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GAME-BASED STRATEGIES IMPLEMENTATION DURING SOCIAL SKILLS TRAINING
FOR NON-ELEMENTARY AGED INDIVIDUALS

by

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B.S., University of Central Florida, 2007
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A dissertation in practice submitted in partial the fulfillment of the requirement
for the degree of Doctor of Education
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ABSTRACT

The problem of practice that has been identified is the lack of games as a social skills tool. Individuals with Autism may face many daily challenges. One of the known deficits for this population is their challenges related to social skills. One way to provide social skills instruction is through game-based strategies. When thinking about play it is not uncommon to automatically envision young children, but the inclusion of game-based play during social skills instruction can be appropriate for all age groups. As children age interventions tend to move away from the inclusion of play. In order to teach social skills the individuals must first be willing to come together as a group and interact with each other. One way to bring resistant individuals together is through play.

During the pilot study of social skills training, for middle school aged students with high functioning autism, it was discovered that the inclusion of playing board games became a positive and productive way to bring resistant individuals together for the purpose of social skills training. With the inclusion of game playing as part of the social skills pilot study the results were positive interactions between individuals who initially avoided any interactions, other than negative ones, with each other.

The model will be implemented with individuals who have autism and may also have other disabilities who are functioning at a much lower cognitive level. The goals of the pilot program are to increase social interactions and to improve social skills through the inclusion of play during social skills instruction. Social skills instruction requires individuals to be engaged; the inclusion of play is a natural non-threatening way to promote cooperative social interactions as a precursor to social skills instruction.

Without the continuous support and encouragement of my devoted husband, Kevin, none of this would have been possible. His ongoing patience and confidence in me has never wavered and for that I am truly grateful.

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CHAPTER ONE

Problem of Practice

What is the Problem of Practice

The problem of practice I propose to investigate is: using game-based interventions for adolescents and young adults with Autism Spectrum Disorders as a method for increasing social skills. With the limited availability of research evaluating which social skills interventions are/are not effective it would be advantageous to conduct research to determine which social skills interventions work best and what makes these methods more effective than others for individuals on the autism spectrum. Given that there are frequent recommendations for social skills instruction for individuals with Autism Spectrum Disorders (ASD) there has been an increase in empirical evidence in which there has been mixed results (Reecho and Volar, 2010). “Despite the psychosocial difficulties common among adolescents and young adults with ASD, little to no evidence-based social skills interventions exists for this population; few studies have focused on social skills treatment for this group of individuals with ASD” (Gantman, Kapp, Orenski, & Laugeson, 2011, p. 1094).

There are two published studies that have tested the effectiveness of social skills intervention” (Gantman, Kapp, Orenski, & Laugeson, 2011, p. 1095). This information would be extremely beneficial to family members, therapists, and educators, as they provide support and/or services to anyone on the ASD spectrum. This is especially important as the ASD population continues to increase. The “Center for Disease Control estimates that one in every 50 school children is diagnosed with ASD” (Center of Disease Control, 2012, p. 2).

Why is social skills training such a necessity for individuals with ASD? Limited social skills are one of the key features of ASD regardless of the person's level of functioning. Having the ability to interact in an appropriate manner is not only important for the person to be accepted in the educational environment but, also as they progress through life. "Social skills deficits persist into adulthood, where they continue to negatively impact social and occupational functioning" (Rao, Beidel, & Murray, 2008, p. 353). It is very important that social skills training begin as early in life as possible. "Interventions started early in life can curtail problematic behavior and foster communication and social skill growth" (Newschaffer and Curran, 2003, p 394). "Social skills may be conceptualized as part of a broader construct known as social competence" (Gresham, 1982, p. 130).

"Social skill deficiencies may be conceptualized along three dimensions, each of which represents a different type of social skill difficulty. These dimensions are: 1) skill deficits, 2) performance deficits, and 3) self-control deficits" (Gresham, 1982, p 130). Children with skill deficits don't have the needed social skills to allow them to interact appropriately with peers, which generally leads to not being accepted by their peers. Individuals who have performance deficits may have some of the necessary social skills to interact effectively but, they don't present these skills at appropriate levels and individuals with self-control deficits lack the necessary behavior controls to refrain from impulsive and/or aggressive behavior.

Why this is a Problem

The generalization, the ability to apply skills that have been taught in naturally occurring settings and situations, of social skills for individuals with ASD is key to independent functioning which can ultimately relate to how employable the individual may be as well as the

level of independent living he/she may be able to experience throughout adulthood. According to Reecho and Volar (2010) social deficits is one of the most challenging areas for individuals with ASD; this is even more so for individuals with ASD who also have average to above average cognitive skills. It has been documented by researchers such as Baron-Cohen, Attwood, Volar, Matson, Reecho and Lovass that the earlier interventions for social skills begins the better the chances are for positive outcomes for the individual regardless of whether they are functioning at a higher or lower level of ability (National Academy of Sciences).

“Researchers have theorized that there are three underlying constructs that comprise social competence and in which deficits manifest: theory of mind (ToM), emotion recognition, and executive functioning (EF)” (Sitchter, J., Herzog, M., Visovsky, K., Schmidt, C., Randolph, J., Schultz, T., & Nicholas, G., 2011, p. 10). Theory of mind is not observable; it is the ability to understand the states of mind of others, which includes beliefs, desires, and emotions. It is the ability for an individual to put oneself in the other person’s shoes per se. Theory of mind is typically an area in which people with ASD have deficiencies, which limits their ability to understand and respond to the emotions of others. Emotion recognition refers to the ability to understand the emotions of others based on their facial expression. Executive functioning is the set of mental processes that contributes to the ability for an individual to make connections between past experiences with present action. When there is limited executive functioning ability the individual tends to face challenges with planning, organizing, paying attention to and remembering details, and managing time and space. “Children with autism exhibit significant deficits in imitation” (Smith and Bryson 1994, p. 262) as well as later “emerging social behaviors, leading to the proposal that an early deficit in imitation could disrupt the development

of intersubjectivity and lead to broader social impairments in autism” (Rogers and Pennington 1991, p. 151).

It is not uncommon that deficits in these areas along with insufficient social skills can lead to challenging behaviors. Quite often negative behaviors are a direct result of the frustrations that are encountered because the individual is not able to adequately express their needs/wants.

“Challenging behaviors pose one of the most difficult aspects of teaching children with autism. The impairments in social interaction and communication associated with autism often leave such students with limited repertoires of appropriate behaviors, placing them at risk for developing inappropriate behaviors to get their needs met” (Hart, 2012, p. 26).

But what is being done to address this problem, not only for the high functioning population with ASD but also for the population that has a lower level of cognitive functioning?

Within in the public school system students with ASD may be receiving daily social skills instruction. During my time as a public school exceptional education teacher of students with ASD I taught two very different groups of students. The first four years of my teaching I taught students with ASD who also had limited cognitive abilities which resulted in them working towards a special diploma and their placement was in a self-contained learning environment. I was able to infuse social skills into their entire day. During my last two years I taught very high functioning students with ASD who were working towards a standard diploma and were included in all general education classes except, for the one period per day that they saw me for social skills instruction. While teaching social skills to both populations of students I

was never provided with a social skills curriculum, consequently I had to create, seek out, and purchase what I thought would work with my students.

Now as a charter school exceptional education teacher of students with ASD who also have significant cognitive disabilities, I have still not been provided with an evidence-based social skills curriculum. This is not only the case for my students but within the entire school which is made up entirely of various levels of exceptional education students, all of whom are working towards a special diploma. As a teacher of students with ASD, regardless of whether they are high functioning or with lower levels of cognitive functioning ability, finding social skills resources has been challenging and time consuming.

This is a problem because it is extremely important to establish social skills interventions for individuals with ASD and/or other disabilities of various levels of cognitive functioning ability. The need for appropriate social skills interventions that are appropriate for this population of individuals is of high priority given that the ASD population has continued to grow over time. “The Center for Disease Control estimating that one in every 50 school children is diagnosed with ASD” (Center for Disease Control, 2012, p. 2). This problem must be addressed because while these individuals are still within the educational environment, whether it be public, private, charter, or homeschooled, the goal should be for them to acquire the skills necessary to be as productive a member of society as possible. Children with limited social skills may face low self-esteem and teasing from peers. Adults with limited social skills will very likely face additional challenges when attempting to enter the workforce. It has been established that employment rates are declining for persons with disabilities (Stapleton and Burkhauser, 2003).

Who is Affected?

As an individual with ASD experiences the effects of life's daily challenges, this can and usually affects the family as well. Social skill deficits are typical for all individuals with ASD regardless of their level of functioning. Limitations of social skills may be more challenging for individuals with high functioning autism spectrum disorders (HFASD) because they are more capable and are expected to act in a particular manner in certain situations. "Social functioning can be a key factor implicated in the success of children with HFASD" (Ostmeyer and Scarpa, 2012, p. 932). It is not uncommon, for individuals with ASD, especially those who are higher functioning, to be socially immature. "Inappropriate social interaction is often considered the central, defining feature of autism, since these challenges continue despite intellectual or language capacity" (Hart, 2012, p. 24). This is directly related to their limited social skills which are one of the key characteristics of ASD. Many individuals with ASD are very literal in their thinking and aren't able to read between the lines so to speak.

The challenges of autism are not limited to the person with autism. Parents and siblings will quite often also experience the trials and tribulations of having a family member with ASD. It is not uncommon, especially when the person has more severe ASD tendencies, for them to become the main focal point of one or both parents, often leaving less time and energy for other children within the family. For some families with multiple children, the child with ASD becomes the main concentration of one parent while the other parent sees to the needs of the other children in the family. As a result, they may become a family divided. Having better social skills not only enables the individual to be more socially skilled but will also "reduce stress in parents as the children may not exhibit as many problematic behaviors when their needs

can be communicated. It is also possible that the children's improvements in showing social interaction with parents may be associated with the parents feeling more positive and thus facilitate better connection between parent and child." (Wong and Kwon, 2010, p. 686).

Research has shown that parents of children with autism are at a higher risk for stress (Dunn et al. 2001; Konstantareas et al. 1992; Lecavalier et al. 2006; Weiss 2002) and other psychological problems such as depression and anxiety (Piven and Palmer 1999; Yirmiya and Shaked, 2005), possibly as a result of having to deal with the child's impairments in communication, difficult behaviors, social isolation, difficulties in self-care, and lack of understanding (Schieve et al., 2007).

How the Problem is Related to Other Problems

Early intervention is crucial to long-term outcomes. Without targeted intervention, individuals with ASD often exhibit problematic behavior and can become socially withdrawn; as a result of "difficulties relating to emotional and social situations" (Bauminger, N., Schulman, C., & Agman, G., 2003, p. 493).

"While earlier efforts in the field involved adult-directed teaching, with demonstrated effectiveness, the field has moved to more careful attention to the ecology of children's social interactions in natural settings, with a concurrent shift to a greater focus on social interactions with peers" (Rogers, 2000, p. 399). "Many current approaches and various peer-mediated strategies, are built upon careful prompting and shaping of child behaviors by typical peers embedded in child-initiated interactions within natural contexts" (Rogers, 2000, p. 399). Other

interventions that have become widely implemented are; social skills groups, visual supports, video peer modeling, video self-modeling, peer mentors/tutors, and social stories.

Social skills have also been linked to academic achievement for some individuals. “Despite challenges, relative academic strengths have been linked to social proficiency. Estes, Rivera, Bryan, Cali, & Dawson (2010) found that higher social skills at age 6 were significantly associated with better academic achievement at age 9, especially of word reading. These findings suggest that social skills play an important role in the academic performance of children with HFASD and that social enhancement may positively impact academic skills” (Ostmeyer and Scarpa, 2012, p. 933). Within the educational environment the role should be to help students to work toward academic success but also to prepare them life beyond the classroom; “for life in the workforce or postsecondary education and help produce competent adults” (Ostmeyer and Scarpa, 2012, p. 933).

What Makes the Problem Significant

This problem is significant because adequate interventions and services are significant since individuals with ASD are not limited to a specific geographical area. They are part of a global population that has continued to expand. The importance of “early diagnosis and appropriate intervention are the exception rather than the rule in Kuwait” (Saad, 2000, p. 42). “There is no one solution to all the syndromes or for all individuals. Nevertheless, the answer to the question of how effective and beneficial each approach is will depend on the individual child’s abilities, level of family support, existence of qualified staff, and the availability of favorable conditions to make the particular approach efficient and workable” (Saad, 2000, p. 35).

“Many different approaches to caring for autistic persons have been tried; all have their successes and failures” (Saad, 2000, p. 35). Some interventions have met resistance in certain locales. “The reluctance expressed in accepting the cognitive-behavioral movement in France also contributed to delaying progress. As a result of either ignorance or dogmatic ideology, detractors of cognitive-behavioral-based interventions claim that these methods are repetitive and of narrow application, similar to simple conditioning” (Roge, 2000, p. 46).

There is little argument that as the number of children who have been diagnosed with ASD has risen, especially during the last decade, so has the demand for services (Newschaffer and Curran, 2003). “The level of impairment and consequent service needs of individuals with ASD, while variable, is quite high for even the least severe cases. Impairment is life-long, and considerable support is required to navigate routine educational and social situations” (Newschaffer and Curran, 2003, p. 394). With the lifelong need for services there is also the reality of cost. “A published autism cost study was conducted in the United Kingdom and estimated the lifetime costs to society for a person with autism there to be an amount equivalent to nearly \$4 million 1998 U.S. dollars” (Newschaffer and Curran, 2003, p. 395). Depending on the needs of the individual often these expenses are often shouldered by the family (Newschaffer and Curran, 2003).

Key Terms and Concepts

Autism Spectrum Disorder (ASD):

The National Institute of Health describes autism is a group of developmental brain disorders, collectively called autism spectrum disorder (ASD). The term "spectrum" refers to the wide range of symptoms, skills, and levels of impairment, or disability, that children with ASD

can have. Some children are mildly impaired by their symptoms, but others are severely disabled. Scientists don't know the exact causes of ASD, but research suggests that both genes and environment play important roles.

Symptoms of ASD vary from one child to the next, but in general, they fall into three areas: social impairment, communication difficulties, and repetitive and stereotyped behaviors. Children with ASD do not follow typical patterns when developing social and communication skills. Most children with ASD have trouble engaging in everyday social interactions. According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition - Text Revision*, some children with ASD may: make little eye contact, tend to look and listen less to people in their environment or fail to respond to other people, do not readily seek to share their enjoyment of toys or activities by pointing or showing things to others, and respond unusually when others show anger, distress, or affection.

