

INCREASING SOCIAL COMPETENCE IN THE SPECIAL EDUCATION  
POPULATION: AN EVALUATION OF A SUMMER PROGRAM

A DISSERTATION

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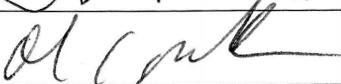
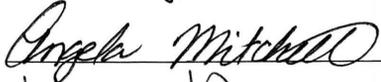
To the Dean of the Graduate School:

I am submitting herewith a dissertation written by Amber Larue entitled "Increasing Social Competence in the Special Education Population: An Evaluation of A Summer Program." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in School Psychology.



Kimberly Booker, Major Professor

We have read this dissertation and recommend its acceptance:



Department Chair

Accepted:



Dean of the Graduate School

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## ABSTRACT

AMBER LARUE

### INCREASING SOCIAL COMPETENCE IN THE SPECIAL EDUCATION POPULATION: AN EVALUATION OF A SUMMER PROGRAM

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The purpose of this dissertation was to evaluate a summer social skills program to determine if it increased social competency in the special education population. The study included twenty students who participated in the pilot summer social skills program for eight weeks, two times a week. Pretest and posttest measures of parents, teachers, and students were used to determine increases in social communication, social engagement, social proximity, and perspective-taking behaviors. Qualitative data from posttest interviews was also used to determine increases in social competence. Although there was no statistical significance in the increase of the social skill behaviors, an analysis of the results reported by parents, teachers, and students indicate that the program did increase social competence in the areas of social communication, social engagement, social proximity, and perspective –taking behaviors, as well as global social competence. Students who participated in the study were also indicated to have increased in self-confidence and reported it was easier to make friends.

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## CHAPTER I

### INTRODUCTION

*Interviewer: "Is making friends hard or easy for you?"*

*8-year-old participant: "It's kinda complicated."*

*Interviewer: "What's complicated about it?"*

*8-year-old participant: "Well, I've learned lots of social skills but still haven't learned how to make a friend."*

From the time we are born we are taught by others how to "be nice" to other people, share our toys, say "please" and "thank you," wave or say "hello" to people as we pass them. All of these behaviors have in one way or another helped us to become fully functioning human beings in the world around us. Imagine if you struggled to understand these concepts, not knowing *why* it is important to greet others politely, not understanding *how* to share or add to a social conversation, having an inability to pick up on *what* people are saying through tone of voice and facial expressions. There are populations of children and adults who struggle with building these skills over their lifetime and who fail to make friends or are unable to function in social situations. We may call them "weird," "freaks," "geeks," "unpopular," or "awkward," but really they just lack the social competence to be successful in the social environment.

Social competence is defined as the cognitive, emotional, social, and behavioral skills needed to interact and get along with others in social settings (Ylvisaker, Hibbard, & Feeney, 2006). Research indicates there are four social skill areas that impact social

competency, including social communication, social engagement, social proximity, and perspective-taking (Winner, 2007; Baker, 2003).

Social communication refers to the use of language to relate to others. This includes verbal and nonverbal communication, as well as reciprocal interactions (Winner, 2011). Social engagement refers to socialization, such as the interaction with others. This includes making social connections with others through peer play and communication (Wolfberg & Schuler, 2003). Perspective-taking is referred to as thinking about others, including recognizing that others have thoughts and motives (Winner, 2002). Lastly, social proximity is referred to as establishing one's physical presence in a social situation (Winner, 2011).

The social skill areas of social communication, social engagement, social proximity, and perspective-taking often interact with one another throughout social situations. A child must use skills within these areas in concert to be successful in the social environment. For example, a student cannot properly communicate with another unless they are socially engaged, thinking about the other person (i.e., perspective-taking), and in appropriate proximity of the person of whom they wish to communicate.

The need to possess a combination of social skills to be socially competent poses additional challenges for those working with children with social deficits. Instruction in social skills alone may not prepare the child to be able to appropriately use the skill or generalize the skill across settings (Winner, 2011). As part of social competence, a student must not only learn and acquire social skills in these four areas, but must be able to utilize that skill appropriately in a social environment. As a consequence, any

instruction in social skills designed to develop social competence must also incorporate lessons on the appropriate use and generalization of the skills taught (Baker, 2003; Winner, 2003; McGinnis & Goldstein, 1997).

This multi-faceted construct of the development of social competency is based on social learning theory which suggests that human behavior can be explained through a continuous reciprocal interaction among cognitive, behavioral and environmental determinants (Bandura, 1977). Learning in one's social environment depends upon a person observing and modeling behavior of others. Consequently, social skills are not only learned through the teaching and presentation of the skills, but they are also learned by watching others model the skill and having the opportunity to practice and use the skill in social settings. Without having developed each of these important social skills, children do not develop the social competency necessary to be successful.

Poor social competency and the skills that comprise it greatly affect children and the ability to function successfully. In particular, poor social competence and weak social skills affect social acceptance and academic success for school-aged children, and future functioning as an adult (Odom, Zercher, Li, Marquat, Snadall, & Brown, 2006; McQuade & Hoza, 2008). For example, strong skills in social communication allows you to interpret others' body language and tone of voice, as well as appropriately respond to statements and gestures through the use of words, touch, eye contact, and gaze (Winner, 2007). Acquiring social communication skills provides a child with the ability to interact with socially engage with peers, improving social acceptance.

Although many children experience social difficulties, children in the special education population have been found to have substantial difficulties with socialization and at times may lack the social competency to engage appropriately with peers (Guralnick & Groom, 1988; Odom, et al., 2006; DeRosier & Mercer, 2009). More specifically, approximately one third of students with special education disabilities have not acquired the “social skills” necessary to secure and keep a job post high school (Hendricks, 2009). Specific populations of students in special education which have been identified as having low social competence include children with Autism, Learning Disabilities (LD), Attention Deficit/Hyperactivity Disorder (AD/HD), Mental Retardation (MR) and Serious Emotional Disturbance (ED) (Hemphill & Siperstein, 1990; Hoza, 2007; Lavoie, 2010). As mentioned previously, the outcome of social competency deficits is that special education children are often rejected and socially isolated by their peers. Such rejection can lead to emotional difficulties, such as depression and loneliness (Juvonen, Nishina, & Graham, 2000; Hawker & Boulton, 2000; Milsom & Glanville, 2010) and academic problems (DeRosier & Mercer, 2009). Because social competency is vital for children’s peer acceptance, social development, and academic success, building social skill abilities in vulnerable populations (e.g., special education) should be a priority for schools. Consequently, interventions for children in special education who struggle with social competency deficits are imperative.

In an overview of the research on interventions for social competence, very few exist for the general special education populations. Indeed, most social competency interventions target special education students with an Autism Spectrum Disorder

(Winner, 2002; Baker, 2003; Bellini, Peters, Benner, & Hopf, 2007; Walker, Barry, & Bader, 2010; Mrug & Hodgens, 2008; Lopata, Thomeer, Volker, Nida, & Gloria, 2008; Solomon, Goodlin-Jones, & Anders, 2004). Although research indicates that there is a need for social skill training for children with Autism, children within the special education population with academic and behavioral needs also benefit from social skill interventions (Winner, 2003; Lavoie, 2010).

Many interventions have been created to help children with isolated social skill deficits. Examples include social skill lessons that teach specific skills that students generalize to social situations, such as learning to introduce oneself, or finding out more about someone (Baker, 2003). Other programs will be explored within the body of literature review. Although programs may demonstrate different foci, the most successful method for helping students acquire social competency is on based on those principles of social learning that include teaching the skill, modeling the appropriate use of the skill, and allowing opportunities to practice the skill in various social settings to promote generalization (Bandura, 1977; McGinnis & Goldstein, 1997). Equally important is determining effectiveness of these interventions.

### **Purpose of this Study**

Social competence has been identified as an important area for success in schools and later in life, and programs have been developed to teach, maintain, and practice social skills (Winner, 2002; Baker, 2003; Welsh & Bierman, 2001). The purpose of this study is to conduct a program evaluation using archival data from the Future All-Stars program, a social competency intervention pilot program. This evaluation will use

qualitative and quantitative methods to evaluate whether interventions improved specific social skills and social competence as measured by reports of students who participated and parents and teachers/staff that interacted with the students during the school year.

Any student receiving special education services who was referred for social difficulties could participate in the summer program. As part of the Future All-Stars program, the social skills of social communication, perspective-taking, social engagement, and social proximity were taught, modeled, and practiced using didactic and experiential instruction methods. The first aspect of learning is teaching. The program used direct instruction to define and teach each skill. It also used social behavior mapping and social autopsies to teach the social skills. Social behavior mapping is defined as a cognitive approach used to teach students how to link their social behaviors and interactions to other people's feelings, as well as address the consequences of their actions, which is also known as perspective-taking (Winner, 2002). Social autopsies are defined as a way in which students are able to watch themselves on video in a positive or negative social interaction and be taught the social skill in that moment (Lavoie, 2010). Social autopsies teach perspective-taking skills, as other members of the social skill group are able to share their experience regarding how the person's behavior on the video affected them. They are also used to teach social engagement, social proximity, and social communication through providing immediate feedback regarding how the person is using the skill in a social setting.

Once students understand the skill, the next step is to demonstrate the skill through modeling. The program incorporated positive examples of appropriate social

skills during playtime, called peer mentors (Hart, 2010). Peer mentors were available to model and demonstrate appropriate use of the skills in a social setting and were also available to provide feedback to students regarding their use of social skills in the social environment.

To provide ample opportunities to practice the skill once they were taught and modeled, children in the summer program were given structured and unstructured play time throughout the day. The playtime included cooperative or peer play and peer mentoring. With cooperative play, students learned to help one another work towards one goal, building social skills through completing an activity or playing a game (Wolfberg & Schuler, 1993; Johnson & Johnson, 1993). For example, children played games such as Red Rover and Duck Duck Goose to provide opportunities to practice the social skills through peer play.

Using a pre-post program evaluation format, this study will evaluate the progress on each skill as well as a global assessment of progress to reflect social competence. Using data reported by students, parents, teachers, and Licensed Specialists' in School Psychology (LSSP), outcome data was analyzed to determine the effectiveness of the program. The data will also provide important information on how these strategies can be utilized for not only one population of special education students, but can be generalized to many special education populations in need of improving social competency.

## CHAPTER II

### LITERATURE REVIEW

Social competence refers to the cognitive, emotional, social, and behavioral skills needed to interact and get along with others in social settings (Ylvisaker, Hibbard, & Feeney, 2006). As this definition suggests, there are thinking, feeling, and behaving components to social competence. From a cognitive perspective, development of skills used in the social realm is most often referred to as “social cognitive skills” or “social thinking.” Winner (2008) defines social thinking as the ability to “consider the points of view, emotions, thoughts, beliefs, prior knowledge and intentions of others.” This development allows a person to effectively communicate and respond in different social environments.

When considering the development of emotional skills in social competence, several elements are involved. According to the Michigan Department of Community Health (2003), social-emotional skills are identified as the ability to self-regulate emotions, recognize emotions in others, and work independently and cooperatively in a learning environment. Both social-emotional and cognitive skills play a large role in the demonstration of social competence through behavior. Behaviors are the general observable components of social competence, or how the person acts in social situations (Hupp, LeBlanc, Jewell, & Warnes, 2009). A student with higher levels of development in social thinking and social-emotional development will most likely demonstrate positive social behaviors, whereas a student with little or no development

of cognitive and social-emotional skills will most likely demonstrate social behaviors that are inappropriate. These skills are interdependent, requiring an amalgamation of their development to make a person successful in the social environment (Welsh & Bierman, 2001).

As the above discussion suggests, the multi-faceted construct of social competency is based on social learning theory which suggests that human behavior can be explained through a continuous reciprocal interaction among cognitive, behavioral and environmental determinants (Bandura, 1977). It addresses a person's observations and modeling of behavior of others and seeing positive behaviors being modeled and practiced. As a person begins to practice the behavior, they are able to increase their ability to demonstrate the new behavior and further experience support from their environment in which the behavior is demonstrated (Bandura, 1977). The practice and support increases the probability the behavior will continue to be utilized.

Before practicing skills related to social competence, children must first learn the skills to be aware of the social environments in which to appropriately utilize these skills. Children are often given direct instructions from parents, teachers, and other figures of authority regarding how to interact with others. We are told sayings such as the "golden rule" and as early as kindergarten, begin to circulate quotes regarding "everything you need to know", a mantra largely based on appropriate social skills. However, for many children, such instruction may be too general and not aligned to the subtle deficits they may have that do not allow them to benefit from pithy sayings. According to Baker (2003), it is recommended that the skills related to social competence be taught through

“structured learning.” This structured learning is consistent with methods described by McGinnis & Goldstein (1997) in their social skills curriculum. Structured learning includes didactic instruction. Didactic instruction includes teaching the new skill to students in the group by explaining the steps of the skill and utilizing visual aids (i.e., writing the skills on a chalkboard) and subsequently reviewing the skills to check for understanding (Baker, 2003).

To reiterate, children *learn* to be socially competent. However, as social learning theory describes, learning is more than receiving instruction. The acquisition of information from one’s social environment depends upon a person observing and modeling behavior of others. Modeling occurs through watching those around us and picking up on how we should act based on the positive and negative reinforcement the actor has received for their behavior (Bandura, 1977). While most children can effectively pick up and incorporate these social messages, children with cognitive and emotional social deficits may not be quick to identify the reactions of others (Winner, 2003). One of the most effective methods of allowing observation and modeling is to create a structured mechanism, such as using role-playing to act out the skill (Baker, 2003). Both Baker (2003) and McGinnis & Goldstein (1997) suggest using a group format in which the facilitator, as well as the group members, acts out the skill. This allows the members to see it performed as it should be and ensures that the students are following the steps to the skill correctly. The facilitator offers feedback after a role-play is completed which allows them to understand and explore the reinforcing effect of behavior.

The final stage of developing social competency involves a student's ability to use social skills in their day to day lives. One way to improve this ability is through practice of social skills in the social environment. Baker (2003) encourages practicing social skills through playing games or implementing an unstructured play time which encourages social interaction after the skill has been taught and modeled. Students then have a chance to practice the skills they have previously learned in order to demonstrate their ability to use them appropriately and effectively. One of the most important pieces to practice is providing feedback and further modeling of the skill of the student does not use the skill appropriately (Baker, 2003; Winner, 3003; McGinnis & Goldstein, 1997). Just as a coach is actively present in a sport practice, providing constructive criticism, feedback, and review of skills learned, students learning social skills also need a "coach" present during their practice. By having an observer in close proximity during the time in which students are practicing the skill, instant feedback can be provided in order to help the student understand how to use the skill in their environment. In conclusion, social competency is not only developed through the teaching and presentation of skills, but it is also developed by watching others model skills and having the opportunity to practice and use social skills appropriately in social settings (Baker, 2003; McGinnis & Goldstein, 1997; Welsh & Beirman, 2001).

### **Social Skill Areas**

Although the process of acquiring of social competency is important, in order to provide improvement, it is important to understand the underlying skills important for instruction, modeling and practice. Research indicates there are four social skill areas that

impact social competency. These for social skills including: social communication, social engagement, social proximity, and perspective-taking (Winner, 2007; Baker, 2003).

While different authors have given different names to these skills, the fundamental concepts underlying each is the same across the social competency literature. A discussion of each skill and the support for their importance in developing social competence is discussed below.

### **Social Communication**

Social communication refers to the use of language to relate to others (Winner, 2011). As a social skill, children exhibit social communication in interacting with others through several verbal, nonverbal, and reciprocal interactions (Baker, 2003). Verbal communication includes the use of language and aids in developing specific social skills which include learning to introduce oneself, asking questions in a conversation, and learning how to say “goodbye” at the end of a conversation. Nonverbal communication includes social cues, or underlying “rules” and nuances that are embedded in society, but are not necessarily taught (Winner, 2011). Specific nonverbal social skills that are developed through experiences in social communication include the use of gestures when talking, making eye contact, understanding facial expressions, and learning personal space (Baker, 2003; Winner, 2007). Nonverbal communication is often coupled with verbal communication to create social communication skills that are utilized in social conversations and interactions.

As a person learns to use verbal and nonverbal communication, the “give and take” of a conversation becomes more natural, thus leads to reciprocal interactions. These

include the ability to understand, remain attentive to, maintain, and improve conversational exchange or flow (Sohn & Grayson, 2005). These interactions promote successful conversations with others in the social environment and further the development of social competence. Children with social communication deficits often have difficulty understanding and interpreting nonverbal interactions (Myles & Simpson, 2001). The failure to understand nonverbal interactions often isolates these individuals, even when they attempt to seek social interaction (Myles & Simpson, 2001).

### **Perspective-taking**

Another social skill area that is integral to social competence is perspective-taking. Perspective-taking is defined as thinking about others, demonstrating a recognition of others' thoughts and emotions, and recognizing that others have hidden intent in their verbal/non-verbal messages (Winner, 2011). In addition, perspective-taking is a social-cognitive piece to social competency, as there is congruence between perspective-taking and high executive functioning (Winner, 2007, Stichter, Visovsky, Schmidt, Randolph, Shultz, & Gage, 2010). Research in the executive functioning component of perspective-taking is better known as Theory of Mind (ToM). This is an executive functioning skill which leads to the ability to utilize and understand perspective-taking by realizing that others have unique thoughts and emotions (Stichter, Visovsky, Schmidt, Randolph, Shultz, & Gage, 2010). The lack of this socially cognitive skill creates difficulty in the ability to appropriately engage and communicate with others.

Children who have difficulty with perspective-taking do not understand other's emotions, motives, and needs which leads to difficulty in regulating social relationships (Ochs, Kremer-Sadlik, Solomon & Sirota, 2001; Winner, 2002). They lack an understanding of the inappropriateness of their own behaviors in social situations and how it impacts others around them (Winner, 2007). Children that struggle to take another's perspective in social interactions in particular, often face peer rejection and social isolation.

### **Social Proximity**

Another social skill area that contributes to social competency is social proximity. Social proximity can be defined as establishing physical presence in a social situation (Winner, 2011). Research has also described social proximity as “distance regulation” or the ability to understand interpersonal space when interacting (Kennedy, Constantino, & Adolphs, 2010). Primarily, the research regarding distal social proximity focuses on children diagnosed with Autism Spectrum Disorder (ASD). Children with ASD have been shown to stand a significantly greater distance away from others than typically developing children as well as invade the personal space of others (Rogers & Fine, 1977; Kennedy, Constantino, & Adolphs, 2010). Similarly children with some emotional and behavioral regulation difficulties, such as those with impulse control problems, may demonstrate poor social boundaries by not recognizing the personal space of others (Odom, Zercher, Li, Marquat, Snadall, & Brown, 2006). The difficulty establishing physical presence and understanding personal space makes it difficult for children to appropriately engage in social situations.

In the context of peer play, Wolfberg (2003) describes children with social proximity difficulties as passive (i.e., often watching other peers play or engaging in parallel play) and they lack the skills necessary to socially engage (Wolfberg, 2003). However, by teaching social skills in group settings with opportunities to utilize these skills in naturalistic social environments with support, children gain the skills necessary to demonstrate appropriate social proximity (Wolfberg, 2003; Krebs, McDaniel, & Neely, 2010; Winner, 2011; Rogers-Warren, Ruggles, Peterson, & Cooper, 1980).

Krebs, McDaniel, & Neely (2010) found that peer mentoring was effective in increasing the amount of time a child with ASD maintained close proximity to the peer while interacting. By utilizing peers rather than an adult to teach the skills, the children not only develop the skill for social proximity, but are given opportunities to increase other social skill areas in a naturalistic setting.

Children with low social competence must learn how to establish their physical presence through understanding the basics of physical presence, including the “one arm rule,” and other social nuances that are not taught but expected in social situations (Winner, 2011). These social nuances include understanding their own and others’ body posture (i.e., hips, shoulders, and head) (Winner, 2011). Rogers-Warren, Ruggles, Peterson & Cooper (1980) found that activities which increase physical proximity between children can increase social interactions for children with disabilities in a preschool classroom. By teaching appropriate social proximity, students can learn how to be a part of group interactions, including daily activities such as group work and peer play.

## **Social Engagement**

The social skill area of social engagement is also an important component to the development of social competency. Social engagement can be more easily defined as social interaction, or the association between two or more people (Durkin, 1995). Social engagement includes the utilization of social communication, as well as several other social skills in order to associate with another person (Winner, 2011). This social skill is complex in nature and is more difficult to define, as it requires many cognitive and behavioral skills that develop through experience. Socially cognitive behaviors, such as perspective-taking, must be developed in order to understand how to engage appropriately with others (Winner, 2007). In addition, social behaviors such as proximity and communication must be developed and executed correctly to demonstrate appropriate social engagement. These skills are demonstrated through the correct use of language, nonverbal communication, the ability to reciprocate, and demonstration of knowledge of social nuances (Winner, 2007; Baker, 2003). Children who lack appropriate social engagement with peers demonstrate difficulty with other social skill areas, as they are unable to find opportunities to engage (Odom, et al. 2006; DeRosier & Mercer, 2009; Guralnick & Groom, 1988).

