whisker Plot of Posttest Scores*

Table 7

*Levene's Test for Homogeneity of Variance*

Levene's Test of Equality of Error Variances				
Dependent Variable: Posttest				
F	df1	df2	Sig.	
5.067	1	84	.027	

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.<sup>a</sup>

a. Design: Intercept + Group + Pretest + Group \* Pretest

Table 8

*Results of Homogeneity of Regression of Slopes*

Tests of Between-Subjects Effects						
Dependent Variable: Posttest						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	27301.989 <sup>a</sup>	3	9100.663	28.204	.000	.508
Intercept	2827.062	1	2827.062	8.761	.004	.097
Group	59.238	1	59.238	.184	.669	.002
Pretest	22015.772	1	22015.772	68.230	.000	.454
Group * Pretest	286.920	1	286.920	.889	.348	.011
Error	26458.999	82	322.671			
Total	689989.000	86				
Corrected Total	53760.988	85				

a. R Squared = .508 (Adjusted R Squared = .490)

Table 9

*Results of ANCOVA Analysis*

Tests of Between-Subjects Effects						
Dependent Variable: Posttest						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	27015.069 <sup>a</sup>	2	13507.534	41.918	.000	.503
Intercept	2650.818	1	2650.818	8.226	.005	.090
Pretest	23510.406	1	23510.406	72.959	.000	.468
Group	1192.199	1	1192.199	3.700	.058	.043
Error	26745.920	83	322.240			
Total	689989.000	86				
Corrected Total	53760.988	85				

The intervention variable was not significant, but the researcher found that reinforcing learned social skills in natural settings did produce higher results, although these results are not statistically significant, on the posttest scores. This indicates that there may be practical implications in this study, and further research to verify is warranted.

### **Summary**

The researcher ran an ANCOVA in order to determine the effects of reinforcing learned social skills in a natural setting has on SWD. Teachers filled out the SSIS rating scales for each student. This was the pretest and provided a baseline for the data analysis. The intervention took place following the pretest. Once the 10-week intervention was completed, the students from the convenience sampling were randomly assigned to the control or experiment group. The experiment group then went to a local national park in order to practice their learned skills and receive reinforcement. The control group remained at the school and received reinforcement in the school. Following this, the teachers filled out the same rating scales as before. This was the posttest. The researcher ran an ANCOVA to determine whether the reinforcement in natural settings produced greater results on the posttest. There were 86 students who completed the study and had their information completely filled in on both the pre and posttests. These were students in special education classes in the sixth, seventh, and eighth grades. The posttest scores resulted in a mean that was higher in the experiment group than the control group.

The researcher conducted four assumption tests in order to determine whether an ANCOVA was the appropriate test to run for analysis. The histogram, scatterplot, and homogeneity of regression of slopes tests all indicated normal distribution. Levene's Test failed to assume equality of variance. The variance ratio was used to determine homogeneity of variance. The ANCOVA was determined to be the appropriate test. The results of the ANCOVA

indicated that the intervention variable was not significant. However, the results indicated that reinforcing learned social skills in natural settings may have some value for SWD, although this value is not statistically significant. This indicates that future research would be advised in order to further determine the effects it may have on the training of SWD.

## **CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS**

### **Overview**

This chapter presents the summary of the results of the study. The conclusions, implications, and recommendations for future research are based on the results of the analyzed data. In addition to this, some limitations of the study and results have been identified and mentioned in this chapter. These limitations are important to provide future researchers areas of concern that can be addressed at the time of new research. This study was useful in identifying how reinforcing learned social skills in natural settings affects the retention of those social skills in SWD.

### **Discussion**

The purpose of this study was to examine the effect that reinforcing learned social skills in a natural environment has on SWD. The researcher used a quasi-experimental, non-equivalent, pretest-posttest, control-group design to determine the effect of the study. This study is rooted in social learning theory and emotional intelligence. There were 104 SWD, in grades 6-8, in a rural school district in northwest Utah, that were invited to participate in this study. Of the 104 original participants 86 of them completed the study with all of the needed information. There were 43 SWD in the control group and 43 in the experiment group.