Recent research suggests that children with ASD do not respond to emotional cues in human social interactions because they may not pay attention to the social cues that others typically notice. Likewise, it can be hard for others to understand the body language of children with ASD. Their facial expressions, movements, and gestures are often vague or do not match what they are saying. Their tone of voice may not reflect their actual feelings either. Many older children with ASD speak with an unusual tone of voice and may sound sing-song or flat and robot like.

Children with ASD also may have trouble understanding another person's point of view. Children with ASD may lack this understanding, leaving them unable to predict or understand other people's actions. Children with ASD often have repetitive motions or unusual behaviors.

These behaviors may be extreme and very noticeable, or they can be mild and discreet. Children with ASD also tend to have overly focused interests. Children with ASD may become fascinated with moving objects or parts of objects, like the wheels on a moving car. Repetitive behavior can also take the form of a persistent, intense preoccupation. While children with ASD often do best with routine in their daily activities and surroundings, inflexibility may often be extreme and cause serious difficulties. They may insist on eating the same exact meals every day or taking the same exact route to school. A slight change in a specific routine can be extremely upsetting.

Early intervention:

Early intervention is a system of services that helps babies and toddlers with developmental delays or disabilities.

Social Skills

Social skills are those skills used to facilitate interactions and communication with others. Included in social skills are the social rules and relations created, communicated, and changed in verbal and nonverbal ways. Social skills are the skills needed to appropriately interact with others within a variety of settings.

Organizational Context

Description of Context

Social skills are important for individuals with ASD regardless of their level of functioning. “The existing research supports the proposition that improved social skills in children with HFASD can help reduce the risk of other emotional problems and enhance academic and vocational functioning” (Ostmeyer and Scarpa, 2012, p 934). Being equipped with the necessary social skills can result in less peer rejection and more opportunities for friendships. A direct “benefit of teaching social skills to children in schools involves generalization” of the

skills being taught (Ostmeyer and Scarpa, 2012, p. 934). This is important because many times when skills are learned in clinical settings they may not be generalized into other settings. “Social skill programs need to be designed to facilitate skill generalization outside of the treatment setting” (Rao et al., 2008, p. 359). When social skill instruction is provided within natural settings of where the skills will be used those skills are more likely to become part of the persons natural approach to social situations.

Through services provided by the public school system, social skills instruction is available for those students who need such supports. Students who have been diagnosed with ASD will almost always have an Individual Education Plan (IEP). Because individuals with ASD have deficits in the area of social skills they will more than likely have goals in the social/emotional domain within their IEP. As a result of having these goals they are usually enrolled in a daily social skills class as part of their class schedule. This practice is common for middle school grade students. Elementary grade students do not have a specific time of day devoted specifically to social skills training and older, high grade school students may or may not have a class devoted to social skills instruction. Most high schools no longer provide a class specifically for social skills, instead students would meet weekly with their guidance counselor however, some high schools are returning to providing social skills classes for this population of students.

But, how exactly is social skills instruction being provided? During the initial inquiry of public school teachers of students with ASD, which consisted of searching Florida public school websites and making contact either by phone or email, the response was that they are basically left to their own devices as to what and how to provide social skills instruction to their students.

The purpose was to determine if any type of curriculum was being provided to teachers related to social skills instructions, and if so, what they were being provided with. “Although there is a clear need to teach social skills in school, the results of school-based social skills intervention studies for students with ASD concluded that the programs were minimally effective and yielded poor generalization and maintenance. Although there is some evidence supporting the efficacy of social skills programs, many schools lack the resources to implement these programs effectively” (Ostmeyer and Scarpa, 2012, p. 934).

As a result many families seek additional support outside of the public school environment. There are various private agencies that offer various types of much more intensive research based social skills programs. These, although they may be very good, can also be very costly to families; a cost that may or may not be covered by their insurance. There are also organizations such as the Center for Autism and related Disabilities (CARD) that provide an assortment of social skill groups for various ages of individuals. There are other organizations like CARD that can provide support for individuals with ASD as well as for their family members. Some other organizations within the state of Florida that have resources available are; Autism Society of FL, Support for Parents of Exceptional Children (SPEC), Advocacy Center for Persons with Disabilities, Coalition for Independent Living Options (CILO), Family Network on Disabilities of Florida, (FND) and, the Florida Alliance for Assistive Services & Technology (FAAST).

History and Conceptualization

“Although known for more than fifty years as one of the most severe childhood neuropsychiatric disorders, autism was thought to be quite rare. Autism was not recognized as a

disorder in diagnostic manuals until 1980 but since that time, research has grown dramatically with over 1,000 peer-reviewed publications devoted to the topic in 2009. Given the centrality of social skills, both as a defining feature of the condition and a critical area for intervention, development and assessment of social skills treatments has been an important area of emerging research over the past decade” (Lerner, Mikami, 2012, p. 149).

In reference to the problem of practice that examines the need for games as a social skills tool, for adolescents and young adults with Autism it is important to note the history of Autism. “Over time, the diagnostic criteria for autistic disorder had been modified. Criteria were added for other ASDs (pervasive developmental disorders not otherwise specified [PDD NOS], and Asperger Syndrome” (Newschaffer and Curran, 2003, p. 394). Now, “it is recognized that autism includes a much broader spectrum of affected individuals, beyond those with classic features” (Newschaffer and Curran, 2003, p. 394).

“Autism became a recognized federal category for special education classification in 1990” (Newschaffer and Curran, 2003, p. 394). Autism has been acknowledged for many years and so have social skills interventions. Social skills interventions have been available for the past 20 years; the recent outpouring of interest has unleashed an interest in their evaluation and validation (Lerner and Mikami, 2012). There is a need for evidence-based social skill interventions for school-aged children with ASD, especially those with HFASD, for specific techniques, approaches, and theories, related to the outcome of social behavior (Lerner and Mikami, 2012).

“Since autism was first described, major difficulties in social interactions have been a defining feature of individuals with ASD” (Reecho, Steiner, & Volar, 2010, p. 10). Social skills

interventions have become crucial in aiding the individual with ASD to become better equipped to process and conduct social interactions with others. Given that social skills instruction is more often than not a practice that is recommended, few studies have been conducted to determine the effectiveness of social skills groups. The studies that have been conducted have revealed mixed results (Reecho, Steiner, and Volar, 2012).

Local/Organizational

As a result of the Free and Appropriate Education (FAPE) (U.S. Department of Education, 34 CFR Part 4) the public education system must provide the services their students are entitled to. Although in compliance with what is required to be provided to students, the services being provided by public school systems are fairly limited and can vary from school to school and classroom to classroom. As a result it has become necessary for many families to seek additional support through private agencies and/or public organizations.

As of the fall 2012 the Florida public school system had an enrollment of 347,712 special education students 24,549, 4.93%, of who have ASD. The total number of exceptional education students excludes gifted students (Florida Department of Education, 2013, p 2). As the population of individuals with ASD has increased, the “Center for Disease Control estimates that one in every 50 school children is diagnosed with ASD” (Center of Disease Control, 2012, p 2), as well as the availability of assistance.

“The prevalence of parent-reported ASD among children aged 6–17 was 2.00% in 2011–2012, a significant increase from 2007 (1.16%). The magnitude of the increase was greatest for boys and for adolescents aged 14–17” (Blumberg, Bramlett, National Center for Health Statistics; Kogan, Maternal and Child Health Bureau; Schieve, National Center on Birth Defects

and Developmental Disabilities; Jones, Lu, Maternal and Child Health Bureau, p. 1). In recent decades there has been an increased prevalence of reported cases of ASD. Based on data reported by the Centers for Disease Control and Prevention's (CDC) National Health Interview Survey (NHIS), it has been determined that there has been a nearly fourfold increase in parent-reported ASD between the 1997–1999 and 2006–2008 surveillance periods. Also documented by CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network has been a 78% increase in ASD prevalence between 2002 and 2008" (Blumberg, et al., p. 2).

National/ International

Some of the increase of ASD diagnoses has been attributed to earlier diagnosis, at least in the United States. Other countries appear to have lower numbers of reported cases of individuals diagnosed with ASD. "The first prevalence studies in any region typically find low numbers. For instance, the new study in Brazil found 27.2 cases of autism per 10,000 people, and last year's report from Oman found 1.4, compared with the oft-quoted U.S. average of 50. Similarly small numbers have come out of studies in China (16.1), Indonesia (11.7) and Israel (10). A handful of small studies in France, for example, have found rates around 5 cases per 10,000 people" (Hughes, Simons Foundation Autism Research Institute, 2010). There are a various interventions that specifically focus on social skills for individuals with ASD.

Of the variety of social skills interventions being implemented the most popular, depending on the age group of the individual(s), have become: video self-modeling, video peer modeling, social stories, and peer mentoring/tutoring. Video self-modeling is a form of observation learning in which the individual observes themselves performing a behavior successfully on video, which they then imitate the targeted behavior. Video self-modeling

allows the individual to view him/herself being successful, acting appropriately, or performing other tasks. Video peer modeling is different in that the behaviors/tasks are being demonstrated by a peer rather than the individual him/herself. Social stories describe a situation, skill, or concept in terms of relevant social cues, perspectives, and common response in a specifically defined style or format. An intervention that is becoming more and more prevalent in the public education environment is peer mentoring/tutoring. Peer mentoring/tutoring is when the individual with ASD is paired with a non-ASD individual; typically this person is in the same grade and is in many of the same classes as the person with ASD. This provides the student with ASD to have a support system without it being obvious to others.

But, what really are the outcomes of these interventions; are social skills generalized and maintained over time? Is there something different about one intervention verses another that may lead to more successful outcomes? As “difficulties in the social arena typically remain an area of great vulnerability even for the most cognitively able individuals with ASD” (Reecho, and Volar, p. 5) it is crucial to determine what and why some interventions have better success rates than others.

“Other post-industrial counties are experiencing a similar trend of rising ASD diagnosis rates. The UK reported in 2012 an increase of 56% of children with autism in the last five years. While ASD is increasing globally overall, however, many developing countries are reporting significantly lower rates. In China, for example, it is estimated that 1.1 in every 1,000 children are diagnosed with autism” (Sun, Allison, Auyeung, Baron-Cohen, & Brayne, 2012, p. 470). In Kuwait, as well as other countries, there has been a limited ability to support children with ASD within the general education system. As a result this became the topic of extensive mass-media

coverage. The first book in Arabic about autism was published in 1993 and reprinted in 1996; this was followed by many more publications related to autism. Because of increased information concerning ASD there was also an increase in public concern regarding the necessity of appropriate education and care of children with ASD (Saad, 2000). In Italy, especially Lombardia, although not lacking in services, there were still many challenges that needed to be addressed. Many of the obstacles were a result of academic ignorance, as well as individuals who were looking for answers but to the wrong questions. There was also the undertaking of changing the rigidity within the organization of services (Micheli, 2000).

Over time there has been more and more publicity about ASD to help make people more aware and better able to understand the population of individuals diagnosed with ASD, there has also been an increase in the types and availability of ways interventions can be provided to individuals with ASD. The interventions provided by the public school system are rather limited and the interventions tend to decrease as the individuals get older and progress through the public school system. There are also numerous private agencies that offer various interventions, as well as some public organizations that provide services for individuals with ASD and their families. Some of the nationally known organizations are: Generation Rescue, National Association and, Autism Society of America. There are also worldwide organizations such as; US Autism and Asperser Association (USAAA), Autism Treatment Center of America – Son-Rise Program and, Center for Autism and Related Disorders (CARD).

As the prevalence of autism continues to increase the needs and understanding of the necessary interventions increased as well. It has been established that social skills are one of the main deficits effecting individuals with ASD. Limited social skills not only have an impact

during childhood and adolescence, but also throughout the adult years. For adults with limited social skills there are limited employment opportunities. Employment rates are declining for persons with disabilities (Stapleton and Burkhauser, 2003). Only 3 out of every 10 individuals with disabilities are working full or part-time, and two thirds of individuals who are not working would like to be working, according to the National Organization on Disability and Louis Harris & Associates (2000).

It has been determined that people without severe disabilities are 8 times more likely to be employed than people with very severe disabilities (N.O.D., 2000). It is also very important to note that “individuals with ASD are among those least likely to be employed within the disability community” (Dew and Alan, 2007, no page); according to Cameto, Marder, Wagner, & Cardoso (2003), only 15 percent of persons with autism are employed. Of course, economic conditions need to be taken into consideration but, it is also important to be aware of employer attitudes. To improve employment outcomes for of individuals with ASD it is crucial to address specific behaviors that could limit their possibility of employment. (Westbrook, Nye, Wendt, Fong, Williams, and Cortopassi, 2012).

Conceptualization of Problem

For the most part many of the challenges connected to social skills interventions within the international arena is dependent on the political organizational frame in which they are being provided. The political frame consists of five major assumptions: “1) organizations are coalitions of assorted individuals and interest groups,, 2) coalition members have enduring differences in values, beliefs, information, interests, and perceptions of reality, 3) most important decisions involve allocating scarce resources—who gets what, 4) scarce resources and enduring

differences put conflict at the center of day –to-day dynamics and make power the most important asset, and 5) goals and decisions emerge from bargaining and negotiation among competing stakeholders jockeying for their own interests” (Boleman and Deal, 2008, p. 194-195).

Some organizations also face the challenge of a lack of appropriate statistics pertaining to the ASD population. Another difficulty is that services are often scattered among various “agencies, and administrative bodies, with varying responsibilities and mandates” (Saad, 2000, p. 40). They also had the problem of the unavailability of teaching materials in Arabic. There was also the challenge of the weakness of parent groups. “Unlike in the West, parents’ associations in the oil-rich countries are nonexistent or inactive” (Saad, 2000, p. 40).

In Italy some obstacles are “of a cultural nature: the dogma of total inclusion, and the fear that any adjustment to the system could mean the return to a segregated system” (Micheli, 2000, p. 66). In the organizational nature: “ the organization of the state school system is antiquated and slow; the qualifications of the teachers are minimal and very little checked, and the turnover of teachers is so frenetic that nobody considers it realistic to put the evident problems and pitfalls right by changing the organization” (Micheli, 2000, p. 66).

During the period of time that I was teaching students with ASD within the public school system for the most part the challenges I experienced were organizational. Students with ASD were receiving social skills instruction during one class period on a daily basis. The class lasted for approximately 48 minutes each day. I was never provided with a social skills curriculum from which to base my instruction. Teaching my students became a trial and error experience related to the various activities/lessons I would use with my students. Making this even more

challenging was that I was teaching between 10 and 12 students in a very small classroom which resulted in spending many class periods dealing with challenging behaviors and getting in the way of social skills teaching accomplished.

