3-26-2008

Social Skills Training with Typically Developing Adolescents: Measurement of Skill Acquisition

Jessica Anne Thompson
University of South Florida

Social Skills Training with Typically Developing Adolescents: Measurement of Skill Acquisition

by

Jessica Anne Thompson

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
Applied Behavior Analysis
Graduate School
University of South Florida

Major Professor: Kimberly Crosland, Ph.D.
Stacie Neff, M.S.
Maricel Cigales, Ph.D.

Date of Approval:
March 26, 2008

Keywords: Social skill acquisition, Adolescent social skills, Life skills training, Social competence, Adolescent training

For all my friends, family members, and friends who became like family members that endlessly believed in me, always supported me in my hard work, and who (almost) loved every minute of it. Without each of you this success would not have been possible.

Acknowledgements

I would like to extend sincere thanks to all the faculty and staff that helped guide me to this culmination of my best academic work. Dr. Kimberly Crosland, Stacie Neff, Dr. Ray Miltenberger, Dr. Maricel Cigales, thank you for providing me with endless guidance in the planning, implementation, and completion of this project. Your inspiration and encouragement from start to finish undoubtedly prepared me for the next phases of my career. I appreciate you all for sharing your academic and professional wisdom, each with your individual styles and flair.

Table of Contents

List of Tables

List of Figures

Social Skills Training with Typically Developing Adolescents: Measurement of Skill Acquisition

Jessica Anne Thompson

ABSTRACT

The term social skills has been specifically defined as learned behaviors that allow an individual to engage in socially acceptable interactions with other individuals such that the interactions lead to positive responses from others and aid in the avoidance of negative responses (Elliott & Gresham, 1993). The current study investigated the ability of six adolescent females between the ages of 13 and 16 years to acquire a set of social skills through training. Participants' acquisition of the skills before and after training was assessed through role-play assessments and was experimentally demonstrated using a multiple-baseline across skills design. Secondary survey information (Child Behavior Checklist and adapted Ansell Casey Life Skills Assessment) was collected from participants and their parents to attempt to index effects of training on other behaviors of the youth. All of the participants acquired the skills taught and demonstrated them with increased or variable levels of accuracy post-training. Minimal changes in scores were documented on both secondary survey measures.

Introduction

Children and adolescents engage in social behavior daily. For some children, social interactions seem to occur effortlessly, and social relationships form and may subsequently bloom. Other children, however, lack social competence and skill and, in turn, may experience academic difficulties (Elliot, Malecki, & Demaray, 2001), behavior problems (Gaffney & McFall, 1981), and psychological challenges (Segrin, 2000). Social competence is described by Bierman and Welsh (2000) as the ability of a child to organize behavioral, cognitive, and affective skills and then utilize them across an array of social situations. Similarly, Elliott and Gresham (1993) specifically define social skills as learned behaviors that allow an individual to "engage in socially acceptable interactions with other people such that the interactions lead to positive responses from others and aid in the avoidance of negative responses." (p. 287) Elliott, Malecki, and Demaray (2001) report that social skills are important in many aspects of an individual's life, including for social and academic success.

Spence (2003) explains that the process of social skills training aims to increase an individual's "ability to perform key social behaviors that are important in achieving success in social situations." (p. 84) With this in mind, the purpose of social skills training might be thought of as a program that is designed to assist individuals in assembling and strengthening a repertoire of socially acceptable and efficient social behaviors that take the place of inappropriate behavior *and* increase the social

competence of the individual. Social skills training can be conceptualized as training designed to compensate for social skill deficits in a similar way as an individual would work to compensate for other skill deficits, such as training or teaching an individual to tie her shoes.

Social skills research has been conducted with participants of many ages and populations including aggressive children and adolescents (Nangle, Erdley, Carpenter, & Newman , 2002), juveniles who display delinquent behavior (Gaffney & McFall, 1981), substance-abusing and substance-dependent juvenile offenders (Henggeler, Clingempeel, Brondino, & Pickrel, 2002), at-risk and antisocial children and youth (Bullis, Walker, & Sprague et al., 2001), and typically developing elementary school children in a group training format (Hemphill, & Littlefield, 2001).

Socials skills research has been conducted with juveniles who exhibit delinquent behavior and those involved within the juvenile justice system (Gaffney and McFall, 1981; Mathur and Rutherford, 1996). Mathur and Rutherford (1996) report that social skills training has proven effective as an intervention for youth with severe delinquent behaviors. The authors argue that failure to develop the appropriate skills needed for social interaction and problem solving in specific social situations may lead to youth engaging in delinquent behavior. Ollendick and Hersen (1979) sought to investigate the effects of a social skills training course on social skills behavior and self-report of anxiety related to social behavior with a group of incarcerated youth. Researchers taught a social skills training course to a group of 27 delinquent youth who were incarcerated. Techniques utilized in the training package were direct instruction, behavioral rehearsal of social situations, and modeling and feedback. Active role-plays were also

incorporated in a way that allowed for the entire group to provide feedback and social reinforcement to participants immediately following their role-play demonstrations. Study results showed that the social skills training group learned a higher number of interpersonal skills, and reported less anxiety regarding social interactions when compared to both the discussion and control groups.

While research shows that diverse populations may be effectively taught social skills through social skills training programs, the purpose of the current study is to examine the extent to which social skills can be learned by, and are helpful at promoting increased positive social interactions for, typically developing adolescents. It appears, based on varied research within the literature, that there is no standard program for social skills training for this population. The most common elements among social skills training programs are cognitive components such as self-regulation and social interpretation training, (Nangle, Erdley, Carpenter, & Newman, 2002; Spence, 2003) and behavioral components like direct instruction, modeling, feedback, and behavioral rehearsal (Elliott, Malecki, & Demaray, 2001; Gresham & Nagle, 1980; La Greca & Santogrossi, 1980; Mathur & Rutherford, 1996; Nangle, Erdley, Carpenter, & Newman, 2002;Ollendick & Hersen, 1979; Spence, 2003).

Other similar group trainings that have been conducted with parents utilize similar behavioral components during training. VanCamp et al. (in press) conducted a two-part study using a positive parenting training curriculum developed by the Behavior Analysis Services Program (BASP). This study used a combination of common behavioral training components including direct instruction, modeling, feedback and behavioral rehearsal. This investigation assessed to what extent class participants were able to

acquire specific behavioral caregiving skills that were based on the principles of operant conditioning. Researchers utilized repeated measures and a multiple baseline design to demonstrate experimental control in this study. Foster parents participated and were taught either seven or nine parenting *Tools,* from the BASP's *Tools for Positive Behavior Change,* through either a six-hour training (two participants) or thirty-hour training (two participants) respectively. These *Tools* are behavior analytic behavior management parenting skills. Researchers utilized pre-assessment task-analyzed role-play scenarios designed for each specific *Tool* to assess the level of accuracy of parenting skills before and after training. Novel role-plays were used throughout the training to rule out possible improvement in accuracy from the participant's repeated role-play of the initial role-play scenarios. Results showed that participants demonstrated low levels of skill accuracy prior to training. After training, participants demonstrated the *Tools* with increased levels of accuracy compared to their pre-training scores. These findings suggest that the *Tools* or skills taught could be learned by adults.

Other research by Crosland et al. (in press), which taught the same group of skills to caregivers, suggests that the *Tools* helped to increase positive interactions between children and caregivers and to decrease negative interactions between children and caregivers. Since these skills from the *Tools* curriculum are based on the basic principles of operant conditioning, which are effective for all humans (Skinner, 1953 & 1974), it is reasonable to predict that if the skills were instructed in a way that makes them applicable for use by adolescents, they could be used by the adolescents in their interactions with others as social skills and would teach them to engage in more positive, and fewer negative interactions with others. The current investigation attempts, via a systematic

replication of VanCamp et al. (in press), to measure the extent to which similar skills can be learned by a group of adolescents and demonstrated through repeated role-play sessions.

Method

Participants and Setting

To recruit participants, an email briefly explaining the training with a flyer attached was sent to each employee of the University of South Florida's Florida Mental Health Institute. The study flyer was approved by the University's Institutional Review Board. The email was subsequently forwarded by employees throughout the community. Parents who received the email or flyer contacted the lead investigator of the project. Inclusion criteria for the training were: (a) Female participants between the ages of 13 and 17 years with no diagnosed or suspected mental health or developmental disability, (b) Willingness to participate as confirmed in writing on the informed consent (participant's parents) and informed assent (participants) forms, (c) Attendance at the three study visits. Prior research by Hannon & Ratliffe (2007) found that single-gender classes may maximize students' opportunities for participation, which may lead to increased learning of the skills. Therefore, only female participants were recruited to ensure the class was comprised of individuals of only one gender. All participants and trainers were female for this study.

Six typically developing female adolescents, between the ages of 13 and 16 years were recruited to participate in the social skills training study. Brenna was Caucasian, age 13, lived with her single mother and two younger siblings. Cara was African-American, age 14, lived with both her mother and father and had one younger sibling.

Shawna was Caucasian, age 14, lived with her mother, step-father and younger step-brother. Norah was Caucasian, age 15, lived with her adoptive mother and father and five adoptive siblings. Kerry, the oldest participant, was African-American, age 16, lived with her mother and younger sibling. Colleen was Hispanic, age 13, lived with her mother, step-father and 3 younger siblings. All participants lived within a five-county radius of the Tampa Bay, Florida area. The mean annual income for participants' families was between $50,000 and $60,000.