All students were taught social skills using the Social Skills Improvement System (SSIS). This is a 10-week program with a new skill being taught each week. These skills build upon each other, helping students develop greater social skills. Upon completion of the SSIS program, the experiment group was taken on a field trip to a local national park. During this time, SWD interacted with park rangers, gift shop workers, and other visitors. Teachers provided on-the-spot interventions, reminding SWD of the social skills they had learned and practiced during the SSIS

program. The control group remained in the school and continued to learn social skills at school. The teacher then filled out the posttest to determine any change in the social skills levels of the SWD.

In this study, the independent variable was the reinforcement of learned social skills in a natural setting, and the dependent variable was the standard scores on the SSIS rating scales filled out by the teacher. The researcher found that there was not a statistically significant difference between the pretest and posttest scores of the experiment and control groups. The result of the ANCOVA was  $p = .058$ . This is just below the level of statistical significance. However, the researcher found that there was benefit, although not statistically significant, to reinforcing learned social skills in a natural setting. The average change in pretest and posttest scores was greater in the experiment group, indicating that the intervention did produce positive results. This means that while the study did not produce results that show a significant gain, the data does move in a direction that shows that reinforcing social skills in natural settings may be beneficial for SWD. The SSIS program resulted in improvement in social skills for both the control and experiment groups. This indicates that this program helps SWD improve in their social skills.

Both the control and experiment groups' scores improved. This shows that using the SSIS to teach social skills is effective for SWD. The gain was greater for students in the experiment group, indicating the possible benefit of reinforcing those skills in natural settings. This finding indicates that SWD need to be directly taught social skills. It also indicates that there may be more beneficial ways to help SWD retain and transfer social skills beyond the school environment. Since SWD often have difficulty learning social skills (Gallagher, 2011; Gresham et al., 2010; Smith et al., 2005; Sullivan and Sadeh, 2015), and since social skills are important

for future success in life (Potera, 2015; Segrin et al., 2016; Sullivan and Sadeh, 2015), it is necessary for schools to provide direct instruction in social skills for SWD.

The findings of this study are supported by research. Bandura (1977) noted that learning social skills improves when people are able to interact with other individuals. The more people can be around others, observing, imitating, and being taught social skills, the more likely it is that they will learn social skills. For SWD, this needs to be accompanied by direct reinforcement. Adibserenski (2015) states that social learning theory indicates that social skills are learned behaviors, that they can be taught, and that schools should teach these skills to students who struggle with them. In the theory of emotional intelligence, Goleman (2011) states that it is important for people to be able to recognize their own emotions, control their own emotions, recognize the emotions of others, and understand how their actions will affect others. With that as a goal, social skills instruction becomes necessary. SWD need to be taught these skills. They need to be able to practice these skills by interacting with others, and they need to receive reinforcement as they practice these skills.

Theoretical support and empirical evidence exists, but it is not robust. There is plenty of support concerning the importance of social skills. There is an expansive body of evidence that SWD's often struggle with acquiring these skills. There is also significant support that SWD's need to be directly taught social skills. The support for reinforcing these skills in a natural setting is extremely limited due to the paucity of research that has been done on this subject. Social learning theory indicates that it is important that social skills be practiced around other people, but there is no evidence to prove the efficacy of such a practice. Current research shows ways to teach social skills to SWD, but it does not indicate the effects of reinforcing those learned skills

in environments outside of the school environment (Banda & Hart, 2010; DiPerna et al., 2015, Laugeson et al., 2012, Liu et al., 2015).

This study was conducted due to the recognized importance of social skills (Potera, 2015) and the understanding of how social skills impact success in life (Gutman & Schoon, 2013). Many people learn how to behave in society (i.e. exhibit social skills) by interacting with other people, observing how others interact, and imitating those interactions (Bandura, 1977). However, SWD will often not learn the needed social skills in that manner. They need to be taught social skills directly. SWD also often struggle with transferring those skills from one environment to another. This study was conducted in an effort to determine how SWD can be helped to improve their abilities to retain and transfer learned social skills. Even though the findings of this study were not significantly significant, and even though the findings cannot be generalized beyond the population that was studied, schools can still utilize the findings within their districts. This study has shown one more way for schools to provide social skills instruction to students, and a possibility on how to help SWD retain and transfer those skills to other environments.

### **Implications**

This study confirmed that SWD struggle to learn social skills without being taught, but that they are able to learn social skills when they are taught using direct instruction. Most of the SWD involved in this study began with social skills that were below average according to the SSIS rating scales. This is evidence that SWD tend to struggle to learn social skills. However, most of the SWD's scores improved throughout the course of the study. This indicates that when SWD are taught social skills they are able to learn them. This is important because it becomes

evident that a failure to teach social skills to SWD is a failure to provide them with an education that meets their needs.