How the Problem has been Addressed

My experience within both the public and charter school environment has been that there is not enough time spent specifically on the instruction of social skills. For students who are at a high level of functioning much of their social skills training is throughout their school day but the actual training is sparse. Yes, there should be social skills instruction taking place as situations arise within the school day, which was how I had addressed the needs of my students who were at a high level of cognitive functioning, since I only saw them 50 minutes a day specific to social skills instruction. Although it is extremely important to “facilitate skill generalization outside of the treatment setting” (Rao, et al., 2008, p. 359), it is also important for there to be adequate time for the implementation of research based techniques so that individuals with ASD can acquire knowledge of the skills that are being generalized.

Many techniques include the use of external rewards to improve compliance/increase motivation which may show initial positive results but tend to produce short lived results. It is my belief that it is better to incorporate strategies that motivate the individual’s intrinsic interests, such as play, to promote the development of social skills. Although the concept of using games may at first glance be thought of as elementary or only for very young individuals, there are many skills that can be acquired that are relevant to daily living and a variety of social interactions. Through playing games individuals can learn problem solving and conflict resolution skills. They can also build social skills through sharing, turn-taking, making eye

contact, following social rules and cues, and by using greetings and names. Players can also be given jobs during game play.

During play interactions individuals will engage in back and forth interactions which are conducive to interactive play rather than parallel play, all of which can aid in improving social competence. It is also important to note that this type of social skill training is not limited to any specific group or ability level of individuals. It is one that can easily be adapted to various groups of individuals depending on age, interests, cognitive functioning ability, and whether they are verbal or non-verbal.

Factors That Impact The Problem

Data Collected and Results

There is research related to social skills training for individuals with ASD. There are various ways to provide social skills training such as peer modeling, video modeling, video self-modeling, virtual peers, peer tutoring, small group social skills instruction but, there isn't substantial data available connected to what really made some social skills interventions work better than others. "Although there have been a number of published guidelines for social skills interventions for children with autism, few of these provide much empirical evidence of effectiveness, there has been little empirical data regarding which therapy approaches might be more or less effective" (LeGoff, 2004, p. 558).

What Literature Indicates as Likely Cause of the Problem

The researcher was able to find information regarding the use of play for counseling purposes. The use of games during counseling "can provide a sensitive approach because students of diverse cultures, socio-economic status, and varying academic and language abilities

can communicate through the vehicle of play” (Trice-Black, Bailey, Riechel & Kiper, 2013, p. 305). It is hypothesized that “the use of play can help students as they strive to overcome many challenges that may impede social and academic growth and success” (Trice-Black et al., 2013, p. 303).

Given that game playing during counseling sessions can provide positive results it begs to question: why is play is not being used to teach social skills? Although the pilot program had a very limited number of individuals participating, the inclusion of game-based play strategies during our sessions produced positive outcomes. “Play, art, storytelling and music can be integrated with multiple theoretical approaches and infused across delivery systems including classroom guidance, individual and group counseling experiences, and preventative programming to address academic, social/emotional, and career development domains for all students” (Trice-Black et al., 2013, p. 305).

The Pilot

Description of Pilot Program

This pilot began as a program to focus on social skills for students with ASD. The purpose was to extend students social skills training throughout the summer. The original plan was to determine whether extended social skills instruction over the summer break from school would reduce any possible regression of social skills obtained during the school year. The participant’s exceptional education teacher was also the principal researcher. The researcher was responsible for completing all the necessary components of the pilot program.

The social skills group, which met twice a week for two hours throughout the summer, was made available to half of the students. Upon returning to school after the summer break the

plan was to reassess all of the students to determine whether or not continuing social skills training throughout the summer made a difference related to social skill regression.

The organization in which the pilot took place was a public school. Although the researcher was employed the school system, there was no connection to the pilot program other than the subjects were the researcher's current students at the time. The school system was not involved because the researcher was providing the social skills group during non-school hours and it did not take place on school property. The pilot program consisted of various stakeholders. The most obvious stakeholders were the students and their families. Other stakeholders would be the teachers who would have these students in their academic classes during the next school year.

Upon the completion of the pilot, the researcher was unable to reassess the individuals as a result of not returning to teach at that school. The researcher instead accepted an exceptional education teaching position at a charter school which is made up entirely of exceptional education middle and high school aged students at various levels of learning ability, but all of whom have met the criteria and are working towards a special diploma.

Data Collection

Data was collected using "the Social Skills Rating System (SSRS) which is a norm-referenced rating scale comprised of three separate rating forms for teachers, parents, and students." (Demaray, Ruffalo, Carlson, Busse, Olson, McManus, & Leventhal, 1995, p. 658). The purpose of the SSRS is to help professionals with the screening and classifying process of children suspected of having significant social behavior difficulties. The SSRS is also intended to serve as an aid in the development of appropriate interventions for individuals identified as

needing social skills support. “The SSRS is intended for use with preschool (age 3-5), elementary (Grades K-6), and secondary (Grades 7-12) students” (Demaray et al., 1995, p. 658). The researcher first completed the Social Skills Rating System (SSRS) assessment with students who have high functioning ASD to determine their level of social skills ability before beginning the summer social skill sessions.

The Social Skills Rating System (SSRS)

“The SSRS is a 51-item (secondary level teacher form) and a 52-item (secondary parent form) questionnaire assessing adolescent responsibility, assertion, cooperation, and self-control. The SSRS is commonly used to assess treatment outcome in social skills training interventions” (Laugeson, et al., 2012, p 1027). “The SSRS documents the perceived frequency and importance of behaviors influencing the student’s development of social competence and adaptive functioning at school and at home. The SSRS is a useful tool when making decisions regarding screening, classification, and intervention planning” (Gresham and Elliott, 1990, p. 1).

The SSRS can be administered and scored by a variety of individuals. The behavior rating scales have several advantages over other assessment methods. The rating scales are less costly than individually administered tests or direct observation techniques. Also, the behavior rating scales yield more objective, reliable, and valid information than assessments based on projective techniques or clinical impression. Lastly, behavior rating scales can be useful in identifying behaviors for intervention. The SSRS was designed to maximize the advantages of rating scales while minimizing the problems that are sometimes encountered (Gresham and Elliott, 1990).

The SSRS offers users several unique features to facilitate more comprehensive assessment and intervention services for children experiencing social behavior problems. The SSRS is the first social skills rating scale to provide norms based on a large, national sample for boys and girls aged 3 through 18, as well as for handicapped elementary students. The SSRS applies to a wider age range of children than any existing scale. It is the first multirater (teacher, parent, and student) scale. Finally, the SSRS is the first rating scale instrument specifically designed to advance intervention planning. The SSRS offers users a system for assessing and treating social skills problems of children. The systematic nature of the SSRS is inherent in the many common behaviors rated in the teacher, parent, and student forms. The SSRS permits a well-planned assessment of social skills, problem behaviors, and academic competence. The conceptual methods, which apply to all versions of the SSRS, can link assessment results to intervention plans (Gresham and Elliott, 1990).

Validity of Social Skills Rating System (SSRS)

“To determine the validity of the SSRS multiple investigations were conducted based on the guidelines established by the American Psychological Association, 1985” (Gresham and Elliott, 1990, p. 112). Several strategies were implemented to determine, content, social, and criterion-rated validity. Content validity refers to the degree in which a sample of test items represents a defined domain or universe of content (American Psychological Association, 1985). The comprehensive review helps to ensure that the items selected represent the domains in a complete and unbiased manner.

“A major source for content validation of the SSRS is the use of Importance ratings for each social skills item. According to the Standards for Educational and Psychological

Testing, expert professional judgment should play an integral part in establishing the content validity of a test” (Gresham and Elliott, 1990, p. 112).

The social validity refers to the social significance of behaviors selected for intervention, social acceptability, procedures for changing behaviors, and the social importance the effects as a result of the interventions. The SSRS promotes social validity in two ways. First, the Importance rating associated with each item allows users to select behaviors perceived as socially significant by teachers, parents, and students. Second, the SSRS can also be used to evaluate the quantity and quality of changes in social skills to determine if the intervention produces important changes.

A scale’s validity is frequently inferred from its capability to foresee variation in other variables or criteria. Criterion-related validity refers to the systematic relationships between predictor variables and criterion variables. To establish evidence for the criterion-related validity of the SSRS,

“selected were criterion measures theoretically believed to be predictable from SSRS scores. In all cases attempts were made to select criteria with good psychometric Properties, since criterion variables with low reliability or validity may prevent a study from demonstrating an important relationship” (Gresham and Elliott, 1990, p. 114).

It has been determined by the creators of the SSRS, that it is a valid instrument for the screening and categorizing children in terms of their social skills, problem behaviors, and academic performance.

Basis for Revised Model Program

The current model program utilizing games as a tool for developing social skills in ASD students will be offered to a number of students who attend the charter school where the researcher is employed. These students would also be middle school aged individuals however, they have ASD as well as other disabilities and they are also at a much lower level of cognitive functioning. This will most likely be offered as an after school hours program as not to interfere with my contracted responsibilities. The basis for the pilot was to create a program that is appropriate for individuals who have social skill deficiencies to become more aware of what is and is not socially acceptable behavior and to be able to generalize those skills to other settings.

Documenting the Process and the Intended Product

To determine the outcomes of the case study the researcher plans to administer the Social Skills Rating System (SSRS) assessment before beginning the implementation of the pilot program. The assessment would be administered at various times throughout the pilot during the implementation process and again at the conclusion of the case study. Results will be compared to determine if there were any changes in the individual's social skills abilities. The intended product would be for the individuals participating to acquire enhanced social skills capabilities and understanding as well as for the skills to be generalized.

Plan for Implementation

The projected plan for implementation of the case study would take place during weekly sessions. The sessions would be two times per week with each session lasting two hours. The sessions would take place over a period of eight weeks. The projected plan is just that, an estimated time frame. The time necessary for the model depends on how well the individuals are progressing. With that said the pilot program could take more than the estimated eight weeks. It

is unlikely that the model would require less than the estimated eight weeks. Also, depending on the individuals, the intended two hours for each session may need to be shortened. Although there is a plan for implementation, much of the actual implementation process actually depends on how the individuals respond to the training.

Much depends on the individuals who are participating in the program. Initially, during the pilot it was trial and error to find a way to teach social skills in a way that would keep the interest of the individuals. It was quickly discovered, initially through playing a board game that play per se was the key factor in getting the participants to interact in a positive manner. Eventually, through playing games the participants looked forward to the next session and made plans on which games to play next.

Data Collection

The data collected would be based on the SSRS results which will be collected before, during, and after the program has been completed. The SSRS assessments are available in three different versions. There is a teacher version, a parent version, and a student version. The student version can be completed by students who have the ability to do so.

The data that is collected before the sessions begin would act as the baseline data. The data that is collected during, or the mid-assessment, will be used to compare to the baseline data to determine any changes in social skills ability. The data that is collected at the conclusion of the program would be for the purpose of comparing to the baseline data collection to determine whether there were any changes in social skills ability.

Summary

“Although known for more than fifty years as one of the most severe childhood neuropsychiatric disorders, autism was thought to be quite rare ” (Lerner, Mikami, 2012, p. 149). The rarity of autism is no longer a valid statement. The ASD population continues to increase, “Center for Disease Control estimates that one in every 50 school children is diagnosed with ASD” (Center of Disease Control, 2012, p. 2). Within the Autism Spectrum Disorders there are individuals with a wide range of cognitive ability levels. Limited social skill is a key feature of ASD regardless of the person’s level of cognitive functioning. Individuals with limited social skills may face low self-esteem and teasing from peers. Adults with limited social skills will very likely face additional challenges when attempting to enter the workforce.

Without targeted intervention, individuals with ASD often exhibit problematic behavior and can become socially withdrawn. The challenges of autism are not limited to the person with autism. Parents and siblings will quite often also experience the trials and tribulations of having a family member with ASD. The need for appropriate social skills interventions is not only important for the high functioning population with ASD but also for the population that has a lower level of cognitive functioning.

There are a variety of social skills interventions such as; video modeling, video self-modeling, peer mentors, and social stories. Video modeling is a form of observation learning in which the individual observes another person performing a behavior successfully on video, which they then imitate the targeted behavior. Video self-modeling allows the individual to view him/herself being successful, acting appropriately, or performing other tasks. Video peer modeling is different in that the behaviors/tasks are being demonstrated by a peer rather than the

individual him/herself. Social stories describe a situation, skill, or concept in terms of relevant social cues, perspectives, and common response in a specifically defined style or format. Peer mentoring/tutoring is when the individual with ASD is paired with a non-ASD individual; typically this person is in the same grade and is in many of the same classes as the person with ASD. This provides the student with ASD to have a support system without it being obvious to others.

Although these are very good interventions there is also a need for an intervention that is more naturalistic and that will promote engagement especially for individuals who don't want to participate and that can be easily adapted to be appropriate for a wide range of individuals who may be at significantly different levels of cognitive functioning, but who all have social skills deficits in need of intervention.

CHAPTER TWO

Problem of Practice and Intervention

The problem of practice for which the pilot program was designed was related to social skills interventions for individuals with Autism Spectrum Disorder (ASD) and identifying how game playing can work better than other interventions and why. For the purpose of this dissertation in practice this section will discuss the implementation of the pilot program. It's important to first understand why social skills training can be so important for individuals with ASD.

Why Social Skills are Important

Limited social skills ability can be problematic to individuals with ASD regardless of their level of functioning. "Social skills can be defined as specific behaviors that result in positive social interactions both verbal and non-verbal behaviors necessary for effective interpersonal communication" (Rao, et al., 2008, p. 353). Social skills deficiencies, regardless of an individual's age, are common for both individuals with high cognitive levels of functioning as well as for individuals who have a low level of cognitive functioning ability within the autism spectrum. "Social skills deficits and consequent peer rejection during childhood can impact quality of life in many ways. For instance, poor social skills are related to concurrent and consequent academic achievement, peer acceptance, and mental health problems" (Cappadocia and Weiss, 2011, p. 70).

The challenge of limited social skills is one that can be a lifelong struggle if adequate skills are not obtained and maintained by the person with ASD. These challenges begin during their early childhood, typically within the educational environment, and can continue into and

throughout adulthood, which can greatly limit employability outcomes and overall quality of life. Included within the category of social skills is the ability to be cooperative with other individuals. “There are five skills needed for successful cooperation with others: sharing ideas, complimenting others, offering help or encouragement, recommending changes nicely, and exercising self-control. Each social skill related to successful cooperation is also associated with specific body language expectations regarding tone of voice, facial expression, and eye contact” (Cappadocia, et al, 2011, p. 72).

As a result of limited social skills ability many of these individuals will not have the opportunity to rise to their full potential. Aside from all the impacts that limited social skills present for the individual himself/herself, there can be another group of people that tend to get forgotten; this would be the family members of the individuals with ASD. The family members can face just as many challenges as the person with ASD.