The classroom portion of the social skills training was held in a large meeting room on the University of South Florida's Tampa campus. Participants were each randomly assigned to a seat at a group of tables set up in a "u-shape". Each participant was seated so that they could clearly see the trainer, the projected presentation slides and the flip chart. The primary investigator of the study was the lead trainer and stood in the front of the training room. Two other co-trainers were present and sat at the ends of the "u-shaped" tables. These co-trainers assisted the lead trainer throughout the class by delivering prizes to participants, assisting with role-plays, and handing out activities and paperwork. The assistant co-trainers ran the role-play groups and collected data only, but did not actively participate in the classroom portion of the training and sat in the back of the room out of immediate view of the participants. Participants had name cards, 3-ring binders, and pens at their seat upon arrival.

Training and Skills

Training was conducted in a one-day workshop format over the course of six hours. Lecture-style direct instruction, accompanied by projected slides, was utilized for training. In addition, training included the use of modeling and feedback, role-playing,

and delivering positive consequences (e.g. tangible items, prizes) for participation. These modalities have been shown to be effective in training social skills in prior studies (Elliott, Malecki, & Demaray, 2001; Gresham & Nagle, 1980; La Greca & Santogrossi, 1980; Mathur & Rutherford, 1996; Nangle, Erdley, Carpenter, & Newman, 2002; Ollendick & Hersen, 1979; Spence, 2003). Participants were encouraged to actively participate by giving examples, asking questions, and answering questions presented in class. Positive consequences were delivered during class in the form of tangible items (e.g., candy, small prizes, and "tickets" for a drawing at the end of class) on an intermittent schedule contingent on appropriate class participation (e.g., providing examples from their own lives, answering questions, making related comments).

The social skills training curriculum used for instruction was a modified version of a parent training curriculum utilized by VanCamp et al. (in press). The parent training curriculum is a set of parenting skills known as the *Tools for Positive Behavior Change* and was created by the Behavior Analysis Services Program (BASP). The BASP is a state-funded program that began in 1996, which seeks to increase placement stability for children in foster care and to expand the role of behavior analysis within foster care in the state of Florida (VanCamp, Borrero, & Vollmer, 2003). The *Tools* developed by this program are currently state funded and taught to parents, caregivers and other staff on a statewide level in Florida. The skills from this parent training curriculum that were modified and instructed during this study included task-analyzed procedures that utilized the behavioral techniques of reinforcement, extinction and differential reinforcement. Reinforcement involves providing preferred consequences after the occurrence of appropriate behavior thereby increasing the probability that the behavior is more likely to

occur again in similar situations in the future. Extinction, in contrast, involves the withholding of a reinforcer (e.g., attention, activities) following a behavior that has previously been reinforced in similar situations in the past. Within the BASP curriculum, and commonly in the practice of behavior analysis and behavior plans, extinction is typically paired with another behavioral principle underlying the skills, differential reinforcement. Differential reinforcement of an alternative behavior involves delivering reinforcement following a desirable behavior while simultaneously withholding reinforcement for other undesirable behaviors. As a result, the desirable behavior is more likely to occur in similar situations in the future.

The skills from the BASP curriculum that were used for the current study were *Stay Close, Use Reinforcement, and Pivot.* (See Table 1 for behavioral rationales for the use of these skills). Mattaini and Mcguire (2006) discuss the need for social skills trainings and behavioral interventions for young people to be socially significant for individuals and be appropriate for teaching on a large scale or "universal" community of youth. With this in mind, as an attempt to promote use of the skills by the class participants and to increase social significance, the curriculum used to teach these skills was modified so that it was more applicable for youth. The training for this study was titled Teaching Outstanding Positive Interactions and Communications (TOPIC). During training, skills were instructed using age-relevant situations. For example, in the parent training class the skill *Stay Close* might be taught and suggested to parents to be used when one of their children comes home from school and looks sad. For this study however, the skill *Stay Close* was explained in class through age-relevant situations such as when one of the participant's friends just broke up with her boyfriend and looks sad.

The steps of the skills *Stay Close* and *Pivot* remained consistent with the parent training curriculum used by VanCamp et al. and only differed in examples and explanations used during instruction (See Appendix A for a list of steps for each of the skills that were taught). The *Use Reinforcement* skill had one fewer step than that of the parent training curriculum. Since the skill *Use Reinforcement* is used with others when they are engaging in some appropriate or preferred behavior, junk behavior does not typically occur during the interactions when the skills is being used. Therefore, scripted junk behavior was not included in the role-play scenarios used to assess this skill. This made the step not applicable and it was removed from that skill checklist.

Table 1. Description of Skills In Curriculum

Skill Name	Behavioral Procedure/Rationale
Stay Close	Non-contingent or contingent attention/Used to make an individual's approval and disapproval important to the another individual thus establishing their attention as a reinforcer
Use Reinforcement	Positive reinforcement in the form of praise or access to desired items or activities/Used to strengthen desirable behavior and weaken undesirable behavior
Pivot	Extinction of attention maintained behavior and reinforcement for desired behavior/Used to reduce inappropriate or problem behavior and increase appropriate behavior

The first skill, *Stay Close*, consisted of having the adolescent engage in a conversation with a peer using pleasant, non-threatening facial expressions, appropriate tone of voice and body language (tone and body language that matches the situation), while asking open-ended positive questions and providing empathy for their peer's current situation. Open-ended questions are those that cannot be answered with a "yes"

or “no”. An example of an open-ended question is, “What are you going to do tonight?” Empathy involved using specific statements that mirror the other person’s feelings about the situation. “You look really upset.” is an example of an empathy statement that could be used when someone is reporting something sad. Participants were also asked to ignore minor, non-harmful inappropriate behavior from their peers (e.g., rolling eyes, cursing, having an “attitude”). (This step also is included in the other two skills discussed below.) The training curriculum referred to these types of behaviors as “junk” behaviors throughout the course of the class. The process of ignoring “junk” behavior could result in a decrease in this behavior if attention was the maintaining variable (e.g., extinction of attention maintained behavior).

The second skill that was taught was *Use Reinforcement.* This skill teaches participants to provide positive consequences to individuals with whom they interact immediately following appropriate behavior from those individuals. By providing those consequences contingent on desirable behavior they may make the desirable behavior more likely to occur again in the future. For example, a participant may say to a friend who lends her a sweater on a cold day in class, “Hey, thanks so much for letting me borrow your sweater. It’s freezing in here!”.

The final skill for training was *Pivot*, a differential reinforcement skill. In this skill, participants were instructed to ignore non-harmful and minor inappropriate behavior from their friends and family until the inappropriate behavior stopped. Once the problem behavior stopped and more appropriate behavior began, the participants were instructed to attend to the individual, who was now engaging in some appropriate behavior. When using *Pivot* with more than one person present, the participant may have

"pivoted" to the person doing appropriate behavior until the person engaging in inappropriate behavior stopped doing that behavior and engaged in a new and appropriate behavior. If only one individual was in the presence of the participant and was engaging in inappropriate "junk" behavior, the participant may have continued to engage in an interaction with that person while ignoring the inappropriate behavior. For example, if the participant was engaged in conversation with a parent who was "having an attitude" (e.g., threatening facial grimaces, using inappropriate tone of voice, using inappropriate language, making criticizing statements) with them, they would be instructed to continue with the conversation showing no reaction to the "junk" behavior.

As in the skill *Pivot*, participants were asked to ignore "junk" behavior and to avoid using coercion in the skills *Stay Close* and *Use Reinforcement* as well. These are two common components with all three skills. Coercive interactions are those interactions that may lead to avoidance, vengeful or escape behaviors from the person who is being coerced (See Appendix B for a Description of the Specific Coercives defined for the current study). Sidman (2000) states that coercion is "how most people try to control each other." (p. 2) He more specifically defines coercion as the use of punishment and threats of punishment to get people to do what we want them to do. In general, coercive interactions are interactions that could break down social relationships and lead the individual being coerced to want to avoid, get even, or escape from the coercing individual. Therefore, in this study, participants were taught the types of coercive behaviors and to avoid engaging in coercion.

Assessment Procedures

Assessment of the three skills was done before and after training of each skill

through role-play scenarios with one or two trainers while one or two other trainer(s) scored each participant's responses on a skill checklist. (See *Response Measurement and Experimental Design* below for a description of the checklists.) The trainer(s), either graduate students in applied behavior analysis or trained employees of the BASP, introduced various scenarios (one at a time) that were designed for specific skills to be used. These role-plays were randomly ordered prior to training. The trainer(s) played a peer, friend, or relative of the participant for these role-plays. The role-play situations were scripted, and the trainer(s) was given specific instructions for how to engage in appropriate and inappropriate behavior. The participant was then asked to respond, via role-play, how they normally would respond to that type of situation if it occurred in their everyday life. The number of role-plays conducted for each participant at each assessment point differed slightly in an effort to try to control for trends in data. The primary data collector for each role-play group determined after each role-play scenario whether additional role-plays should be conducted in attempt to assess whether a participant's data was trending.