While the findings were not statistically significant, they were important. This study indicated that SWD who are taught social skills will improve in social skills. When those social skills are reinforced in a natural setting, the data indicates that it may help SWD improve even more in social skills.

These findings are not generalizable to all schools, but they can be useful. The data from this study provides schools with information that indicates there may be value in reinforcing social skills in multiple environments, including those that are outside of the school environment. Schools can use this data to confirm the value of social skills instruction for SWD and can also begin to consider natural settings where they could take their students to practice learned social skills and be reinforced in those skills. This approach will increase the focus on teaching social skills, improving the likelihood of SWD internalizing the social skills.

It is important to note that care should be taken when choosing a natural setting for SWD to practice their social skills. The natural setting should be a safe setting and should be a place where the SWD will be treated appropriately and with respect. It is likely that a negative experience during this reinforcement stage would harm the SWD's confidence and reduce the social skills. This would result in the opposite effect of what is desired.

Another important factor is the repetition of social skills. Social skills are not learned immediately, nor are they internalized as soon as they are learned. This takes time, repetition, and practice. The more SWD are deliberately exposed to social skills, and have their appropriate social skills reinforced, the more likely they are to adopt those social skills for their lives.

This study led to the researcher discovering several recommendations for schools. These findings are listed below.

- (1) Schools must offer a robust social skills learning program for SWD.
- (2) Any social skills learning program must include opportunities for SWD to practice those skills in a variety of settings.
- (3) Practice and reinforcement should occur often as SWD are learning social skills.

If schools prioritize the direct instruction of social skills for SWD, it is likely that SWD will enter society better able to cope with the expectations placed on them. This will increase their options and make it more likely that they will be able to succeed in life outside of school.

### **Limitations**

This study provided more information concerning social skills instruction and SWD. However, there were limitations present that reduce the possibility of generalizing the results beyond the study. These limitations are due to a small sample size, convenience sampling, a localized setting, a lack of diversity, and the use of only one program, one natural setting, and two schools within the same district.

The population was drawn from a very specific group. First, all of the participants were SWD. This is the target population. This is the population that the researcher believed to be most in need of improved social skills instruction and reinforcement. While this study may be effective for SWD, nothing can be inferred for students with no disabilities.

Second, the participants were all in the sixth, seventh, and eighth grades. There is an indication that the earlier that individuals develop appropriate social skills the more beneficial it is for them. This study addressed SWD who are in the middle school grades. There is no indication whether this study would be more or less efficacious if conducted with elementary

SWD, with high school SWD, or with individuals who have disabilities but are no longer in school.

Third, the participants came from two schools within one small school district. Since all of the students were from one district, there was very little diversity of process. This makes it impossible to generalize these findings beyond the school district in which the study was conducted or a district similar in size and demographics. No indication can be made concerning the effects of this study in a district with different resources, different policies, and different environments.

Fourth, the district is predominantly white, with over 80% of the population being white. Different racial and ethnic groups may learn better with different approaches. Since nearly all of the participants were white, generalizations to other racial or ethnic groups cannot be made.

Fifth, this study was implemented, in part, at a national park. This is important due to the nature of the people with whom the SWD would be interacting. The SWD predominantly interacted with park rangers. Park rangers are used to dealing with a wide variety of people. Additionally, they are seen as safe because they are in uniform and are protecting the park. Reinforcing the learned social skills in a less (perceived) safe environment, might affect the results of the study.

Sixth, it is impossible to tell whether the improved social skills scores for the experiment group are a result of more numerous reinforcements or reinforcing in a natural setting. We cannot know if the location helped or if the extra instances of reinforcement were what contributed to greater, although not statistically significant, improvement.

The study did show that scores increased more for the experiment group than the control group, but the findings were not significant. This means that the findings, while interesting, cannot be assumed to be the result of reinforcement. More research is needed to determine this.