Context in Which the Problem Occurs

During the time the problem of practice was initially addressed and the pilot program was conducted, the context was within the public school setting with the researchers students who have ASD and are at a very high cognitive level of functioning. Within the educational environment all of the researcher’s students were included in general education classes and were working toward a standard diploma. The researchers concern was not only the limited availability of social skills interventions but also the need for a social skills intervention that can be successful and easily adapted for students of various ages and various levels of cognitive ability with ASD.

Upon the completion of the pilot study the researcher did not return to teaching within the public school system. The researcher instead continued a teaching career at a charter school which has a population of middle school through high school aged students who are all special education students. The student's cognitive ability levels are such that they are not working towards standard high school diplomas but, are instead working towards acquiring a special diploma.

Although the special diploma option is a good alternative for some students there are some less than positive consequences. The military, colleges, and universities usually do not accept a special diploma, particularly for degree-seeking programs. A special diploma may limit the individual's options in post-school adult life.

Goals/Expected Outcomes

Regardless of whether the individual is at a high level of cognitive ability or is functioning at a lower level of cognitive ability there is still the need for acceptable social skills which are part of daily functioning skills. The expected outcome of the pilot program was to provide an effective social skills intervention for individuals with ASD but also one that is accessible to individuals of various cognitive levels of functioning. ASD is not a one size fits all disorder. Some individuals have standard or very high levels of cognitive ability, are very verbal, and enjoy interacting with other people, while other individuals have much lower cognitive ability, may be totally nonverbal, and avoid interacting with other people. These are examples of both ends of the autism spectrum and there are many more variables in between however, a common factor is that "social skill deficits are a defining characteristic of all ASDs" (White, Koenig, and Scahill, 2010, p. 217).

Autism Spectrum Disorders is an umbrella term often used to describe a continuum of diagnoses that include Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS). Autistic Disorder "most who are diagnosed with autism have IQ scores categorizing them with intellectual disability, with one third having an IQ in the average to above average range" (Ryan, Hughes, Katsiyannis, McDaniel, and Sprinkle, 2011, p. 56). Individuals with Asperger's Syndrome "typically do not exhibit delays in the area of verbal communication, and often develop large vocabularies however; they do show impairments in their ability to understand nonverbal communication or the pragmatics of language" (Ryan, et al., 2011, p. 57).

Children diagnosed with PDD-NOS exhibit at least one characteristic of an ASD subtype, but do not meet all the specific diagnostic criteria (American Psychiatric Association, 2000). "As a result children who suffer from a qualitative difference from their peers in communication, socialization, or interests and activities may receive a diagnosis of PDD-NOS" (Ryan, et al., 2011, p. 57). Collectively, ASD is characterized by deficits in communication, impairments in social interactions, and restricted and repetitive patterns of behavior (American Psychiatric Association, 2000).

The commonality of all individuals within the autism spectrum is limited social skills ability. Social deficits and poor friendship quality are common areas of impairment for youth with ASD (American Psychiatric Association, 2000).

"Specific social deficits among individuals with ASD often include poor social communication, impaired social cognition, and lack of understanding of social cues. Some individuals may exhibit perseveration on specific topics of interest and difficulty

changing conversational topics, poor speech prosody, which includes natural rising and falling of voice pitch and inflection that occurs during speech, being overly verbose in conversation with peers, difficulty understanding and using humor, and other forms of non-literal language like sarcasm, analogies, or metaphors” (Laugeson, Frankel, Gantman, Dillon, and Mogil, 2012, p. 1025-1026).

It is also common for the individual to experience “impaired social cognition which often includes difficulties in expressing emotions and understanding the feelings of others” (Laugeson, et al., 2012, p. 1026).

Although the characteristics of ASD varies from one individual to another, common among all individuals with ASD are “deficits in the areas of communication, socialization, behavior and other life skills” (Banda, Matuszny, and Turkan, 2007, p. 47). The goal, the expected outcome, is to create an intervention that will increase the social skills ability of individuals of various cognitive ability levels with ASD given that social skills are not only important for daily interactions but are also valuable employability skills. Employability skills are important because “adults with high functioning ASD are much more likely than the general population to be unemployed or underemployed” (Rao, et al., 2008, p. 354). It has been documented that one of the biggest challenges currently facing the autism community is a disproportionately high unemployment. The unemployment rate for individuals with autism is approximately 88 percent (Tomaino, 2011, p. 32). Having the necessary social skills can lead to the ability to not only obtain but also to maintaining employment. As a result this can lead to overall greater independence (Banda and Hart, 2010).

Elements of the Design

The key elements of the pilot program were to integrate game-based strategies as part of social skills training for individuals who are middle school aged and beyond and who have ASD and/or other disabilities. This included middle school aged individuals however it can be easily adapted for younger or older individuals with ASD and/or other disabilities. During their younger years, much of the interventions used with individuals with ASD and many other disabilities involves and/or revolves around play. Game playing is fun, it is a natural thing to do, and can be a much less intimidating way of providing training. Studies have been conducted measuring play for the purpose of screening children for ASD (Rodman, Gilbert, Grove, Cunningham, and Levenson, 2010). As the target population ages there is a tendency to move away from including play as part of the intervention process. During the pilot program the main component that was used to encourage interactions and involvement among the subjects was the element of play through the playing of board games.

Although the social skills pilot program consisted of a very small group of middle school aged individuals who were the researcher's students at the time of the pilot program, there was a major challenge. Two of the students in the pilot program did not get along. One student would go out of her way to avoid any interaction with the other. The other student knew this and took great pleasure in making her feel uncomfortable. When the pilot program began each one did not know that the other would be there or that they would be together for each of our two times per week meetings throughout the summer break from school.

At the first scheduled session as soon as the one student saw the other she wanted to go home, the other student appeared to get great pleasure out of making her so uncomfortable.

Throughout the first session the timid student stayed on the opposite side of the room from where the dominating student was. Needless to say it quickly became apparent that it was going to be very difficult to conduct two sessions each week throughout the entire summer with these individuals especially considering that the plan was to have the sessions to be discussion based.

The plan was that there would be group discussions about a variety of topics but, it quickly became apparent that it was going to be necessary to develop another way to conduct the sessions. It also became obvious that the original plan for conducting the intervention, the main focus being discussion, would not be appropriate for nonverbal individuals. Hence, it was necessary to reflect on how accessible to other individuals the pilot program would truly be.

The goal of the original design was to improve social skills for individuals with ASD. From the population of individuals in the pilot program the goal broadened to improving social skills of adolescents and older individuals with ASD and/or other disabilities, and to also include not just higher cognitively functioning individuals as the pilot program did but also those who have lower cognitive functioning abilities. The goal was also to demonstrate that play based social skills could be implemented with a diverse population of individuals, that play should not be limited to only the very young, and that it could provide positive results.

Practices on Which the Design was be Based

The inclusion of game-based strategies during social skills training is significant because social skills are a vital part of a person's daily living and functioning. This is significant not only for individuals with ASD but also for people with general Learning Disabilities (LD). "Without appropriate social skills, LD adolescents would be at a definite disadvantage" (Schumaker, Hazel, Sherman & Sheldon, 1982, p. 389). "Social skill deficits assume importance because of

their potential to adversely affect not only the social domain but also the achievement domain” (Kavale and Mostert, 2004, p. 31) of individuals. It has been noted by a number of prominent developmental theorists that there is a distinct relationship between social competence during childhood and the psychological adjustments during adulthood (Gresham, 1982). Social skills is a somewhat broad term which refers to the structured training of skills, with the main purpose being, to provide individual or group instruction related to teaching skills concerning expressive or interpersonal social behavior (Baker-Brame, 2000).

As a result the pilot program was based on the real-world concept that individuals with ASD and/or other disabilities can and should be productive members of society. In order to be a productive member of society there are some very important skills that are necessary. This is important for anyone but even more so for individuals who have a limited ability of the necessary areas. It has been concluded that children who have a better ability to interact with others in an appropriate manner, will be more likely to be more successful members of their school and community than those who have less appropriate behavior (More, 2008). This has also been addressed by, “the Committee on Educational Interventions for Children with Autism, that social interaction skills and communication abilities have life-long effects on how children learn to be social beings, to take care of themselves and to participate in the community” (National Research Council, 2001, p. 11).

In order to be a productive member of society it is necessary for the person to be equipped with certain skills. Having the appropriate social skills does not guarantee that an individual will be a productive member of society but having those skills is a step in the right direction. Even though there are employment opportunities that may not require direct

interactions with other individuals, it is still important to have the necessary social skills which are part of life in general and not just for employment purposes.

Having functional social skills can also help reduce anxiety and the possibility of depression. Individuals who have social skills deficits often end up being isolated. This can lead to depression and/or adverse behavior. “Anxiety may be directly or indirectly related to social skill deficits especially for individuals with higher functioning ASD who may have an awareness of their social disability” (White and Roberson-Nay, 2009, p. 1006). It is also not uncommon for many people with limited social skills to spend large amounts of time with family members in the home environment. This may produce feelings of loneliness and depression for the individual as well as for family members. “Research suggests that having good social skills and adequate social support relate to better quality of life in adults with ASD” (Gantman, et al., 2011, p. 1095).

Supporting Literature – Play Therapy

There is various literature supporting the inclusion of play therapy to enhance other interventions. Play therapy was used during mental health sessions for children with temper tantrums, negativism, withdrawn behavior, night terrors, and other primary mental health disorders. During a study related to social learning, “when the group first met with the therapist, they could not carry on a game activity with any semblance of order, attention or group feeling” (Blanchard, 1950, p. 511). Later, “although the group had many problems and challenges as a harmonious working unit, the members were able to attend to instructions, take turns, assume an interest in the other fellow, learn a new game, and receive a satisfying experience through group activity” (Blanchard, 1950, p. 511).

Social skill training has also been implemented for students with Specific Learning Disabilities (SLD). A study conducted by Kavale and Mostert (2004) resulted in “6 out of 10 students with SLD perceived benefits from social skills training” (Kavale & Mostert, 2004, p. 35). Their findings were also “related to enhanced social competence and social problem solving suggested improved ability to interpret social cues and to provide appropriate responses” (Kavale & Mostert, 2004, p. 35).

Why this Design is Significant

Based on the lack of research available pertaining to game based interventions for older individuals, as well as what was discovered as a researcher, and through working with many individuals through teaching, it had been concluded that game based interventions are not only useful when working with younger children but, play based interventions are appropriate and can be effective for older children/teenagers, and beyond. As a result of the positive outcome of the pilot it has also been concluded that game-based play interventions are appropriate for individuals with ASD as well as for individuals who have ASD along with other disabilities and also for individuals who do not have ASD but have other disabilities regardless of their age or cognitive ability.

The pilot included game playing as a tool during social skills instruction. The inclusion of games was very successful. The inclusion of play enabled the subjects to be less on the defensive with each other because they were focused on the game they were playing. Through play they were able to abandon the barriers they had put up because of past experience with each other. Through playing board games participants are able to drop the barriers that keep them apart and actually come together and allow for positive social interactions. This is significant

because in order for social skills to develop the subjects must first be willing to actively engage in social interactions with other people. Once there is social engagement it is then possible to teach what appropriate social interactions are and what they are not. This becomes a stepping stone for further and future social skill training and interactions. They became so focused on the game that was being played that they were able to relax and talk to each other, first about the game then about other topics.

How the Design Resolved the Problem of Practice

The problem of practice being addressed was the need for game-based play to be included in social skills training for individuals with ASD, other disabilities, and cognitive functioning ability. Based on the outcomes of the pilot social skills program, it has been determined that the inclusion of play through game-based strategies with older individuals was appropriate. Game based interventions are nothing new when the population you are addressing are young children. It was determined that the use of play-based intervention with older individuals could be effective as well.

Through game-based activities children are more likely to become involved, to interact with others, and to bring down barriers that may be limiting the success of social skills interventions that are not incorporating games as part of the of social skills training equation. It has been determined, based on the success of the pilot program, although it was with a very small sample size, that play based social skills interventions were not only also appropriate for older individuals but also that the inclusion of games was indeed a successful way to increase positive social skills interactions between the subjects.

Other Contexts in which the Design can be Successful

The pilot was implemented with participants who were middle school aged students with ASD who are very high functioning. It would be advantageous to test the pilot with participants who are middle school aged students with ASD and who may also have other disabilities and who are at much lower level of cognitive ability than the original group of participants.

Play is universal; it is something that doesn't need to be limited to age or ability. Play can be integrated into a variety of situations, the possibilities are endless. The use of play during counseling "can provide a sensitive approach because students of diverse cultures, socio-economic status, and varying academic and language abilities can communicate through the vehicle of play" (Trice-Black, Bailey, Riechel & Kiper, 2013, p. 305).

Play can be used "as a supplement, not a replacement for, direct social skills instruction" (Baker-Brame, 2000, p. 42). The reasoning behind this is that "skill deficits have been remediated primarily through modeling or verbal instruction" (Gresham, 1982, p. 130). These are both good ways to teach social skills however, participants must first be engaged in order for verbal instructions or modeling to be successful; what better way to get someone interested and engaged than through play. "Play, art, storytelling and music can be integrated with multiple theoretical approaches and infused across delivery systems including classroom guidance, individual and group counseling experiences, and preventative programming to address academic, social/emotional, and career development domains for all students" (Trice-Black et al., 2013, p. 305).

The inclusion of play has also been used for other purposes. Studies have been conducted measuring play for the purpose of screening children for ASD (Rodman, Gilbert,

Grove, Cunningham, and Levenson, 2010). “Play, an integral part of a child’s life, is the most natural way for a child to express thousand feelings he/she is unable to verbalize or even conceptualize” (Fischer-Smith, 1977, p. 1963). Play therapy, however, has also been a successful way of getting children to express their thoughts and/or feelings during counseling sessions. “Play therapy is an empirically supported intervention used to address a number of developmental issues faced in childhood. Through the natural language of play children and adolescents are able to communicate feelings, thoughts, and experiences” (Trice-Black, Bailey, & Kiper-Riechel, 2013, p. 303). “Fun group activities may also increase adolescent’s motivation to spend time with their peers and to develop friendship skills” (Tse, Strulovitch, Tagalakis, Meng, and Fombonne, 2007, p. 1960).

How the Needs for the Game-Based Design were Determined

The needs for the model are based on the researcher’s own personal experience of teaching middle school aged students with ASD who have been at varying levels of cognitive ability. While teaching this population of students within the public school environment the researcher was not provided with a social skills curriculum to teach social skills students and was left to find and/or create resources. The researcher was faced with the challenge of how to help two of the students come to a common ground of respect and to interact with each other in a socially appropriate manner.

During the search for which types of social skills interventions to implement, the initial challenge was in finding something that would be beneficial. Through planning for the two times per week sessions the decision was made to bring a few board games to the session, if for nothing else than, a good way to pass the time. As it turned out the playing of games became the

ice breaker needed to bring the individuals to a common ground in which they were able to interact with each other in a manner that they had not been observed doing in the past.