Pre-training role-play assessments were typically conducted in common areas of the participants' homes approximately one week prior to training. However, one participant's pre-training assessment was conducted in a meeting room at a local library, in lieu of the participant's home, at the parent's request. Post-training role-play assessments were conducted, as described above, for each skill immediately following the training of each skill. After training each skill, each participant practiced role-playing the skill one time with a trainer in the classroom. During this role-play, modeling and feedback on the participant's performance were provided. Then, participants role-played

individually, without modeling or feedback, as described above. Four-week follow-up role-play assessments were conducted in the participants' homes. Pre-training, post-training, and four-week follow-up role-play scenarios, described above, were randomly ordered in their presentation for each participant. Novel scenarios were used throughout training in attempt to prevent increased accuracy from repeated exposure to the same role-play scenarios.

Response Measurement and Experimental Design

Participants' behavior in role-play sessions was observed by either a graduate student in applied behavior analysis or a trained employee of the BASP, who scored the participants' accuracy in the use of a skill by using checklists (See Appendix E) based on the task analyzed steps of the three skills taught in class. These steps, listed in Appendix A, were scored for each participant for each skill. For each step, the observer scored whether (a) the participant correctly demonstrated the step or (b) did not correctly demonstrate the step. For each skill, the percentage of steps performed correctly was calculated by dividing the number of steps performed correctly by the total number of steps for the skill, then multiplying by 100. Acquisition of the skills was experimentally assessed using a multiple-baseline across skills design for each of the six study participants.

Interobserver Agreement

A second observer simultaneously and independently observed and scored for 100% of the role-play assessments (pre-training, post-training and four-week follow-up assessments). Their scores were later compared to the primary observer's scores in order to calculate interobserver agreement. To calculate interobserver agreement, the two

observers' scored checklists were compared and agreement was indicated when both scored a step the same way. For example, if both observers scored that the participant did a step correctly, this was counted as an agreement. Likewise, if the observers both agreed that a step was not completed, that was scored as an agreement. If one observer scored that a step was completed and the other observer scored that it was not, that was counted as a disagreement. Agreements and disagreements were totaled for each role-play and then divided by the total number of steps possible for role-plays. Reliability scores were calculated separately for each skill at each assessment point using the formula (number agreements/ number agreements+disagreements) x 100. For *Stay Close*, the average percentage of interobserver agreement was 91% for pre-assessment, 94% for post-assessment, and 92% for four-week follow-up. For *Use Reinforcement*, the average percentage of interobserver agreement was 97% for pre-assessment, 96% for post-assessment, and 100% for four-week follow-up. For *Pivot* the average percentage of interobserver agreement was 97% for pre-assessment, 87% for post-assessment, and 95% for four-week follow-up.

Parent and Participant Survey Measures

Two secondary measures were also collected in an attempt to index other effects of the training on participant's behavior (Child Behavior Checklist; Achenbach & Rescorla, 2001), and feelings related to social situations (*Tell Us What You Think!*). The Child Behavior Checklist (CBCL) (Achenbach & Rescorla, 2001) was given to the participants' parents approximately one week prior to training and again approximately four weeks after training was concluded. The CBCL is a well established standardized measure designed to assess behavior of children aged 6 to 18 years. Parents or close

relatives (only mothers in the current study) complete the assessment and report the behaviors of their children. There are 20 competence items that address the child's activities, social relations and school performance. In addition, there are 118 items that seek to assess specific behavioral and emotional problems. There are two final open-ended items that allow for parent reporting of additional problems or information. Parents rate their children on the form for how true each statement is for their child using the scale: 2 = very true or often true, 1 = somewhat or sometimes true, and 0 = not true (as far as you know).

The CBCL score ranges for both scales for youth ages 12 to 18 years only are reported below as this is the age range of all participants for this study. The normal range is considered to be the range in which typical youth would fall, that being youth whose scores fall within a normal range (according to the national norms used by the CBCL creators). The borderline clinical range is designed to discriminate between the normal range and the clinical range while lowering the rate of "false positive" results (normal youth who score within the clinical range). The clinical range refers to youth who score within the "clinically deviant" range as reported by the creators of the assessment.

For the Competence Scales, the total score is calculated by summing the three subscales (Activities, Social, and School). Normal range for the Activities subscale is between 7 and 15, for the Social subscale is between 5.5 and 14, and for the School subscale is between 3 and 6. The borderline clinical range for the Activities subscale is between 5 and 6.5, for the Social subscale is between 4.5 and 5, and for the School subscale is 2.5. The clinical range for the Activities subscale is between 0 and 4.5, for the Social subscale is between 0 and 4, and for the School subscale is between 0 and 2.

For the total score on the Competence Scales the normal range is between 20.5 and 35, the borderline clinical range is 19 and 20, and the clinical range is between 0 and 18.5.

For the Syndrome Scales the total score is calculated by summing the nine subscales of the assessment (Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, Aggressive Behavior, and Other Problems). The Internalizing score results from summing the Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints subscales. The Externalizing score results from summing the Rule-Breaking Behavior and Aggressive Behavior subscales. Normal range for the Internalizing and Externalizing scores is between 0 and 11, and for the total score is between 0 and 35. The borderline clinical range for the Internalizing score is between 12 and 14, for the Externalizing score is between 12 and 15, and for the total score is between 36 and 44. The clinical range for the Internalizing scale is between 15 and 64, for the Externalizing score is between 16 and 70, and for the total score is between 45 and 240.

A survey titled *Tell Us What You Think!*, which consisted of questions from the Ansell-Casey Life Skills Assessment (ACLSA) (Casey Family Programs, 2004), was given to the participants prior to training, immediately after training was completed, and again approximately four weeks following the conclusion of training during the follow-up role-play session. The primary trainer was present in the room but was not in the immediate area of the participant as they were completing the survey. The baseline assessment consists of questions selected from a combination of all of the five readily available versions of the ACLSA. The ACLSA is an assessment designed to measure the life skills of young people and is available for free download at http://caseylifeskills.org.

Fifteen questions (See Appendix C) that were most relevant to the social skills curriculum were selected for use on this assessment from the Social Relationship, Communication, Work Life, Work and Study Skills, and Knowledge and Behavior sections from the five available versions of the ACLSA. The post-training and four-week follow up surveys (See Appendix D) were the same as baseline, but contained 12 additional questions designed to assess the social validity of the training package. Carr, Austin, Britton, Kellum, and Bailey (1999) point out in their article the importance of obtaining and reporting information related to the social validity of applied behavior analysis interventions. Thus, the ten additional questions included on the post-training and four-week follow-up surveys were designed to index the satisfaction of each participant with the training package. Participants rate each of the questions (both adapted ACLSA questions and social validity questions) on the post-training assessments as "Definitely", "I Guess", or "Not So Much". For scoring purposes, "Definitely" was scored as 3 points, "I Guess" was scored as 2 points, and "Not So Much" was scored as 1 point. The total possible score for the ACLSA questions was 45, and the total possible score for the social validity questions was 30.

Results

Social Skills

Participant pre- and post-training scores for each skill are presented in Table 2. The data are presented as the average percentage of steps completed correctly across consecutive assessments. Overall, participants demonstrated the skills with lower levels of accuracy during pre-training assessments compared to post-training. At post-training, all six participants demonstrated each skill with increased levels of accuracy as measured through role-play scenarios. For *Stay Close* the average percentage of steps completed correctly for all participants was 44% at pre-assessment, 78% for post-assessment, and 85% at four-week follow-up. For *Use Reinforcement* the average score for all participants was 70% at pre-assessment, 93% for post-assessment, and 88% at four-week follow-up. For *Pivot* the average score for all participants was 33% at pre-assessment, 76% at post-assessment, and 93% at four-week follow-up.

Table 2. Participant Pre- and Post-training Average Percentages for Each Skill

	Stay Close			Use Reinforcement			Pivot		
Participant	Pre	Post	4Wk	Pre	Post	4Wk	Pre	Post	4Wk
Brenna	32	83	90	82	100	100	46	83	100
Cara	57	93	93	75	93	100	40	93	80
Shawna	58	78	80	51	90	80	15	49	100
Norah	28	74	-	75	86	-	30	93	-
Kerry	42	61	83	85	97	80	18	65	87
Colleen	44	76	77	50	91	80	49	75	100
Average (Group)	44	78	85	70	93	88	33	76	93

- = No data available

Figure 1 shows results for Brenna. She had a low level of accuracy pre-training for *Stay Close* (*M*=32%), a high level of accuracy for *Use Reinforcement* (*M*=82%), and a low but variable level of accuracy for *Pivot* (*M*=46%). Post-training Brenna's levels of accuracy increased for all skills (*M*=83% for *Stay Close*, *M*=100% for *Use Reinforcement*, and *M*=83% for *Pivot*.) At four-week follow-up, Brenna's levels of accuracy remained high for all three skills (*M*=90% for *Stay Close*, *M*=100% for *Use Reinforcement*, and *M*=100 for *Pivot.)*