### **Recommendations for Future Research**

Any future research should be aimed at addressing the limitations of this study. Future researchers could replicate this study with SWD in elementary or high school. This would show the efficacy of the study for a wider population. This would provide an indication of whether grade level impacts the ability of SWD to improve social skills through the use of reinforcement in natural settings. Determining the best grade level to use this methodology would enable teachers to focus their attention on this topic when the SWD will be able to benefit most from it. Replicating the study in a more diverse setting could provide information as to the effects it would have on SWD from different racial, ethnic, and cultural backgrounds. Since the vast majority of participants were white, it is impossible to make any correlation to other races or ethnicities. There may be different causes for social skills deficits for different races and ethnicities. These different causes could necessitate different styles of educating and reinforcing for different populations. These causes may affect the results of this study on those populations.

The researcher would have liked to compare the results of this study based on more variables. Future researchers could focus on the effects of this study based on disability, gender, teacher, grade, or setting of the reinforcement. They could also use random sampling to gather a sample that is truly representative of the population. This focus would provide information on who benefits most from this type of reinforcement. It would also help to keep teachers from using a method that is ineffective on certain populations. For example, students with Autism learn differently than those who are cognitively delayed. A cognitive delay will often manifest a social skills deficit differently than an emotional behavioral disorder will. It is recommended that future researchers seek to establish the efficacy based on disability type. Boys will also learn differently than girls and may have social skills deficits for different reasons. It is logical that

there might be different and more effective ways to teach one gender or sex over others. Future researchers should seek to establish whether there is a difference in the results of this study based on gender.

It is assumed that the quality of the teachers will affect the results of this study. However, information is still needed to establish that and to see how much of a difference, if any, the teacher plays in the results of this study. Another variable that needs more research is that of the setting of reinforcement. It is unclear whether the setting is important or simply reinforcing the learned social skills in an environment outside of the school is what is needed. This study should be replicated in a different setting to answer this question. Another area of focus is the current level of social skills ability of the participants. Future researchers should consider whether SWD who begin with lower scores improve more, or if it is likely that all students will improve by approximately the same amount.

The researcher determined some more effective ways of reinforcing learned social skills in SWD but failed to produce definitive results. There is a likelihood that using this methodology will result in growth, but it is impossible to state this with certainty and without any caveats. Any future research will help to reduce the uncertainty of the results and establish the effectiveness of this type of program.

## REFERENCES

- Adibsereshki, N., Vernosfaderani, A. M., & Movallali, G. (2015). The effectiveness of life skills training on enhancing the social skills of children with hearing impairments in inclusive schools. *Childhood Education, 91*(6), 469.  
doi:10.1080/00094056.2015.1114810
- Banda, D. R., & Hart, S. L. (2010). Increasing peer-to-peer social skills through direct instruction of two elementary school girls with autism. *Journal of Research in Special Educational Needs 10*(2), 124-132. doi:10.1111/j.1471-3802.2010.01149.x
- Bandura, A. (1969). Social learning of moral judgments. *Journal of Personality and Social Psychology, 11*(3), 275-279. doi:10.1037/h0026998
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1989a). Human agency in social cognitive theory. *American Psychologist, 44*(9), 1175-1184. doi:10.1037/0003-066x.44.9.1175
- Bandura, A. (1989b). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology, 25*(5), 729-735. doi:10.1037/0012-1649.25.5.729
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist 28*(2), 117-138.
- Beauchamp, M. H., & Anderson, V. (2010). SOCIAL: An integrative framework for the development of social skills. *Psychological Bulletin, 136*(1), 39-64.  
doi:10.1037/a0017768
- Beheshtifar, M., & Norozy, T. (2013). Social skills: A factor to employees' success. *International Journal of Academic Research in Business and Social Sciences, 3*(3), 74-79.