Suggested Process of Implementation

The suggested timeline is for the sessions to take place over the course of eight weeks. During the eight weeks there will be two sessions per week with each session lasting two hours each. As discussed earlier, these are estimated time frames. Much of the time required depends on the progression of the individuals who are participating in the program. It is unlikely that the suggested time frame of eight weeks would be too much however; there is the possibility that the eight weeks may not be enough time, which would require that the program be extended. Also, depending on the individuals attending the program the two hour sessions may be too long, in which case the sessions would need to be shortened. Because there can be unknown factors, the time frames are suggested. As a result the program provider must be flexible and receptive to the needs of the individuals participating in the program.

Elements of the Design

The goal of the model is to improve social skills of individuals with ASD and/or other disabilities. To meet this goal the design is really rather simple. It simply involves integrating games into social skills instruction. The goal of the model broadened to improving social skills of adolescents and older individuals with ASD and/or other disabilities, and to also include not just higher cognitively functioning individuals, but also those who have lower cognitive functioning abilities. The realization was that game-based social skills could be implemented with a diverse population of individuals and, that it could provide positive results.

In order for any type of intervention to have the possibility of success the participant's first need to attend during the sessions. They need to be as engaged as possible during the sessions to the best of their ability. Hence the need for set barriers/limits concerning what would and would not be acceptable behavior. This was an obvious first step as a result of the participants knowing each other and past encounters with each other. Once the limits are set and agreed to next is to proceed with the actual social skills training. Each of the sections below explains the required components of the model.

Before First Session

The anticipated duration of the program is 8 weeks. This may need to be extended depending on the progression of the participants in the program. First it will necessary to meet with the parents of individuals who will be participating in the program and provide them with some general information and the anticipated goals of the program such as: number of days per week, session times, the anticipated total number of weeks of the program, number of students in group, parents doesn't need to stay with their child, and explain the parent version of the SSRS if requesting parents to complete one.

Establish Estimated Timeline

The first meeting should be for everyone, the participants and the teacher, to become familiar with each other. This session should also be used to help determine the interests and capabilities of the participants to make decisions about what types of games/activities will be appropriate. After the first meeting the teacher should complete the teacher version of the SSRS. Now, the parent, teacher, and student (if appropriate) versions of the SSRS should be compared.

This becomes your baseline data, the data collection before the beginning of the implementation of the social skills program.

Engagement in the Process

During the engagement process it is important to determine, based on a variety of game/activity choices, which type your individuals are interested in. When possible the individuals should be included in the game/activity selection process. If the individuals are not able to participate in the selection process it will be necessary to make decisions related to the games/activities to be included based solely on the types of games/activities, in which, they had shown an interest. It is also important to always have back-up choices. Because an activity was very desirable during one session does not automatically mean that it will be at the next session. This can also work in reverse, an activity that didn't appear to be popular during one session may be a favorite during another session. As a result of varied interests/changing interests, it is important to always be prepared with a variety of games/activities.

Review Baseline Evaluation

The baseline SSRS evaluations should be reviewed and compared. This will pinpoint exactly which social skills are needed to be focused on during the sessions. The baseline data will also be compared, as the session's progress, to both the mid-assessment and the final assessment. These comparisons will also provide valuable information determining whether or not there are changes each individual's social skills abilities. Depending on the behavior that has changed there may be an increase such as initiating conversations or inviting others to join in activities or there could be a decrease in behaviors for example controlling temper, arguing with

others. These are just a few examples of the types of behavior changes that may be determined when comparing the evaluations.

Interest Evaluation with Activities-Watch for Interaction

During the first one or two sessions is a good time for participants to become familiar with you and the other individuals attending the sessions. This is also a good time to get an idea of what types of games/activities may be of interest to the participants. It will be necessary to have a variety of games/activities available at this time to determine the likes/dislikes of the participants. Having a variety of choices is important even after you have determined what the individuals like because, interests can change and sometimes the item that has been predetermined to be the most interesting to the individuals ends up being passed over for something else. Always be prepared with back-up games/activities.

Decisions about Activities

After reviewing the assessments and observing the participants it must then be determined what types of games/activities will be appropriate. As discussed earlier there should be a variety of items available during each session. This is important because something that is extremely popular during one session may be of no interest at the next. Always have a variety of games/activities. Some popular board games are Operation, Connect Four, and the game of Life. Remember, the games/activities that you choose will be dependent on your participant's interests and abilities. Depending on the participants it may be helpful to have a picture schedule that depicts the order of players which will provide a turn taking visual for any individuals that may require it. "Many students with autism have difficulty processing auditory information. They respond well to visual representations and are more interested in things they can view" (Parsons,

2006, p. 33). This can be a basic visual as shown in Figure 1 which has a picture of each player and a check mark is placed next to the picture of the current player. Then check mark is then moved to the next player and so on as the game continues.

Who's Turn Is It?



Figure 1: Picture Schedule

It may also be necessary to incorporate some movement games/activities breaks during the sessions depending on the individuals. Movement games/breaks may be a better way to get participants engaged. Depending on your environment and the number of participants in the group movement games could be Four Corners, each corner is numbered one through four, one person covers their eyes and the other players go to different corners of the room. The person covering their eyes calls out a number of a corner. All the players in that corner are out of the game, play continues until only one person remains. The remaining player is the winner and becomes the next person to cover his/her eyes and call out corner numbers. Another movement game is the Red Light/Green Light in which one player turns his/her back to the others players and says Green Light. When his/her back is turned the other players move toward him/her. The person with his/her back turned says Red Light and turns around, any players caught moving are out of the game. Play continues until one player is left, this player becomes the new Red Light/Green Light caller. Again, the games/activities will depend on the individuals who will be participating in the sessions.

Introduction of Social Skills Interventions

How and what skills will be introduced is totally dependent on and must be designed based on the skills the participants need to learn. During the course of the game playing/group activities is when social skill instruction will take place. Some of the skills that may need to be taught/reinforced could be turn taking, respecting other's personal space, not moving game pieces during play, staying on task/focused, not talking/making noise while another person is talking, strategies to stay calm, and being cooperative. The types and extent to which the skills must be taught or reinforced will depend on the needs of the participants. Some strategies and

suggestions for instruction pertaining to the previously mentioned skills are shown in Table 1.

Teaching social skills can be done in a variety of methods but it is also beneficial to teach these types of skills during real world authentic situations as the need arises.

Table 1: Social skills strategies/instruction

Area of Need	Strategies/Instruction
Turn taking	<ul style="list-style-type: none"> • Explain that everyone must wait for their own turn • Tell/show with pictures order of players
Personal space	<ul style="list-style-type: none"> • Demonstrate appropriate space among players
Game playing skills	<ul style="list-style-type: none"> • Explain/show why not to move other players pieces
Staying on task/focused	<ul style="list-style-type: none"> • Pay attention/limit distractions • Give a job within the game such as being the banker
Being polite	<ul style="list-style-type: none"> • Wait your turn when someone else is talking • Say “excuse me” to enter an ongoing conversation
Staying Calm	<ul style="list-style-type: none"> • Count to 10 • Practice deep breathing
Being cooperative	<ul style="list-style-type: none"> • Don’t argue with other players • Listen to other’s point of view

Introduction of the Games

Depending on the individuals participating the instructor will need to decide whether or not to explain the game/activity before actually playing the game or during the activity. During the activity might be better because explaining everything before the actual engagement process may be too overwhelming for some individuals. It may be more appropriate to explain the game/activity during the actual engagement process. Explaining the process of the game/activity may need to be repeated throughout the game playing/activity completion. Again, depending on

the needs of the individuals it may be necessary to also include a picture schedule which would provide a visual support. The introduction of social skills and introduction of games will be done simultaneously.

Playing the Game(s) (ongoing)

The actual playing of games/activities will be ongoing throughout the sessions. The game playing/activity could be the same or may vary from one session to another depending on how well the individuals were engaged during the game play/activity completion. Also, depending on how interested the individuals are with the game/activity it may be necessary to change your plans during the session. If the game/activity is not going over well, if the individuals are not interested in it/don't like it, the instructor will need to be flexible and prepared to change the course of action and provide something else to do during the session.

Mid-Assessment and Review Suggested Timeline

It will be necessary to complete a mid-assessment of the SSRS; the same assessment that was completed to obtain the baseline data before the beginning of the social skills sessions. This would also entail having the parent and student versions completed as well if they were also part of the baseline data collection. The purpose is to determine whether there has been any change in social skills. The actual mid-point will depend on the estimated number of sessions to be completed. If the duration of the training sessions are going to over an eight week time span the mid-assessment should be completed after week four or five. If the sessions are going to last longer than eight weeks it will be necessary to determine when the mid-point assessments will need to be completed.

Since the mid-assessment will most likely take place at different times depending on the needs of the individual it may also be necessary to adjust the timeline accordingly. The instructor will need to be flexible when developing the timeline because it will ultimately depend on the needs and progress of the individuals who are participating in the program.

Reiterate Social Skills at Necessary Intervals

Throughout the program it will be necessary to reiterate the social skills that are appropriate for particular situations. As the individuals engage in the games/activities it will allow for the introduction and/or reinforcement of the necessary social skills. By providing the instruction during real activities and actual engagement with other individuals it will hopefully make the social skills that are being instructed/reinforced more generalizable to other daily living situations. “A contextual approach to teach social behavior would occur in naturalistic settings using informal intervention procedures based on incidental learning (i.e., “teachable moments”). Incidental learning takes advantage of naturally occurring behavioral events or incidents to teach or enhance the performance of desired social behaviors” (Gresham, Sugai, and Horner, 2001, p. 340).

Final Assessment of Social Skills

At the conclusion of the program the SSRS assessment will be completed again. If possible the assessment should be completed by the same individuals who completed it the previous times. The final assessment will allow for the review of the information collected from three separate assessments. This will provide information that will show any social skill changes throughout the program and should also disclose specific areas of progress as well as areas in which more instruction may be needed. The following table, Table 2, is an example of the

estimated/suggested process of the model based on the program consisting of two sessions per week over the course of eight weeks. Many of the elements of the model and the duration of the sessions will be dependent on the individuals who are participating in the program and their rate of progress.

Table 2: Suggested Process of the Model

Before first session	Meet with parents of participants Discuss general information about program Parents complete parent version of SSRS
Establish estimated timeline	Determine interests of participants Make decisions about types of games/activities Complete teacher version of SSRS Compare parent and teacher versions of SSRS (this will become baseline data)
Engagement in the process	Determine interests of participants Participants get familiar with each other Complete teacher version of SSRS
Review baseline assessment	Compare parent and teacher versions of SSRS (this will become baseline data)
Decisions about games	Provide games appropriate for participants interests and ability levels
Introduction of social skills Introduce games	Explain rules before/during game play Social skills: turn taking, personal space, staying calm, staying on task, being cooperative During game play explain rules/objective of game
Playing games (ongoing)	Games may be the same or vary from one session to another
Mid-assessment and review Review estimated timeline	Parents and teacher complete SSRS again Review both versions of SSRS Estimated timeline may need to be revised
Reiterate social skills at necessary intervals (ongoing)	Introduce/reinforce social skills as necessary
Final assessment	Parents and teacher versions of SSRS are completed again Compare baseline and final assessment data Determine outcome

Note: the SSRS assessment can be completed by the teacher, parent, and the student when appropriate.

Expertise Required to Achieve the Outcomes

The intended outcomes are based on the researchers own personal experience while working with this population of individuals. The researcher has been teaching students of varying cognitive levels with ASD for the past seven years. It is through professional experience of teaching students with ASD that it was determined that there is typically not just one intervention/strategy that works all the time for all individuals. What has also been determined is that at times it is necessary to be able to think outside of the box. To be willing to try and come up with new ways of helping the individuals you are working with. Game-based play is not new however; it is typically reserved for younger children. It was determined through the integration of games with social skills training as a way to reach a common ground with the participants.

There are some interventions that may require training before beginning the implementation process. The inclusion of games to social skills training does not require any formal training or expertise. All that is need is the flexibility to try new things. If the originally planned activity isn't working try something else. Also, even great games can get boring after a while, always have a few optional available. Possibly most important, given the population, ask the individuals what games they would like to play. The participants were able to have a voice which gave them a feeling of empowerment and ownership.

Suggested Timeline

The sessions should take place two times each week with each session lasting two hours. Given this type of intervention and extending it to individuals of other ability levels it is difficult to determine an exact timeline. It is suggested that the least amount of time would be twelve weeks, given that the model would include same aged individuals but who also may have other

disabilities as well as ASD, are at a much lower level of cognitive ability, and are non-verbal, a longer timeline may be required.

As with any type of program where there are different groups and ability levels of individuals involved during different periods of time it is difficult to pinpoint a timeline. Much depends on the individuals involved and how well they are progressing in the time suggested.

Documentation of Process

The process will be documented through the implementation of the Social Skills Rating System (SSRS) assessment which will be administered before, during, and after the intervention has been completed. “The Social Skills Rating System is a norm-referenced rating scale comprised of three separate rating forms for teachers, parents, and students.” (Demaray et al., 1995, p 658). The purpose of the SSRS to help professionals with the screening and classifying process of children suspected of having significant social behavior difficulties. The SSRS is also intended to serve as an aid in the development of appropriate interventions for individuals identified as needing social skills support.

The completion of the SSRS before the play based social skills intervention would provide a baseline data point to determine the pre-intervention skills of the individuals. The completion of the SSRS during the games based intervention would provide data to compare to the baseline data to determine whether the progress is being made. For example, at the conclusion of the game- based intervention the SSRS would be completed a final time to compare all three data collections to determine the level of success of the program and to make possible future recommendations.

Plan for Collaboration

Although the model will be conducted independently by the researcher, it would be beneficial to collaborate with the teachers of the individuals, especially if this was to become a school based model. It would also be helpful to collaborate with the individuals parents to obtain information related to which skills they would like for their child to be more proficient. Also, by collaborating with both teachers and parents this allows for a way to bring both groups of individuals together for the benefit of the child needing the intervention. By wanting input from both groups of people this opens the door for positive communication among those who are most familiar with the student and who have determined what their needs are in both environments.

Method for Determination of Achieved Goals

The goal of the pilot program will be integration of play into social skills training, there will be positive results determined through administration of the SSRS before, during, and after social skills training to determine whether there is any change in social skills capability. The SSRS was used to evaluate social skills abilities and changes before, during, and after the intervention process. The SSRS was completed by parents, teachers, and the student when appropriate.