Children who lack the developed social skills necessary to engage others appropriately often have difficulty with social interactions and communication (Guralnick & Groom, 1988; Odom, et al., 2006; DeRosier & Mercer, 2009). Guralnick & Groom (1988) conducted a study of friendships of preschool children in mainstreamed playgroups for three and four-year-old non-handicapped children and four-year-old

mildly developmentally delayed children. Their research indicated that typically developing children most often choose seemingly equal developing peers for social interaction, leaving children with disabilities limited opportunities to develop social skills (Guralnick & Groom, 1988). The limited opportunities for interaction create social skill deficits in a child's social development. In order to create successful social engagement opportunities, interventions for social engagement have been developed and studied.

As previously discussed, each of the social skill areas is important for individual growth and development. As these areas develop, there is a global increase in the child's social competence. Over time, the four individual areas interact with one another to create a knowledge and demonstration of numerous social skills used appropriately in social situations. The interactions of the four social skills which comprise social competence are displayed in Figure 1. As demonstrated in Figure 1, building skills in each individual area is important, as each area compliments and affects the development of the other social skill areas.

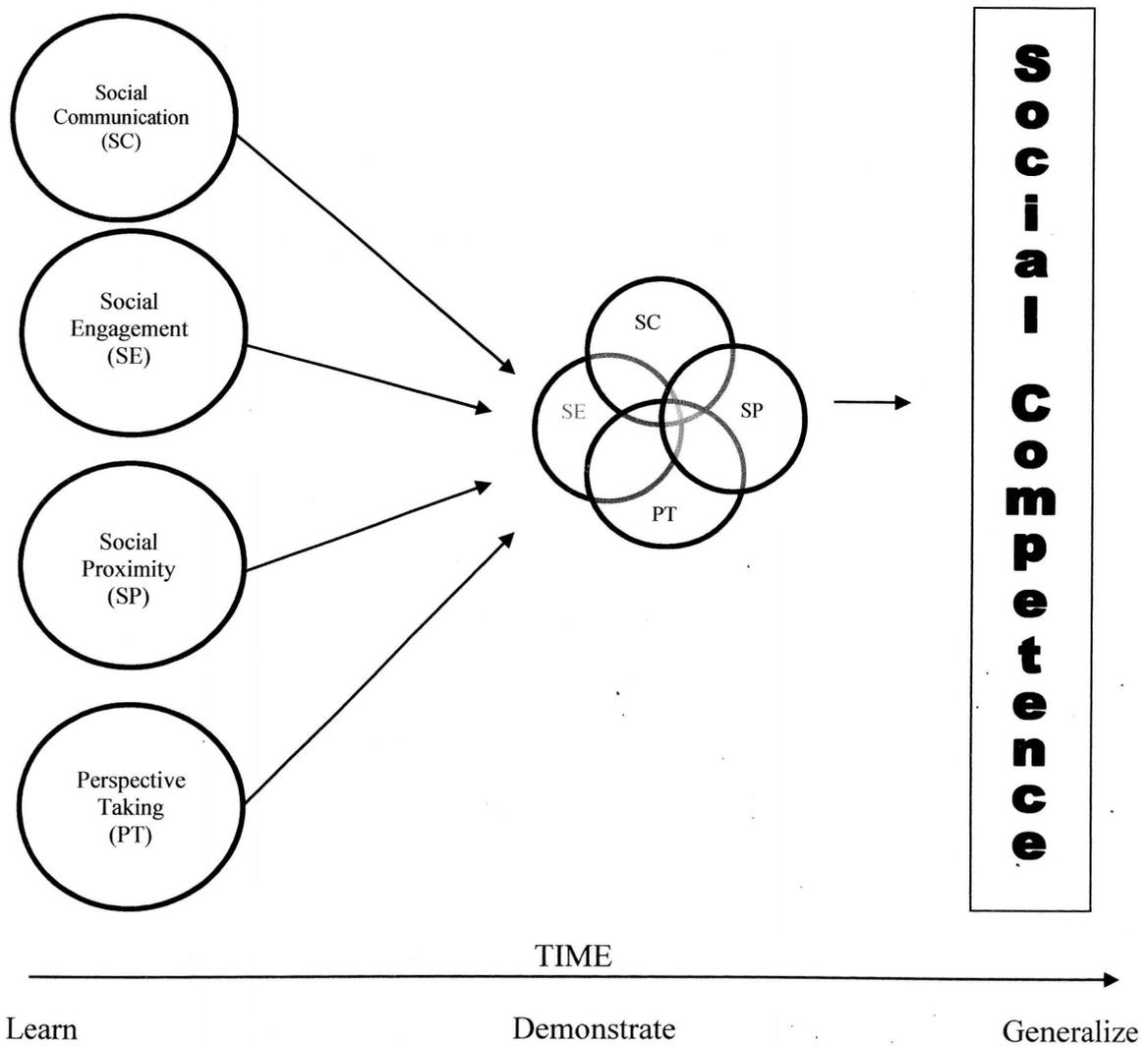


Figure 1: Interaction of four areas of social competence

### Implications of Social Competence

It is clear that it takes a lot to develop social competence. More important are the implications for those children who do not develop the social skills to acquire social competence. The specific impact of social competence for children include: peer acceptance/rejection, academic success, and emotional functioning, and future outcomes.

Children who develop social competency are more accepted by their peers and are more likely to develop positive peer relationships (Juvonen, Nishina, & Graham, 2000; Hemphill & Siperstein, 1990). Peer acceptance is described as the degree to which a person is socially accepted by their peers (Encyclopedia of Childhood and Adolescence, 2011). Specific social skills are important to acquire and demonstrate in order to be socially accepted (Winner, 2011; Baker, 2003; Guralnick & Groom, 1988, McGinnis & Goldstein, 1997).

One social skill area demonstrated by students who are socially accepted is social communication, including the ability to interpret others' body language and tone of voice, including emotions, as well as directly responding to statements and gestures through the appropriate use of words, touch, eye contact, and gaze (Winner, 2011). Social engagement and perspective-taking are also important social skill areas to acquire to be socially accepted, including displaying positive affect, such as smiling and laughing at appropriate times and demonstrating compromise, cooperation, and tact in group situations (Baker, 2003; McGinnis & Goldstein, 1997; Guralnick & Groom, 1988). Children who demonstrate appropriate proximity in group situations have also been found to be socially accepted, including demonstrating the ability to self-monitor their behaviors in various social situations (Winner, 2011). Peers show less tolerance for children who lack social skills and who appear socially awkward in social situations (Milsom & Glanville, 2010).

Positive peer relationships and social competence are not only important to social development, but have also been found to impact academic achievement (Véronneau,

Vitaro, Brendgen, Dishion, & Tremblay, 2010). Children who develop positive peer relationships also demonstrate academic achievement to the point that they have been found to be transactional, or positively correlated with one another (Véronneau, Vitaro, Brendgen, Dishion, & Tremblay, 2010). Véronneau, Vitaro, Brendgen, Dishion, & Tremblay (2010) found that in a group of students assessed longitudinally from second through seventh grade, higher academic achievement predicted an increase in peer acceptance from second through sixth grade, a decrease in peer rejection from second through fourth grade, and an increase in friends' academic achievement from fourth through seventh grade. On the other hand, Véronneau, Vitaro, Brendgen, Dishion, & Tremblay (2010) also discovered that peer rejection predicted a decrease in academic achievement in third through fifth grade. Their research suggests that the development of social competency not only affects peer relationships, but also impacts academics.

Impaired emotional adjustment has been linked to a lack of social development, leading to emotional difficulties such as depression and loneliness (Juvonen, Nishina, & Graham, 2000; Hawker & Boulton, 2000). Juvonen, Nishina, & Graham (2000) investigated the relationships between peer harassment, psychological adjustment, and school functioning. In a group of ethnically diverse students, the research indicated that self-perceived peer harassment predicted psychological adjustment, such as loneliness, depression, and self-worth (Juvonen, Nishina, & Graham, 2000). The psychological adjustment then predicted school outcomes, such as GPA and attendance. The study by Juvonen, Nishina, & Graham (2000) suggests that students who perceive they are being harassed by peers had more emotional difficulties. These emotional difficulties can lead

to problems adjusting and creating relationships with other peers. It is a continuous circle of problems, as a student feels they are being harassed by peers, therefore they have difficulty with psychological adjustment and remove themselves from opportunities to socially interact.

If a child has progressed towards social competence in their first six years of life, they are more likely to be at-risk for delinquency and conduct disorders in adolescence and substance abuse and psychiatric illness in adulthood (Katz & McClellan, 1997; Campbell, 1995; Huffman, Mehlinger, & Kerivan, 2000; Kupersmidt & Coie, 1990; Vitaro, Tremblay, Gagnon, & Pelletier, 1994). Unfortunately, children with deficits in social competency often face peer rejection as a result. Research has indicated the tremendous impact of peer rejection on academic and emotional functioning. This impact further promotes the importance of developing, teaching, and learning social competency throughout childhood and indicates a need for children who are at-risk or are identified as having deficits in the areas of social competency to receive effective interventions.

Children with disabilities that were socially accepted tend to have disabilities that do not interfere with their ability to socialize or regulate emotions (Odom, et al., 2006). On the other hand, children who have disabilities which affect their ability to socially problem solve and regulate emotions were more often rejected by their peers (Odom, et al., 2006). This further hinders the social development of children with disabilities if it interferes with their social skills, as they are rejected by peers and have less opportunity to socially interact with their peers.

DeRosier & Mercer (2009) further researched the impact of behavioral atypicality as a predictor of social rejection and peer victimization while making implications for emotional adjustment and academic achievement as part of their study. A two-fold study was created which investigated why children nominate peers as “behaviorally atypical.” Through semi-structured interviews, DeRosier & Mercer (2009) determined children defined as behaviorally atypical by their peers met the following criteria: trying to be funny (e.g. making themselves fall down, funny faces, telling odd jokes); visible differences (clothes worn and how they were worn); cognitive or academic difficulties (e.g., reading out loud when they are not supposed to); saying things that did not make sense; disruptive classroom behaviors (e.g., running around classroom, making noises, talking disruptively); and disobedience (e.g., not following directions, fail to listen to teacher).

DeRosier & Mercer (2009) examined the social problems, academic achievement, and emotional adjustment of third grade students through a full school year using teacher, parent, and self-rating reports of children who were nominated as behaviorally atypical by their peers. They found that during the fall semester, behavioral atypicality was related to social rejection and peer victimization. Over the entire school year, the study found that behavioral atypicality predicted emotional adjustment and academic achievement (DeRosier & Mercer, 2009). The research of DeRosier & Mercer (2009) suggests the quality of a child’s overall school experience depends on their social skills and abilities. Many of the behaviors described by peers as behaviorally atypical are often found in

students in the special education population, which places them at further risk of peer victimization and rejection, as well as risk of failing academically.

### **Special Education Populations and Social Competence**

Special education populations generally have difficulty with the areas of social competence. Research in the area of social skill training for individuals on the Autism Spectrum has worked to help close the gap in these areas. This is likely because part of the diagnosis of Autism is impairment of socialization and communication (American Psychiatric Association [*DSM-IV-TR*], 2000). However, there are many other special education populations that also demonstrate low social competency.

Some children with a low IQ, such as children with Mental Retardation (MR), have struggled to develop socially as well. This is partly due to the resistance and attitudinal differences by others (Tsai & Fung, 2009). Parents with a child having Mental Retardation (MR) were often rejected by other families and coaching staff when they attempted to provide their child with socialization through sports (Tsai & Fung, 2009). Tsai & Fung (2009) performed a qualitative study to understand the experiences of parents of children with intellectual disabilities seeking inclusive sport participation for their child. Many parents gave up seeking inclusion in sport participation after rejection by staff and other participants. One of the underlying reasons for the cause of rejection was attitudinal problems developed by a lack of interaction and understanding of children with an intellectual disability (Tsai & Fung, 2009). A factor in successful inclusion of children with intellectual disabilities was the child's social skill development. This suggests the importance of teaching social skills to children with MR as an intervention

to provide them with more opportunities to socially interact with typically developing peers.

Other studies have indicated that children with MR have difficulty recognizing facial expressions of emotions which have resulted in poor social skill abilities. Wood & Kroese (2006) conducted a meta-analysis of research on enhancing emotional regulation skills in children with MR. They described how previous research has demonstrated the negative social implications for children with mental retardation because of their difficulty recognizing emotional cues, including social rejection. Four studies were found to demonstrate that training in emotional recognition did in fact enhance the children's emotional recognition skills (Wood & Kroese, 2006). This recognition is an important piece of social competency that children can learn through proper social skill training and enhancement.

Most children with MR are often placed in an inclusion setting for part of their school day. It is in this atmosphere where they are to gain social competence through interaction with typically developing peers of their age. However, children with MR are often not accepted by their peers because of their difficulty with social communication and interaction (Hemphill & Siperstein, 1990). Hemphill & Siperstein (1990) researched the conversational competence of children with mild MR who were placed in a general education classroom. Elementary school children were asked to watch videotapes in which children with mild MR displayed a skill in conversational competence, such as managing conversations. The other videotape showed a situation in which the children with mild MR demonstrated difficulty with conversations. Hemphill & Siperstein (1990)

found that general education peers responded negatively to the child who had difficulty with social conversations and suggested that the child would be rejected by their peers. The peers responded more positively to children who demonstrated social competency in conversation taking (Hemphill & Siperstein, 1990). Behaviors that were demonstrated by children with MR that possibly led to peer rejection were speaking in a loud tone of voice, appearing distracted in conversation, and utilizing less mature speech than their peers (Hemphill & Siperstein, 1990).

Children with Attention Deficit/Hyperactivity Disorder (AD/HD) have had difficulty with socialization. Hoza (2007) found that the majority of children with AD/HD were rejected by their peers. There is limited research in the area of peer functioning for children with AD/HD; however, the research consistently indicated a relationship between peer rejection, low peer functioning, and AD/HD (Hoza, 2007). Children with AD/HD often suffer negative reactions and peer rejection from peers (Hoza, 2007). Implications of this research suggest more intensive, long-term peer interventions in order for children with AD/HD to be able to successfully build peer relationships and learn to control their externalizing behaviors.

McQuade & Hoza (2008) summarized past and current literature regarding the social behavior found in children with AD/HD. Children with AD/HD generally display negative social behaviors, such as being argumentative, impulsive, aggressive, and having difficulty with emotional regulation (McQuade & Hoza, 2008). Furthermore, children with AD/HD have an array of cognitive and neurological deficits which can lead to their lack of socialization (McQuade & Hoza, 2008). These children often have

difficulty with memory because of their attention deficits, making it harder for them to attend to a social conversation or interaction (McQuade & Hoza, 2008). Their conclusions suggest that the effective treatments are limited in providing effective interventions to children with AD/HD who have difficulty with peer problems. McQuade & Hoza (2008) suggest more creative ways to examine and intervene in the social interactions of children with AD/HD (i.e., moving past the book and paper method of hypothetical vignettes and using social interactions).

A child with a Specific Learning Disability (SLD) can also have a lack of socialization and social competence. Children with a SLD often lack the social knowledge to be able to interact with others. Ruegg (2006) discusses the importance social skills in children with learning disabilities. The research suggests that children with a SLD are often overlooked for social skill interventions because children with more obvious social skills deficits are favored. Children with a SLD in the classroom setting could require more time to complete tasks and have difficulty learning new material, thus making them academically below their peers. Consequently, this may lead to peer rejection and isolation for these children, creating an environment where they are unable to interact socially with others (Ruegg, 2006).

Interestingly, Winner (2002) describes the social competency areas of social communication and perspective-taking as social cognitive deficits and argues that these deficits should be considered as a type of learning disability. By understanding these areas as learning disabilities, a framework in which to understand the student's specific struggles is created. As a result, better interventions and treatment strategies are designed

and implemented. These “learning disabilities” include the inferential learning disability, the language formulation disability, and the perspective taking learning disability. Winner (2002) describes an inferential learning disability as the way in which children are unable to make social inferences and understand nonverbal language. The language formulation disability is described as a child’s inability to develop ways to inquire about others interest, maintain conversations, and express ways to solve personal problems with language (Winner, 2002). Winner (2002) describes the perspective taking learning disability as a child’s inability to gauge others’ responses, determine the motives or intentions of others, and a limited understanding of involvement in a relationship.

Children with physical disabilities, such as Cerebral Palsy, also face challenges in the social arena. Brown, Odom, Li, & Zercher (1999) conducted research in a preschool inclusion setting using time-sampling measures in sixteen preschool inclusion based programs in over four states. Children with physical disabilities are less frequently included in social interactions than children without disabilities (Brown, Odom, Li & Zercher, 1999). Further research indicates that Individualized Education Program (IEP) goals for children eligible for special education with peer interaction needs are not provided with the additional support or access to activities needed (Gelzheiser, McLane, Myers, & Pruzek, 1998). Many students with social IEP goals that were placed in the general education classroom primarily to meet those goals were often thought by teachers to make progress by solely being in the proximity of other students (Gelzheiser, McLane, Myers, & Pruzek, 1998). Although placed in the general education setting, without support, children with physical disabilities may struggle to create meaningful

relationships with peers. Consequently, children with physical disabilities are met with the same difficulties as many other children with special education needs, becoming rejected by their peers because of their lack of development in socialization.

Any child with a disability may face peer rejection and therefore loses opportunities for interaction with others. This further impedes their ability to gain social competence and social knowledge. It is important to not only to teach these children social skills and appropriate socialization with their peers, but to also provide them with successful environments in which to practice and further enhance their abilities. Teaching social competence through social skills provides these children with the tools they need to interact with others and create relationships. This leads to the question of how do children learn social skills, how are social skills taught, and what are effective interventions to increase social competence?

### **Interventions for Social Competence**

Interventions are a crucial component that provides children, especially those at-risk for social skill deficits, with the social skills necessary to navigate their social world. Interventions for social competence most often address the four social skill areas previously discussed. Research has demonstrated the effectiveness of these interventions with children diagnosed with Autistic Disorder, more specifically, Asperger Disorder and High Functional Autism (Myles & Simpson, 2001; Baker, 2003; Winner, 2002; Saracho & Spodek, 1998).

Children who have a diagnosis of Asperger Disorder often demonstrate difficulty with social communication, specifically nonverbal communication. Myles & Simpson

(2001) define children with Asperger's Disorder as socially stiff, self-centered, and inflexible. They often demonstrate difficulty understanding nonverbal cues, such as facial expressions, voice tone and inflection, and body language from others. Many times, children with Asperger's Disorder can understand facial expression, but have difficulty understanding the concurrent processing of voice, facial expression, and body language in a conversation (Myles & Simpson, 2001).

Children with Asperger's Disorder demonstrate social skill deficits in the area of reciprocal interactions (Baker, 2003). Baker (2003) suggests that children with Asperger's Disorder struggle to have a two-sided conversation and may repeat phrases that have been said or make a comment that is out of context. Another example of one-sided conversation includes the inability to develop questions that pertain to another person's area of interest other than their own, as well as understanding and using figurative language or verbal slang (Winner, 2002). Social communication deficits can affect social development; however, research has provided evidence that the use of intervention promotes development and progress for children with social communication difficulties (Baker, 2003; Winner, 2007; Myles & Simpson, 2001; Saracho & Spodek, 1998).

Interventions for social communication have been widely researched, as children use social communication to navigate their social world and interactions (Durkin, 1995). Interventions such as peer play are important in developing verbal and nonverbal communication. Peer play is used to negotiate roles, attempt to gain access to ongoing play, and appreciate the feelings of others (Saracho & Spodek, 1998). Other social skill

curriculums have been developed as interventions to teach and build verbal and nonverbal communication, which provide step by step instructions for specific skills (i.e., greeting and complimenting others and shifting topics) (Baker, 2003; McAfee, 2002; Delsandro, 2010).

One study used peer interaction, language-based play, and social stories over the course of a summer camp program to increase social communication in children diagnosed with Autism Spectrum Disorders (ASD), as well as other social skill areas (Walker, Barry, & Bader, 2010). The researchers created a structured camp curriculum including drama, art, gym, and sensory activities to address the social and other developmental deficits. To increase social communication, social stories and acting out social scripts were included. Walker, Barry, & Bader (2010) found that the four week intervention increased social communication in children with ASD. Interventions to teach, demonstrate, and provide opportunities for practice have confirmed significant success in developing social communication skills (Baker, 2003; Walker, Barry & Bader, 2010; Myles & Simpson, 2001).

Ochs, Kremer-Sadlik, Solomon, & Sirota (2001) researched the effects of inclusion on sixteen children diagnosed with High Functioning Autism (HFA) in the United States public education system. They described two experiences of inclusion: positive inclusion, which is described as the way peers act towards the children with HFA; and negative inclusion, which is described as failure to try to include the children with HFA in activities (Ochs, Kremer-Sadlik, Solomon, & Sirota, 2001). When exhibiting difficulty with perspective-taking, children with HFA often incurred negative

inclusion by their peers. Specific behaviors which led to peers ignoring or publicly scolding the child included disrupting the class and invading personal space (Ochs, Kremer-Sadlik, Solomon, & Sirota, 2001).