- Bicknell, L. P. (2009). *Curriculum implementation: A study of the effect of a specialized curriculum on sixth grade mathematics summative test scores in a rural middle school*. (Doctoral dissertation).
- Bohlander, A. J., Orlich, F., & Varley, C. K. (2012). Social skills training for children with autism. *Pediatric Clinics of North America*, 59(1), 165-174.  
doi:10.1016/j.pcl.2011.10.001
- Botsford, K. D. (2013). Social skills for youths with visual impairments: A meta-analysis. *Journal of Visual Impairment & Blindness*, 107(6), 497.
- Burnett, S. W. (2010). *School achievement for students with behavioral disorders*. (Doctoral dissertation).
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research*. Belmont, CA: Wadsworth Cengage Learning.
- City-data. (2018). Vernal, Utah. *City-data*. Retrieved from [www.city-data.com/city/Vernal-Utah.html#b](http://www.city-data.com/city/Vernal-Utah.html#b)
- Colaianne, B. A., & Powell, M. G. (2011). Developing transferrable geospatial skills in a liberal arts context. *Journal of Geoscience Education*, 59(2), 93. doi: 10.5408/1.3580758
- Cumming, T. M., Higgins, K., Pierce, T., Miller, S., Boone, R., & Tandy, R. (2008). Social skills instruction for adolescents with emotional disabilities: A technology-based intervention. *Journal of Special Education Technology*, 23(1), 19-33.
- DiPerna, J. C., Lei, P., Bellinger, J., & Cheng, W. (2015). Efficacy of the Social Skills Improvement System Classwide Intervention Program (SSIS-CP) primary version. *School Psychology Quarterly*, 30(1), 123-141. doi:10.1037/spq0000079
- Dwight, V. (2010). *Will make eye contact: How to write social skills IEP goals that work*.

- Elliott, S. N., & Gresham, F. M. (2007). *Social skills improvement system: Classwide intervention program teacher's guide*. Bloomington, MN: Pearson.
- Ferland, M. B., Larente, J., Rowland, J., Davidson, P. S. R. (2013). Errorless (re)learning of daily living routines by a woman with impaired memory and initiation: Transferrable to a new home? *Brain Injury* 27(12), 1461-1469. doi:10.3109/02699052.2013.823661
- Freeman, J. (2015). Developing social skills and relationships. *Reclaiming Children and Youth*, 23(4), 48.
- Frey, A. J., Mandlawitz, M., & Alvarez, M. E. (2012). Leaving NCLB behind. *Children & Schools*, 34(2), 67-69. doi:10.1093/cs/cds021
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction*. Boston, MA: Pearson.
- Gallagher, P. A. (2011). Social skills, classroom instruction, and counseling. *Counseling and Human Development*, 44(3), 1-12.
- Goleman, D. (2011). Emotional Mastery. *Leadership Excellence*, 28(6), 12-13.
- Greisler, D. S. (2008). Positioning public administration curriculum to add value: The case for “transferrable skills”. *International Journal of Organization Theory and Behavior*, 11(4), 518.
- Gresham, F. M., & Elliott, S. N. (2008). *Social skills improvement system: Rating scales manual*. Bloomington, MN: Pearson.
- Gresham, F. M., Elliott, S. N., & Kettler, R. J. (2010). Base rates of social skills acquisition/performance deficits, strengths, and problem behaviors: An analysis of the Social Skills Improvement System–Rating Scales. *Psychological Assessment*, 22(4), 809-815. doi:10.1037/a0020255

- Gutman, L., & Schoon, I. (2013). *The impact of non-cognitive skills on outcomes for young people*. London: Education Endowment Foundation
- Hartigan, P. (2012, May). Using theater to teach social skills. *The Education Digest*, 77(9), 30-34.
- January, A. M., Casey, R. J., & Paulson, D. (2011). A meta-analysis of classroom-wide interventions to build social skill: Do they work? *School Psychology Review*, 40(2), 242-256.
- Johns, B. H., Crowley, E. P., & Guetzloe, E. (2012). The central role of teaching social skills. *Counseling and Human Development*, 44(8), 1-8.
- Johnson, C. L. F. (2009). *Low academic performance and specific learning disabilities: Determining the better predictor of aggressive behavior at school*. (Doctoral dissertation).
- Kasari, C., Rotheram-Fuller, E., Locke, J., and Gulsrud, A. (2012). Making the connection: Randomized controlled trial of social skills at school for children with autism spectrum disorders. *Journal of Child Psychology and Psychiatry*, 53(4), 431-439.  
doi:10.1111/j.1469-7610.2011.02493.x
- Kauffman, N. A., & Kinnealey, M. (2015). Comprehensive social skills taxonomy: Development and application. *The American Journal of Occupational Therapy: Official Publication of the American Occupational Therapy Association*, 69(2),  
doi:10.5014/ajot.2015.013151
- Kempe, A. (2014). Developing social skills in autistic children through 'relaxed performances'. *Support for Learning*, 29(3), 261-274. doi:10.1111/1467-9604.12062