Summary

Limited social skills ability can be problematic to individuals with ASD regardless of their level of functioning. The challenge of limited social skills is one that can be a lifelong struggle if adequate skills are not obtained and maintained by the person with ASD. Regardless of whether the individual is at a high level of cognitive ability or is functioning at a

lower level of cognitive ability there is still the need for acceptable social skills which are part of daily functioning skills. Although the characteristics of ASD vary from one individual to another, common among all individuals with ASD are “deficits in the areas of communication, socialization, behavior and other life skills” (Banda, Matuszny, and Turkan, 2007, p. 47).

The key element of the pilot program was to integrate game-based strategies as part of social skills training for individuals who are middle school aged and beyond and who have ASD and/or other disabilities. As the individuals age there is a tendency to move away from including play as part of the intervention process. During the pilot program the main component that encouraged interactions and involvement among the participants was the element of game-based play strategies through the playing of board games during social skills instruction. I concluded that play based interventions are not only useful when working with younger children but, play based interventions are appropriate and can be very effective for older children/teenagers, and beyond.

The problem of practice that was addressed was the need for game-based play to be included in social skills training for individuals with ASD and/or other disabilities and cognitive functioning ability. Based on the outcomes of the pilot, social skills program, it was determined that the inclusion of game-based strategies with non-elementary aged individuals is not only appropriate but that it was a successful addition to social skills training during the pilot program. Play is universal; it is something that doesn't need to be limited to age or ability. Games can be integrated into a variety of situations, the possibilities are endless.

The games based social skills strategies were implemented during the pilot program which lasted eight weeks. The sessions took place two times each week with each session

lasting two hours. The process was be documented through the implementation of the Social Skills Rating System (SSRS) assessment which will be administered before, during, and after the intervention has been completed. The expected outcome of the model is to provide an effective social skills intervention for individuals with ASD but also one that is accessible to individuals of various cognitive levels of functioning.

CHAPTER THREE

Goals of the Pilot Program

For the purposes of this Dissertation in Practice, the pilot program was be addressed in terms of the process and outcomes. The goal of the pilot program was to limit the regression of social skills during the summer break from school. The target population was middle school students with ASD who are very high functioning. The intervention took place over an eight week period of time. During that time there were two sessions each week which lasted for two hours each. The expected outcome was that through the small group summer sessions there would be less regression of social skills, compared to the same type of students not participating in a summer program. It was also anticipated that rather than regression of social skills, the participants would instead gain increased social skill ability. As a result of improved social skill ability it was projected that for some individuals this would also reduce adverse behavior. Many individuals who have difficulty in the area of social skills can become frustrated and may demonstrate this frustration by exhibiting negative behavior.

Target Audience

The target audience for the pilot was middle school students with high functioning ASD. The target population was also individuals with high functioning ASD and who did not have any other known disabilities. The participants were all receiving the educational instruction in a public school environment and they were included in general education classes for all of their academic course work. They were only attending one special education class per day which was in the area of social skills.

It was expected that the participants would benefit from the pilot program through the continuation of social skills instruction throughout the summer break from school. The goal was that through the continuation of social skills training during the summer break from school that there would be less chance of the participants experiencing regression of social skills during the summer break. It was also an anticipated outcome that through the continued social skills training the individuals participating in the model could, instead of regressing, possibly show an increase in social skills compared to the same population of individuals who did not participate in the pilot program.

Anticipated Changes in Performance

The anticipated change in performance was not only to limit the regression of social skills but that through ongoing social skill training there could possibly be an increase in their social skills ability. It was also predicted that as a result of the small number of individuals attending the model they would each receive more individualized direct instruction than is possible when there are larger numbers of individuals within the group.

As a result of the small number of participants in the pilot program it was projected that the participants would become more socially confident which in turn could result in higher levels of self-esteem, for certain individuals. Another hoped for result was for the participants to become more flexible and willing to compromise when others have a differing point of view from theirs. Not that they were expected to change their point of view, but that they would be more open to listening to others ideas and expect that their thoughts/ideas may not be the only acceptable ones. Being able to come to this realization would not only be helpful as they progress through their education but also for future employment possibilities.

Developed Skills

During the course of the eight weeks that the pilot took place the participants developed skills in a few different areas. One of the participants who tended to be very abrasive with his comments to and about another of the participants became more respectful of her feelings. Although he was aware all along that his comments were rude and hurtful he didn't seem to care, it just didn't matter to him. It was through the two times per week very small group sessions that he started to realize that she was a nice person that they actually had things that they liked and disliked in common. Possibly the biggest insight for him was that he realized how similar to himself the other individual really was.

Of course, this realization didn't become apparent to him initially. When they arrived for the first session neither knew the other was going to be there. When they saw each other there was an immediate tension in the atmosphere. Each was less than happy knowing the other was going to be there; one of the individuals even expressed the desire to leave and not return.

During the first couple of sessions the participants didn't want to be in the same room together. One, because of past experiences of being teased and the other just because he didn't like the other participant, although he could not explain why he didn't like her other than that he thought she acted like a baby. In this the atmosphere it quickly became apparent that the initial thought of conducting discussion centered social skills training was most likely not going to work very well; which resulted in a shift in plans. There had to be a way to bring them together to a common ground. Not being exactly sure what would work and what wouldn't it was necessary to be prepared with a few different options of how to get them to be able to be together

and reduce the tension between them. It was necessary to find something that would allow them to, hopefully, be able to eventually interact with each other in a positive manner.

Changed Attitudes

It was through the inclusion of playing board games that they began to engage with each other in a positive manner. Initially, a game was brought out and one of the individuals engaged in the playing of the game while the other individual sat and watched from across the room. It was during these early interactions that they began to communicate in a positive manner, although it was from across the room from each other. By the third session the individual who had been sitting across the room was now sitting at the same table as the other participant.

Although she did not initially participate in playing the game she was joining in the conversation and verbally participating in the game. As time went on they were both actively engaged in the game playing at the same time. They began talking to each other during the playing of the games, initially the conversations were about the game being played, as time went on they started to talk about other things and realized they had quite a bit in common, and they even started to joke with each other. They were actually having fun together. They even started planning which games they wanted to play during the next sessions.

Measurement Tools

The measurement tool used to collect data based on the individual's social skills was the Social Skills Rating System (SSRS). The SSRS was developed and designed by Frank M. Gresham, PhD and Stephen N. Elliott, PhD. "The SSRS provides a broad, multirater assessment of student social behaviors that can affect teacher-student relations peer acceptance and academic performance" (Gresham & Elliot, 1990, p. 1). The SSRS is available for various levels of

individuals from K through 6, and grades 7 through 12. There are three different versions of the rating forms; they include teacher, parent, and student versions. The information gathered from the rating forms can also be used to design an intervention plan for the individual. The SSRS is appropriate for both individuals with and without disabilities. It can be used to suggest important social behaviors and suggest possible interventions.

The SSRS consists of three domains: social skills, problem behaviors, and academic competence. “Although the SSRS assesses social skills most comprehensively, it also measures problem behaviors that might interfere with the acquisition or performance of important social skills” (Gresham & Elliot, 1990, p. 2). Academic competence is examined since poor academic performance and social behavior problems quite frequently occur simultaneously. “Collectively, knowledge of the level of functioning in all three domains is helpful in hypothesizing about the causes of social skills problems” (Gresham & Elliot, 1990, p. 2). This information can be significant when planning interventions related to social skills challenges.

Activities

The activities were a variety of commercially available board games that could be purchased at most department type stores. They were games that could be played by two or more players. Most of the games were the type that didn't require a tremendous amount of time to play to completion. There were a few reasons for this; the sessions were limited to two hours, to avoid the participants becoming bored with the game, and to allow for the game to finish and for there to be an opportunity for the individuals to communicate with each other and make decisions/compromise about which game to play next. There was always a choice of five to six games for the participants to choose from.

Indication of Achieved Goals

The determination of whether the anticipated goals achieved was accomplished by comparing the initial or baseline SSRS to the one completed at the end of the eight week session or the final SSRS. Overall the results indicated that there were improvements in the areas of social skills, problem behaviors, and academic competence. “Items include “Starts conversations rather than waiting for someone to talk first,” for example. Items were rated as “Never,” “Sometimes,” or “Very Often”. Derived by factor analysis, the SSRS provides standards scores along the dimensions of Social Skills and Problem Behaviors with a mean of 100 and a standard deviation of 15. Higher score on the Social Skills Scale reflect better social functioning, whereas lower scores on the Problem Behaviors Scale suggest better behavioral functioning” (Laugeson, et al., 2012, p 1027). The main area of social skills is separated into: cooperation, assertion, and self-control. The main area of problem behaviors is divided into the separate areas of; externalizing problem behaviors and internalizing problem behaviors. Table 3 illustrates the comparisons of the baseline and final assessment data which describes the changes experienced by the participants.

Table 3: Baseline and final assessment results of SSRS

Participant 1	Participant 2
<p><u>Social Skills:</u> Overall baseline score: 21 Final assessment score: 44 Behavior Level: Baseline score: fewer Final assessment score: average Standard Score: Increased from 66 to 98</p>	<p><u>Social Skills:</u> Overall baseline score: 12 Final assessment score: 32 Behavior Level: Baseline score: fewer Final assessment score: average Standard Score: Increased from 55 to 80</p>
<p><u>Problem Behaviors:</u> Baseline total score: 22 Final assessment score: 12 Behavior Level: Baseline score: more Final assessment score: one area stayed the same and one area decreased Standard Score: Decreased from 142 to 122</p>	<p><u>Problem Behaviors:</u> Baseline total score: 19 Final assessment score: 12 Behavior Level: Baseline score: more Final assessment score: average Standard Score: Decreased from 137 to 117</p>
<p><u>Academic Competence:</u> Baseline rating total score: 25 Final assessment rating total score: 27 Baseline competence level: below average Final assessment competence level: below average Standard Score: Baseline score: 82 Final assessment score: 85</p>	<p><u>Academic Competence:</u> Baseline rating total score: 26 Final assessment rating total score: 27 Baseline competence level: average Final assessment competence level: average Standard Score: Baseline score: 83 Final assessment score: 91</p>

Explanation of Table

Participant 1:

Social Skills

In the area of social skills, based on the Raw Score Means and Standard Deviations for Social Skills Subscales and Total Scale-Teacher Rating for Female Students Grades 7-12, the average Mean Score is 40.8. Participant 1 had a score of 21 during baseline assessment which increased to 44 at the final assessment. The total social skill behavior levels which is based on

the Behavior Levels Corresponding to Subscale and Total Scale Raw Scores, consists of the subcategories of cooperation, assertion, responsibility, empathy, and self-control, are rated as, Fewer 0-34, Average 35-55, and More 56-60. During the baseline assessment there was a score of Fewer (21) which increased to Average (44) during the final assessment. Using a 68% Confidence Level with a Standard Error of Measurement (SEM) of +/- 4, the Standard score increased from 66 with a < 2 Percentile Rank to 98 with a > 45 Percentile Rank. Based on the Standard Score of 66 during baseline assessment and 98 during the final assessment, this resulted in a Confidence Band (standard score) of 66 to 98

Problem Behaviors

In the area of Problem Behaviors for Girls grades 7-12 the subcategories are, externalizing and internalizing. Problem behaviors are scored as follows: Fewer (0-1), Average (2-9), and More (10-24). During baseline problem behavior was scored as More (22) during the final assessment although still in the More category the problem behavior had decreased to 12. Using a 68% Confidence Level with a Standard Error of Measurement (SEM) of +/- 6, the Standard score decreased from 142 with a > 98 Percentile Rank to 122 with a > 93 Percentile Rank. Based on the Standard Score of 66 during baseline assessment and 98 during the final assessment, this resulted in a Confidence Band (standard score) of 142 to 122.

Academic Confidence

Academic Confidence is rated based on the following scales: Below (9-27), Average (28-43), and Above (44-45). There are no subcategories in the Academic Confidence section. The baseline total rating score was Below (25) increased to 27 although stayed in the same category of Below. Using a 68% Confidence Level with a Standard Error of Measurement (SEM) of +/-

3, the Standard score increased from 82 with a Percentile Rank of 12 to 85 a Percentile Rank of 16. Based on the Standard Score of 66 during baseline assessment and 98 during the final assessment, this resulted in a Confidence Band (standard score) at baseline of 79 to 85 and was 82 to 85 at the final assessment.

Participant 2:

Social Skills

In the area of social skills, based on the Raw Score Means and Standard Deviations for Social Skills Subscales and Total Scale-Teacher Rating for Male Students Grades 7-12, the average Mean Score is 39.4. Participant 2 had a score of 12 during baseline assessment which increased to 32 at the final assessment. The total social skill behavior levels which is based on the Behavior Levels Corresponding to Subscale and Total Scale Raw Scores, consists of the subcategories of cooperation, assertion, responsibility, empathy, and self-control, are rated as, Fewer 0-29, Average 30-50, and More 51-60. During the baseline assessment there was a score of Fewer (12) which increased to Average (32) during the final assessment. Using a 68% Confidence Level with a Standard Error of Measurement (SEM) of +/- 4, the Standard score increased from 55 with a < 2 Percentile Rank to 89 with a 23 Percentile Rank. Based on the Standard Score of 55 during baseline assessment and 89 during the final assessment, this resulted in a Confidence Band (standard score) at baseline of 55 to 89 during the final assessment.

Problem Behaviors

In the area of Problem Behaviors for Boys grades 7-12 the subcategories are, externalizing and internalizing. Problem behaviors are scored as follows; Fewer (0-1), Average (2-11), and More (12-24).). During baseline problem behavior was scored as More (19) during the final

assessment although still in the More category the problem behavior had decreased to 12. Using a 68% Confidence Level with a Standard Error of Measurement (SEM) of +/- 6, the Standard score decreased from 137 with a > 98 Percentile Rank to 117 with a 87 Percentile Rank. Based on the Standard Score of 137 during baseline assessment and 117 during the final assessment, this resulted in a Confidence Band (standard score) of 137 to 117.

Academic Confidence

Academic Confidence is rated based on the following scales; Below (9-23), Average (24-41), and Above (42-45). There are no subcategories in the Academic Confidence section. The baseline total rating score was Below (26) this increased to 27 although stayed in the same category of Below. Using a 68% Confidence Level with a Standard Error of Measurement (SEM) of +/- 3, the Standard score increased from 83 with a Percentile Rank of 13 to 91 with a Percentile Rank of 27. Based on the Standard Score of 83 during baseline assessment and 91 during the final assessment, this resulted in a Confidence Band (standard score) at baseline was 80 to 86 and was 88 to 94 at the final assessment.

Anticipated Impact of Pilot Program

The anticipated impact of the pilot program is an increase in the social skills ability for a variety of populations with social skill deficits. The pilot program is such that it can easily be modified to meet the needs of a variety of individuals as well as varying age groups of individuals. Through the anticipated increase in social skills there would also be the benefit of less/no regression of social skills. Because some individuals who have social skills difficulties express their frustration through adverse behavior, it is also anticipated that for some individuals there may also positive impacts on behavior. The pilot program, although the concept is very

straightforward and uncomplicated, can have a very positive impact for individuals with social skills limitations.