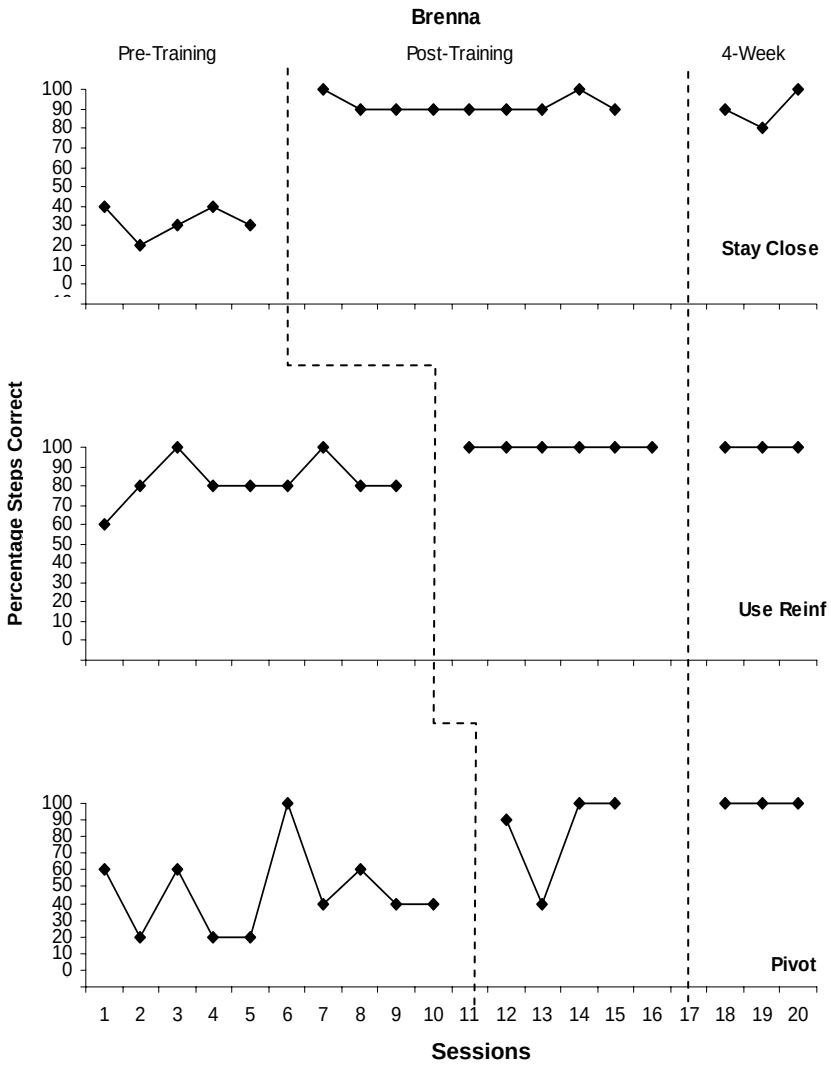

Figure 1. Brenna Percentage of Steps Completed Correctly

Cara, whose results are shown in Figure 2, had a low level of accuracy pre-training for *Stay Close* (*M*=57%), a higher but somewhat variable level of accuracy pre-training for *Use Reinforcement* (*M*=75%), and low levels of accuracy for *Pivot* (*M*=40%). At post-training, Cara's levels of accuracy increased for all skills (*M*=93% for all three skills). At four-week follow-up, Cara's high levels of accuracy maintained (*M*=93% for *Stay Close*, 100% for *Use Reinforcement* and 80% for *Pivot*).

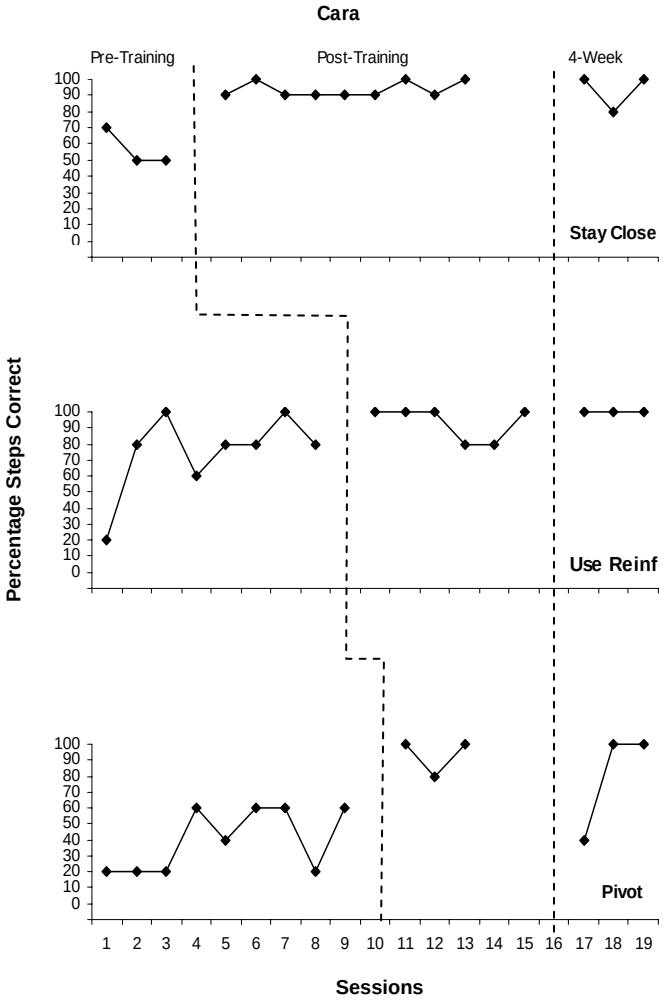

Figure 2. Cara Percentage of Steps Completed Correctly

Shawna had variable levels of accuracy for *Stay Close* (*M*=58%) and *Use Reinforcement* (*M*=51%) pre-training. See Figure 3 for results for Shawna. Pre-training for *Pivot* she had a low level of accuracy (*M*=15%). Following training she increased in accuracy for all three skills (*M*=78% for *Stay Close*, *M*=90% for *Use Reinforcement*, *M*=49% for *Pivot*) but showed variable levels for *Pivot*. At four-week follow-up, Shawna's level of accuracy increased slightly from post-training for *Stay Close* (*M*=80%) and decreased slightly and had less variability for *Use Reinforcement* (*M*=80%). For *Pivot* there was a large increase in accuracy and decrease in variability with the average percentage of steps correct for Shawna 100% for this skill was.

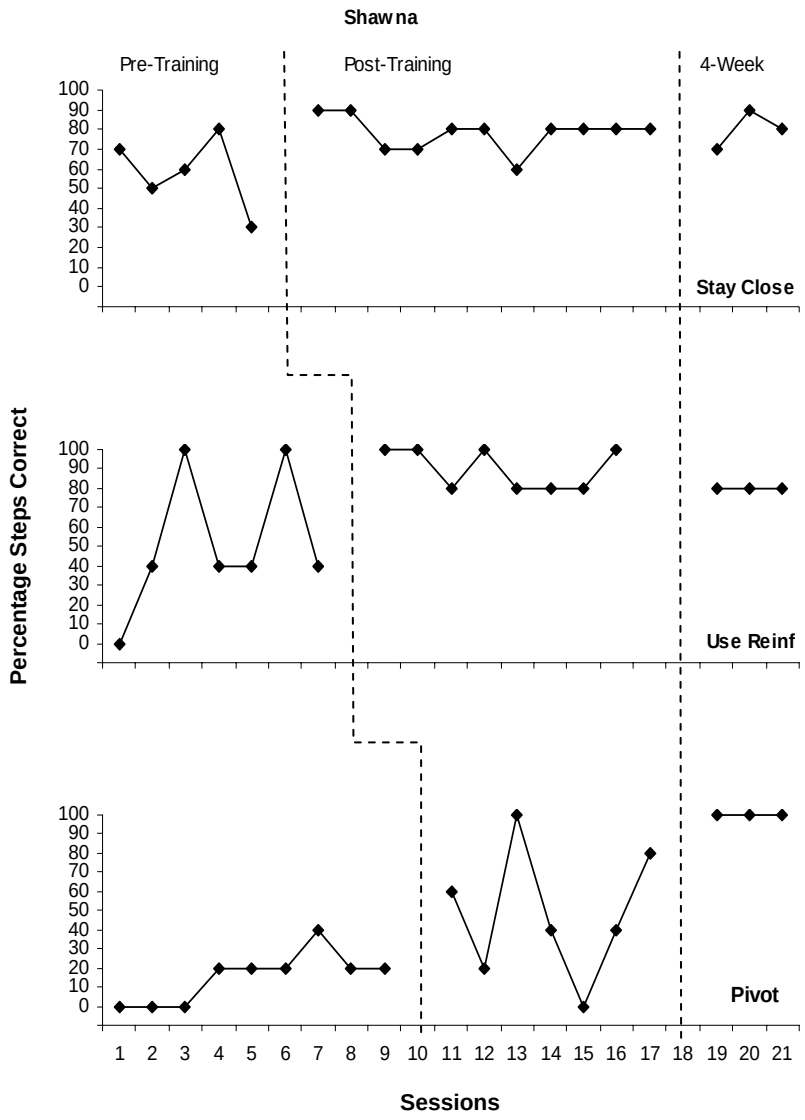

Figure 3. Shawna Percentage of Steps Completed Correctly

Results for Norah are shown in Figure 4. Levels of accuracy were low pre-training for Norah as well (*M*=28 for *Stay Close*, and *M*=30 for *Pivot*). She did, however, show higher levels of accuracy during pre-training assessments for *Use Reinforcement* (*M*=75%). After training the levels of accuracy increased and variability decreased for all skills (*M*=74% for *Stay Close*, *M*=86% for *Use Reinforcement*, *M*=93% for *Pivot*). No follow-up data was collected for Norah. A follow-up visit was scheduled with Norah and

her mother, but they were not home for the assessment visit and were not able to be contacted by the researcher for rescheduling.