- Kerala, K. (2012, March 6). Education should impart globally transferrable skills. *The Hindu: India's National Newspaper (English)*.
- King, L. (2013). *Advance organizers in secondary special education resource classrooms: Effects on student engagement behaviors*. (Doctoral dissertation).
- Kozlowski, A. M., Matson, J. L., & Belva, B. C. (2012). Social skills differences between the autism spectrum disorders. *Journal of Developmental & Physical Disabilities, 24*(2), 125-134. doi:10.1007/s10882-011-9260-2
- Laugeson, E. A., Frankel, F., Gantman, A., Dillon, A. R., & Mogil, C. (2012). Evidence-based social skills training for adolescents with autism spectrum disorders: The UCLA PEERS program. *Journal of autism and developmental disorders, 42*(6), 1025-1036. doi:10.1007/s10803-011-1339-1
- Lee, D., Huh, Y., & Reigeluth, C. M. (2015). Collaboration, intragroup conflict, and social skills in project-based learning. *Instructional Science, 43*(5), 561-590. doi:10.1007/s11251-015-9348-7
- Liu, Y., Moore, D. W., & Anderson, A. (2015). Improving social skills in a child with autism spectrum disorder through self-management training. *Behaviour Change, 32*(4), 273-284. doi:10.1017/bec.2015.14
- Lynch, S. A., & Simpson, C. G. (2010). Social skills: Laying the foundation for success. *Dimensions of Early Childhood, 38*(2), 1-11.
- Mannix, D. (2014). *Social skills activities for special children* (3<sup>rd</sup> ed.). San Francisco, CA: Jossey-Bass: A Wiley Imprint.
- Mathews, T. L., Erkriz-Gay, K. N., Knight, J., Lancaster, B. M., & Kupzyk, K. A. (2013). The effects of social skills training on children with autism spectrum disorders and disruptive

- behavior orders. *Children's Health Care*, 42, 311-332.  
doi:10.1080/02739615.2013.842458
- Matson, J. L., & Wilkins, J. (2009). Psychometric testing methods for children's social skills. *Research in Developmental Disabilities*, 30(2), 249-274. doi:10.1016/j.ridd.2008.04.002
- Mikami, A. Y., Jia, M., & Na, J. J. (2014). Social skills training. *Child and Adolescent Psychiatric Clinics of North America*, 23(4), 775-788. doi:10.1016/j.chc.2014.05.007
- Miller, J. (2002, November 21). *Proof of transferrable job skills not fully established*. The Daily Record.
- Miller, P. H. (2011). *Theories of developmental psychology*. New York, NY: Worth.
- Milner, K. M., & Haslam, R. (2013). Social skills groups training for children with autism spectrum disorders. *Journal of Pediatrics and Child Health*, 49(7), 595-597.  
doi:10.1111/jpc.12287
- Miltenberger, R. (2008). *Behavior modification*. Belmont, CA: Wadsworth Publishing.
- Nash-Aurand, T. (2013). *A comparison of general education co-teaching versus special education resource service delivery models on math achievement of students with disabilities*. (Doctoral dissertation).
- National Center on Intensive Intervention. (n. d.). *Social skills improvement system-rating scales*.
- NedİM Bal, P. (2015). The effect of social skills training program on adolescents. *Journal of International Social Research*, 8(39), 699. doi:10.17719/jisr.20153913789
- Otero, T. L., Schatz, R. B., Merrill, A. C., & Bellini, S. (2015). Social skills training for youth with autism spectrum disorders. *Child and adolescent psychiatric clinics of North America*, 24(1), 99-115. doi:10.1016/j.chc.2014.09.002