Modification of the Pilot Program

The pilot program was such that it could be easily modified to meet the needs of the participants as well as their interests. The choices of board games changed from one session to the next. However, there were a few games that were favorites and as a result were usually among the choices during any given session.

Although the pilot program incorporated activities of interest and for the ability level of the participants attending the sessions, the activities can be easily modified to meet the needs of a variety of ability levels of individuals. The participants were middle school aged individuals with high functioning ASD and who are verbal. The activities could easily be changed to be appropriate for; older individuals, non-verbal individuals, participants with lower cognitive functioning ability, those who may not have ASD, and for individuals who have ASD as well as other disabilities.

Supporting Research

“Given that students with autism may have deficits in verbal language and social interactions, traditional forms of teaching may not be the best method for social skills instruction; play therapy may be one of the many ways to reach the individual with autism” (Parker and O’Brien, 2011, p 80). “Play therapy can be an appropriate intervention in working with individuals with autism especially when working with individuals who have little in the way of social skills or poor communication” (Parker and O’Brien, 2011, p. 80).

The inclusion of play in the form of games can be a naturalistic way to “form the foundation for building children’s relationships with their parents, teachers, and peers” (Webster-Stratton and Reid, 2010, p. 247). The importance of increased social skills can also have an impact in other areas for the individual. With increased social ability there may also be “reduced social anxiety as well as increased social interactions with peers” (Coplan, Schneider, Matheson, and Graham, 2010, p. 231). As a result of decreased levels of social anxiety there may also be an “increase in feelings of self-confidence which may provide the individual with coping skills to manage feelings” (Webster-Stratton and Reid, 2010, p. 266). “Play is a critical intervention for individuals with autism because it sets the occasion for social interactions and communication with peers, caregivers, teachers, and provides an authentic context for embedding a variety of instructional opportunities” (Barton and Pavilanis, 2012, p. 6).

Summary

The goal of the pilot program was to limit the regression of social skills during the summer break from school. The target population was middle school students with ASD who are very high functioning. It was also anticipated that rather than regression of social skills, the participants would instead gain increased social skill ability. The anticipated change in performance was not only to limit the regression of social skills but that through ongoing social skill training there could possibly be an increase in their social skills ability. Another anticipated outcome was for the participants to become more flexible and willing to compromise when others have a differing point of view from theirs. It was through the inclusion of game-based strategies that participants began to engage with each other in a positive manner.

The measurement tool used to collect data based on the individual's social skills was the Social Skills Rating System (SSRS). The SSRS was developed and designed by Frank M. Gresham, PhD and Stephen N. Elliott, PhD. The SSRS is available for various levels of individuals from K through 6, and grades 7 through 12. There are three different versions of the rating forms; they include teacher, parent, and student versions. The SSRS consists of three domains: social skills, problem behaviors, and academic competence. This information can be significant when planning interventions related to social skills challenges.

The activities were a variety of commercially available board games that could be purchased at most department type stores. There was always a choice of five to six games for the participants to choose from. The pilot program was such that it could be easily modified to meet the needs of the participants as well as their interests. Although the pilot program incorporated activities of interest and for the ability level of the participants attending the sessions the activities can be easily modified to meet the needs of a variety of ability levels of individuals.

The anticipated impact of the pilot program was an increase in the social skills ability for a variety of populations with social skill deficits. The inclusion of game-based play can be a naturalistic way to “form the foundation for building children's relationships with their parents, teachers, and peers” (Webster-Stratton and Reid, 2010, p. 247). “Play is a critical intervention for individuals with autism because it sets the occasion for social interactions and communication with peers, caregivers, teachers, and provides an authentic context for embedding a variety of instructional opportunities” (Barton and Pavilanis, 2012, p. 6).

CHAPTER FOUR

How the Program Prepared Me to Complete the Dissertation in Practice

As a practicing educator the Doctor of Education (Ed.D.) program prepared me to complete the dissertation in practice through the expertise and guidance provided by University of Central Florida scholars, practical and applicable core and specialization coursework, and of course the friendship and support of the other individuals in the cohort. The content of the coursework classes taught me how to understand the different types of organizational contexts, identify the appropriate methods of data collection for different situations, as well as how to evaluate the different types of data, and to identify the various stakeholders.

During the Ed.D. program I identified a problem of practice, which later developed into a model related to the solution for my identified problem of practice. The problem identification and progress toward a solution were later addressed through two separate Labs of Practice. The first Lab of Practice, although my placement did not result with much that was actually applicable to my identified problem of practice, was a very rewarding experience and one that I may not have otherwise had the opportunity to experience. I spent the summer at a very small private school for special needs children during their summer camp program. I was hoping to observe and contribute to their social skills instruction but as it turned out their summer program was although fun was somewhat unorganized. The second Lab of Practice was also very rewarding and since the participants were my students at that time it allowed me to work more extensively with them on a more one to one basis. This Lab of Practice also became my social skills pilot program in which I provided social skills training to some of my students during the summer break from school. During this time we met two times per week for two hours each

session over the course of eight weeks. It was very satisfying to be able to provide my students with the more extensive social skills training that they needed which was more limited during the school year because of time constraints and the number of students in my classes.

The two Labs of Practice and continued coursework toward the dissertation culmination prepared me to take a much more in depth look, not only into my identified problem of practice, but also how and what I proposed as a way to solve the problem I identified. Courses such as Organizational Theory in Education, made me much more aware of the sociological and behavioral theories that can be applied to a variety of educational organizations. Courses that were that concentrated on data such as: Data, Assessment and Accountability, Analysis of Data for Complex Problems of Practice, and Proposing and Implementing Data-Driven Decisions, improved my understanding of how to analyze data for the purpose of understanding outcomes and making ethical decisions based on the data obtained through research, has caused me to determine when qualitative or quantitative data collection is appropriate, evaluate problems of practice and, to acquire knowledge of how to identify and propose a solution for a problem of practice.

From the beginning of the Ed.D. program until now I've had to rethink exactly how I was going to address my problem of practice. I had identified a rather broad topic as my problem of practice and then had to determine how best to condense it into one that was more manageable but still addressed the problem I identified. The coursework within the Ed. D. program equipped me with the knowledge, understanding, and confidence to identify and resolve my identified problem of practice and the skills required to work toward a solution.

Implication of the Pilot

My implication of the pilot program is that the addition of game playing to social skills training can be a positive non-threatening way to provide social skills training for individuals with ASD who have social skills deficits. The implementation of game-based strategies can be a way this population of individuals to learn appropriate social engagement skills without appearing that the main focus is the game playing. Although the actual social skills training is the main focus, the game playing appears to be the focal point which can also help make the experience less intimidating and hopefully would result with more positive outcomes for the individuals participating in the sessions.

Because the inclusion of game playing during social skill training can be so easily adapted to meet the needs of a wide range of individuals, it can also be an appropriate form of social skills instruction for diverse populations and ability levels of a wide range of individuals. One of the key factors is to determine the participants' interests and to obtain or create games that they will want to be engaged in. Game playing should be fun and what better way for participants to learn new skills then while they're having fun doing it.

Recommendations for Further Research

Although the results of my pilot program were positive the small sample size could certainly be a notable limitation. As a result it would be my recommendation that further research be conducted by implementing a model with a similar sample of participants, as far as age and ability level, but with a larger number of individuals participating in the program. Ideally, future studies should examine larger, well-characterized samples to compare ASD subgroups: Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder-Not

Otherwise Specified. After the completion of several separate programs and should the results continue to be positive it would be an appropriate time to document the findings to examine maintenance of social skills after the intervention is completed.

Another recommendation could be to contact individuals within the educational system and inform them of the research that was conducted and to provide the results for that were obtained for this population of individuals. This could lead to the opportunity to offer and provide professional development experiences for individuals within the educational system who are involved in educating similar populations of individuals.

The Ed. D. program, due to the extensive coursework, has not only prepared me to be a better educator in general but has also made me to look beyond the surface of a situation, collection of data or, an organization as a whole. The coursework of the program has helped me to understand the importance of analyzing both positive and negative outcomes of research and to identify how those outcomes can be applied to future research. I experienced firsthand that not all problems will be straight forward and may not be easily solved.

Although this journey was challenging for me at times it is one that it has been a life experience that I will always be proud of. The Ed. D. program has not only helped me grow professionally but also personally.

APPENDIX A: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board
 Office of Research & Commercialization
 12201 Research Parkway, Suite 501
 Orlando, Florida 32826-3246
 Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1
FWA00000351, IRB00001138**

To: **Joan Fenaughty**

Date: **June 27, 2013**

Dear Researcher:

On 6/27/2013 the IRB approved the following human participant research until 6/26/2014 inclusive:

Type of Review: Submission Correction for UCF Initial Review Submission Form
 Expedited Review

Project Title: Social Skills Summer Program

Investigator: Joan Fenaughty

IRB Number: SBE-13-09390

Funding Agency:

Grant Title:

Research ID: n/a

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 6/26/2014, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Patria Davis on 06/27/2013 04:56:00 PM EDT

IRB Coordinator

APPENDIX B: IRB EXTENDED APPROVAL LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
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www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1
FWA00000351, IRB00001138**

To: **Joan Fenaughty**

Date: **June 13, 2014**

Dear Researcher:

On 6/13/2014, the IRB approved the following human participant research until 6/12/2015 inclusive:

Type of Review: IRB Continuing Review Application Form
Project Title: Social Skills Summer Program
Investigator: Joan Fenaughty
IRB Number: SBE-13-09390
Funding Agency:
Grant Title:
Research ID: n/a

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 6/12/2015, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

IRB Coordinator

APPENDIX C: SOCIAL SKILLS RATING SYSTEM (SSRS)

Frank M. Gresham, PhD, and Stephen N. Elliott, PhD

Directions

This questionnaire is designed to measure **how often** a student exhibits certain social skills and **how important** those skills are for success in *your* classroom. Ratings of problem behaviors and academic competence are also requested. First, complete the information about the student and yourself.

Student Information

Student's name _____ Date _____
First Middle Last Month Day Year

School _____ City _____ State _____

Grade _____ Birth date _____ Sex: Female Male
Month Day Year

Ethnic group (optional)

Asian Indian (Native American)
 Black White
 Hispanic Other _____

Is this student handicapped? Yes No

If handicapped, this student is classified as:

Learning-disabled Mentally handicapped
 Behavior-disordered Other handicap (specify) _____

Teacher Information

Teacher's name _____ Sex: Female Male
First Middle Last

What is your assignment:

Regular Resource Self-contained Other (specify)

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17 18 19 20 21 22 23 24 A B C D E

Product Number 3416

Next, read each item on pages 2 and 3 (items 1–42) and think about this student’s behavior during the past month or two. Decide **how often** the student does the behavior described.

- If the student **never** does this behavior, circle the **0**.
- If the student **sometimes** does this behavior, circle the **1**.
- If the student **very often** does this behavior, circle the **2**.

For items 1–30, you should also rate **how important** each of these behaviors is for success in *your* classroom.

- If the behavior is **not important** for success in your classroom, circle the **0**.
- If the behavior is **important** for success in your classroom, circle the **1**.
- If the behavior is **critical** for success in your classroom, circle the **2**.

Here are two examples:

	How Often?			How Important?		
	Never	Sometimes	Very Often	Not Important	Important	Critical
Shows empathy for peers.	0	1	2	0	1	2
Asks questions of you when unsure of what to do in schoolwork.	0	1	2	0	1	2

This student very often shows empathy for classmates. Also, this student sometimes asks questions when unsure of schoolwork. This teacher thinks that showing empathy is important for success in his or her classroom and that asking questions is critical for success.

Please do not skip any items. In some cases you may not have observed the student perform a particular behavior. Make an estimate of the degree to which you think the student would probably perform that behavior.

FOR OFFICE USE ONLY How Often?			Social Skills			How Often?			How Important?		
C	A	S	Never	Sometimes	Very Often	Not Important	Important	Critical			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
			0	1	2	0	1	2			
C	A	S	SUMS OF HOW OFTEN COLUMNS								

FOR OFFICE
USE ONLY
How Often?

Social Skills (cont.)

C	A	S		How Often?			How Important?		
				Never	Sometimes	Very Often	Not Important	Important	Critical
			16. Acknowledges compliments or praise from peers.	0	1	2	0	1	2
			17. Easily makes transition from one classroom activity to another.	0	1	2	0	1	2
			18. Controls temper in conflict situations with peers.	0	1	2	0	1	2
			19. Finishes class assignments within time limits.	0	1	2	0	1	2
			20. Listens to classmates when they present their work or ideas.	0	1	2	0	1	2
			21. Appears confident in social interactions with opposite-sex peers.	0	1	2	0	1	2
			22. Invites others to join in activities.	0	1	2	0	1	2
			23. Controls temper in conflict situations with adults.	0	1	2	0	1	2
			24. Ignores peer distractions when doing class work.	0	1	2	0	1	2
			25. Stands up for peers when they have been unfairly criticized.	0	1	2	0	1	2
			26. Puts work materials or school property away.	0	1	2	0	1	2
			27. Appropriately tells you when he or she thinks you have treated him or her unfairly.	0	1	2	0	1	2
			28. Gives compliments to members of the opposite sex.	0	1	2	0	1	2
			29. Complies with your directions.	0	1	2	0	1	2
			30. Responds appropriately to peer pressure.	0	1	2	0	1	2
C	A	S	SUMS OF HOW OFTEN COLUMNS						

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USE ONLY
How Often?

Problem Behaviors

E	I		How Often?		
			Never	Sometimes	Very Often
		31. Likes to be alone.	0	1	2
		32. Fights with others.	0	1	2
		33. Is easily embarrassed.	0	1	2
		34. Argues with others.	0	1	2
		35. Threatens or bullies others.	0	1	2
		36. Talks back to adults when corrected.	0	1	2
		37. Has temper tantrums.	0	1	2
		38. Appears lonely.	0	1	2
		39. Gets angry easily.	0	1	2
		40. Shows anxiety about being with a group of children.	0	1	2
		41. Acts sad or depressed.	0	1	2
		42. Has low self-esteem.	0	1	2
E	I	SUMS OF HOW OFTEN COLUMNS			

Do not make
importance ratings
for items 31-42

Go on to
Page 4. →

Academic Competence

The next nine items require your judgments of this student's academic or learning behaviors as observed in your classroom. Compare the student with other children who are in the same classroom.

Rate all items using a scale of 1 to 5. Circle the number that best represents your judgment. The number 1 indicates the lowest or least favorable performance, placing the student in the lowest 10% of the class. Number 5 indicates the highest or most favorable performance, placing the student in the highest 10% compared with other students in the classroom.