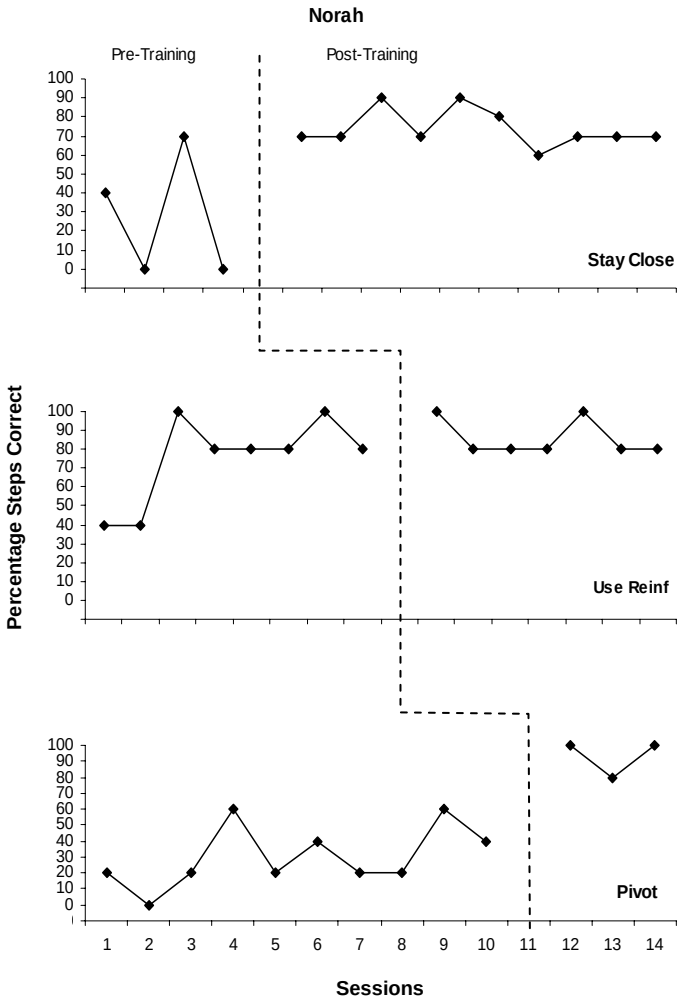

Figure 4. Norah Percentage of Steps Completed Correctly

Similar to the other participants, Kerry showed lower levels of accuracy with some variability for *Stay Close* (*M*=42%) and *Pivot* (*M*=18%). Results for Kerry are shown in Figure 5. She showed a higher level of accuracy pre-training for *Use Reinforcement* (*M*=85%), but still showed increases in accuracy in this skill post-training (*M*=97%). Kerry also showed increases in both of the other skills following training

(*M*=61% for *Stay Close*, and 65% for *Pivot*). At four-week follow-up, Kerry increased in accuracy from post-training for *Stay Close* (*M*=83%) and *Pivot* (*M*=87%). She decreased slightly for *Use Reinforcement* (*M*=80%).

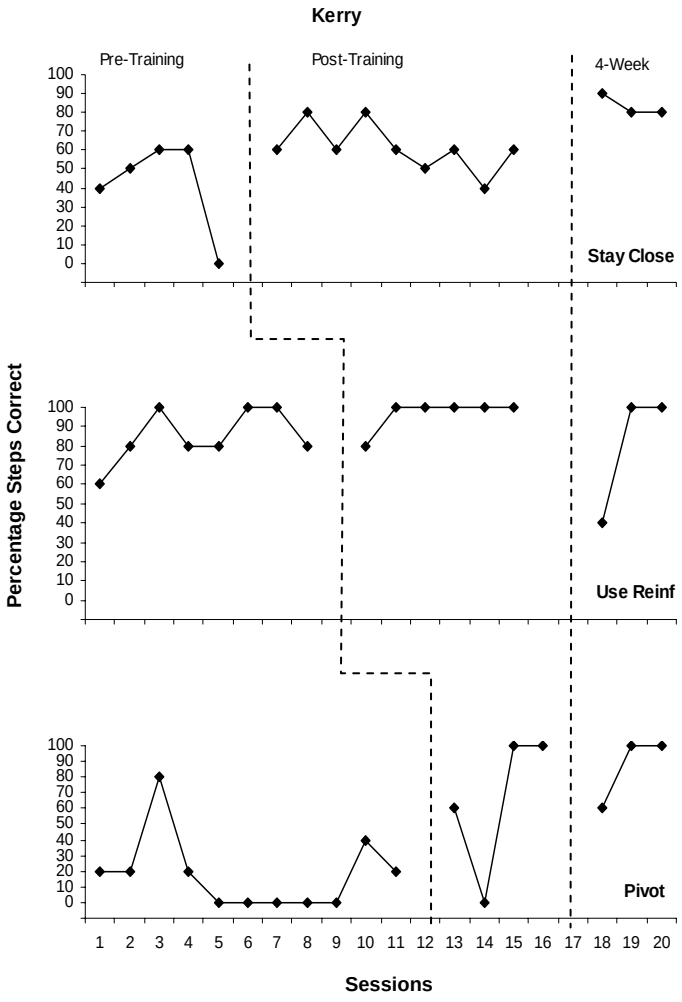

Figure 5. Kerry Percentage of Steps Completed Correctly

Colleen, whose results are shown in Figure 6, had low levels of accuracy for all skills and had the most variability for all skills pre-training (*M*=44% for *Stay Close*, *M*=50% for *Use Reinforcement*, and *M*=49% for *Pivot*). Similar to the other participants, Colleen showed increased levels of accuracy for all skills (*M*=76% for *Stay Close*,

M=91% for *Use Reinforcement*, *M*=75% for *Pivot*) although some variability remained for *Pivot*. At four-week follow-up increases in accuracy from post-training were seen for *Stay Close* (*M*=77%) and *Pivot* (*M*=100%). A slight decrease in accuracy was seen from post-training for *Use Reinforcement* (*M*=80%).

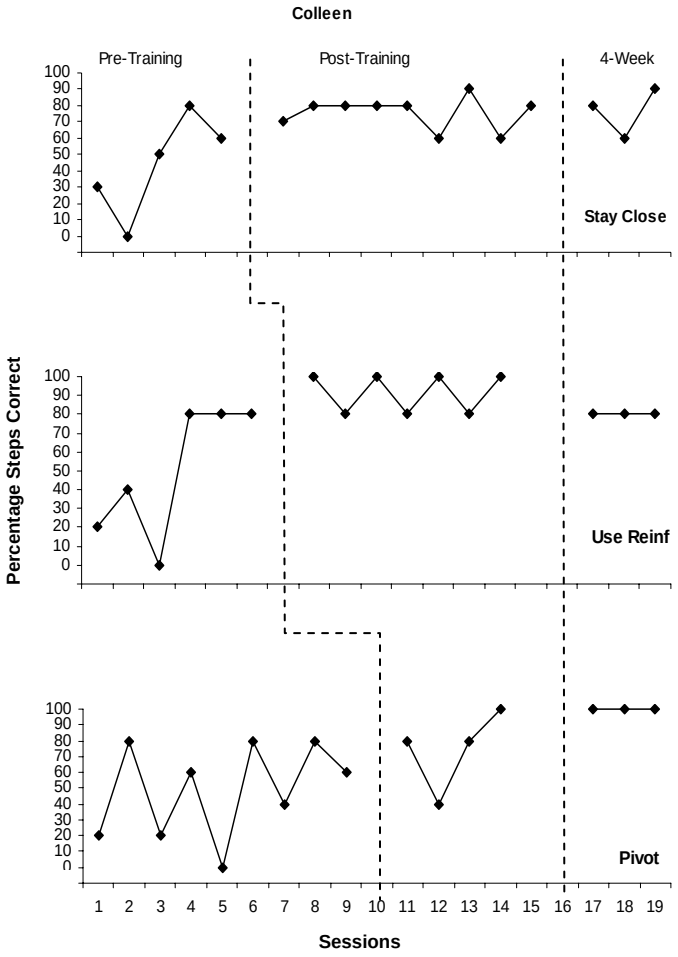

Figure 6. Colleen Percentage of Steps Completed Correctly

Child Behavior Checklist

Results for the CBCL measure indexed minimal positive changes in three participants' behavior as rated by parents on the Syndrome Scales of the CBCL. It is not known whether these results are statistically significant. These three participants had

scores that were in either the borderline clinical range or clinical range on part of the assessment. (See Table 3 for specific CBCL Competence Scale scores for all participants.) On the Competence Scales, Kerry and Colleen had scores within the borderline clinical or clinical range. Kerry's total competence score was 20, therefore within the borderline clinical range, at both pre-and post-assessment. Similarly, Colleen had a total score of 18 pre-training and 19 post-training, both within the borderline clinical range, on the competence scales. No positive changes were found on the Competence Scales of the assessment for any participant.