Perspective taking is vital to social competence. Without learning how to understand and recognize the emotions and perspectives of others, students will continue to face peer rejection and social isolation. For students who may have difficulty with perspective-taking and emotional recognition, interventions teaching these skills are successful (Sticher et al., 2010; Lacava, Golan, Baron-Cohen, & Myles, 2007).

To teach perspective-taking skills, effective interventions such as video modeling, role play and computer games have been used. (Lacava, et al., 2007; Stichter et al., 2010) Lacava et al. (2007) researched a pilot program that used a multimedia computer program to teach emotional recognition for children with an Autism Spectrum Disorder. After a 10-week intervention program, the computer program increased the skill of emotional recognition, as students could recognize simple and complex emotions in faces and voices (Lacava, et al., 2007).

Stichter, et al. (2010) found that a social competence intervention created for individuals with ASD had parental reporting of significant improvement in social skills and executive functioning skills such as Theory of Mind (ToM). A Social Competence Intervention (SCI) was created and included five units of lessons, each taught in four one-hour sessions over a two week period. Sticher et al. (2010) used 27 students ages 11-14 with an Asperger's Disorder diagnosis to complete the program. The program was built to be consistent, reviewing previous skills learned and teaching new skills each week.

The SCI program created by Sticher et al. (2010) also included skill modeling and time to practice the skill in both structured and naturalistic settings. By utilizing perspective-taking interventions, more opportunities were provided for students with low social competence to engage with peers appropriately and build positive social relationships.

One of the most effective interventions for an increase in social engagement is the use of peer-play and inclusion. Wolfberg & Shuler (2003) developed a model for integrated peer play which provides a support system for peer play so that individuals lacking social skills have the ability to utilize support but are able to interact more naturally with their peers. The important factor in peer play is to provide inclusion of socially competent peers as play partners within a naturalistic setting (Wolfberg & Shuler, 2003). Furthermore, by providing the right types of activities, structure, and familiar peers, the child has an environment to learn social skills more naturally (Wolfberg & Shuler, 2003). Using what Wolfberg & Shuler (2003) call “guided participation,” the adult guides the children into social situations through support rather than direction. In this model, guided participation then becomes scaffolding on the child’s social skills until they are able to interact without the use of support. The adult’s role then becomes monitoring the play instead of imposing structure in spontaneous play. Children who participate in peer play make significant social skill gains and are more likely to imitate and practice more advanced play behaviors of their peers (Wolfberg & Shuler, 1993).

Peer play also serves a purpose in cooperative learning. By utilizing cooperative learning in social skill groups, each student can work together to maximize one another’s

learning, as well as their own (Johnson & Johnson, 1989). Cooperative learning also teaches students to have responsibility as part of a group, and to learn to work with others towards a common goal, such as increasing social skills (Johnson & Johnson, 1989). Creating an environment that is positive, promotes one's success, and having individual and group accountability naturally provides an opportunity to practice social skills (Johnson, Johnson, & Holubec, 1993). Peer play and cooperative play are also useful in the inclusion environment, as the inclusion model has become increasingly successful for many children in special education.

With the inclusion model becoming the forefront of special education, it is important that students and teachers learn strategies and interventions to teach social skills and social competency to individuals in special education. One benefit of inclusion is providing students with a lack of social competency to interact with students who are higher functioning socially. Fisher, Pumpian, & Sax (1998) found that typically developing students felt that students with severe disabilities would be able to increase social skills in an inclusion setting, be better prepared for the future, and have more opportunities to be challenged to learn in the general education classroom. Hunt, Farron-Davis, Beckstead, & Curtis (1994) found that students in an inclusion setting were alone less, initiated more interactions with peers, and that these interactions were usually socially related rather than task-related. Kennedy, Shukula, & Fryxell (1997) compared social interactions of students in an inclusion setting to students with disabilities in a self-contained classroom. The students in the inclusion setting had more frequent interactions

with their peers and often received more social support during social interactions (Kennedy, Shukula, & Fryxell, 1997).

### **Learning Social Skills**

Children must learn the social skills necessary in order to be aware of their social world and appropriately navigate it. From the day children are born, they begin learning how to socially communicate and engage with others around them (Durkin, 1995).

Children who are identified with developmental disorders or are at-risk for social skill deficits require interventions that teach social skills needed to appropriately interact with others in the social environment. In this section, a review of research on successful teaching of social skills will be discussed including social skill training, video-modeling, and cognitive approaches.

Many researchers have created numerous social skill curriculums in order to provide activities and structure to teaching social skills. Baker (2003) created social skill lesson plans and strategies in his book, *Social Skills Training*, primarily based on the social skill deficits of children with ASD. The lesson plans and strategies focus on building on social skills of individual strength, while teaching new social skills in which the individual demonstrates weakness. Baker (2003) developed strategies from the most concrete to more conceptual strategies for teaching the skills, dependent on the child's abilities. Baker's (2003) lesson plans and strategies teach skills such as how to introduce topics of interest to others, how to compliment others, and how to respect personal boundaries. Each social skill is broken into small instructions or steps for how to learn the social skill. Visuals are often provided, as well as suggested activities to practice the skill

in a group. Baker (2003) suggests assessing the child's ability to understand receptive language and their attention level in order to determine the best modality in which to teach the skills, such as individually or in a small group. The lesson plans are developed to be used in no consecutive order which allows the ability to focus on individual social skill needs in each group (Baker, 2003).

Video modeling and video self-modeling are also ways to teach socially appropriate behaviors. As part of Bandura's (1977) social learning theory, Bandura discovered that children learn skills by observing others perform those skills, rather than through personal experience. Using this theory with video modeling, children are provided with video of themselves or someone else performing a social skill correctly (Bellini & Akullian, 2007). Dowrick (1999) also found that social skills learned through video self-monitoring often generalize to other settings and conditions and are usually maintained months after the intervention. Also known as social autopsies, these videos provide immediate feedback on a child's social competency and performance throughout a social skill intervention.

Charlop, Denis, Carpenter, & Greenberg (2010) found that video-modeling has been an effective tool in teaching socially expressive behaviors to children with Autism. The children in the study were able to watch models of socially appropriate responses on video and successfully acquire those skills and generalize the skills across settings. By watching themselves interact with others in either a positive or negative way, with guidance, they are able to immediately understand their behaviors as being acceptable or unacceptable by other peers. Sansosti & Powell-Smith (2008) found that video-modeling

and computer presented social stories improved the rates of social communication in children with High Functioning Autism.

Lavoie (2010) developed the social autopsy, in which an adult helps a student with social skill deficits analyze social errors immediately after observing the error. At that time, alternative strategies are developed and discussed for that social situation (Lavoie, 2010). Social autopsies may also be used to address socially appropriate behaviors so that they might receive immediate feedback for a social skill performed correctly in a social situation. By providing the social autopsies in group settings, members of the group who may have more developed social skills can also provide feedback on behaviors they view. This not only provides further feedback, but is more significant, as the feedback is coming from a peer that is respected rather than from an adult (Johnson & Johnson, 1989).

Another way social skills can be taught is through a cognitive approach. Teaching perspective-taking to students with social skill deficits should be a change in cognitive perception before it can be perceived by others through external behaviors that may accompany feelings such as empathy. One way students can learn social-cognitive skills is through social behavior mapping. Winner (2007) created curriculum to teach this method, which allows children to connect behavior, emotions and consequences with one another. Many times, children who lack social skills often do not understand their behavior from others' perspectives or what might be expected of them in specific situations. Winner (2007) created a way for students to understand the behaviors that are expected of them in certain situations, or the hidden social standards that many people

learn, but are not taught. For example, most people understand personal space without being taught. This area may be more difficult for a child who has social skill deficits. Social behavior mapping addresses the importance of perspective-taking in social situations in order for children to understand the social implications of their behavior (Winner, 2007).

Winner (2007) developed Social Behavior Mapping to teach children how their behavior directly or indirectly impacts others and the natural or artificial consequences that are a result of that behavior. The lessons are structured so that children can learn what happens when they perform behaviors that are expected from them versus when they perform behaviors that are unexpected in given situations. First, the student learns what behaviors are expected or unexpected in certain situations (Winner, 2007). This may include expected behaviors such as staying seated in class or raising a hand when help is needed. After these behaviors are understood, students learn how the behaviors affect other people by using the perspective-taking social skill (Winner, 2007).

By taking another's perspective, it allows for the child to further comprehend the emotions of others in that situation dependent on their behavior. Finally, students learn the consequences of their behavior, positive or negative. Students are then able to link their behavior to the emotions of others, which leads to a positive or negative consequence (Winner, 2007). The lessons created provide charts to work through in different social situations. The lessons give a visual guide for walking through expected versus unexpected behaviors in a situation, and then guide the student to think about what

other's might think or feel about those behaviors, and in turn what a consequence might be for the behavior (Winner, 2007).

Teaching social skills through training, video-modeling, and social-cognitive approaches provide the knowledge and skills for children to be aware of social skills that are needed in social situations however, the knowledge and skills do not directly imply that the child has fully understood how to utilize these skills appropriately (Winner, Crooke, & Madrigal, 2011). Acquiring social skills is just one step in developing social competency, as children need to be able to appropriately demonstrate the use of social skills across social settings to be considered socially competent (Winner, 2011).

### **Demonstrating Social Competence through Social Skills**

Demonstrating social competency includes a generalization of social skills across several social environments, such as the playground, lunch room, and classroom. There are several ways in which children demonstrate social competency through utilizing appropriate social skills. This section will provide research on the interventions and successful settings to provide demonstration of social skills and how social skills are generalized across settings.

After learning social skills, children should be provided ample opportunities to practice these skills, as this will further increase their ability to learn and modify skills as they interact with others (Baker, 2003). As part of social skill training, Baker (2003) suggests that children practice the skills in and outside of the social skill group in order to generalize the skills. Providing non-threatening group settings that include games, unstructured free time, or structuring a time to play with others in the group allows

students to practice their skills in a naturalistic setting (Baker, 2003; Winner, 2007; Wolfberg, 2003). Baker (2003) also recommends providing the students with “homework” or chances to try out the skills learned outside of the group, and then share their experience during the next group session. The homework encourages children to practice the skill outside of the social skill group, enabling the generalization of the skill across settings.

Another strategy used to demonstrate and practice social skills is through peer mentoring. Peer mentoring provides children with mentors of similar age who have acquired social skills and demonstrated social competency. The peer mentors interact, play, encourage, and demonstrate social skills in which the mentee is able to observe, learn, and practice (Hart, 2010). By utilizing the peer mentor, social skills, self-management and self-esteem are increased (Karcher, 2009). By utilizing peers who have developed strong social skills to be a part of the social group as a mentor, the students who demonstrate difficulty with social functioning have peer support and guidance that is more natural in a group setting than utilizing an adult.

Karcher (2009) also found that through cross-age peer mentoring, or pairing older students with younger students, the mentees developed gains in school-connectedness and self-esteem. The peer mentoring program used a curriculum called CAMP, which included icebreakers, connectedness curriculum activity, and a group game designed to increase the mentor/mentee relationship (Karcher, 2009). The program included meetings daily after school and once a month on the weekends for 5 to 6 hours per meeting (Karcher, 2009). By building the relationship between mentor and mentee, both parties

learned attitudes and social skills to help them respect and better understand others (Karcher, 2009). Allowing children to have peer mentors to demonstrate and utilize skills in a naturalistic setting provides opportunities to further develop the social skills needed for social competency.

Demonstration of social skills is an integral part of developing social competency, as children must be able to not only acquire the social skills, but utilize the skills appropriately (Winner, 2011). Just as one may demonstrate knowledge by reading a book on how to ride a bike, they have not acquired competency until they are able to demonstrate that knowledge by successfully riding a bike. In the same way, social competency is acquired through active and appropriate demonstration of social skills in social environments. One way that children can learn, demonstrate, and generalize social skills is through social skill interventions. More specifically, summer social skill interventions have been found to be significantly successful because the summer programs can provide longer hours of intervention and more opportunities to generalize the skills across settings without the time constraints generally present during the school year (Bellini, Peters, Benner, & Hopf, 2007).

### **Summer Social Skill Interventions**

As previously discussed, social skills have been taught through many different facets, including social skill training, video-modeling, social autopsies, and social behavior mapping. The difficulty with most social skill programs is the inability to generalize the social skills across settings (Baker, 2003; Bellini, Peters, Benner, & Hopf, 2007). A meta-analysis was conducted by Bellini, Peters, Benner & Hopf (2007) of

school-based social skill interventions for children with ASD, as many of these children have difficulty with social interactions, including perspective-taking and reciprocal communication. The results of the meta-analysis indicated that children with ASD experience difficulty with generalization of skills from one situation to another and suggested that social skill training should be increased in intensity and frequency and take place in a general education setting (Bellini, Peters, Benner, & Hopf, 2007). In order to increase social skill programs in frequency and intensity, the intervention programs are usually conducted during the summer months when children are not in school (Walker, Barry, & Bader, 2010; Mrug & Hodgens, 2008; Lopata, Thomeer, Volker, Nida, & Lee, 2008; Solomon, Goodlin-Jones, & Anders, 2004).

From the research gathered on summer social skill programs, most of the programs have been designed specifically for children with Autism Spectrum Disorders. (Walker, Barry, & Bader, 2010; Mrug & Hodgens, 2008; Lopata, Thomeer, Volker, Nida, & Gloria, 2008; Solomon, Goodlin-Jones, & Anders, 2004). As previously discussed, many children with special education services are at risk for acquisition of social skills and would benefit greatly from summer social skill programs that address the similar social difficulties of children with Autism Spectrum Disorder. The positive changes found in children with ASD who participated in the summer social skill programs speak to the worth and effectiveness of these interventions.

Walker, Barry, & Bader (2010) found that a summer program created to build social skills in children with autism demonstrated positive changes in social skill building over the summer months for the children who participated in the program. Walker, Barry,

& Bader (2010) researched parent and therapist ratings in changes of social skills in children who participated in a four week intensive autism summer program designed to increase peer interaction and build social skills. Therapists indicated a significant increase in verbal communication, social interaction, attention to tasks, and transitions. The parents of the study indicated a significant increase in verbal communication and social interaction (Walker, Barry, & Bader, 2010).

Another summer program created for children with ASD found similar results indicated positive changes in children's social skills and social relationships with others. Mrug & Hodgins (2008) created a naturalistic summer social skill program for four children with ASD using a curriculum created for children with AD/HD called the Summer Treatment Program. Lopata, Thomeer, Volker, Nida, & Gloria (2008) also created a summer social skills program for children with HFA. Lopata et al. (2008) used the SkillStreaming curriculum (McGinnis & Goldstein, 1997) as a treatment program for five days a week for six weeks. The SkillStreaming curriculum is a social skill training program in which step by step instructions are provided on how to teach specific social skills geared to increase social communication, engagement, proximity, and perspective-taking (McGinnis & Goldstein, 1997). Children that participated in the study demonstrated significant improvements in social skills and problem behaviors (Lopata, et.al, 2008).

Solomon, Goodlin-Jones, & Anders (2004) researched a group intervention program for students with High Functioning Autism, Asperger's Disorder, or Pervasive Developmental Disorder, Not Otherwise Specified (PDD-NOS). The Social Adjustment

Enhancement Program was designed to focus on perspective taking, as well as emotional and facial recognition. The program was designed with semi-structured and structured time in a naturalistic setting to learn the social skills. The social skill program lasted 20 weeks, which was broken into two ten week modules. Solomon, Goodlin-Jones, & Anders (2004) found that children who participated in the program demonstrated significant improvements in facial expression recognition.

Summer social skill programs have been successful in improving social skills in children with Autism through learning by social skill training and demonstration in naturalistic settings with peer interaction (Walker, Barry, & Bader, 2010; Mrug & Hodgens, 2008; Lopata, Thomeer, Volker, Nida, & Gloria, 2008; Solomon, Goodlin-Jones, & Anders, 2004). The need for a social skill intervention providing training to all students at risk for social skill deficits is of obvious importance, as the research provides little evidence of such programs. The summer program intervention evaluated for the purpose of this study utilized research based practices to teach social skills found to increase social competency in children in the special education population and provided ample opportunities for demonstration and practice of the social skills in hopes to improve competency.

### **Summer Program Intervention**

The summer program called “Future All-Stars” utilized social skill training (teaching the skill), social autopsies (self-evaluation of whether they learned the skill), and social mapping (perspective-taking to understand if they used the skill correctly). These were used in conjunction with one another to foster the development of the four

social skill areas relating to social competency (social communication, social engagement, perspective-taking, and social proximity). Participants were then given opportunities to utilize the skill in unstructured play, peer play, cooperative play, and field trips.

Much of the research provided on social skill programs is for children with ASD (Walker, Barry, & Bader, 2010; Mrug & Hodgins, 2008; Lopata, Thomeer, Volker, Nida, & Gloria, 2008; Solomon, Goodlin-Jones, & Anders, 2004). The summer program intervention in this study provided social skills to children of all eligibilities that received special education services within the school district. This was of significant importance because children in special education populations demonstrate difficulty with the acquisition of social skills (Tsai & Fung, 2009; Wood & Kroese, 2006; Hemphill & Siperstein, 1990; McQuade & Hoza, 2008; Ruegg, 2006; Gelzheiser, McLane, Myers, & Pruzek, 1998).

The participants of the program learned the social skills needed to increase social competency through the curriculum that was created for the summer program. The curriculum for the program was developed through a multitude and adaptation of curriculum from other social skill programs. Many of the concepts were developed through adaptation of current leading researchers on autism and social competency, as well as adaptations from the philosophy of the model of inclusion, including the idea of cooperative peer play (Wolfberg, 2003). Furthermore, the curriculum included research based practices including social skill training, social autopsies, and social behavior mapping (Baker, 2003; Winner, 2002; Winner, 2007; Lavoie, 1994).

Sixteen “leadership skills” were created and used as a theme, one for each day throughout the program (See Appendix C). Each skill was specific to one of the previously mentioned social skill areas important to increasing social competency. These skills were taught in a structured setting, providing specific instruction and examples of how the skills are to be used in social situations. As part of learning the skill, role-playing and practice within the structured setting with supervision and feedback were provided.

Social autopsies have become a new way to teach and review social aspects while providing the ability for immediate review and were also used each day in the group. (Lavoie, 2010; Sansoti & Powell-Smith, 1994). The students were filmed throughout the day, and then the film was edited for various social aspects that the staff were trying to teach. They then discussed how the person could have acted differently to improve, or discussed how the person was a good example of demonstrating the skill. This also provided opportunities for perspective-taking skills, as students viewed on the video-tape were provided feedback from their peers on how their behavior impacted others. This method has been shown to quickly promote generalization of social skills (Lavoie, 2010; Sansoti & Powell-Smith, 1994).

To provide opportunities for students to demonstrate and practice their social skills, programming components included a mix of various levels of structure, including free time with no set structure, semi-structured with a set activity, and structured time. These various levels of structure were meant to mimic a natural school day. Various settings were also incorporated into the program such as classrooms, water parks, outdoor park and recreation centers, cafeterias, and restaurants. The majority of the meetings took

place at one of the district high schools, but there were multiple opportunities for all ages to interact with one another, including making snacks together and playing group or partnered games. Each Thursday, students participated in an outing which allowed for them to freely socialize with others. The intent was to generalize the social skills learned to a typical age appropriate setting.

An inclusion model was used to address the concerns for peer rejection. The summer program included peer mentors, or students who have demonstrated strengths in social competency that were in the general education population. There were also students identified as receiving special education services that demonstrated strengths in social competency that served as peer mentors. By utilizing these students as mentors to the students participating in the summer program, the summer program served as a model of an inclusive environment, comparative to that of what students might have received during the regular school year, allowing the skills to be easily generalized across settings.