FOR OFFICE USE ONLY		Lowest 10%	Next Lowest 20%	Middle 40%	Next Highest 20%	Highest 10%
	43. Compared with other children in my classroom, the overall academic performance of this child is:	1	2	3	4	5
	44. In reading , how does this child compare with other students?	1	2	3	4	5
	45. In mathematics , how does this child compare with other students?	1	2	3	4	5
	46. In terms of grade-level expectations, this child's skills in reading are:	1	2	3	4	5
	47. In terms of grade-level expectations, this child's skills in mathematics are:	1	2	3	4	5
	48. This child's overall motivation to succeed academically is:	1	2	3	4	5
	49. This child's parental encouragement to succeed academically is:	1	2	3	4	5
	50. Compared with other children in my classroom this child's intellectual functioning is:	1	2	3	4	5
	51. Compared with other children in my classroom this child's overall classroom behavior is:	1	2	3	4	5
AC	SUMS OF COLUMN	Stop. Please check to be sure all items have been marked.				

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SUMMARY					
SOCIAL SKILLS		PROBLEM BEHAVIORS		ACADEMIC COMPETENCE	
HOW OFTEN? TOTAL <small>(sums from p.2)</small>	BEHAVIOR LEVEL <small>(see Appendix A)</small>	HOW OFTEN? TOTAL <small>(sums from page 3)</small>	BEHAVIOR LEVEL <small>(see Appendix A)</small>	RATING TOTAL <small>(sum from page 4)</small>	COMPETENCE LEVEL <small>(see Appendix A)</small>
C + =	Fewer Average More	E	Fewer Average More	Total AC	Below Average Above
A + =		I			
S + =		Total (E+I)			
Total (C + A + S)					
<small>(see Appendix B)</small>		<small>(see Appendix B)</small>		<small>(see Appendix B)</small>	
Standard Score	Percentile Rank	Standard Score	Percentile Rank	Standard Score	Percentile Rank
<small>(see Appendix E)</small>		<small>(see Appendix E)</small>		<small>(see Appendix E)</small>	
SEM	Confidence Level 68% 95%	SEM	Confidence Level 68% 95%	SEM	Confidence Level 68% 95%
Confidence Band (standard scores) to		Confidence Band (standard scores) to		Confidence Band (standard scores) to	

Note: To obtain a detailed analysis of this student's Social Skills strengths and weaknesses, complete the Assessment-Intervention Record.

LIST OF REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- Baker-Brame, P. (2000). Using picture storybooks to enhance social skills training of special needs students. *Middle School Journal*, 32 (1), 41-46.
- Banda, D. & Hart, S. (2010). Increasing peer-to-peer social skills through direct instruction of two elementary schools girls with autism. *Journal of Research in Special Educational Needs*, 10(2), 124-132.
- Banda, D., Matuszny, R., & Turkan, S. (2007). Video modeling strategies to enhance appropriate behaviors in children with autism spectrum disorders. *Teaching Exceptional Children*, 39(6), 47-52.
- Baron-Cohen, S., Scott, F., Allison, C., Williams, J., Bolton, P., Matthews, F., and Brayne, (2009). Prevalence of autism-spectrum conditions: UK school-based population study. *The British Journal of Psychiatry*, 194, 500-509.
- Barton, E., and Pavilanis, R. (2012), Teaching pretend play to young children with autism. *Young Exceptional Children*, 15(1), 5-17.
- Bauminger, N., Shulman, C., & Agam, G. (2003). Peer interaction and loneliness in high-functioning children with autism. *Journal of Autism and Developmental Disorders*, 33, 489-507.
- Blanchard, B. (1950). Recent investigations of social learning. *The Journal of Educational Research*, 43(7), 507-515.

- Blumberg, S., Bramlett, M., Kogan, M., Schieve, L., Jones, J., & Lu, M. (2013). Changes in Prevalence in parent-reported autism spectrum disorder in school-aged U.S. children: 2007 to 2011-2012. *National Health Statics Report*, 65, 1-11.
- Boleman, L. and Deal, T. (2008). *Reframing organizations: artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass.
- Cameto, R., Marder, C., Wagner, M. and Cardoso, D. (2003). Youth employment. *NLTS2 Data Brief*, 2(2), 1-6.
- Cappadocia, M., & Weiss, J. (2011). Review of social skills training groups for youth with Asperper syndrome and high functioning autism. *Research in Autism Spectrum Disorders*, 5, 70-78.
- Center for Disease Control. (2012). Changes in prevalence of parent-reported autism spectrum Disorder in school-aged U.S. children: 2007 to 2011-2012, United States, 2013, 1-12.
- Coplan, R., Schneider, B., Matheson, A., & Graham, A. (2010). Play skills for shy children: development of a social skills facilitated play early intervention program for extremely inhibited preschoolers. *Infant and Child Development*, 19, 223-237.
- Demarary, M., Ruffalo, S., Carlson, J., Busse, R., Olson, A., McManus, M., & Leventhal, A. Social skills assessment: A comparative evaluation of six published rating scales. *School Psychology Review*, 24 (4), 648-671.
- Dew, D., and Alan, G. (2007). Rehabilitation of individuals with autism spectrum disorders. (Institute on Rehabilitation Issues Monograph no. 32). *Washington, DC: The George Washington University, Center for Rehabilitation Counseling Research and Education.*

- Dunn, M. E., Burbine, T., Bowers, C. A., & Tantleff-Dunn, S. (2001). Moderators of stress in parents of children with autism. *Community Mental Health Journal, 37* (1), 39-52.
- Estes, A., Rivera, V., Bryan, M., Cali, P., & Dawson, G. (2010). Discrepancies between academic achievement and intellectual ability in higher-functioning school-aged children with autism spectrum disorder. *Journal of Developmental Disorders, 41*, 1044-1052.
- Fischer-Smith, L. (1977). An experiment with play therapy. *The American Journal of Nursing, 77*(12), 1963-1965.
- Florida Department of Education (2013). Membership in programs for exceptional students, fall 2012. *Education Information & Accountability Services, Data Report, Series 2013-12D*, 1-20.
- Florida Department of Education, Bureau of Exceptional Education and Student Services (2011). Transition planning for students with disabilities: A guide for families. 1-82.
- Gantman, A., Kapp, S., Orenski, K., & Laugeson, E. (2011). Social skills training for young adults with high-functioning autism spectrum disorders: a randomized controlled pilot study. *Journal of Autism and Developmental Disorders, 42*, 1094-1103.
- Gresham, F., Sugai, G., & Horner, R. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children, 67*(3), 331-344.
- Gresham, F. and Elliott, S. (1990). Social skills rating system. Minneapolis, MN: Pearson Assessments.
- Gresham, F. (1982). Social skills instruction for exceptional children. *Exceptional Children in the Schools, 21*(2), 129-133.

- Hart, J. (2012). Navigating autism's swirling waters. *The Phi Delta Kappan*, 94(4), 24-27.
- Howlin, P. Outcomes in autism spectrum disorders. In Volar FR, Paul.
- Hughes, V. (2011). Researchers track down autism rates across the globe. *Simons Foundation Autism Research Initiative*.
- Kavale, K., and Mostert, M. (2004). Social skills interventions for individuals with learning disabilities. *Learning Disability Quarterly*, 27(1), p 31-43.
- Konstantareas, M. M., Homatidis, S., & Plowright, C. M. (1992). Assessing resources and stress in parents of severely dysfunctional children through the Clarke modification of holroyd's questionnaire on resources and stress. *Journal of Autism and Developmental Disorders*, 22(2), 217-234.
- Laugeson, E., Frankel, F., Gantman, A., Dillon, A., & 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, 1025-1036.
- Lecavalier, L., Leone, S., & Wiltz, J. (2006). The impact of behavior problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research*, 50 (Pt 3), 172-183.
- LeGoff, D., (2004). Use of LEGO as a therapeutic medium for improving social skills competence. *Journal of Autism and Developmental Disorders*, 34 (5), 557-571.
- Lerner, M., and Mikami, A. (2012). A preliminary randomized controlled trial of two social skills interventions for youth with high functioning autism spectrum disorders. *Focus on Autism an Other Developmental Disabilities*, 27(3), 147-157.

- Micheli, E., (2000). Dealing with the reality of autism: a psychoeducational program in milan, italy. *International Journal of Mental Health*, 29(1), 50-71.
- More, C. (2008). Digital stories targeting social skills for children with disabilities. *Intervention In School and Clinic*, 43(3), 168-177.
- National Organization on Disability. (2000). Employment rates of people with disabilities. Excerpted from the N.O.D./Harris 2000 survey of Americans with disabilities. Washington, DC: Louis Harris & Associates.
- National Research Council, Division of Behavioral and Social Sciences and Education, Committee on Educational Interventions for Children with Autism. (2001). *Educating children with autism*. Washington, DC: National Academy Press.
- Newschaffer, C. and Curran, L. (2003). Autism: an emerging public health problem. *Public Health Reports*, 118(5), 393-399.
- Ostmeyer, K. and Scarpa, A. (2012). Examining school-based skills program needs and barriers for students with high-functioning autism spectrum disorders using participatory action research. *Psychology in the Schools*, 49(10), 932-941.
- Parker, N., and O'Brien, P. (2011) Play therapy-reaching the child with autism. *International Journal of Special Education*, 26 (1), 80-86.
- Parsons, L. (2006). Using video to teach social skills to secondary students with autism. *Teaching Exceptional Children*, 39(2), 32-38.
- Piven, J., and Palmer, P. (1999). Psychiatric disorder and the broad autism phenotype: Evidence from a family study of multiple incidence autism families. *American Journal of Psychiatry*, 156(4), 557-563.

- Rao, P., Beidel, P., & Murray, M. (2008). Social skills interventions for children with aspergers syndrome or high functioning autism: A review and recommendations. *Journal of Autism and Developmental Disorders*, 38, 353-61.
- Reecho, B., Steiner, A., & Volar, F. (2012). Social skills groups for people aged 6 to 21 with autism spectrum disorders (asd). *Campbell Systematic Reviews*, 16, 1-76.
- Reecho, B. and Volar, F. (2010). Social skills group interventions for autism spectrum disorders in individuals aged 6 to 21 years. [Protocol].Campbell library 2010, 1-21.
- Rodman, J., Gilbert, K., Grove, A., Cunningham, M., Levenson, S., and Wajsblat, L., 2010, Efficacy of brief quantitative measures of play for screening for autism disorders. *Journal of Autism and Developmental Disorders*, 40, 325-333.
- Rogers, S. (2000). Interventions that facilitate socialization in children with autism. *Journal of Autism and Developmental Disorders*, 30(5), 399-409.
- Rogers, S. J., and Pennington, B. F. (1991). A theoretical approach to the deficits in infantile autism. *Development and Psychopathology*, 3(2), 137-162.
- Roge, B. (2000). Meeting the needs pf persons with autism: a regional network model. *International Journal of Mental Health*, 29(1), 35-49.
- Ryan, J., Hughes, E., Katsiyannis, A., McDaniel, M., & Sprinkle, C. (2011). Research-based educational practices for students with autism spectrum disorders. *Teaching Exceptional Children*, 43(3), 56-64.
- Saad, S. (2000). Implementation of an educational program for children with autism: the case of kuwait. *International Journal of Mental Health*, 29(2), 33-43.

- Schieve, L. A., Blumberg, S. J., Rice, C., Visser, S. N., & Boyle, C. (2007). The relationship between autism and parenting stress. *Pediatrics*, 119 (Suppl 1), S114-S121.
- Schumer, J., Hazel, S., Sherman, J., & Sheldon, J. (1982). Social skill performances of learning disabled, non-learning disabled, and delinquent adolescents. *Learning Disability Quarterly*, 5(4), 388-397.
- Smith, I. M., & Bryson, S. E. (1994). Imitation and action in autism: A critical review. *Psychological Bulletin*, 116, 259-273.
- Stapleton, D. and Burkhauser, R. (2003). The decline in employment of people with disabilities: A policy puzzle. *Kalamazoo, MI: W. E. Upjohn Institute for Employment Research*.
- Stichler, J., Herzog, K., Visovsky, K., Schmidt, C., Randolph, J., Schultz, T., Gage, N. (2010). Social competence intervention for youth with asperger syndrome and high-functioning autism: An initial investigation. *Journal of Autism and Developmental Disorders*, 40, 1067-1078.
- Sun, X., Allison, C., Auyeung, B., Baron-Cohen, S., & Brayne, C. (2012). A review of healthcare service and education provision of autism spectrum condition in mainland china. *Research in Developmental Disabilities*, 34, 469-479.
- Tomaino, R. (2011). Roses for autism. *The Exceptional Parent*, 41(4) 32-33.
- Trice-Black, S., Bailey, S., Riechel, C., & Kiper, M. (2013). Play therapy in school counseling. *Professional School Counseling*, 16(5), 303-318.

- Tse, J., Strulovitch, J., Tagalakis, V., Meng, L., & Fombonne, E. (2007). Social skills training for adolescents with asperger syndrome and high-functioning autism. *Journal of Autism and Developmental Disorders*, 37, 1960-1968.
- U.S. Department of Education, Free and Appropriate Public Education, 34 CFR Part 104.
- Webster-Stratton, C., and Reid, M. (2010). Parents, teachers, and therapists using child-Directed play therapy and coaching: skills to promote children's social and emotional Competence and build positive relationships. Washington, DC: American Psychological Association, 245-273.
- Weiss, M. J. (2002). Hardiness and social support as predictors of stress in mothers of typical children, children with autism, and children with mental retardation. *Autism*, 6(1), 115-130.
- Westbrook, J., Nye, C., Wendt, O., Fong, C., Williams, A., and Cortopassi, T. (2012). Pre-graduation transition services for persons with autism spectrum disorders: Effects on employment outcomes. *The Campbell Collaboration*, 1-31.
- White, S., Koenig, K., Schail, L. (2007). Social skills development in children with autism spectrum disorders: A review of the intervention research. *Journal of Autism and Developmental Disorders*, 37, 1858-68.
- White, S., Koenig, K., Scahill. (2010). Group social skills instruction for adolescents with high-functioning autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 25(4), 209-219.
- White, S., Roberson-Nay, R. (2009). Anxiety, social deficits, and loneliness in youth with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 39, 1006-1013.

- Wong, V. and Kwon, Q. (2010). Randomized controlled trial for early intervention for autism: A pilot study of the autism 1-2-3 project. *Journal of Autism and Developmental Disorders*, 40, 677-688.
- Yirmiya, N., & Shaked, M. (2005). Psychiatric disorders in parents of children with autism: A meta-analysis. *Journal of Child Psychology and Psychiatry*, 46(1), 69-83.