Table 3. Pre- and Post-training CBCL Competence Scales Scores

	Pre-training				Post-training			
Participant	Activities	Social	School	Total	Activities	Social	School	Total
Brenna	13	6	5	24	10.5	4	6	20.5
Cara	14	10	6	30	12	11	6	29
Shawna	10.5	10.5	6	27	10	11	6	27
Norah	6.5	11	5	22.5	-	-	-	-
Kerry	8	6	6	20*	6*	9	5	20*
Colleen	7*	6	5	18**	10	4**	5	19*
Total (Group)	10	8	6	24	10	9	6	24

- = No data available
* = Borderline clinical range (5-6.5 for Activities; 4.5-5 for Social; 2.5 for School; 19-20for total score)
** = Clinical range (4.5-0 for Activities; 4-0 for Social; 2-0 for School; 18.5-0 for total score)

On the Syndrome Scales of the assessment, Brenna, Kerry and Colleen all had scores within either the borderline clinical or clinical range. (See Table 4 for specific CBCL Syndrome Scale scores for all participants.) Pre-training Brenna scored within the clinical range on the Internalizing Scale with a score of 18 and was in the borderline clinical range with a total score of 37. Post-training Brenna's score on the Internalizing Scale dropped to 7 and her total score dropped to 10, both scores well within the normal range. Kerry scored within the borderline clinical range at pre-assessment with a score of

12. While her total score of 28 for pre-training was just within the normal range, at post-training her total scored dropped dramatically to 1. Her score on the Internalizing Scale also dropped to 1, which is well within the normal range. Colleen had similar pre- and post-training results. Her score on the Externalizing Scale was 11 pre-training, within the borderline clinical range. Her total score of 32 was not quite within the borderline range. Post-training her score on the Externalizing Scale dropped to 3, and her total score dropped to 12, both well within the normal range.

Table 4. Pre- and Post-training CBCL Syndrome Scales Scores

	Pre			Post		
Participant	Internalizing	Externalizing	Total	Internalizing	Externalizing	Total
Brenna	18**	8	37*	7	0	10
Cara	4	1	5	7	2	9
Shawna	0	1	2	2	1	3
Norah	1	0	2	-	-	-
Kerry	12*	8	28	1	0	1
Colleen	5	11*	32	2	3	12
Total (Group)	7	5	18	3	2	6

- = No data available
* = Borderline clinical range (12-14 for Internalizing; 12-15 for Externalizing; 36-44 for total score)
** = Clinical range (15-64 for Internalizing; 16-70 for Externalizing; 49-240 for total score)

Tell Us What You Think!

All six participants completed the social validity portion of the written post-training assessment titled *Tell Us What You Think!* Participants rated the class as having high social validity with all participants scoring 26 out of 30 possible points, or 87%, or higher on this assessment immediately following training. The average of all participants' scores on the social validity questions at this assessment point was 27 out of 30 possible points or 90%. One participant scored 30 out of 30 or 100% on the assessment. At four-week follow-up, five participants completed the social validity

portion of the written assessment. Participants rated the class as having high social validity with all participants scoring 24 out of 30 points, or 80%, or higher on the assessment. The average score for this assessment at follow-up was 27 out of 30 points or 90%. This is the same group average as at the post-training assessment point. (See Table 5 for specific social validity scores for each participant at each assessment point.)

Table 5. Participant Pre- and Post-training *Tell Us What You Think!* Survey Scores

Participant	Pre	Post1	Post 2	Soc Val1	Soc Val2
Brenna	39	42	43	27	27
Cara	42	44	41	30	27
Shawna	38	42	39	26	24
Norah	36	42	-	26	-
Kerry	41	43	43	28	30
Colleen	33	38	38	27	28
Average (Group)	38	42	41	27	27

- = No data available

Participants also reported increases from their baseline responses on the adapted ACLSA. Similar to the social validity portion, all six participants completed this portion of the written post-training assessment. The average score before training was 38 out of 45 or 84%. The average score for the group immediately following training was 42 out of 45 or 93%. It's not clear whether the differences are statistically significant, however, small increases were seen between pre- and post-training scores. At four-week follow-up, five participants completed the ACLSA. The average score was 41 out of 45 or 91%. This is a slight decrease from immediately following training. (See Table 5 above for specific survey scores for each participant at each assessment point.)

Discussion

The results of this study showed that the skills *Stay Close*, *Use Reinforcement*, and *Pivot*, as adapted from the BASP parent training curriculum, could be learned by adolescent females. Since these skills have been shown to be effective at increasing positive interactions between caregivers and children (Crosland et al., in press), it is plausible that the skills may prove beneficial for young people as well, by increasing positive interactions with people with whom they interact. This study takes one step further to identifying and successfully implementing a social skills training curriculum that could be used with typically developing adolescents and possibly other populations.

The positive changes in two participants' CBCL scores following training also is something interesting to consider as changes such as this would not necessarily be expected with a training of such short duration. It would be interesting for future studies to compare a control group of participant scores on the CBCL and see if changes occur in both groups. This may suggest that the differences in behavior could be a function of maturation of the participants. If changes are not seen within the control group's scores, this may add more support for the changes resulting as effects of training.

Verbal reports from one participant's mother provide a qualitative description of changes in her daughter's behavior post-training. This mother reported that she was pleased with her daughter's behavior since she participated in the social skills training. She stated, "She gets along better with her younger brother and is more tolerant. She is

also more self-assured." The mother also reported that, since participating in the training, her daughter "talks more about her future goals." Qualitative reports were not formally obtained from all participants' parents. Future research might include a standard social validity survey or forum for feedback from parents. At four-week follow-up, three mothers requested a way to provide specific information regarding their daughter's behavior since the completion of training.

While some parents reported positive changes and participants showed increased levels of accuracy post-training, this study is not without limitations. One such limitation of the study is the lack of long term follow-up data to measure maintenance of the learned skills. It is possible that participants were able to use the skills in class immediately following training but did not continue to use the skills in their everyday lives.

Another limitation involves generalization. It is also possible that the skills did not generalize to real-life situations. While the role-play scenarios were carefully crafted to help promote generalization (they were realistic, plausible scenarios for teenaged females), no measure of generalization was assessed. Further studies should be conducted to specifically assess maintenance and generalization of the instructed skills. Analysis of generalization of the skills to individuals within the participants' lives may be assessed in future studies by observing the participants at home with their family or in public places (e.g., the mall or at school) and measuring the frequency and accuracy of skill use with those people. It is encouraging, however, that two participants maintained high rates of accuracy and increased their consistency in percentage of steps correct at four-week follow-up, which is an in-home assessment. While this was not designed to assess differences between classroom post-training assessments and in-home follow-up

assessments, it might suggest that the participants are using the skills in-home. Future research should attempt to control for these limitations and to assess further the generalization of the skills to the participants' lives as well as the maintenance and use of the skills by participants with people they know and routinely interact with over longer periods of time. Another idea involving role-play scenarios and generalization for future similar studies would be to set up analog scenarios between the participants and their parents in which a specific skill could be used. The parents could be given scripted role-play scenarios to act out with their children while researchers are observing the interaction. It would be interesting to compare the levels of accuracy shown by the participants in interactions with their parents in which they knew their parents were trying to prompt the use of a specific skill versus when they did not know the parents were engaging in an analog scenario with them.

An additional limitation was the small sample size of participants. The results of this study might not generalize to all adolescent females as only six participants were assessed. While the findings are promising that the skills can be learned by, and may potentially be helpful for, some adolescents, it is not clear to what extent these results can be applied to the adolescent population as a whole due to a small sample of participants for the current study. It also is not clear if any differences may have existed among the group based on the different ages of the participants.

The short time frame in which training was conducted should also be considered. The class was only one day (six hours) in duration and provided a brief time for in-class role-play and practice. Perhaps if the participants would have had more opportunities for in-class role-playing, in which modeling and feedback on performance were provided,

participants may have demonstrated even higher and less variable levels of accuracy while role-playing the skills during post-training and follow-up assessments.

Another issue to consider is that Kerry and Brenna had high levels of accuracy for *Use Reinforcement* prior to training that skill. It is possible that this could be accounted for by individual differences with these two participants. The skill *Use Reinforcement* is similar to being polite and thanking people specifically for things they do to help. These participants already may have been taught by their parents or other significant adults in their lives to thank others and to be polite to other people.

A similar concern for the *Use Reinforcement* skill is that Cara, Norah and Colleen all showed increases in accuracy for this skill after training was completed for *Stay Close*. Some of the components of *Stay Close* are related to *Use Reinforcement* and several steps are shared in the two skills. For example, in the curriculum taught prior to *Stay Close*, participants are taught about providing attention to appropriate behavior rather than to inappropriate behavior (e.g., ignore junk behavior and avoid coercion). They were instructed to notice things others do for them and show appreciation for these things in an attempt to increase the frequency of those behaviors in similar situations again in the future. While the specific steps of *Use Reinforcement* were not specifically reviewed, some components are similar and, thus, may have led to the increase in accuracy for *Use Reinforcement* following the teaching of *Stay Close*.

A final consideration is the differences in the role-play scenarios used. A variety of situations were presented. While all of the scenarios had been carefully designed to assess a specific skill *and* be realistic and plausible for typical adolescent females, some situations may have been better assessment scenarios than others. For example, one of

the post-training scenarios for *Pivot* (the second role-play for this assessment point) was that the participant's mom just came into the room and said that she'd made the participant's favorite food for dinner. Then, the trainer engaged in the junk behavior of gently criticizing the participant's messy room. All six participants scored poorly on this role-play. If this role-play data point is not included in the post-training average, all participants' averages would increase. (See Table 6 for differences in the average scores for the post-training assessment point including and excluding this data point.) While the scenario was designed to assess the skill *Pivot*, it did not seem to function this way during post-assessments with participants. It is possible that the role-play assessed more of a compliance issue (cleaning up their room when a parent asks) instead of "pivoting" away from the parent's junk behavior (complaining about the room) and attending to the desired behavior (providing attention to the parent for preparing the favorite meal).