The program developed for this study is based on the research of social skill training, peer play, social behavior mapping, and the model of inclusion, including cooperative play. The program was designed to promote social competency over the summer months, as children often have a lack of social interaction during these months they are not in school. The purpose of this study is to qualitatively and quantitatively evaluate the “Future All-Stars” summer program to determine if it increased social competency for the participants. Specifically, the questions to be addressed include:

- 1) When comparing the initial data collected to post-data collection, was there a significant increase in social communication behaviors as reported by the student?
- 2) When comparing the initial data collected to post-data collection, was there a significant increase in social engagement behaviors as reported by parent and teacher ratings individually? Was there a significant increase in social engagement behaviors reported by all observers in general?
- 3) When comparing the initial data collected to post-data collection, was there a significant increase in social proximity behaviors in as reported by parent and teacher ratings individually? Was there a significant increase in social proximity behaviors reported by all observers in general?
- 4) When comparing the initial data collected to post-data collection, was there a significant increase in perspective-taking behaviors as reported by:
  - a. Parent and teacher ratings individually
  - b. Observer ratings in general
  - c. Student ratings
- 5) When comparing post-data collection to the null hypothesis, was there a significant increase in global social competence behaviors as reported by:
  - a. Students?
  - b. Parent
  - c. Teacher
  - d. LSSP

- 6) When comparing the initial data to post-data collection, was there a significant increase in global social competence as reported by:
- a. Students
  - b. Parents and teacher individually
  - c. Observer ratings in general

## CHAPTER III

### METHODS

#### **Design**

The purpose of the program evaluation was to use archival data to measure whether the pilot program individually increased each of the four areas of social competence, and whether the program increased global social competence in those who participated as reported by the participants, parents, teachers and Licensed Specialist's in School Psychology (LSSP's). The evaluation included whether the program accomplished the objective of increasing global social competency, and to what degree the socially competent behaviors observed can be attributed to the program's interventions.

The study included a pre-post design, using quantitative information for the four individual social skill areas. Using parent and teacher ratings and student self-ratings of their behavior before and after the program, the data was analyzed to determine if there was a significant increase in all social areas such as: communication, engagement, proximity, and perspective-taking behaviors. To analyze the global social competence behaviors, the study used a one-group sample from the known population to determine if the intervention increased social competence. Qualitative data from selected questions on the follow-up interview will be analyzed quantitatively and placed into categories dependent on the response. These responses were used to determine an overall increase in global social competence as reported by the student, parent, teacher, and LSSP's.

## **Participants**

The program consisted of members, mentors, and staff. A member of the program was a student who could benefit from additional social support. A member was not admitted to the program automatically, but was admitted through a series of steps to ensure that those who gained admittance were appropriate for the program. Those that became members had to complete the application for consideration, data was collected by parent, teacher and student, and the student was observed no less than two times in a social setting. Data collected by the parent, teacher, and student included interviews and rating forms created by the researchers. Based on the data collected, parents were then contacted as to whether their child was appropriate for the program. Members selected for the program were considered appropriate if there was a reported deficit in social skills and if they did not demonstrate physical or verbal aggression. Members were grouped for programming purposes in the following manner: Kindergarten through 5<sup>th</sup> grade, 6<sup>th</sup>-8<sup>th</sup>, and 9<sup>th</sup>-12+ , including students who were in the Transition program for the high school (graduated high school but still offered special education services until the age of 22).

A mentor was a student who attended the school district. The mentor could be any age, however the pilot program had 95% of students as mentors in the high school age. The mentors assisted staff in teaching, role modeling, and reinforcing the skills taught throughout the program. Mentors also “played” with the members, furthering their interactions and modeling appropriate social interactions through cooperative play. The mentors were selected by an interview process and were primarily previous mentors of the campus LSSP’s social mentoring program. It was run through the high school during

the academic school year and served over 170 students at the high school level. The staff included the LSSP, as well as a graduate level practicum student or intern of school psychology. Staff members were selected through an interview and background review.

Twenty students participated in the summer program which consisted of two sessions, each for two days a week for four weeks. The program consisted of five elementary school students (K-5<sup>th</sup> grade), four middle school students (6<sup>th</sup> -8<sup>th</sup> grade), and eleven high school students (9<sup>th</sup> -12<sup>th</sup> ). Special education eligibilities included fourteen students with autism, one student with specific academic learning disabilities, one student with an Orthopedic Impairment for Cerebral Palsy, one student with AD/HD, one student with auditory impairment, and one student with mental retardation, and one student with Emotional Disturbance. Two students also had an additional eligibility of Emotional Disturbance (ED).

### **Description of Program**

The program evaluated in this study was a school district wide summer “leadership” program to further develop social competency. The program allowed a student who was qualified for special education in the district to be submitted for consideration into the program. The student participated as either a member of the program or a mentor for a member of the program. Participants were referred by any staff or parent and no students were excluded from the process of being nominated and considered for the program. The program was not solely created for students with Autism, but rather created to build and maintain social competency for any student in special education. All members of the program were carefully screened prior to

admittance to determine eligibility based on a need for social skill training. They were also screened for any demonstration of physical or verbal aggression, as this could be harmful to other students in the program. Mentors and staff underwent intensive and comprehensive training prior to the first day of the program to prepare to teach the social skills. Training consisted of a presentation on the overview of the program, including the key components such as social autopsies and social skill training. The training also provided information on how to model and implement feedback appropriately during unstructured play time.

The intent of the program was multi-focal in that it was not only a way to continue to promote social competence, but it also served as a place where members could practice old skills while also learning new skills. The program was designed to prevent regression of social skills learned throughout the academic school year due to lack of socialization over the summer months. This would make it easier for students to reintegrate into social situations the following school year more quickly. The program was also designed to teach and practice skills in multiple levels of structure (unstructured and structured times throughout the day) in hopes of increasing generalization of skills. It also allowed members of all eligibilities to be around peers with well developed social skills in an effort to use social modeling through cooperative play and interaction. Furthermore, the program was designed to make learning these skills fun and natural while in a positive social environment. The program was also designed to implement follow up of the student's progress during the first six weeks of the new school year to collect data on reintegration, as well as provide teachers and school LSSP's ideas for

maintaining these skills during the school year. Finally, students developed personal social and leadership goals which were also designed to be solidified during the program.

The curriculum for the program was developed through a multitude and adaptation of curriculum from other social skill programs that were developed through a variation of current leading researchers on autism and social competency, as well as adaptations from the philosophy of the model of inclusion, including the idea of cooperative play. The overall structure of the program was developed by the high school LSSP who designed the program based from the after school social skills group ran for over four years at the high school. This group consisted of special education students receiving psychological services and was created as a way to make progress on behavioral and social goals, as well as promote social competence.

Programming components included a mix of various levels of structure, including free time with no set structure, semi-structured with a set activity, and structured time, which were included each day (See Table 1). These various levels of structure were meant to mimic a natural school day. This also included snack and lunch time. Each student brought their own lunch and each group made a snack for the day. Social autopsies were also used each day in the groups, which have become a new way to teach and review social aspects and offers the ability for immediate review (Lavoie, 2010; Sansoti, Powell-Smith, 1994). The students were filmed throughout each day, then the film was edited for various social aspects that the staff were trying to teach. The edited film is then reviewed by the group. This method has been shown to quickly promote

generalization of social skills (Lavoie, 2010; Sansoti, Powell-Smith, 1994). Further information on the schedule of events can be located in Appendix D.

Table 1

*Schedule of Daily Activities*

Day	Time	Activity
Tuesday	10:00-10:30	Review leadership skill
	10:30-11:00	Social Autopsy
	11:00-12:00	Unstructured play time
	12:00-12:30	Lunch
	12:30-1:00	Structured play time
	1:00-2:00	Snack and “Show and Tell”
Thursday	10:00-10:30	Review leadership skill
	10:30-11:00	Social Autopsy
	11:00-11:30	Snack
	11:30-12:00	Unstructured Activity
	12:00-2:30	Lunch and Off campus activity

Sixteen “leadership skills” were created and used as a theme (one for each day) throughout the program (see Table 2). Data was collected each day from the social autopsies in order to determine if progress was being made on each student’s goal. Feedback was given to all parents and students throughout the program.

Table 2

*Leadership Skills*

Week	Leadership Skill
1	A good leader shows interest in others
2	A good leader includes everyone
3	A good leader cooperates
4	A good leader asks questions before making a decision
5	A good leader is patient
6	A good leader is kind to others
7	A good leader is flexible
8	A good leader remembers to look and show interest when someone talks to them
9	A good leader remembers to listen and follow through with what is asked
10	A good leader show self-control
11	A good leader knows when to be silent and when to talk
12	A good leader thinks before acting
13	A good leader does not get upset when things do not go their way
14	A good leader thinks before acting
15	A good leader can always find what they need
16	A good leader remembers to use all his or her skills when hanging out with others

Various settings were also incorporated into the program. The majority of the meetings took place at one of the district high schools, but there were multiple opportunities for all ages to interact with one another. Various rooms throughout the high school were used, including the kitchen in order to cook and make snacks, the commons area, where students could play games and interact with one another, as well as the courtyard where the students could play sports and hide and seek. Each Thursday,

students participated in an outing which allowed for them to freely socialize with others. The intent was to generalize the social skills learned to a typical age appropriate setting.

Reinforcers were utilized throughout the program. These included having many items to play with throughout the day, especially those that were more likely to be preferred. However, items could not be used strictly for solitary play. A ticket system was also implemented where each member could randomly earn a ticket for being a good friend (i.e., demonstrating positive social skills). They could then exchange them each week for an item of interest which was generally low cost trinkets such as candy, stickers, small toys, etc.

### **Conceptual Framework**

A conceptual framework is outlined in Figure 2. The conceptual framework provides a graphic form of the main concepts that were analyzed as part of this study. According to Miles & Huberman (1994), “a conceptual framework explains, either graphically or in narrative form, the main things to be studied – the key factors, constructs or variables – and the presumed relationship among them.” The conceptual framework for this study was divided into three sections: support, narrow, and broad.

The support for the determination of increase in social competency was dependent on the reports of observers and participants of the program. These reports provided information regarding increases in behavior for the narrow (or specific) areas of social competency discussed in Chapter 2. The broad topic which umbrella the specific areas is social competency. A determination of an increase in social competency was provided by the data collected and answered through the research questions. The determination of

increase in social competency by ratings of observer and self-reports determined the program's effectiveness. The framework is provided to demonstrate the selected constructs used to answer the research questions for this study.

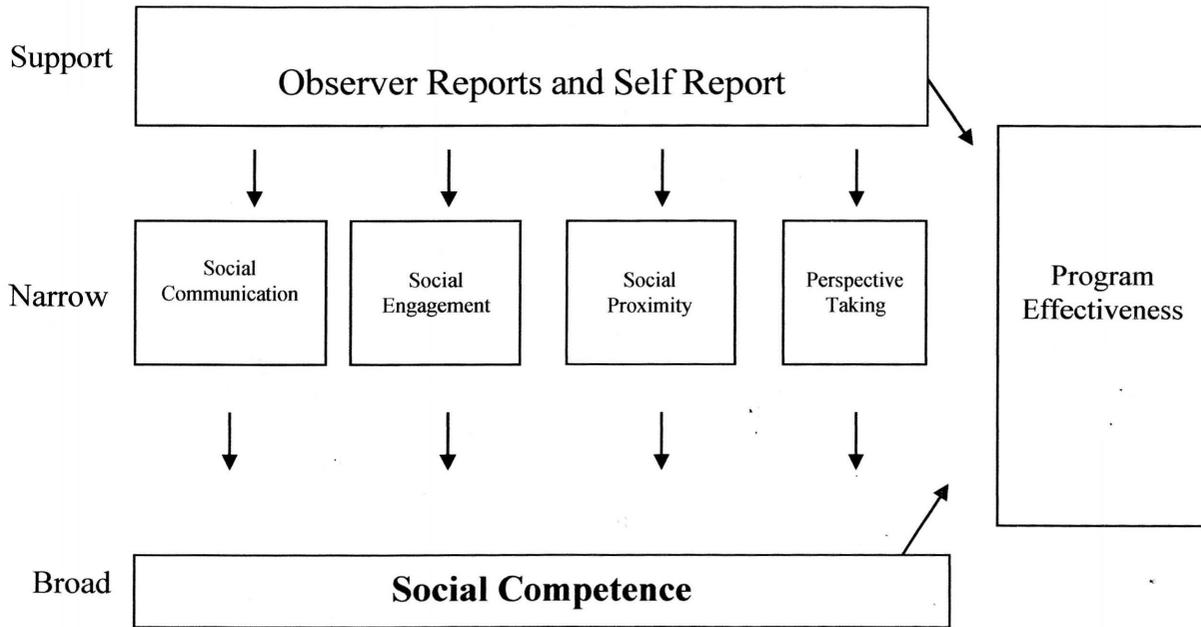


Figure 2: Conceptual framework for summer program evaluation

### Research Questions and Hypotheses

The research questions and hypotheses for this study are:

- 1) When comparing the initial data collected to post-data collection, was there a significant increase in social communication behaviors as reported by the student?

*Hypothesis:* It is hypothesized for research question one that there will be a significant increase in social communication behaviors as reported by the student.

- 2) When comparing the initial data collected to post-data collection, was there a significant increase in social engagement behaviors as reported by parent and teacher ratings individually? Was there a significant increase in social engagement behaviors reported by all observers in general?

*Hypothesis:* It is hypothesized for research question two that there will be a significant increase in social engagement behaviors as reported individually by parent and teacher. It is also hypothesized that there will be a significant increase in social engagement behaviors as reported by all observers in general.

- 3) When comparing the initial data collected to post-data collection, was there a significant increase in social proximity behaviors as reported by parent and teacher ratings individually? Was there a significant increase in social proximity behaviors reported by all observers in general?

*Hypothesis:* It is hypothesized for research question three that there will be a significant increase in social proximity behaviors as reported individually by parent and teacher. It is also hypothesized that there will be a significant increase in social proximity behaviors as reported by all observers in general.

- 4) When comparing the initial data collected to post-data collection, was there a significant increase in perspective-taking behaviors as reported by:
  - a. Parent and teacher ratings individually
  - b. Observer ratings in general
  - c. Student ratings

*Hypothesis:* It is hypothesized for research question four that there will be a significant increase in perspective-taking behaviors as reported individually by parent and teacher. It is also hypothesized that there will be a significant increase in perspective-taking behaviors as reported by all observers in general. It is hypothesized that there will be a significant increase in perspective-taking behaviors as reported by the student.

- 5) When comparing post-data collection to the null hypothesis, was there a significant increase in global social competence behaviors as reported by:
- a. Students
  - b. Parent
  - c. Teacher
  - d. LSSP

*Hypothesis:* It is hypothesized that there will be an observed significant increase in global social competence behaviors as reported individually by the student, parent, teacher, and LSSP.

- 6) When comparing the initial data to post-data collection, was there a significant increase in global social competence as reported by:
- a. Students
  - b. Parents and teacher individually
  - c. Observer ratings in general

*Hypothesis:* It is hypothesized that there will be a significant increase in global social competence as reported by students. It is also hypothesized that there will be a significant increase in global social competence as reported individually by parent and teacher. It is

hypothesized that there will be a significant increase in global social competence as reported by the observers in general.

### **Instrumentation**

The summer program focused on building key social skills that have been determined by researchers to be important to overall social development including social communication, perspective-taking, social engagement, and social proximity (Winner, 2007; Winner, 2003; Baker 2003). Interviews were conducted three to four months after the program to gather follow-up information on the student's social behaviors and whether these behaviors have improved or increased. Specific questions about the program were asked, such as how the program helped the student, and/or if the interviewee felt the program helped the student in any way. The interview questions are outlined in Appendix B.

Questionnaires were also developed that were given to the parent, teacher, and student two to three months before the intervention. The questionnaires asked each person to rate the participant's social behaviors and included ten questions in Likert scale format regarding social behaviors of the student. The Likert scale used numbers 1-4 to rate the student's behavior over the past six months (1= not true, 2= sometimes true, 3=often true, 4=almost always true. The same questionnaire was used for post-data collection. Since the program took place over the summer, the teacher who rated the student at pretest was, for the majority, not the same teacher who rated the student at posttest. Specific Likert-scale questions were selected by the author to compare pre- and

post-ratings to determine significant changes in social behaviors affected by the program intervention. The questionnaires are outlined in Appendix B. A list of the data collected for each student, including dates, is outlined in Appendix E.

## **Procedures**

### **Measurement of Individual Social Skills**

The effects of the intervention instruction on the four domains of social skills were assessed with paired samples t-tests, comparing the scores on the parents', teachers', and students' reports at time 1 (T1) and time 2 (T2). Again, the majority of teachers who rated the student at T2 were not the same teacher who rated the student at T1. To account for this difference, the teacher posttest forms were given to the teacher after six weeks of having the student in their classroom so that they might have an understanding of the student's current social functioning. Cohen's measures of effect size (*d*) were reported in some cases to better illustrate the magnitude of the differences between pre and posttests. Statements from the Likert scale questionnaire were selected by the author which addressed each individual social skill area that was measured. To improve reliability, another expert in the field of psychology was provided the Likert scale questionnaire and also determined the statements selected addressed each individual social skill area that was measured. Each of the specific areas and selected questions from the questionnaire to measure these areas are outlined below.

The selected questions were also be compared pre and post-measurement through presenting percentages of increases in social skill behaviors as rated by the student, parent, and teacher. For the purpose of this study, an increase on the Likert scale will be

defined as a rating that increased one or more points on the Likert-scale when compared to the initial rating collected. For example, if a parent rated a child's social behavior with a 1 (not true) in the initial data and on the post-data collection rated the same statement a 3 (often true), this would be determined as a behavior that increased from pre to post-rating. For statements selected in which a lower rating of that behavior demonstrates an increase in the social skill (e.g., *would rather be alone than with others*), a rating that decreased one or more points on the Likert-scale when compared to the initial rating collected will be determined as an "increase" in the social skill behavior.

A test of normality was used to determine whether to use the non-parametric Wilcoxon t-test or parametric paired sample t-test for analysis of the data. Also, gender, eligibility, and age was explored for differences in pretest and posttest scores. Due to the small sample size, the non-parametric Mann-Whitney *U* t-test was used to determine differences in gender and eligibility in pretest and posttest measures. The non-parametric Spearman's rho correlation test was used to determine differences in gender and pretest and posttest measures.

### **Social Communication**

Two selected questions from the student questionnaire were used to address the first research question: *When comparing the initial data collected to post-data collection, was there a significant increase in social communication behaviors as reported by the student?* These statements are outlined in Table 3. A paired-sample t-test was analyzed to determine if there was a significant increase in the student ratings of his/her social

communication. It is hypothesized that these behaviors will significantly increase from pre- to post-measurement.

Table 3

*Measures of Social Communication*

Rater	Likert Scale Rating
Student	<i>I let friends know that I like them by showing or telling them</i> <i>I smile, wave, or nod at others</i>

**Social Engagement**

One statement from the Likert-scale questionnaire for parent and teacher ratings were used to address the second research question: *When comparing the initial data collected to post-data collection, was there a significant increase in social engagement behaviors as reported by parent and teacher ratings individually? Was there a significant increase in social engagement behaviors reported by all observers in general?* The Likert scale ratings was analyzed using paired sample t-tests to compare means of pre and post ratings of the student’s social engagement behavior for individual raters (parent and teacher). A paired sample t-test was also analyzed by collapsing the respondents to get an overall rating of the student’s social engagement behavior by observers. The selected statements on the questionnaire to measure social engagement are outlined in Table 4. It is hypothesized that parents and teachers will report a significant decrease in the rating of

the behavior on the Likert scale selected for social engagement, which demonstrates a significant increase in social engagement behavior.

Table 4

*Measuring Social Engagement*

Rater	Likert Scale Ratings
Parent and Teacher	<i>Would rather be alone than with others</i>

**Social Proximity**

One selected question from the Likert-scale questionnaire ratings by parent and teacher was used to address research question three: *When comparing the initial data collected to post-data collection, was there a significant increase in social proximity behaviors as reported by parent and teacher ratings individually? Was there a significant increase in social proximity behaviors reported by all observers in general?* The initial ratings of the parent and teacher on the Likert-scale questionnaire were compared to post-data ratings using a paired samples t-test to determine significance for individual raters (parent and teacher). The raters' responses were also collapsed and compared using a paired samples t-test to determine an overall rating of the student's social proximity behaviors by observers. The statement selected to determine and increase in social proximity is outlined in Table 5. It is hypothesized that there will be a significant increase in the rating of the social proximity behavior from pre to post-measurement.

Table 5

*Measures of Social Proximity*

Rater	Likert Scale Rating
Parent and Teacher	<i>Knows when he or she is too close to someone or invading someone's space</i>

**Perspective-Taking**

One selected statement from the Likert-scale questionnaire ratings by parent and teacher and two selected statements from the Likert-scale questionnaire ratings by the student were used to address research question four: *When comparing the initial data collected to post-data collection, was there a significant increase in perspective-taking behaviors as reported by: a) parent and teacher individually, b) observer ratings in general, c) student ratings.* The initial ratings of the parent and teacher on the Likert-scale questionnaire were compared to post-data ratings using a paired samples t-test to determine if there was a significant increase in the student's perspective-taking behaviors by each individual rater (parent and teacher). The respondents were also collapsed and a paired samples t-test was analyzed to determine an overall increase in perspective-taking skills as rated by observers. The student's initial rating was compared to post-data ratings using a paired samples t-test to determine if there was a significant increase in perspective-taking skills as reported by the student. The statements selected to determine and increase in perspective-taking are outlined in Table 6. It is hypothesized that there will be a significant increase in the rating of the perspective-taking behavior as reported by parent, teacher, and student from pre- to post-measurement.