- Peterson, C., Slaughter, V., Moore, C., Wellman, H. M. (2016). Peer social skills and theory of mind in children with autism, deafness, or typical development. *Developmental Psychology, 52*(1), 46-57. doi:10.1037/a0039833
- Poitras Tucker, B. (1983). Board of education of the Hendrick Hudson Central School District v. Rowley: Utter chaos. *Journal of Law and Education, 12*(2), 235-245.
- Potera, C. (2015). Do strong social skills in kindergarten predict success? *American Journal of Nursing, 115*(10), 15. doi:10.1097/01.NAJ.0000471925.87590.f1
- Quigley, M. K. (2007). *The effects of life skills instruction on the personal-social skills scores of rural high school students with mental retardation*. (Doctoral dissertation).
- Ross, S. W., & Sabey, C. V. (2015). Check-in check-out + social skills: Enhancing the effects of check-in check-out for students with social skill deficits. *Remedial and Special Education, 36*(4), 246. doi:10.1177/0741932514553125
- Safford, P. L. (2015). Children and disability. *Children and Youth in History*.
- Scharfstein, L. A., & Beidel, D. C. (2015). Social skills and social acceptance in children with anxiety disorders. *Journal of Clinical Child & Adolescent Psychology, 44*(5), 826-838. doi:10.1080/15374416.2014.895938
- Seevers, R. L., & Jones-Blank, M. (2008). National implications: The development of social skills for students with disabilities. *National Forum of Applied Educational Research Journal, 21*(2), 11.
- Segrin, C., McNelis, M., & Swiatkowski, P. (2016). Social skills, social support, and psychological distress: A test of the social skills deficit vulnerability model. *Human Communication Research, 42*(1), 122-137. doi:10.1111/hcre.12070

- Shepherd, T. L. (2009, May). Teaching dining skills to students with emotional and behavior disorders. *TEACHING Exceptional Children Plus*, 5(5), 1-11.
- Skinner, B. F. (1958). Reinforcement today. *American Psychologist*, 13(3), 94-99.  
doi:10.1037/h0049039
- Smith, K. R. M., & Matson, J. L. (2010). Social skills: Differences among adults with intellectual disabilities, co-morbid autism spectrum disorders and epilepsy. *Research in Developmental Disabilities*, 31(6), 1366-1372. doi:10.1016/j.ridd.2010.07.002
- Smith, C., Williamson, R., & Siegel-Robertson, J. (2005). *Implementing technology to teach social skills to students with multiple high-incidence disabilities*. Unpublished manuscript, University of Memphis. Memphis, TN.
- Spaulding, L. S., & Pratt, S. M. (2015). A review and analysis of the history of special education and disability advocacy in the United States. *American Educational History Journal*, 42(1/2), 91.
- Spradlin, K. D. (2009). *The effectiveness of computer-assisted instruction in developmental mathematics*. (Doctoral dissertation).
- SSIS. (2008). Product details. *Social Skills Improvement System (SSIS) Classwide Intervention Program (SSIS-CIP)*.
- Stanton-Chapman, T. L., Voorhees, M. D., & Snell, M. E. (2014). Supporting Head Start staff to address children's social skills. *NHSA Dialog*, 17(1), 118.
- Stroke Sourcebook. (2013). *Transferring skills learned in stroke rehab to the home environment*.

- Sullivan, A. L., & Sadeh, S. S. (2015). Is there evidence to support the use of social skills interventions for students with emotional disabilities? *Journal of Applied School Psychology, 30*(2), 107-131. doi:10.1080/15377903.2014.888528
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Upper Saddle River, NJ: Pearson.
- Walker, J. E., Shea, T. M., & Bauer, A. M. (2007). *Behavior management: A practical approach for educators*. Upper Saddle River, New Jersey: Pearson.
- Walton, D. (2012). *Emotional intelligence: A practical guide*. New York, NY: MJF Books.
- Wang, X., & Sugiyama, Y. (2014). Enhancing social skills through college physical education. *Journal of Physical Education and Sport, 14*(2), 158.
- Westling, J. D. L. (2010). Teachers and challenging behavior: Knowledge, views, and practices. *Remedial and Special Education, 31*(1), 48-63.
- White, S. W., Koenig, K., & Scahill, L. (2010). Group social skills instruction for adolescents with high-functioning autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 25*(4), 209-219. doi:10.1177/1088357610380595
- Zirkel, P. A. (2013). Is it Time for Elevating the Standard for FAPE under IDEA? *Exceptional Children, 79*(4), 497-508.

**APPENDIX A- Intervention Integrity Forms**

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## APPENDIX B- Permission Letter

Torrey Pitchford <torrey.pitchford@gfwschools.org>

### Re: Permissions Request

1 message

Licensing, - <pas.licensing@pearson.com>

Tue, Oct 20, 2015 at 9:45 AM

To: "torrey.pitchford@gfwschools.org" <torrey.pitchford@gfwschools.org>

Dear Mr. Pitchford,

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Regards,

William H. Schryver

Senior Legal Licensing Specialist

**APPENDIX C- Letters to Parents**

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**APPENDIX D- Progress Charts**

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**APPENDIX E- Skill Step Cue Cards**

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