Table 6. Differences in Average Scores for *Pivot* Post-training Role-play #2

Participant	Average Including Role-play	Average Excluding Role-play	Post-training Percentage Difference
Brenna	83	97	14
Cara	93	100	7
Shawna	49	53	4
Norah	93	100	7
Kerry	65	87	22
Colleen	75	89	14
Total (Group)	76	88	12

Similarly, another post-training role-play for the skill *Stay Close* has the trainer talk to the participant about how sad she is that her grandmother passed away recently. Two participants verbally explained that they didn't know what to say when someone

dies, and scored poorly on this role-play. It is possible that some of the variability within the participants' role-play accuracy may be related to the specifics of some of the role-plays. Future research should carefully consider the role-play scenarios, and potentially practice them with a group of young people not involved in the study, prior to using them as assessment scenarios. As Cartledge and Loe (2001) explain, it is also important to take individuals' cultural differences into account when attempting to do assessments. While the role-plays used for this study were designed to be culture neutral, future studies may consider using role-play scenarios that specifically fit with the participants' individual cultural differences.

Another interesting point to consider is that participants tended to miss the same steps for some of the skills during the role-play scenarios. For example, Brenna, Cameron and Norah tended to miss the 'touch appropriately' step for *Stay Close*. Shawna and Colleen repeatedly missed the empathy step of the same skill. Shawna also tended to miss the 'actively attend to something else' step of *Pivot*. Kerry tended to miss the 'do nothing' step of the same skill. If future research yields similar findings, perhaps a secondary training procedure focusing on the most commonly missed steps could be implemented in attempt to promote more accurate skill demonstration by participants.

Some of the skills taught are applicable to both adults and youth. One idea for future researchers to consider would be to teach a group of adolescents whose parents were also trained in the BASP parent training curriculum (VanCamp et al., in press) and compare the findings to a group of young people whose parents have not been trained. Research by Hemphill and Littlefield (2001) found that a short-term training program for both youth and parents, which included a social skills component, improved their social

skills and decreased at-home problem behaviors of the youth. It would be interesting to examine the results of a similar study conducted by incorporating both the BASP positive parenting curriculum utilized by VanCamp et al., (in press) and the modified curriculum used in the current study.

In conclusion, this study showed that the three skills instructed can be learned by adolescent females as demonstrated through role-play. It is possible that these skills may be helpful for the youth and may be maintained over time. This study adds to the literature by showing successful implementation of a social skills training curriculum with typically developing adolescents. It seems to be a promising step toward a standard social skills training package for young people.

References

Achenbach, T. M. (1991a). *Manual for the Child Behavior Checklist and 1991 profile.* Burlington, VT: University of Vermont, Department of Psychiatry.

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Behavior Analysis Services Program Frequently Asked Questions (BASP) (January 17, 2007). Retrieved from http://www.psych.ufl.edu/~basp/ September 18, 2007.

Beirman, K. L., & Welsh, J. A. (2000). Assessing social dysfunction: The contributions of laboratory and performance-based measures. *Journal of Clinical and Child Psychology, 29 (4),* 526-539.

Bérubé, R. L., & Achenbach, T. M. (2007). *Bibliography of published studies using the ASEBA.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Bullis, M., Walker, H. M., & Sprague, J. R. (2001). A promise unfulfilled: Social skills training with at-risk and antisocial children and youth. *Exceptionality, 9(1&2),* 67-90.

Carr, J. E., Austin, J. L., Britton, L. N., Kellum, K. K., & Bailey, J. S. (1999). An assessment of social validity trends in applied behavior analysis. *Behavioral Interventions, 14,* 223-231.

Cartledge, G., & Loe, S. A. (2001). Cultural diversity in social skill instruction. *Exceptionality, 9,* 33-46.

Casey Family Programs. (2004). *Life Skills Guidebook.* US: Author.

Crosland, K. A., Dunlap, G., Sager, W., Neff, B., Wilcox, C., Blanco, A., & Giddings, T. (In Press). The effects of staff training on the types of interactions observed at two group homes for foster care children. *Research on Social Work Practice.*

Elliot, S. N., & Gresham, F.M. (1993). Social skills interventions for children. *Behavior Modification, 17 (3),* 287-313.

Elliot, S. N., Malecki, C. K., & Demaray, M. K. (2001). New directions in social skills assessment and intervention for elementary and middle school students. *Exceptionality, 9,* 19-32.

Gaffney, L. R., & McFall, R. M. (1981). A comparison of social skills in delinquent and nondelinquent adolescent girls using a behavioral role-playing inventory. *Journal of Consulting and Clinical Psychology, 49,* 959-967.

Gutierrez, Berkey, & Bergson-Shilcock (2001). *Strengthening families to promote youth development*. A Report of the Annie E. Casey Foundations Roundtable Discussions. Baltimore, Maryland.

Gresham, F. M., & Nagle, R. J. (1980). Social skills training with children: Responsiveness to modeling and coaching as a function of peer orientation. *Journal of Consulting and Clinical Psychology, 48 (6),* 718-729.

Hannon, J. C. & Ratliffe, T. (2007). Opportunities to participate and teacher interactions in coed versus single-gender physical education settings. *Physical Educator, 64 (1),* 11-20.

Hemphill, S. A., & Littlefield, L. (2001). Evaluation of a short-term group therapy program for children with behavior problems and their parents. *Behaviour Research and Therapy, 39,* 823-841.

Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of multisystemic therapy with substance-abusing and substance-dependent juvenile offenders. *Journal of the American Academy of Child Adolescence, 41(7),* 868-874.

La Greca, A. M., & Santogrossi, D. A. (1980). Social skills training with elementary school students: A behavioral group approach. *Journal of Consulting and Clinical Psychology, 48,* 220-227.

Mathur, S.R., & Rutherford, R.B. (1996). Is social skills training effective for students with emotional or behavioral disorders? Research issues and needs. *Behavioral Disorders, 22,* 21-28.

Mattaini, M. A., & McGuire, M. S. (2006). Behavioral strategies for constructing nonviolent cultures with youth. *Behavior Modification, 30 (2),* 184-224.

Miltenberger, R. G. (2004). *Behavior Modification: Principles and Procedures 3rd ed.* Belmont, CA: Thomson Wadsworth.

Nangle, D. W., Erdley, C. A, Carpenter, E. M., & Newman, J. E. (2002). Social skills training as a treatment for aggressive children and adolescents: A developmental-clinical integration. A*ggression and Violent Behavior, 7,* 169-199.

Ollendick, T.H., & Hersen, M. (1979). Social skills training for juvenile delinquents. *Behavioral Research & Therapy, 17,* 547-554.

Segrin, C. (2000). Social skills deficits associated with depression. *Clinical Psychology Review, 20,* 379-403.

Sidman, M. (2000). *Coercion and Its Fallout Revised Edition.* US: Authors Cooperative.

Skinner, B. F. (1953). *Science and Human Behavior.* New York: MacMillan.

Skinner, B. F. (1974). *About Behaviorism.* New York: Knopf.

Spence, S. H. (2003). Social skills training with children and young people: Theory, evidence and practice. *Child and Adolescent Mental Health, 8 (2),* 84-96.

VanCamp, C. M., Borrero, J. C., & Vollmer, T. R. (2003). The family safety/applied behavior analysis initiative: An introduction and overview. *The Behavior Analyst Today, 3 (4),* 389-404.

VanCamp, C. M., Vollmer, T. R., Goh, H., Whitehouse, C. M., Reyes, J., & Montgomery, J. L. (In press). Behavioral parent training in child welfare: Evaluations of skills acquisition.

Appendices

Appendix A: List of Steps for Each Social Skill

Skill 1: Stay Close

1. Get physically close to the other person within 15 seconds of the Stay Close behavior.
2. Touch appropriately. (Hug, high five)
3. Match facial expressions. (Appropriately reflect the emotion of the situation.)
4. Use appropriate tone of voice. (Voice matches the situation, a neutral monotone is not enough.)
5. Relax your body language within 15 seconds of the Stay Close behavior. (Arms open, looking at the other person)
6. Ask open-ended positive questions. (What? Who? How? When? Where?)
7. Listen when the other person speaks. Talk less than they do. (Do not problem solve unless the other person asks for help. Do not interrupt or change the topic abruptly.)
8. Use empathy statements. (Act like a mirror and reflect the other persons feelings, express understanding and caring.)
9. Avoid reacting to junk behavior.
10. Stay cool throughout the process. (No coercives.)

Skill 2: Use Reinforcement

1. Tell the person what behavior you liked.
2. Give a consequence that matches the value of the behavior.
    a. Social interaction
    b. Verbal praise
    c. Appropriate touch
    d. Tangible item
    e. Privilege
    f. Break from a task
3. Give the consequence within 3 seconds of recognizing the behavior.
4. Use sincere and appropriate facial expressions, tone of voice and body language.
5. Avoid coercion.

Skill 3: Pivot

1. Say nothing about the junk behavior. (For example, don't say, "Stop that now!" or "Quit doing that!")

2. Do nothing to react to the junk behavior. (For example, don't roll your eyes, stomp out of the room, or cross your arms.)
3. Actively attend to another person or activity. (For example, praise someone else.)
4. Once the person who displayed junk behavior behaves appropriately, provide reinforcement for the appropriate behavior within 10 seconds.
    a. Social interaction
    b. Verbal praise
    c. Appropriate touch
    d. Tangible item
    e. Privilege
    f. Break from a task
5. Stay Cool. (No coercives.)