Table 6

*Measures of Perspective-Taking*

Rater	Likert-Scale Rating
Parent and teacher	<i>Is able to understand the meaning of other people's tone of voice and facial expressions</i>
Student	<i>I say nice things to others when they have done something well I ask before using other people's things</i>

**Measuring Global Social Competence**

The questionnaires and interview questions were used to determine changes in social competence for the children who participated. Statements from the questionnaire and questions from the interviews were selected by the author which addressed social competency behaviors expected to increase after the intervention was implemented. The data collected from the interview questions were used to answer the fifth research question: *When comparing post-data collection to the null hypothesis, was there a significant increase in global social competence behaviors as reported by: a) student, b) parent, c) teacher, d) LSSP?*

The qualitative data from the interview questions were placed into two categories to determine relative frequencies for the interview questions. Respondents who answered “yes” will be coded as 1; respondents who answered “no” will be coded as 0. Since the question was open-ended, some responses were not directly “yes” or “no,” but were coded as such. For respondents that provided an answer that did not directly match “yes”

or “no,” a professional in the field of psychology was also asked to place the answer in the “yes” or “no” category, providing reliability and validity of the answers. Frequencies of the answers will be presented in a relative frequency table. A chi-square goodness of fit test was used to analyze each interview question by each respondent to determine significance of the frequency of increased behaviors. The selected interview questions to measure the broad socially competent behaviors are outlined in Table 7. It is hypothesized that there will be a significant increase in global social competency behaviors as reported individually by student, parent, teacher, and LSSP.

Table 7

*Measures of Global Social Competence - Interview*

Rater	Interview Question
Student	<i>Has it become easier for you to make friends since Future-All-Stars?</i>
Parent	<i>Does your child attempt to form more social relationships since Future All-Stars? Since participating in Future All-Stars, does your child appear to enjoy interacting with peers more?</i>
Teacher	<i>Does this student appear to enjoy interactions with peers? Have you seen the student attempt to form social relationships with their peers?</i>
LSSP	<i>Does this student appear to enjoy interactions with peers? Does this student attempt to form social relationships with peers?</i>

Selected statements from the questionnaire were also used to analyze the global social competency behaviors as reported by the student, parent and teacher. These statements were used to answer research question six: *When comparing the initial data to post-data collection, was there a significant increase in global social competence as reported by: a) students, b) parent and teacher individually, c) observer ratings in general?* A paired sample t-test was used to determine an increase in global social competency behaviors at T1 and T2 as reported by the student. Paired sample t-tests were also used to determine the significance of change in behaviors as reported individually by parent and teacher. The parent and teacher ratings were also collapsed and compared at

T1 and T2 to determine significance of a general observer rating. The selected statements from the Likert scale questionnaire are outlined in Table 8. It is hypothesized that there will be a significant increase in the student, parent, and teacher ratings. It is hypothesized that parents and teachers will report a significant decrease in the rating of the second selected question on the Likert scale for global social competence, which demonstrates a significant increase in global social competence.

Table 8

*Measures of Global Social Competence – Questionnaire*

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Rater	Likert-Scale Rating
Student	<i>I make friends easily</i>
Parent and teacher	<i>Seems self-confident when interacting with others</i> <i>Has difficulty making friends, even when trying his or her best</i>

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## CHAPTER IV

### RESULTS

This dissertation addressed five primary questions. The first four questions focused on the ability to measure change in the four areas of social skills (social communication, social engagement, perspective-taking, and social proximity) between pre and post ratings. The fifth question dealt with measuring change in global social competence between pre and post ratings, as well as measuring change using relative frequencies of change as reported by raters. The difference in ratings between age, gender, and eligibility of participants was also explored.

#### **Descriptive Statistics**

There were a total of 20 participants included in this study. The participants included students with ages ranging between 9 and 21 years old. The mean age was 14.2 years with a standard deviation of 3.27. Of the 20 participants, 16 were male and 4 were female. The participants included 14 students with a special education eligibility of Autism, one with Emotional Disturbance, one with Mental Retardation, one with Orthopedic Impairment, one with Attention Deficit/Hyperactivity Disorder (AD/HD), one with a Learning Disability, and one with an Auditory Impairment. Frequencies of gender and eligibilities are reported in Table 9.

Table 9

*Frequencies of Gender and Eligibility*

	Frequency	Percent	Cumulative Percent
<b>Gender</b>			
Male	16	80%	80%
Female	4	20%	100%
<b>Eligibility</b>			
Autism	14	70%	70%
Emotional Disturbance	1	5%	75%
Mental Retardation	1	5%	80%
Orthopedic Impairment	1	5%	85%
AD/HD	1	5%	90%
Learning Disability	1	5%	95%
Auditory Impairment	1	5%	100%

**Gender, Eligibility, and Age**

The non-parametric Mann-Whitney *U* test was conducted to test for differences between gender and eligibility by age. No significant differences were found between gender and age or eligibility and age. See Table 10.

Table 10

*Relationship Between Gender and Eligibility by Age*

	N	Mean	Standard Deviation	Median	Z score	p
<b>Gender</b>						
Male	16	13.75	3.30	14	-1.47	0.14
Female	4	16	2.83	17		
<b>Eligibility</b>						
Autism	14	13.57	3.59	12	-1.32	0.18
Other	6	15.67	1.86	15		

## Gender Differences in Scores

Non-parametric Mann-Whitney  $U$  tests were conducted to test for differences between genders for the questionnaire scores, both at pretest and posttest. Fifteen non-parametric Mann-Whitney  $U$  tests were conducted to test for differences between gender for the pretest questionnaire scores and two were found to be significant. For pre-test measures, the results revealed a significant difference between genders for the student rated item, "*I ask before using other people's things*",  $Z = -2.42, p = 0.02$ . Females ( $M = 4.00, SD = 0.00, Median = 4.00$ ) reported higher ratings on the student rated item than males ( $M = 2.81, SD = 0.83, Median = 3.00$ ), meaning they reported asking to use others' things more often. The results also revealed a significant difference between gender for the parent rated item, "*Knows when he or she is too close to someone or invading someone's space*",  $Z = -1.66, p = 0.01$ . Parents reported higher ratings of females ( $M = 3.00, SD = 1.41, Median = 3.50$ ) on the parent rated item than males ( $M = 1.79, SD = 1.05, Median = 1.00$ ) meaning girls more often knew when they were too close. See Table 11.

Fifteen non-parametric Mann-Whitney  $U$  tests were conducted to test for differences between gender for the posttest questionnaire scores and one was found to be significant. Similar to the pretest, the posttest results revealed a significant difference between genders for the teacher rated item, "*Knows when he or she is too close to someone or invading someone's space*",  $Z = -2.64, p = 0.01$ . Teachers reported higher ratings of females ( $M = 4.00, SD = 0.00, Median = 4.00$ ) on the teacher rated item than males ( $M = 2.50, SD = 0.89, Median = 2.00$ ). See Table 12.

Table 11

*Differences in Pretest Scores by Gender*

	Male				Female				Z score	p
	N	Mean	SD	Median	N	Mean	SD	Median		
<u>Student Pretest Items</u>										
I make friends easily	16	2.69	0.87	2.00	4	2.25	0.50	2.00	-0.86	0.39
I let friends know I like them by telling or showing them	16	2.63	1.02	2.00	4	3.00	0.82	3.00	-0.82	0.41
I say nice things to others when they have done something well	16	3.13	0.89	3.00	4	3.50	1.00	4.00	-0.82	0.41
I ask before using other people's things	16	2.81	0.83	3.00	4	4.00	0.00	4.00	-2.41	0.02*
I smile, wave, or nod at others	16	2.75	1.06	3.00	4	2.75	0.96	2.50	-0.05	0.96
<u>Teacher Pretest Items</u>										
Seems self-confident when interacting with others	16	2.50	0.97	2.00	4	2.25	0.50	2.00	-0.46	0.65
Would rather be alone than with others	16	2.06	1.00	2.00	4	2.25	1.26	2.00	-0.25	0.81
Is able to understand the meaning of other people's tone of voice and facial expressions	16	2.13	1.09	2.00	4	3.25	0.96	3.50	-1.76	0.80
Has difficulty making friends, even when trying his or her best	16	2.69	1.08	2.50	4	2.25	1.50	2.00	-0.69	0.49
Knows when he or she is too close to someone or invading someone's space	16	2.25	1.13	2.00	4	2.75	1.26	3.00	-0.78	0.44
<u>Parent Pretest Items</u>										
Seems self-confident when interacting with others	14	1.86	0.53	2.00	4	2.25	0.96	2.50	-1.04	0.30
Would rather be alone than with others	14	2.64	0.93	3.00	4	2.50	0.58	2.50	-0.46	0.65
Is able to understand the meaning of other people's tone of voice and facial expressions	14	2.57	0.94	3.00	4	3.00	0.82	3.00	-0.79	0.43
Has difficulty making friends, even when trying his or her best	14	2.79	1.05	3.00	4	2.75	1.26	3.00	0.00	1.00
Knows when he or she is too close to someone or invading someone's space	14	1.79	1.05	1.00	4	3.00	1.41	3.50	-1.66	0.01**

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$

Table 12

*Differences in Posttest Scores by Gender*

		<u>Male</u>			<u>Female</u>			Z	p		
		N	Mean	SD	Median	N	Mean	SD	Median	score	
<u>Student Posttest Items</u>											
	I make friends easily	13	2.54	0.97	3.00	3	2.67	1.15	2.00	-0.07	0.94
	I let friends know I like them by telling or showing them	13	2.85	1.14	3.00	3	3.33	0.58	3.00	-0.56	0.57
	I say nice things to others when they have done something well	13	3.23	1.09	4.00	3	2.67	1.15	2.00	-0.87	0.34
	I ask before using other people's things	13	3.08	0.95	3.00	3	4.00	0.00	4.00	-1.76	0.80
	I smile, wave, or nod at others	13	2.85	1.07	3.00	3	3.00	1.00	3.00	-0.14	0.88
<u>Teacher Posttest Items</u>											
74	Seems self-confident when interacting with others	16	1.94	0.68	2.00	4	2.25	0.96	2.50	-0.77	0.44
	Would rather be alone than with others	16	2.50	1.15	2.50	4	1.50	0.58	1.50	-1.57	0.12
	Is able to understand the meaning of other people's tone of voice and facial expressions	16	2.81	0.91	3.00	4	2.75	1.26	3.00	-0.52	0.96
	Has difficulty making friends, even when trying his or her best	15	2.33	0.72	2.00	4	2.00	1.41	1.50	-0.98	0.32
	Knows when he or she is too close to someone or invading someone's space	16	2.50	0.89	2.00	4	4.00	0.00	4.00	-2.64	0.01*
<u>Parent Posttest Items</u>											
	Seems self-confident when interacting with others	11	2.27	0.47	2.00	2	3.00	1.41	3.00	-0.97	0.33
	Would rather be alone than with others	11	2.45	0.82	2.00	2	3.00	0.00	3.00	-1.07	0.28
	Is able to understand the meaning of other people's tone of voice and facial expressions	11	2.64	0.81	2.00	2	3.00	1.41	3.00	-0.44	0.66
	Has difficulty making friends, even when trying his or her best	11	2.82	0.75	3.00	2	3.00	1.41	3.00	-0.21	0.83
	Knows when he or she is too close to someone or invading someone's space	11	2.00	0.77	2.00	2	2.50	2.12	2.50	-0.31	0.76

\*  $p \leq 0.01$

## Special Education Eligibility Differences and Scores

Non-parametric Mann-Whitney  $U$  tests were conducted to test for differences between special education eligibilities for the questionnaire scores, both pretest and posttest. Given the small amount of other eligibilities besides Autism in the sample size, the eligibilities were categorized into two groups: Autism and Other. Fifteen non-parametric Mann-Whitney  $U$  tests were conducted to test for differences between eligibilities and pretest scores and three were significant. For pretest measures, the results revealed a significant difference between eligibilities for the student rated item, "*I smile, wave, or nod at others*",  $Z = -2.15, p = 0.03$ . Other eligibilities ( $M = 3.50, SD = 0.84, Median = 4.00$ ) rated themselves higher on the student rated item than those with Autism ( $M = 2.43, SD = 0.94, Median = 2.00$ ), indicated that the other eligibility group waved more than the Autism group. The results revealed a significant difference between eligibilities on the parent rated item, "*Is able to understand other people's tone of voice and facial expressions*",  $Z = -2.13, p = 0.03$ . Parents rated other eligibilities ( $M = 3.17, SD = 0.75, Median = 3.00$ ) higher on the parent rated item than those with Autism ( $M = 2.00, SD = 1.11, Median = 2.00$ ). The results also revealed a significant difference between eligibilities on the parent rated item, "*Has difficulty making friends, even when trying his or her best*",  $Z = -2.39, p = 0.02$ . Parents rated students with Autism ( $M = 3.00, SD = 1.11, Median = 3.00$ ) higher on the parent rated item than those with other eligibilities ( $M = 1.67, SD = 0.52, Median = 2.00$ ). See Table 13, indicating more difficulty making friends for the group in the Autism category.

Non-parametric Mann-Whitney  $U$  tests were conducted to test for differences between eligibilities and posttest scores. Fifteen non-parametric Mann-Whitney  $U$  tests were conducted to test the differences between eligibilities and posttest scores and six were significant. The results revealed a significant difference between eligibilities and post-test scores on the student rated item, "*I smile, wave, or nod at others*",  $Z = -1.96, p = 0.05$ . Students with other eligibilities ( $M = 3.60, SD = 0.55, Median = 4.00$ ) rated themselves higher on the student rated measure than those with Autism ( $M = 2.55, SD = 1.04, Median = 3.00$ ).

The results revealed a significant difference between eligibilities on the teacher rated item, "*Seems self-confident when interacting with others*",  $Z = -2.02, p = 0.04$ . Teachers rated students with other eligibilities ( $M = 2.50, SD = 0.55, Median = 2.50$ ) higher on the teacher rated item than those with Autism ( $M = 1.79, SD = 0.70, Median = 2.00$ ). The results also revealed a significant difference between eligibilities on the teacher rated item, "*Would rather be alone than with others*"  $Z = -2.14, p = 0.03$ . Teachers rated students with Autism ( $M = 2.64, SD = 1.08, Median = 2.50$ ) higher on the teacher rated item than those with other eligibilities ( $M = 1.50, SD = 0.84, Median = 1.00$ ). The results revealed a significant difference between eligibilities on the teacher rated item, "*Is able to understand the meaning of other people's tone of voice and facial expressions*",  $Z = -2.32, p = 0.02$ . Teachers rated students with other eligibilities ( $M = 3.50, SD = 0.55, Median = 3.50$ ) higher on the teacher rated item than those with Autism ( $M = 2.50, SD = 0.94, Median = 3.00$ ). The results also revealed a significant difference between eligibilities on the teacher rated item, "*Has difficulty making friends, even when*

*trying his or her best*",  $Z = -2.10, p = 0.04$ . Teachers rated students with Autism ( $M = 2.54, SD = 0.88, Median = 2.00$ ) higher on the teacher rated item than those with other eligibilities ( $M = 1.67, SD = 0.52, Median = 2.00$ ).

The results revealed a significant difference between eligibilities on the parent rated item, "*Would rather be alone than with others*",  $Z = -2.26, p = 0.02$ . Parents rated students with other eligibilities ( $M = 3.25, SD = 0.50, Median = 3.00$ ) higher on the parent rated item than those with Autism ( $M = 2.22, SD = 0.67, Median = 2.00$ ).. See Table 14.

Table 13

*Differences in Pretest Scores by Eligibility*

	<u>Autism</u>				<u>Other</u>				Z score	p
	N	Mean	SD	Median	N	Mean	SD	Median		
<u>Student Pretest Items</u>										
I make friends easily	14	2.50	0.85	2.00	6	2.83	0.75	3.00	-1.13	0.26
I let friends know I like them by telling or showing them	14	2.64	1.01	2.00	6	2.83	0.98	2.50	-0.40	0.69
I say nice things to others when they have done something well	14	3.14	0.86	3.00	6	3.33	1.03	4.00	-0.54	0.59
I ask before using other people's things	14	2.93	0.92	3.00	6	3.33	0.82	3.50	-0.92	0.36
I smile, wave, or nod at others	14	2.43	0.94	2.00	6	3.50	0.84	4.00	-2.15	0.03*
<u>Teacher Pretest Items</u>										
Seems self-confident when interacting with others	14	2.29	0.83	2.00	6	2.83	0.98	2.50	-1.11	0.27
Would rather be alone than with others	14	2.36	1.01	2.00	6	1.50	0.84	1.00	-1.89	0.06
Is able to understand the meaning of other people's tone of voice and facial expressions	14	2.00	1.11	2.00	6	3.17	0.75	3.00	-2.13	0.03*
Has difficulty making friends, even when trying his or her best	14	3.00	1.11	3.00	6	1.67	0.52	2.00	-2.39	0.02*
Knows when he or she is too close to someone or invading someone's space	14	2.14	1.10	2.00	6	2.83	1.17	3.00	-1.24	0.22
<u>Parent Pretest Items</u>										
Seems self-confident when interacting with others	12	2.00	0.60	2.00	6	1.83	0.75	2.00	-0.54	0.60
Would rather be alone than with others	12	2.67	0.78	3.00	6	2.50	1.05	2.50	-0.41	0.69
Is able to understand the meaning of other people's tone of voice and facial expressions	12	2.58	0.79	3.00	6	2.83	1.17	3.00	-0.65	0.52
Has difficulty making friends, even when trying his or her best	12	2.92	0.90	3.00	6	2.50	1.38	2.50	-0.59	0.56
Knows when he or she is too close to someone or invading someone's space	12	2.17	1.34	1.50	6	1.83	0.98	1.50	-0.45	0.65

\*  $p \leq 0.05$

Table 14

*Differences in Posttest Scores by Eligibility*

	<u>Autism</u>				<u>Other</u>				<u>Z</u>	<u>p</u>
	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>Median</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>Median</u>	<u>score</u>	
<u>Student Posttest Items</u>										
I make friends easily	11	2.45	1.04	2.00	5	2.80	0.84	3.00	-0.65	0.51
I let friends know I like them by telling or showing them	11	2.64	1.12	3.00	5	3.60	0.55	4.00	-1.66	0.10
I say nice things to others when they have done something well	11	3.09	1.22	4.00	5	3.20	0.84	3.00	-0.12	0.90
I ask before using other people's things	11	3.18	0.98	3.00	5	3.40	0.89	4.00	-0.43	0.67
I smile, wave, or nod at others	11	2.55	1.04	3.00	5	3.60	0.55	4.00	-1.96	0.05*
<u>Teacher Posttest Items</u>										
Seems self-confident when interacting with others	14	1.79	0.70	2.00	6	2.50	0.55	2.50	-2.02	0.04*
Would rather be alone than with others	14	2.64	1.08	2.50	6	1.50	0.84	1.00	-2.14	0.03*
Is able to understand the meaning of other people's tone of voice and facial expressions	14	2.50	0.94	3.00	6	3.50	0.55	3.50	-2.32	0.02*
Has difficulty making friends, even when trying his or her best	13	2.54	0.88	2.00	6	1.67	0.52	2.00	-2.10	0.04*
Knows when he or she is too close to someone or invading someone's space	14	2.79	1.05	2.50	6	2.83	0.98	2.50	-0.89	0.93
<u>Parent Posttest Items</u>										
Seems self-confident when interacting with others	9	2.33	0.71	2.00	4	2.50	0.58	2.50	-0.76	0.45
Would rather be alone than with others	9	2.22	0.67	2.00	4	3.25	0.50	3.00	-2.26	0.02*
Is able to understand the meaning of other people's tone of voice and facial expressions	9	2.56	0.73	2.00	4	3.00	1.15	3.00	-0.68	0.50
Has difficulty making friends, even when trying his or her best	9	2.78	0.83	3.00	4	3.00	0.82	3.00	-0.50	0.62
Knows when he or she is too close to someone or invading someone's space	9	2.11	1.05	2.00	4	2.00	0.82	2.00	-0.08	0.94

\*  $p \leq 0.05$

## Relationship Between Age and Scores

Non-parametric Spearman's rho correlations were conducted to examine the relationship between age, and pre and posttest measures. For the pretest measures, the results revealed a significant positive correlation between the student item, "*I ask before using other people's things*" and the age of the participant,  $\rho = 0.60, p = 0.05$ , indicating that as age increased, the frequency of asking before using other people's things increased. The results revealed a significant negative correlation between the teacher posttest item, "*Would rather be alone than with others*" and the age of the participant,  $\rho = -0.59, p = 0.01$ . As age increased, ratings of student preference for being alone decreased. The results also revealed a significant negative correlation between the teacher posttest item, "*Has difficulty making friends, even when trying his or her best*" and the age of the participant,  $\rho = -0.53, p = 0.05$ . Similarly, as age increased students had less difficulty making friends. No other significant correlations were revealed between age and pre and posttest measures. See Table 15 and 16.

Table 15

*Correlation Between Age and Pretest Scores*

	Age		
	N	Correlation Coefficient	p
<u>Student Pretest Items</u>			
I make friends easily	20	0.24	0.31
I let friends know I like them by telling or showing them	20	0.22	0.36
I say nice things to others when they have done something well	20	0.34	0.14
I ask before using other people's things	20	0.60**	0.01
I smile, wave, or nod at others	20	0.22	0.36
<u>Teacher Pretest Items</u>			
Seems self-confident when interacting with others	20	0.37	0.11
Would rather be alone than with others	20	-0.44	0.05
Is able to understand the meaning of other people's tone of voice and facial expressions	20	0.36	0.12
Has difficulty making friends, even when trying his or her best	20	-0.11	0.63
Knows when he or she is too close to someone or invading someone's space	20	0.33	0.15
<u>Parent Pretest Items</u>			
Seems self-confident when interacting with others	18	0.11	0.68
Would rather be alone than with others	18	-0.14	0.59
Is able to understand the meaning of other people's tone of voice and facial expressions	18	-0.22	0.39
Has difficulty making friends, even when trying his or her best	18	-0.15	0.56
Knows when he or she is too close to someone or invading someone's space	18	0.33	0.18

$p \leq 0.01$  (2-tailed)

Table 16

*Correlations of Age and Posttest Scores*

	Age		
	N	Correlation Coefficient	p
<u>Student Posttest Items</u>			
I make friends easily	16	0.33	0.21
I let friends know I like them by telling or showing them	16	0.25	0.35
I say nice things to others when they have done something well	16	-0.07	0.79
I ask before using other people's things	16	-0.13	0.64
I smile, wave, or nod at others	16	0.29	0.27
<u>Teacher Posttest Items</u>			
Seems self-confident when interacting with others	20	0.26	0.27
Would rather be alone than with others	20	-0.59**	0.01
Is able to understand the meaning of other people's tone of voice and facial expressions	20	0.30	0.20
Has difficulty making friends, even when trying his or her best	19	-0.53*	0.02
Knows when he or she is too close to someone or invading someone's space	20	0.26	0.26
<u>Parent Posttest Items</u>			
Seems self-confident when interacting with others	13	-0.12	0.69
Would rather be alone than with others	13	0.55	0.05
Is able to understand the meaning of other people's tone of voice and facial expressions	13	-0.20	0.52
Has difficulty making friends, even when trying his or her best	13	-0.16	0.60
Knows when he or she is too close to someone or invading someone's space	13	0.03	0.92

\* $p \leq 0.05$  (2-tailed)\*\* $p \leq 0.01$  (2-tailed)

## Hypotheses

To determine whether the paired sample t-test or non-parametric Wilcoxon test would be appropriate, skewness, kurtosis, and the normality of the sample was examined for each of the items assessed. All of the items fell between -2.00 and 2.00 for skewness and kurtosis. A Shapiro-Wilk was conducted to test the normality of the sample. For each of the items assessed, the results indicated that none of the items violated normality therefore, paired sample t-tests were determined to be appropriate. See Tables 17 and 18 for descriptive statistics of pretest and posttest items, respectively.

Considering the small sample size, a post-hoc analysis of power was conducted to determine if the amount of power in the sample size was large enough to avoid Type II error. The analysis indicated that there was low power. It is possible that statistically significant results could not be detected due to the small sample size. The small point range may also make detecting statistically significant differences difficult. Accordingly, percentages of point differences in ratings were explored to determine more subtle qualitative changes in ratings.

Table 17

*Descriptive Statistics of Pretest Items*

	N	Range	Minimum	Maximum	Mean	SD
<u>Student Pretest Items</u>						
I make friends easily	20	2	2	4	2.60	0.82
I let friends know I like them by telling or showing them	20	3	1	4	2.70	0.98
I say nice things to others when they have done something well	20	2	2	4	3.20	0.89
I smile, wave, or nod at others	20	3	1	4	2.75	1.02
I ask before using other people's things	20	2	2	4	3.05	0.89
<u>Teacher Pretest Items</u>						
Seems self-confident when interacting with others	20	3	1	4	2.45	0.89
Would rather be alone than with others	20	3	1	4	2.10	1.02
Is able to understand the meaning of other people's tone of voice and facial expressions	20	3	1	4	2.35	1.14
Has difficulty making friends, even when trying his or her best	20	3	1	4	2.60	1.14
Knows when he or she is too close to someone or invading someone's space	20	3	1	4	2.35	1.14
<u>Parent Pretest Items</u>						
Seems self-confident when interacting with others	18	2	1	3	1.94	0.64
Would rather be alone than with others	18	3	1	4	2.61	0.85
Is able to understand the meaning of other people's tone of voice and facial expressions	18	3	1	4	2.67	0.91
Has difficulty making friends, even when trying his or her best	18	3	1	4	2.78	1.06
Knows when he or she is too close to someone or invading someone's space	18	3	1	4	2.06	1.21

Table 18

*Descriptive Statistics of Posttest Items*

	N	Range	Minimum	Maximum	Mean	SD
<u>Student Posttest Items</u>						
I make friends easily	16	3	1	4	2.56	0.96
I let friends know I like them by telling or showing them	16	3	1	4	2.94	1.06
I say nice things to others when they have done something well	16	3	1	4	3.13	1.09
I ask before using other people's things	16	3	1	4	3.25	0.93
I smile, wave, or nod at others	16	3	1	4	2.88	1.02
<u>Teacher Posttest Items</u>						
Seems self-confident when interacting with others	20	2	1	3	2.00	0.73
Would rather be alone than with others	20	3	1	4	2.30	1.13
Is able to understand the meaning of other people's tone of voice and facial expressions	20	3	1	4	2.80	0.95
Has difficulty making friends, even when trying his or her best	19	3	1	4	2.26	0.87
Knows when he or she is too close to someone or invading someone's space	20	3	1	4	2.80	1.01
<u>Parent Posttest Items</u>						
Seems self-confident when interacting with others	13	2	2	4	2.38	0.65
Would rather be alone than with others	13	3	1	4	2.54	0.78
Is able to understand the meaning of other people's tone of voice and facial expressions	13	2	2	4	2.69	0.85
Has difficulty making friends, even when trying his or her best	13	2	2	4	2.85	0.80
Knows when he or she is too close to someone or invading someone's space	13	3	1	4	2.08	0.95

**Hypothesis 1.** There will be a significant increase in social communication behaviors as reported by the student.

**Results.** The results of data analyses indicate that Hypothesis 1 was not statistically significant. The paired sample t-test was not significant between pre and post measures for either measure as reported by the student. Table 19 shows the paired sample t-test analysis. However, one-third of students rated themselves higher by at least one point on the Likert scale on the post-measurement for social communication behavior. See Table 20 for percentages.

Table 19

*Results of Paired Sample t-tests for Social Communication*

	<u>Pretest</u>			<u>Posttest</u>			t	p
	N	Mean	SD	N	Mean	SD		
<u>Student Rating</u>								
<i>I let friends know I like them by telling or showing them</i>	16	2.69	1.01	16	2.94	1.06	- 0.72	0.48
<i>I smile, wave, or nod at others</i>	16	2.75	1.06	16	2.88	1.02	- 0.49	0.63

Table 20

*Percent Values of Students' Ratings of Increase in Social Communication Behaviors*

Item	Percent Value (N=16)
<i>I let friends know I like them by showing or telling them.</i>	31.25%
<i>I smile, wave, or nod at others.</i>	31.25%

**Hypothesis 2.** There will be a significant increase in social engagement behaviors as reported individually by parent and teacher. It is also hypothesized that there will be a significant increase in social engagement behaviors as reported by all observers in general.

**Results.** This hypothesis was not supported via statistical significance but other quantitative means did suggest improvement. As seen in Table 21, the paired sample t-tests were not significant for individual raters (parents and teachers), or for observer ratings in general (combined rating). However, over two-thirds of parents and one-third of teachers indicated movement by at least one point on the Likert scale on post-measurement ratings of social engagement behavior. See Table 22 for percentages.

Table 21

*Results of Paired Sample t-tests for Social Engagement*

<i>Item: Would rather be alone than with others</i>	<u>Pretest</u>			<u>Posttest</u>			t	p
	N	Mean	SD	N	Mean	SD		
Teacher Rating	20	2.10	1.02	20	2.30	1.13	0.66	0.52
Parent Rating	12	2.83	0.58	12	2.67	0.65	0.80	0.44
Combined Rating	20	2.38	0.83	20	2.33	0.78	0.21	0.84

Table 22

*Percent Values of Observer Ratings of Increase in Social Engagement Behaviors*

Item	Parent Percent Value (N=12)	Teacher Percent Value (N=20)
<i>Would rather be alone than with others.</i>	66.70%	30.00%

**Hypothesis 3.** There will be a significant increase in social proximity behaviors as reported individually by parent and teacher. It is also hypothesized that there will be a significant increase in social proximity behaviors as reported by all observers in general.

**Results.** The hypothesis was not supported via statistical significance. As seen in Table 23, the paired sample t-tests were not significant for individual raters (parents and teachers), or for observer ratings in general (combined rating) for social proximity.

However, over one-fourth of parents and two-thirds of teachers rated the participant

higher by at least one point on the Likert scale on post-measurement ratings of social proximity behaviors. See Table 24 for percentages.

Table 23

*Results of Paired Sample t-tests for Social Proximity*

<i>Item: Knows when he or she is too close to someone or invading someone's space</i>	<u>Pretest</u>			<u>Posttest</u>			t	p
	N	Mean	SD	N	Mean	SD		
Teacher Rating	20	2.35	1.14	20	2.80	1.01	-1.37	0.19
Parent Rating	12	2.00	1.21	12	2.17	0.94	-0.62	0.55
Combined Rating	20	2.18	0.82	20	2.60	0.85	-1.97	0.06

Table 24

*Percent Values of Observer Ratings of Increase in Social Proximity Behaviors*

Item	Parent Percent Value (N=12)	Teacher Percent Value (N=20)
<i>Knows when he or she is too close or invading someone's space</i>	16.67%	60.00%

**Hypothesis 4.** There will be a significant increase in perspective-taking behaviors as reported individually by parent and teacher. There will also be a significant increase in perspective-taking behaviors as reported by all observers in general. There will be a significant increase in perspective-taking behaviors as reported by the student.

**Results.** The hypothesis was not supported via statistical significance. As seen in Table 25, the paired sample t-tests were not significant for the student, individual raters (parents and teachers), or for observer ratings in general for perspective taking. However, over one third of parents and half of teachers rated the participant higher by at least one point on the Likert scale on post-measurement ratings of perspective-taking behaviors. Less than one –fourth of students rated themselves higher by at least one point on post-measurement self-ratings of perspective-taking behaviors. See Table 26.

Table 25

*Results of Paired Sample t-tests for Perspective-Taking*

	<u>Pretest</u>			<u>Posttest</u>			t	p
	N	Mean	SD	N	Mean	SD		
<i>Item:</i>								
<i>Is able to understand the meaning of other people's tone of voice and facial expressions</i>								
Teacher Rating	20	2.35	1.14	20	2.80	0.95	-1.58	0.13
Parent Rating	12	2.58	1.00	12	2.67	0.89	-0.36	0.72
Combined Rating	20	2.43	0.88	20	2.73	0.79	-1.37	0.19
<u>Student Ratings</u>								
<i>I say nice things to others when they have done something well</i>								
	16	3.19	0.91	16	3.13	1.09	0.27	0.79
<i>I ask before using other people's things</i>								
	16	3.00	0.89	16	3.25	0.93	-0.89	0.39

Table 26

*Percent Values of Observer and Student Ratings of Increase in Perspective-Taking*

Item	Parent Percent Value (N=12)	Teacher Percent Value (N=20)	Student Percent Value (N=16)
<i>I say nice things to others when they have done something well.</i>			12.50%
<i>I ask before using other people's things.</i>			18.75%
<i>Is able to understand the meaning of other people's tone of voice and facial expressions.</i>	33.33%	50.00%	

**Hypothesis 5.** There will be an observed significant increase in global social competence behaviors as reported individually by the student, parent, teacher, and LSSP.

**Results.** This hypothesis was partially supported. A chi-square goodness-of-fit test was used to examine the reports of global social competence behaviors as reported by the student, parent, teacher, and LSSP. For this analysis, the observed counts were tested against the hypothesis of equal counts in each level of the variables measuring global social competence behaviors. The results revealed a significant deviation from expected values for the LSSP report of global social competence for the item, "*Does this student appear to enjoy interactions with peers?*",  $\chi^2(1) = 5.56, p < 0.05$ . A greater number of LSSP's than expected reported that students did appear to enjoy interactions with peers. The results also revealed a significant deviation from expected values for the LSSP report

of global social competence for the item, “*Does this student attempt to form social relationships with peers?*”,  $\chi^2 (1) = 8.00, p < 0.01$ . A greater number of LSSP’s than expected reported that students did attempt to form social relationships with their peers. The results revealed a significant deviation from expected values for the parent report of global social competence for the item, “*Does your child attempt to form more social relationships since Future Allstars?*”,  $\chi^2 (1) = 3.77, p < 0.05$ . More parents responded that their child attempted to form more social relationships since participating in the program. No other significant deviations were revealed. See Table 28 for results.

Table 27

*Observed and Expected Frequencies for Global Social Competence*

Item	Response	Observed Frequency	Expected Frequency
<u>Parent:</u>			
<i>Does your child attempt to form more social relationships since Future Allstars?</i>	Yes	10	6.5
	No	3	6.5
<i>Since participating in Future Allstars, does your child appear to enjoy interacting with peers more?</i>	Yes	10	7
	No	4	7
<u>Teacher:</u>			
<i>Does this student appear to enjoy interactions with peers?</i>	Yes	14	10
	No	6	10
<i>Have you seen the student attempt to form more social relationships with their peers?</i>	Yes	11	10
	No	9	10
<u>LSSP:</u>			
<i>Does this student appear to enjoy interactions with peers?</i>	Yes	14	9
	No	4	9
<i>Does this student attempt to form social relationships with peers?</i>	Yes	15	9
	No	3	9
<u>Student:</u>			
<i>Has it become easier for you to make friends since Future Allstars?</i>	Yes	11	8
	No	5	8

Table 28

*Chi-Square Results for Global Social Competence*

	$\chi^2$	df	p
<u>Parent:</u>			
<i>Does your child attempt to form more social relationships since Future Allstars?</i>	3.77	1	0.05*
<i>Since participating in Future Allstars, does your child appear to enjoy interacting with peers more?</i>	2.57	1	0.11
<u>Teacher:</u>			
<i>Does this student appear to enjoy interactions with peers?</i>	3.20	1	0.07
<i>Have you seen the student attempt to form more social relationships with their peers?</i>	0.20	1	0.66
<u>LSSP:</u>			
<i>Does this student appear to enjoy interactions with peers?</i>	5.56	1	0.02*
<i>Does this student attempt to form social relationships with peers?</i>	8.00	1	0.01**
<u>Student:</u>			
<i>Has it become easier for you to make friends since Future Allstars?</i>	2.25	1	0.13

\*  $p \leq 0.05$ \*\*  $p \leq 0.01$ 

**Hypothesis 6.** There will be a significant increase in global social competence as reported by students. There will also be a significant increase in global social competence as reported individually by parent and teacher. It is hypothesized that there will be a significant increase in global social competence as reported by the observers in general.

**Results.** The hypothesis was partially supported. Paired sample t-tests revealed that for the item, “*Seems self-confident when interacting with others,*” parent ratings of the students behavior after the program ( $M = 2.42, SD = 0.67$ ) were significantly higher than the ratings of the students behavior before the program ( $M = 1.92, SD = 0.67$ ),  $t(11) = -2.17, p = 0.05, d = 0.47$ . Paired sample t-tests also revealed that for the same item, teacher ratings of the students behavior before the program ( $M = 2.45, SD = 0.89$ ) were significantly higher than teacher ratings of the students behavior after the program ( $M = 2.00, SD = 0.73$ ),  $t(19) = 2.13, p = 0.05, d = 0.63$ . Paired sample t-tests did not reveal any other significant changes in ratings of global social competence. See Table 29.

Over one-third of students rated themselves higher by at least one point on the Likert scale on post-measurement ratings of global social competence. Half of parents and one-third of teachers reported at least a one point increase from pretest to posttest when rating students in self-confidence. Over half of parents and over one-third of teachers reported a decrease from pretest to posttest when rating students in difficulty making friends. See Table 30 for percentages.

Table 29

*Results of Paired Sample t-tests for Global Social Competence*

	<u>Pretest</u>			<u>Posttest</u>			t	p
	N	Mean	SD	N	Mean	SD		
Item:								
<i>Seems self-confident when interacting with others</i>								
Teacher Rating	20	2.45	0.89	20	2.00	0.73	2.13	0.05*
Parent Rating	12	1.92	0.67	12	2.42	0.67	-2.17	0.05*
Combined Rating	20	2.18	0.57	20	2.15	0.61	0.17	0.87
Item:								
<i>Has difficulty making friends, even when trying his or her best</i>								
Teacher Rating	19	2.58	1.17	19	2.26	0.87	1.06	0.30
Parent Rating	12	3.25	0.75	12	2.83	0.83	1.82	0.10
Combined Rating	20	2.73	0.92	20	2.40	0.70	1.55	0.14
<u>Student Rating</u>								
<i>I make friends easily</i>	16	2.44	0.73	16	2.56	0.96	-0.46	0.65

\*  $p \leq 0.05$

Table 30

*Percent Values of Observer and Student Ratings of Increase in Global Social*

*Competence*

Item	Parent Percent Value (N=12)	Teacher Percent Value (N=20)	Student Percent Value (N=16)
I make friends easily			31.25%
Seems self-confident when interacting with others.	50.00%	30.00%	
Has difficulty making friends, even when trying his or her best.*	58.33%	42.11%**	

\* Item shows percent decrease in rating (rated one or more points lower at post-measurement)

\*\* N = 19

## CHAPTER V

### DISCUSSION

The primary purpose of this dissertation was to conduct a program evaluation of a summer social skills program to determine its effectiveness in increasing social competence in the special education population. Children in the special education population have been shown to have more social skill difficulties than their general education peers (Hemphill & Siperstein, 1990; Hoza, 2007; Lavoie, 2010). Five primary questions drove this dissertation research. The first four questions were whether the summer social skills program increased the four areas of social competence in the students who participated: social communication, social proximity, perspective-taking, and social engagement. The fifth question was whether the summer social skills program increased global social competence overall in the students who participated. The dissertation also explored the differences in gender, eligibility, and age on the pretest and posttest measures.

#### **Exploration of Gender, Eligibility, and Age**

##### **Differences in Gender**

The results indicated no overall significant difference in gender on pretest or posttest scores. However, a few items on the pretest and posttest items did indicate a significant difference by gender. The results from this study indicate that even before the intervention; girls were more skilled at perspective-taking and social proximity

behaviors. This is consistent with other research relating gender and perspective-taking behaviors. In both preschool and school age populations, females have demonstrated higher empathy and perspective-taking skills than males (Zhao, Wang, Su, & Chan, 2010; Marton, Weiner, & Rogers, 2009, Wentzel, Filsetti, & Looney, 2007). Also, in previous research, gender differences have been reported in social competence behaviors by both parents and teachers, including social proximity behaviors (Kaloustian, 2011). In other research, preadolescent females were more likely to demonstrate recognition of personal space and boundaries (Harris, 2006).

### **Differences in Special Education Eligibility**

The results indicated that when compared to other eligibilities, students with Autism demonstrated weaker skills on the pretest and posttest scores on items related to social communication, social proximity, and perspective-taking behaviors, as well as global social competence behaviors. Difficulties in social skills which impact social competence in children with Autism is also supported by research (Baker, 2003; Winner, Crooke, & Madrigal, 2011; Sticher et al., 2010; Lacava, Golan, Baron-Cohen, & Myles, 2007). This is consistent with the diagnosis of Autism, including the impairment of social and communication behaviors (American Psychiatric Association [*DSM-IV-TR*], 2000).

Students with Autism rated themselves lower in the area of social communication, and teachers rated students lower in social engagement, perspective-taking, and global social competence behaviors. Lower ratings in the area of social communication are supported by previous research which indicates that students with Autism generally demonstrate difficulty with the use of nonverbal communication behaviors (Baker, 2003;

Walker, Barry & Bader, 2010; Myles & Simpson, 2001). Research supports the difficulty with perspective-taking behaviors in children with Autism, including recognizing facial expressions and tone of voice (Sticher et al., 2010; Lacava, Golan, Baron-Cohen, & Myles, 2007). Students with Autism have also shown differences in neural activation in the parts of the brain related to recognizing facial expressions and emotions (Weng, Carrasco, Swartz, Wiggins, Kurapati, & Liberzon, et al., 2011).