Appendix B: Description of Coercives

1. Questioning: asking questions when the other person does not really expect an honest answer and won't accept the likely answer
   Example: A friend of yours is kissing your boyfriend. You walk by and notice this and say to the friend, "Why don't you just get a hotel room? What, you couldn't find your own guy?"

2. Arguing: Attempting to force another person to agree and responding to any objection by that person
   Example: It is your chore to clean the kitchen. When your parent requests that you begin to clean up you say that you don't want to. Your parent says that you are supposed to help every night. You say you are not going to because it's not fair that you are the only person who cleans the kitchen. Your parent repeats that you need to. And the back and forth negative verbal interaction continues.

3. Sarcasm/Teasing: Making fun
   Example: A friend shows up late for a movie and you say, "Wow, so nice of you to make it. I'm sure they waited for you to get here before they'd start the show."

4. Force (physical or verbal): Causing pain or creating fear
   Example: You are shopping with a friend. You have asked to leave the store you are in, but your friend is not done shopping. You grab her by the arm and drag her out of the store yelling that she's done shopping.

5. Taking things from other people: Removing attention or a desired or preferred activity, item or money in an attempt to change a person's behavior in the future
   Example: A friend calls to report to you that she is really hung over from a party last night. You have discussed with this friend numerous times that you don't like it when she drinks. You hang up on your friend and will not answer the phone when she calls you back.

6. One ups-man-ship: Minimizing another person's statements by telling them stories about how good/bad your life experiences have been
   Example: Your friend tells you that her father has lost his job and that she's concerned about money. You tell the friend that when you were little you had no money for food, and lived out of your car for a year so it can't be that bad.

7. Threats: A warning that you will do something mean
   Example: You have been fighting with a former friend over a cute boy from school. You tell the friend that if she doesn't stop talking to him you're going to tell the boy embarrassing secrets about her.

8. Criticism: Putting down other people
   Example: Your mother made waffles for breakfast and serves them to you warm. You say, "Maybe next time you could turn the waffle iron down so they aren't so burnt."

9. Silent Treatment: Obviously ignoring another person in order to punish them. Ignoring past the point of the troubling behavior's occurrence and the other person is behaving more appropriately.
   Example: A friend tells you that she accidentally got ink all over your favorite shirt that she had borrowed and that it's now ruined. You don't talk to the friend for the rest of the week.

10. Telling on them to others: Talking to others regarding the behavior of another person. If the person knows you have told another person, the relationship with those others and you will be damaged; the other person will be likely to get even with all involved.
    Example: A friend confided in you that she had failed a very important test. She made you mad at school today so you go to her house, wait for her mom and dad to come into the room and you tell her parents in front of your friend about her bad grade.

11. Despair/Pleading/Helplessness: Saying or doing things to make another person change because they feel sorry for you or guilty for what they have done to you
    Example: Your friend smokes a cigarette after 2 weeks of not smoking. You had been encouraging your friend to stop smoking and were proud of the two smoke-free weeks. Your friend reports to you that she had smoked that day, and you say, "I take all my time and try to help you quit. I talk to you on the phone every time you think you want to smoke for two full weeks and take your cigarettes from you so you don't have any, and this is how you repay me, by smoking a cigarette today."

12. Logic: Explaining with more than one or two brief statements why a behavior is good or bad for another person. The explanation is especially likely to function as coercion if it is a frequent conversation between you and the other person

Example: A friend of yours has been smoking pot on the weekends. You begin to discuss this with them as soon as they come to school on Monday. You begin by explaining the importance of being healthy. Then explain that when your friend smokes pot it disappoints you and that you want them to succeed in life and that is why you keep talking about this with them. You also explain that smoking pot is a breach of trust and that if you can't trust them then you don't want them a part of your group anymore. This is the same conversation that you had with the friend the week before.

Appendix C: Baseline *Tell Us What You Think!* (Questions Adapted from ACLSA)

We'd like to know how you feel about a couple of things.
Please circle the response for each line that best fits you.

- I clearly present my ideas to others.

Definitely I guess Not so much

- I ask questions to make sure I understand something someone has said.

Definitely I guess Not so much

- When I disagree with someone, I try to find a compromise.

Definitely I guess Not so much

- I show appreciation for things other people do for me.

Definitely I guess Not so much

- I deal with anger without using violence.

Definitely I guess Not so much

- I am part of a group besides my family that cares about me.

Definitely I guess Not so much

- I show others that I care about them.

Definitely I guess Not so much

- I am comfortable with the number of friends that I have.

Definitely I guess Not so much

- I can usually receive feedback without getting angry.

Definitely I guess Not so much

- I get along with co-workers or schoolmates.

Definitely I guess Not so much

- I thank people when they do things for me.

Definitely I guess Not so much

- I tell my problems to an adult.

Definitely I guess Not so much

- I pay attention when others talk.

Definitely I guess Not so much

- I can get mad without hurting others.

Definitely I guess Not so much

- I work well with others.

Definitely I guess Not so much

Want to tell us anything else? We'd love to hear what you have to say, go on, fill us in!

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Appendix D: Post-Training and 4-week follow-up *Tell Us What You Think!*
(Social Validity and Questions Adapted from ACLSA)

We want to know how you liked the class and what you feel like you learned from taking it. We'd also like to know how you feel about some other things too. Please circle the response for each line that best fits you.

About our class:

- I really enjoyed the class.

Definitely I guess Not so much

- I would tell my friends that they should take the class.

Definitely I guess Not so much

- I feel more comfortable around people after taking this class.

Definitely I guess Not so much

- I act differently toward people now.

Definitely I guess Not so much

- People act differently toward me now.

Definitely I guess Not so much

- I get along better with my friends now.

Definitely I guess Not so much

- I learned some cool new stuff from class.

Definitely I guess Not so much

- I have made some new friends since I first started class.

Definitely I guess Not so much

- I think this class could help other young adults get along better with other people.

Definitely I guess Not so much

- I feel like the class was helpful and worth my time.

Definitely I guess Not so much

What did you like the best about class?

_____
_____
_____

What could we do better for our next class?

_____
_____
_____

Other Stuff:

- I clearly present my ideas to others.

Definitely I guess Not so much

- I ask questions to make sure I understand something someone has said.

Definitely I guess Not so much

- When I disagree with someone, I try to find a compromise.

Definitely I guess Not so much

- I show appreciation for things other people do for me.

Definitely I guess Not so much

- I deal with anger without using violence.

Definitely I guess Not so much

- I am part of a group besides my family that cares about me.

Definitely I guess Not so much

- I show others that I care about them.

Definitely I guess Not so much

- I am comfortable with the number of friends that I have.

Definitely I guess Not so much

- I can usually receive feedback without getting angry.

Definitely I guess Not so much

- I get along with co-workers or schoolmates.

Definitely I guess Not so much

- I thank people when they do things for me.

Definitely I guess Not so much

- I tell my problems to an adult.

Definitely I guess Not so much

- I pay attention when others talk.

Definitely I guess Not so much

- I can get mad without hurting others.

Definitely I guess Not so much

- I work well with others.

Definitely I guess Not so much

Want to tell us anything else? We'd love to hear your feedback, so go on, fill us in!

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Appendix E: Skill Checklists

Stay Close

TOPIC: Teaching Outstanding Positive Interactions & Communications

Stay Close Skill Checklist

Participant Name: _____
Behavior Analyst: _____ Date: _____ Primary/Reliability

Step	Yes	No	Comments
1. Get close to the person within 15 seconds (within arms reach)			
2. Touch appropriately			
3. Use appropriate facial expressions			
4. Use appropriate tone of voice			
5. Relax body language within 15 seconds			
6. Ask open-ended positive questions			
7. Listen! when they speak			
8. Use empathy statements			
9. Avoid reacting to junk behavior			
10. Avoid Coercion			

Number of steps completed correctly: (Circle One) 1=10%, 2=20%, 3=30%, 4=40%, 5=50%, 6=60%, 7=70%, 8=80%, 9=90%, 10=100%

Appendix E: (Continued)

Use Reinforcement

TOPIC: Teaching Outstanding Positive Interactions & Communications

Use Reinforcement Skill Checklist

Participant Name: _____

Behavior Analyst: _____ Date: _____ Primary/Reliability

Step	Yes	No	Comments
1. Tell the person what behavior you liked			
2. Give a consequence that matches the value of the behavior			• Social interaction • Verbal praise • Appropriate touch • Tangible item • Privilege • Break from task
3. Give consequence within 3 seconds of recognizing the behavior			
4. Use sincere and appropriate facial expression, tone of voice and body language			
5. Avoid coercion			

Number of steps completed correctly: (Circle One)

1=20%, 2=40%, 3=60%, 4=80%, 5=100%

Appendix E: (Continued)

Pivot

TOPIC: Teaching Outstanding Positive Interactions & Communications

Pivot Skill Checklist

Participant Name: _____

Behavior Analyst: _____ Date: _____ Primary/Reliability

Step	Yes	No	Comments
1. Say nothing about the junk behavior			
2. Do nothing to react to the junk behavior			
3. Actively do something else while the junk is happening			
4. Use reinforcement when the person stops doing the junk behavior			
5. Avoid coercion			

Number of steps completed correctly: (Circle One)
1=20%, 2=40%, 3=60%, 4=80%, 5=100%