Other research has indicated that students with Autism demonstrate difficulty engaging with their peers in social situations (Winner, Crooke, & Madrigal, 2011; Winner, 2007; Baker, 2003; McGinnis & Goldstein, 1997). The results also revealed that teachers rated students with Autism significantly lower than other eligibilities on the posttest item related to global social competence, indicating lower self-confidence. This is supported by research indicating that children with Autism display lower self-confidence when interacting with their peers because they often do not know how to interact or what to do in a social situation (Winner, Crooke, & Madrigal, 2011; Baker, 2003).

The differences in pretest and posttest items related to the eligibility of Autism are interesting to explore. The children with Autism who participated in the summer social skill program most likely had several social skill barriers to overcome because the nature of their diagnosis relates to social behavior difficulties. Coupled with the majority of different teachers rating these students without prior knowledge of their social skill abilities, the outcome of the differences in eligibilities is not surprising.

## Differences in Age

One pretest student rated item related to perspective-taking behaviors (e.g., *"I ask before using other people's things"*) had a significant positive relationship with age.

Students who were older were more likely to ask before using other people's things. This is supported by developmental theory related to positive social behaviors (Durkin, 2005). As children get older, they learn positive social behaviors through teaching, observing, and their own experience, including perspective-taking behaviors (Bandura, 1977).

The results of the study also revealed a significant relationship between age and posttest scores for the teacher rated item related to social engagement (e.g., *"Would rather be alone than with others"*). Teachers rated students who were older as less likely to rather be alone than with others. Child development and stages of play theory supports this relationship between age and social engagement behaviors (Parten, 1932). As children develop, they demonstrate different levels of play, from playing alone to cooperative play (Parten, 1932). Older children are more likely to demonstrate cooperative play behavior, requiring them to socially engage with their peers.

A significant relationship was also indicated between age and the posttest scores for the teacher rated item related to global social competence (e.g., *"Has difficulty making friends, even when trying his or her best"*). Teachers rated students who were older as less likely to have difficulty making friends. There are two underlying assumptions to this relationship. The first is that students in the special education population, especially those with Autism, are generally identified during elementary school (Government Accountability Office, 2006). These students are then more likely to

receive services and interventions to target specific needs related to their eligibility. Students with Autism are more likely receive social skill training and interventions which allow them to acquire specific social skills (Myles & Simpson, 2001; Baker, 2003; Winner, 2002; Saracho & Spodek, 1998). Consequently, as the student gets older, they are more likely to have had several social skill interventions and develop the skills needed to be able to make and keep friends. The majority of students in this study had participated in previous social skill interventions through their special education services. The second assumption is supported by research from social and emotional developmental theory (Erikson, 1968; Sullivan, 1953). Sullivan (1953) developed an interpersonal theory which suggests that as children develop, they rely on friendships to meet the need for social acceptance, cooperation, compromise, and empathy. This is especially true in adolescence, as most teens shift their priority for peer relationships over other relationships (i.e., parents or siblings) (LaFonta & Cillessen, 2010).

Although there was not an overall significant relationship between age and pretest or posttest scores, there were a few significant relationships to explore. Many of the relationships were supported through social and emotional child development theories and research. As this study suggests, as children age, they develop more prosocial behaviors, including perspective-taking, social engagement, and perspective-taking skills, as well as a need to develop friendships.

### **Social Skill Areas**

Although the study did not find statistically significant differences between pretest and posttest scores in the four social skill areas, the increase in these social skills

was observed through the qualitative differences in the percentages of raters who reported increase in these behaviors by one or more points. The fact that the social skill areas were not statistically significant is likely due to the restricted range of the Likert scale ratings. The scale was only a four-point scale, which undermines the subtle differences reported by raters. Also, the post-hoc analysis of power indicated low power for the non-significant items, indicating that the sample size was too small to prevent Type II errors.

### **Measurement of Social Communication**

Although the study did not find a statistically significant difference between pretest and posttest measures for social communication behaviors, the increase in social communication was observed through the qualitative differences in the percentages of students who reported an increase in these behaviors. The fact that this study did not find an increase in social communication behaviors could be due to the fact that students who participated in the summer social skills program may have gained a better awareness of their social communication behaviors through the interventions used. Therefore, the students may have rated themselves more accurately on the posttest measure. A model of social skill development by Winner, Crooke, & Madrigal (2011) suggests that a person's social skill development is relative to the perception of their own development. By participating in the summer social skills program, students became more knowledgeable and self-aware of the skills they lack, skills they have learned, and which specific skills to use in a social situation.

Consequently, at the conjunction of relative perception and self-awareness, it would be expected to see a minimal or no reported increase in social communication behaviors.

However, the percent of students who reported themselves as increasing in social communication behaviors by one or more point at posttest was more than one-third of the participants. Given this increase, it can also be assumed that these students observed a change in their own social communication behaviors relative to their previous functioning.

The program taught social communication skills through social skill instruction, modeling, and role-playing. Students were provided opportunities to communicate with their peers during unstructured time while playing with others and during structured time when making an art project or snack. Peer mentors were also present to serve as role models for the students in social settings. The increase in social communication behaviors suggests the program's effectiveness in using these interventions to teach social communication skills.

### **Measures of Social Engagement**

There were a greater than two-thirds percentage of parents that reported a decrease of at least one or more points in a student's preference to be alone, therefore suggesting an increase in social engagement behavior. As previously mentioned, the majority of teachers who rated the student's behavior at pretest were not the same teachers who rated the student's behavior at posttest. Interestingly, one-third of these teachers indicated an increase in social engagement behavior. This suggests that there was a relative increase in students' social engagement behaviors as reported by teachers.

Again, these percentages are supported by Winner, Crooke, & Madrigal's (2011) model of social skill development. Parents reported a relative increase in the students'

ability to socially engage with others by demonstrating a preference to be with others. This behavior was relative to where the student began prior to the intervention. Other research supports that after social skill interventions, participants are more likely to socially engage with peers (Lavoie, 2010; Baker, 2003; Winner, 2007; Hart, 2010). This also goes back to the increase of self-confidence and self-awareness of the student. As the student gains positive experiences interacting with others and learns the skills necessary to appropriately engage with their peers, they are more likely to continue that social engagement behavior (Bandura, 1977; Durkin, 2005).

These percentages of increase also indicate that the interventions used to teach social engagement in the program were effective. Participants learned social skills through teaching, role modeling, and social autopsies. Participants of the program were then provided several opportunities to socially engage with their peers through unstructured time, where they were allowed to play with toys or play games with others. The program also integrated peer mentors to role model social engagement behaviors during unstructured time, allowing for participants to observe and learn appropriate skills. The program was also designed so that participants were in constant engagement with others, whether it be the teacher, staff, or peers. By providing ample opportunities to practice the skill after learning it, participants were able to generalize that skill outside of the social skill program into their school and home environment.

### **Measurement of Social Proximity**

Two-thirds of teachers and over one-fourth of parents reported an increase in social proximity behaviors by one point or more from pretest to posttest. The fact that

teachers reported a higher increase could be attributed to the school environment lending more opportunity for students to be observed in the proximity of their peers. The school environment includes children playing with one another, working on projects with one another, and constant interactions with other peers. These activities offer opportunities to observe social proximity behaviors such as joining-in activities, sitting with a group, or being actively involved when working with a peer.

This is further evidence that the relative perception of a students' social skill development is imperative to understand when rating their social skill behavior. The most compelling argument for this includes the fact that the posttest teachers were most likely not the same teachers that rated the student at pretest. These teachers may have had no prior knowledge of the students social proximity behaviors, yet were rated these students one or more points higher than the previous teacher, providing support to the students' progress in this social skill behavior.

The notion that the parent and teacher percentages were drastically different is supported by other research which suggests that social behavior is context specific (Epps, Park, Huston, & Ripke, 2003). The school setting contains different social behavioral requirements than the home setting, and children adapt their behavior to the environment. As previously mentioned, the school setting lends itself to more opportunity for social interaction, including social proximity. Parents may not have rated their student as high on this item related to social proximity because they were limited in the opportunities to observe their child demonstrating this behavior.

Again, this increase in social proximity behaviors also provides support for the interventions used to teach social proximity behaviors. Participants were provided numerous opportunities to find ways to demonstrate appropriate social proximity behaviors through unstructured time when playing with others. Using social autopsies and modeling of these skills to teach appropriate behaviors, students were able to learn how to join-in activities and how to recognize when they might be invading someone's space.

### **Measurement of Perspective-Taking**

Half of teachers and over one-third of parents reported an increase in the students' ability to understand the meaning of other people's tone of voice or facial expression by one or more points from pretest to posttest. Interestingly, less than one-fourth of students reported an increase in the perspective-taking behavior of saying nice things to others when they have done something well. A little over one-fourth reported an increase in the perspective-taking behavior of asking before using other people's things. Both of these behaviors measure the student's expressive behaviors, meaning that the student has to act on the social-cognitive thought. In other words, the students may developmentally be at the point where they are thinking about saying something nice to someone or asking before using other people's things, but have not reached the point to act on that behavior.

This is supported by Winner, Crooke, & Madrigal's (2011) model, suggesting that these students are continuing to develop these perspective-taking behaviors, but have not completely been able to demonstrate the entire behavior. Winner, Crooke, & Madrigal

(2011) refers to these students as “emerging social communicators.” Emerging social communicators are generally inefficient at their ability to think through perspective-taking behaviors and most often need extra time to process and respond to social information (Winner, Crooke, & Madrigal, 2011).

Perspective-taking behaviors were taught in the program through social cognitive mapping. This intervention helped participants to understand how their behavior impacts others and can lead to positive or negative consequences. Perspective-taking behaviors are more difficult to teach, as they require more cognitive thought with the use of executive functioning skills (Winner, 2007, Stichter, Visovsky, Schmidt, Randolph, Shultz, & Gage, 2010). Although more difficult to grasp, parents, students, and teachers indicated increases in perspective-taking behaviors in participants of the social skills program, suggesting the program’s effectiveness in teaching these skills.

In summary, students indicated that they saw an increase in their own social communication and perspective-taking behaviors after participating in the social skills program. Teachers and parents reported increases in social engagement, social proximity, and perspective-taking behaviors in the participants. The increases in these social skill behaviors indicate that the participants made progress relative to their own social development by participating in the social skills program.

### **Measures of Global Social Competence**

The study found a statistically significant increase in some measures of global social competence. Both parents and LSSP’s reported that the student attempted to form social relationships with peers since participating in the summer social skills program.

Also, LSSP's reported that students appeared to enjoy interactions with peers. Parents and teachers also reported a significant increase in the student's self-confidence when interacting with peers. The fact that these items were significant may lend itself to suggest that self-confidence plays a factor in forming social relationships.

Other research supports the idea of self-confidence as an important role in social relationships (Winner, Crooke, & Madrigal, 2011; Shapiro, 2010, Hansen, 2009). The summer social skills program not only taught students social skills, but also created a positive, non-threatening environment for students to gain self-confidence in their ability to socially interact with others. The social skills that were learned by the student's in the social skills program further perpetuated their self-confidence. Having the social skills and self-confidence needed to socially interact, they were able to form more relationships and enjoy their interactions with peers.

This is also supported by the one-third percent of students who reported an increase by one or more points from pretest to posttest in their ability to make friends easily. Parents and teacher reports also supported this increase in the students' ability to make friends easily. Over half of parents and more than one-third of teachers reported a decrease in the student's difficulty with making friends.

### **Limitations**

The most serious limitation of this research study was the sample size. Using only 20 participants created difficulty in having enough power to obtain significant statistical data to accurately measure the effectiveness of the summer social skills program on social skills and social competence. While the percentages of increase were valuable to

report, it leaves the exact nature of whether the summer program truly increased social skills and social competence speculative.

Another limitation, which is due to the nature of the program being held over the summer, is that the teachers who reported on the social skill behaviors at pretest were generally not the same teachers who reported at posttest. This is one limitation that is difficult to create a solution for, as the student's generally move from one grade level to the next, leaving a new teacher to rate their behaviors. However, to ensure that the teachers were able to accurately rate the student's posttest behavior, teachers were contacted six weeks after school began in order to allow time for the teacher to have a better understanding of the student's level of social functioning.

Three limitations exist concerning the use of the Likert-scale questionnaire. The inability to utilize all raters for each of the social skill items, especially the student ratings, made it difficult to truly grasp the student's progress. Also, even when there were multiple raters, the items being measured were not the same for each rater. The second limitation was that the questionnaires only contained one or two items which measured the specific social skill area. The third limitation was that the questionnaire contained a restricted range, only using four-points to indicate increases in behaviors. This small range does not allow for statistical exploration of slight differences in pretest and posttest scores.

### **Implications for Future Research**

It is hoped that this study and its findings sparks an interest in the psychological study of social skill interventions designed for special education populations. More

specifically, it is believed that future research has three primary objectives in addition to the already growing research in social skill interventions: 1) the creation and study of more intensive social skill programs, 2) investigation of other social skill programs which serve all special education populations, and 2) conducting evaluations of such programs for effectiveness.

The first objective is the creation and study of more intensive social skill programs. Research has indicated that the most effective social skill interventions are those that consist of more intensity, frequency, and duration (Bellini, Peters, Benner, & Hopf, 2007). By creating intensive social skill programs, it is likely that students may make more progress in their social development than through more traditional practices. Developing and studying these programs would also provide further evidence for specific social skill teaching interventions and answer more strategic questions for people creating new social skill interventions such as: What are the best strategies for teaching social skills? How frequent should the program meet to make the most progress? How long should the program last?

The second primary objective of future research on social skill interventions should be to investigate other social skill programs which serve all special education populations. One of the biggest gaps in the social skill intervention research is the lack of research on the effectiveness of social skill interventions on other special education eligibilities besides Autism and many of these programs are only created to serve one eligibility (Walker, Barry, & Bader, 2010; Mrug & Hodgins, 2008; Lopata, Thomeer, Volier, Nida & Gloria, 2008; Solomon, Goodlin-Jones, & Anders, 2004). By

investigating other social skill programs which serve all special education populations, universal interventions can be created. Information on specific teaching strategies which are more effective for specific eligibilities can also be investigated.

The third and last primary objective is conducting evaluations of the social skill programs that include all special education populations. These evaluations will provide further information on their effectiveness for these groups of students, as well as indicate the effectiveness of the teaching strategies used. Evaluations will also provide feedback for improvement and changes in order to create the most efficient and effective social skill program.

### **Implications for School Psychology and Clinical Practice**

These results have “practical” implications for school psychologists and other professionals working with students who have social competency deficits. First, it provides a framework in which to understand the social skills which incorporate social competency. Secondly, the results of this study indicate that increasing self-confidence is also important when teaching social skills. Third, the results of this study also indicate that social skill programs may be effective for all special education populations.

The research provided in this study suggests that the four social skill areas of social competence are social communication, social engagement, social proximity, and perspective-taking. By understanding this framework, school psychologists and other professionals are better able to create and utilize interventions targeted at these specific social skill areas in order to increase social competence in their students. This framework

also provides a guide in assessing a student's social competency through the progress made in each of the four social skill areas after using an intervention.

This study also indicated that self-confidence plays a role in the development of peer relationships and social interaction with peers. School psychologists and other professionals will be able to use this information in practice by providing a positive environment for students to learn and practice social skills. It also provides another factor to incorporate and perhaps even assess when utilizing social skill interventions with students.

Lastly, this study also indicated that the use of this social skill program was effective for other eligibilities besides Autism. By using this research, school psychologists and other professionals can create more practical settings and intervention groups which reflect the classroom environment. Also, as the role of the school psychologist becomes spread thin, creating group interventions to serve multiple eligibilities creates a more effective and productive use of time management while providing an intervention found to be effective.

### **Summary**

This dissertation research adds to the study and understanding of social competency and effective interventions for the special education population. Although the research was not found to be statistically significant in increasing the four areas of social competence, the raters did indicate an increase in the social skill behaviors after the students participated in the summer social skills program. This data suggests that the students did in fact increase in their social skill behaviors, which was supported by the

significance in change of global social competence behaviors. Students, parents, and teachers indicated that the students were better able to make friends. Parents and LSSP's also indicated that after participating in the program, students attempted to form more social relationships and LSSP's also indicated that students appeared to enjoy interacting with peers. Parents and teachers also reported a significant difference in the students' self-confidence when interacting with peers.

It is hoped that this research sets the framework for other social skill programs to continue to improve and include more special education populations in their interventions. Since social skill interventions have increased due to the rising diagnosis of Autism, the pressure to create effective and useful interventions to target social competence has increased. Researchers, school psychologists, and other professionals can work together to investigate, utilize, and research social skill programs which can be used for children who have social competency deficits. This research will continue to create more widely used social skill interventions that are effective at increasing social competence in special education.

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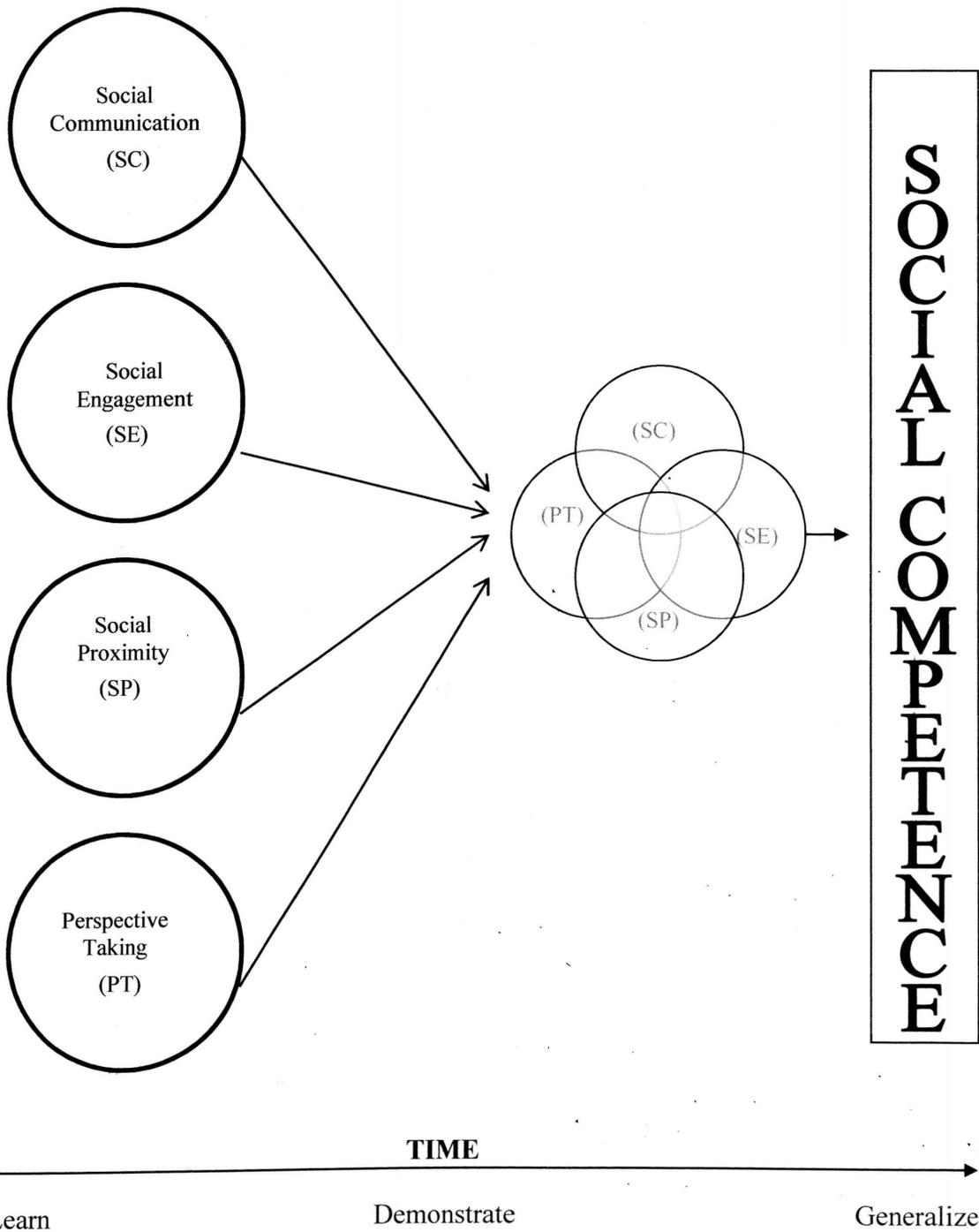
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APPENDIX A

INTERACTIONS OF FOUR AREAS OF SOCIAL COMPETENCE.



APPENDIX B  
INTERVIEWS AND QUESTIONNAIRES

## Future All-Stars Follow-up Questions (Parent)

1. Describe your child.
2. Describe your child's strengths.
3. Describe your child's weaknesses.
4. What behaviors have improved since your child participated in Future Allstars?
  - 4a. Have these improvements remained stable since participating in Future Allstars or have they declined?
  - 4b. If these improvements have remained stable, please explain any factors that have helped to maintain these improvements.
  - 4c. If these improvements have declined since the program, please explain how they have declined.
5. Does your child attempt to form more social relationships since participating in Future Allstars?
  - 5a. If your child is attempting to form more social relationships since Future Allstars, in what ways are they doing so?
  - 5b. If your child is *not* attempting to form more social relationships since Future Allstars, what is preventing them from doing so?
6. Since participating in Future Allstars, does your child appear to enjoy interacting with peers more? Please explain.
7. Since Future Allstars, has your child formed any social relationships with peers whom he/she interacts with outside of school? If so, please explain.
8. What is the greatest improvement that your child has made since participating in Future Allstars?
9. Is your child involved in any of the following activities?
  - Extracurricular activities (sports, band, etc.)
  - Clubs, organizations
  - Outside counseling
  - Private lessons, counseling

10. Has your child joined/began any of these activities since Future Allstars?

Future All-Stars Follow-up Questions (Teacher)

1. Describe this student.
2. Describe this student's strengths.
3. Describe this student's weaknesses.
4. Describe this student's interactions with peers.
5. Please check the situations in which this student interacts with peers *on a regular basis*:

- |  |  |
|--|--|
| <input type="checkbox"/> Unstructured Time | <input type="checkbox"/> Group Projects  |
| <input type="checkbox"/> Eating Lunch      | <input type="checkbox"/> Recess/Break    |
| <input type="checkbox"/> Class Discussions | <input type="checkbox"/> Between Classes |
| <input type="checkbox"/>                   |  |

Other: \_\_\_\_\_

6. Please check the following behaviors that this student engages in *on a regular basis*:

- |   |  |
|---|--|
| <input type="checkbox"/> Eating Lunch Alone   | <input type="checkbox"/> Isolating Self From Peers     |
| <input type="checkbox"/> Not Talking To Peers | <input type="checkbox"/> Easily Annoyed By Peers       |
| <input type="checkbox"/> Awkward Around Peers | <input type="checkbox"/> Behaviors That Alienate Peers |
| <input type="checkbox"/> Other: -             |  |

- 
7. Describe this student's social interactions with peers.
  8. Have you seen the student attempt to form social relationships with their peers?  
Please provide examples.
  9. Does this student appear to enjoy interactions with peers?
  10. Does this student appear to self-monitor behavior? In what ways does the student appear to be self-monitoring?
  11. Does this student appear comfortable receiving constructive feedback?

12. Since the beginning of the school year, what aspects of this student's social skills have improved?
  - 12a. What factors have contributed to the improvement of this student's social skills?
13. Since the beginning of the school year, what aspects of this student's social skills have declined?
  - 13a. What factors have contributed to the decline of these social skills?
14. Since the beginning of the school year, what aspects of this student's social skills have remained the same?
15. Is this student involved in any extracurricular or other group activities? Please explain.

### Future All-Stars Follow-Up Questions (LSSP)

1. Describe this student.
2. How long have you worked with this student?
3. Describe this student's strengths.
4. Describe this student's weaknesses.
5. Please describe the student's social interactions with peers.
6. Please check the situations in which this student interacts with peers **on a regular basis**:

- |  |  |
|--|--|
| <input type="checkbox"/> Unstructured Time | <input type="checkbox"/> Group Projects  |
| <input type="checkbox"/> Eating Lunch      | <input type="checkbox"/> Recess/Break    |
| <input type="checkbox"/> Class Discussions | <input type="checkbox"/> Between Classes |
| <input type="checkbox"/> Other:            |  |
- 

7. Please check the following behaviors that this student engages in **on a regular basis**:

- |   |  |
|---|--|
| <input type="checkbox"/> Eating Lunch Alone   | <input type="checkbox"/> Isolating Self From Peers     |
| <input type="checkbox"/> Not Talking To Peers | <input type="checkbox"/> Easily Annoyed By Peers       |
| <input type="checkbox"/> Awkward Around Peers | <input type="checkbox"/> Behaviors That Alienate Peers |
| <input type="checkbox"/> Other: -             |  |
- 

8. Does this student attempt to form social relationships with peers?
9. Does the student appear to enjoy interactions with peers?
10. Does this student appear to be self-monitoring behavior? If so, in what ways are they doing so?
11. Does the student appear comfortable receiving constructive feedback?
12. Since the beginning of the school year, what aspects of this student's social skills have improved?



### Future All-Stars Follow-Up Questions (Elementary)

1. Describe yourself.
2. How many friends do you have?
3. Do you have friends at school?
4. Do you have friends that come over to your house?
5. Has it become easier for you to make friends since Future Allstars? Please explain.
6. Do you like to work in groups or by yourself? Why?
7. Have you made more friends since Future Allstars?
8. How has Future Allstars helped you at school?
9. How has Future Allstars helped you at home and other places?

### Future All-Stars Follow-up Questions (Middle)

1. Describe yourself.
2. How many close friends do you have? Please tell about them.
3. Has it become easier for you to make friends since Future Allstars? Please explain.  
Do you have friends that you hang out with at school? Please explain.
4. Do you have friends that you hang out with outside of school? Please explain.
5. Has it become easier to get along with others since Future Allstars? Please explain.
6. Is it easier to work in a group since Future Allstars? Please explain.
7. Have you made more friends since Future Allstars? Please explain.
8. How has Future Allstars helped you at school?
9. How has Future Allstars helped you at home and other places?
10. Have you begun initiating more conversations since participating in Future Allstars?
11. Do you enjoy engaging in activities with your peers? Please explain.
12. Are you involved in any of the following activities?
  - After school activities (sports, band, etc.)
  - Clubs, organizations
  - Outside counseling
  - Private lessons, counseling
  - Other group activities with friends: \_\_\_\_\_
13. Did you start any of these activities after Future Allstars? Yes No

### Future All-Stars Student Follow-Up Questions (High)

1. Describe yourself.
2. How many close friends do you have? Please tell about them.
3. Has it become easier for you to make friends since Future Allstars? Please explain.
4. Do you have friends that you hang out with at school? Please explain.
5. Do you have friends that you hang out with outside of school? Please explain.
6. Has it become easier to get along with others since Future Allstars? Please explain.
7. Is it easier to work in a group since Future Allstars? Please explain.
8. Have you made more friends since Future Allstars? Please explain.
9. How has Future Allstars helped you at school?
10. How has Future Allstars helped you at home and other places?
11. Have you begun initiating more conversations since participating in Future Allstars?
12. Do you enjoy engaging in activities with your peers? Please explain.
13. Are you involved in any of the following activities?
  - After school activities (sports, band, etc.)
  - Clubs, organizations
  - Outside counseling
  - Private lessons, counseling
  - Other group activities with friends: \_\_\_\_\_
14. Have you started any of these activities after Future Allstars? Yes No

## Future Allstars Questionnaire: Parent Form

**Student Information:**

Name _____	Date _____		
School _____	<input type="checkbox"/> Sex:	<input type="checkbox"/> Female	Male
Grade _____	Birth date _____		

**Parent Information:**

Name _____	How are you related to this child?
_____	
_____	

Directions: For each question, circle the number that best describes the child's behavior over the past 6 months.

**1= Not True    2=Sometimes True    3=Often True    4=Almost Always True**

1. Seems self-confident when interacting with others.....1    2    3    4
2. Would rather be alone than with others.....1    2    3    4
3. Clings to adults, seems too dependent on them.....1    2    3    4
4. Is able to understand the meaning of other people's tone of voice and facial expressions.....1    2    3    4
5. Is regarded by other children as odd or weird.....1    2    3    4
6. Becomes upset in a situation with lots of things going on.....1    2    3    4
7. Has difficulty making friends, even when trying his or her best.....1    2    3    4
8. Is socially awkward, even when he or she is trying to be polite.....1    2    3    4
9. Knows when he or she is too close to someone or invading someone's space.....1    2    3    4
10. Is too tense in social settings.....1    2    3    4

## Future Allstars Questionnaire: Teacher Form

### Student Information:

Name _____	Date _____		
School _____	<input type="checkbox"/> Sex:	<input type="checkbox"/> Female	Male
Grade _____			

### Teacher Information:

Name _____	Class Taught _____

Directions: For each question, circle the number that best describes the child's behavior over the past 6 months.

**1= Not True    2=Sometimes True    3=Often True    4=Almost Always True**

1. Seems self-confident when interacting with others.....1    2    3    4
2. Would rather be alone than with others.....1    2    3    4
3. Clings to adults, seems too dependent on them.....1    2    3    4
4. Is able to understand the meaning of other people's tone of voice and facial expressions.....1    2    3    4
5. Is regarded by other children as odd or weird.....1    2    3    4
6. Becomes upset in a situation with lots of things going on.....1    2    3    4
7. Has difficulty making friends, even when trying his or her best.....1    2    3    4
8. Is socially awkward, even when he or she is trying to be polite.....1    2    3    4
9. Knows when he or she is too close to someone or invading someone's space.....1    2    3    4
10. Is too tense in social settings.....1    2    3    4

### Future Allstars Questionnaire: Student Form

Student Information:

Name _____	Date _____
School _____	Sex: <input type="checkbox"/> Girl <input type="checkbox"/> Boy
Grade _____	

Directions: For each question, circle the number that best describes the child's behavior over the past 6 months.

**1=Not true    2=Sometimes true    3=Most of the time true    4=Always true**

1. I make friends easily.....1 2 3 4
  
2. I let friends know that I like them by telling or showing them.....1 2 3 4
  
3. I say nice things to others when they have done  
     something well.....1 2 3 4
  
4. I accept people who are different.....1 2 3 4
  
5. I ask before using other people's things.....1 2 3 4
  
6. I smile, wave, or not at others.....1 2 3 4
  
7. I am active in school activities such as sports or clubs.....1 2 3 4
  
8. I control my temper when people are angry with me.....1 2 3 4
  
9. I ask friends for help with problems.....1 2 3 4
  
10. I talk things over with classmates when there is a  
     problem or an argument.....1 2 3 4

APPENDIX C

FUTURE ALL-STARS DAILY ITINERARY

## Future Allstars Itinerary

### Session One

Tuesday June 8th:

“A good leader shows interest in others”

Wow! What an exciting day this is going to be! We will get to meet a bunch of new “friends.” Today’s activities will be a way for us to get to know each other and many of our activities will center around forming groups by our common interests. We will also be making tie-dye t-shirts! Join us today for snack to find out who else likes your favorite pizza.

Thursday June 10th:

“A Good leader includes everyone”

Today’s activity will be a scavenger hunt. During the scavenger hunt we will use the important leadership skill of including everyone in the group to help use clues to find our next item! After all that searching, see if you can find some worms in your “Dirt and Worms” snack! We are sure to have a lot of fun on our trip to South Lakes Park.

Tuesday June 15th:

“A good leader cooperates”

Good leaders strive to cooperate with everyone! Today we will play Human Tic-Tac-Toe. During Human-Tic-Tac-Toe we will cooperate with group members so we know whether to be X’s or O’s. Then we’ll practice cooperation in mixing up a big batch of “Puppy Chow.”

Thursday June 17th:

“A good leader asks questions before making a decision”

A good leader asks questions! Asking questions is a great way for us to gather information before we make a decision. Today we’ll play Twenty Questions with our friends to practice this important skill. Want to know what snack is? Be ready to ask questions, because it’s Mystery Snack today! We are so excited that we get to go to Main Event today and play “Glow Golf” and “Laser Tag.”

Tuesday June 22nd:

“A good leader is patient”

Patience is a virtue... and a great leadership skill too! While playing Red Light, Green Light, we’ll use our patience to help us wait until the light is

green again before going. We'll make our own popsicles for snack. In this summer heat, we'll have to be patient while our popsicles freeze!

Thursday June 24th:

"A good leader listens to others"

Stop, Look and LISTEN! Good listeners make great leaders! We'll be playing Simon Says, being sure to keep your ears open to Simon so you don't mess up! Listen very closely when you make your Coke Float and you might hear the fzzzzzzzz from this cold treat!! It's starting to get hot out, so we are going to take a trip to the Natatorium to cool down.

Tuesday June 29th:

"A good leader is kind to others"

Kindness is key! Leaders are always kind. We'll be making kindness posters today. We'll write on our friends' kindness posters and read the words of kindness that our friends have written on ours! To help us to remember to be sweet, we'll frost our own cupcakes!

Thursday July 1st:

"A good leader is flexible"

Flexibility is an important leadership skill. We never know when things could change or not go our way! Today we will have Impromptu Skits, we'll have to be flexible with group members to make it a success. After all that flexibility, we'll enjoy the wiggliest snack around, Jello! Show us how flexible you are when we go to Achievers Gymnastics today.

## **Session Two**

Tuesday July 6th:

"A good leader Remembers to look and show interest when someone talks to them"

Wow! Another new beginning. We will have some new "friends" arriving and old "friends" returning. Today we are going to get to know everybody better through impromptu conversations. Join us for snack as we find out who likes the same toppings on our sundaes.

Thursday July 8th:

"A good leader Remembers to listen and follow through with what is asked"

Join us today as we find out if it's easier to be a leader or a follower as we play games such as "Mother, May I?" Follow us to the end as we make "Fruit Loop" Necklaces. We will be taking a trip to Denton Water Works today so don't forget your towel!

Tuesday July 13th:

“A good leader shows self-control”

Who knew that being such a good “friend” required so many self-control skills, especially while playing games like “Red Rover.” Try to have some self-control as we make and devour our awesome Rice Krispie Treats.

Thursday July 15th:

“A Good Leader knows when to be silent and when to talk”

Shhh! Can you be a good “friend” when needed? Sometimes “friends” need someone to listen or give them advice. Good leaders during “Heads-up, Seven-up” will come out on top today. It’s going to be hard to talk with all those gooey brownies in your mouth! We will be reaching for the stars today at the UNT Sky Theater.

Tuesday July 20th:

“A Good leader thinks before acting”

Stop, Think, Look Around, Act! Help us make good decisions today as we load ourselves two by two onto the “Future Allstars Ark.” Pair up today with the ultimate snack: cheese and crackers.

Thursday July 22nd:

“A Good Leader Does not get upset when things don’t go their way”

Going with the flow is an important leadership skill. We never know when we may be asked to step up to the plate and do things we may not like! Today happens to be one of our staff’s b-day so we are going to celebrate! Get ready to rock-and-roll through musical chairs. Step inside for our cookie bake-off! We will then roll on over to Interskate Roller Rink.

Tuesday July 27th

“A Good Leader can always find what they need”

Looking for someone new? Join us today as we “seek” them out during Hide and Seek. Don’t hide, instead help us seek out what we need to make popcorn balls!

Thursday July 29th:

“A Good Leader remembers to use all his or her skills when hanging out with others”  
What a fun summer we have had! Time to say good-bye to everyone, but not before we’ve had our fill of fun at field day. Put your leadership skills to the test as we head out to CiCi’s for lunch!

APPENDIX D  
SCHEDULE OF DAILY ACTIVITIES

## Future All-Stars Daily Schedule

### **Tuesdays**

10:00am-Arrive at Guyer

10:00-10:30 - Go to assigned room. Review day's leadership skill.

10:30-11:00 - Watch video from previous day. Social Autopsy.

11:00-12:00 -Unstructured time (play board games, football, etc.)

12:00-12:30- Lunch

12:30-1:00-Structured Activity

1:00-2:00- Snack and "Show and Tell"

2:00- Pick-up time

### **Thursdays**

10:00am-Arrive at Guyer

10:00-10:30 - Go to assigned room. Review day's leadership skill.

10:30-11:00 - Watch video from previous day. Social Autopsy.

11:00-11:30- Snack

11:30-12:00 – Structured activity

12:00-2:30- Lunch and off-campus activity

2:30-3:00- Bus back to Guyer

3:00 – Pick-up time

### **Off-Campus Activities and Prices**

Thursday June 10<sup>th</sup>- South Lakes Park, Denton, Cost: Free!

Thursday June 17<sup>th</sup>- Main Event, Lewisville, Cost: \$9.00

Thursday June 24<sup>th</sup>- Natatorium, Denton, Cost: \$3.50 (12 and older), \$2.50 (6-11)

July 1<sup>st</sup>- Achievers Gymnastics, Denton, Cost: \$6.00

July 8<sup>th</sup>- Denton Water Works, Cost: \$11.00 (48 inches or taller), \$7.00 (Under 48 inches)

July 15<sup>th</sup>- UNT Sky Theatre, Cost: \$3.00

July 22<sup>nd</sup>- Interskate Roller Rink, Lewisville, Cost: \$8.00

July 29<sup>th</sup>- Cici's Pizza, Denton, Cost: \$5.00-\$8.00

Payment may be made at one time, or brought each week.

APPENDIX E  
DATES OF DATA COLLECTION

*Dates of Completion for Data Collected for Pretest Measures*

Subjects	Pretest Measures					
	<u>Student</u>		<u>Parent</u>		<u>Teacher</u>	
	Scale	Interview	Scale	Interview	Scale	Interview
1	4/28/10	4/28/10	NC	NC	4/1/10	4/1/10
2	4/21/10	4/21/10	4/7/10	4/7/10	4/5/10	4/5/10
3	4/22/10	4/22/10	3/30/10	3/30/10	3/31/10	3/31/10
4	4/19/10	4/19/10	4/2/10	4/2/10	4/31/10	NC
5	4/26/10	4/26/10	4/18/10	4/18/10	4/1/10	4/1/10
6	4/20/10	NC	3/30/10	3/30/10	4/7/10	4/7/10
7	4/23/10	4/23/10	3/30/10	3/30/10	4/27/10	4/27/10
8	4/23/10	4/23/10	3/31/10	3/31/10	4/13/10	4/13/10
9	4/19/10	4/19/10	3/31/10	3/31/10	3/30/10	3/30/10
10	4/21/10	4/21/10	4/16/10	4/16/10	4/1/10	4/1/10
11	4/22/10	4/22/10	4/26/10	4/26/10	4/2/10	4/2/10
12	4/22/10	4/22/10	4/1/10	3/31/10	4/13/10	4/13/10
13	4/21/10	4/21/10	4/27/10	4/27/10	4/7/10	4/7/10
14	4/23/10	4/23/10	4/14/10	4/14/10	4/1/10	4/1/10
15	4/20/10	4/20/10	NC	4/9/10	3/31/10	3/31/10
16	5/5/10	4/14/10	4/1/10	4/1/10	4/23/10	4/23/10
17	4/14/10	4/14/10	4/20/10	4/27/10	4/13/10	4/1/10
18	4/22/10	4/22/10	3/30/10	3/30/10	3/26/10	3/26/10
19	4/20/10	4/20/10	4/1/10	4/1/10	4/23/10	4/23/10
20	4/20/10	4/20/10	4/27/10	4/27/10	4/27/10	4/27/10

NC = Not completed, ND = No date

*Dates of Data Collected for Posttest Measures*

Subjects	Posttest Measures							
	Student		Parent		Teacher		LSSP	
	Scale	Interview	Scale	Interview	Scale	Interview	Scale	Interview
1	10/25/10	10/25/10	NC	NC	10/21/10	10/21/10	12/20/10	12/20/10
2	NC	NC	NC	1/12/11	10/25/10	10/25/10	12/10/10	12/20/10
3	ND	NC	11/20/10	11/20/10	11/1/10	11/1/10	ND	ND
4	11/9/10	ND	11/12/10	11/12/10	11/15/10	11/15/10	NC	11/5/10
5	NC	NC	NC	NC	10/20/10	10/20/10	12/20/10	12/20/10
6	ND	ND	NC	NC	12/9/10	12/9/10	11/9/10	11/9/10
7	NC	NC	NC	NC	10/21/10	10/21/10	NC	NC
8	10/28/10	10/28/10	11/1/10	11/1/10	10/28/10	10/28/10	10/27/10	10/21/10
9	12/9/10	11/9/10	11/18/10	11/18/10	11/15/10	12/8/10	11/5/10	11/4/10
10	10/26/10	10/26/10	ND	ND	10/22/10	10/22/10	12/20/10	12/20/10
11	11/9/10	11/9/10	11/4/10	11/4/10	11/4/10	11/4/10	10/31/10	10/31/10
12	10/25/10	10/25/10	NC	NC	11/3/10	11/3/10	11/20/210	11/20/10
13	10/26/10	10/26/10	11/5/10	11/5/10	11/1/10	11/1/10	12/10/10	12/10/10
14	ND	ND	11/12/10	11/12/10	10/26/10	10/26/10	11/19/10	11/19/10
15	11/5/10	11/5/10	11/2/10	11/2/10	11/1/10	11/1/10	11/5/10	11/5/10
16	NC	NC	NC	NC	10/26/10	10/26/10	NC	NC
17	ND	ND	11/2/10	11/2/10	11/3/10	11/3/10	12/20/10	12/20/10
18	12/7/10	12/7/10	12/7/10	12/7/10	10/26/10	10/26/10	12/13/10	12/13/10
19	10/25/10	10/25/10	11/3/10	11/3/10	12/8/10	12/8/10	12/20/10	12/20/10
20	10/28/10	10/28/10	11/5/10	11/5/10	11/4/10	11/4/10	11/5/10	11/5/10

NC = Not completed, ND = No date