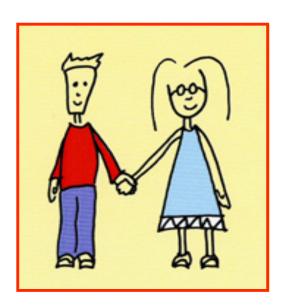
Kids Helping Kids



Teaching Typical Children to Enhance the Play and Social Skills of their Friends with Autism and Other PDDs: A Manual

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Illustrations by Chris Robertson

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* Please distribute this manual to anyone who might benefit from using it. Please notify Dr. Pierce as a courtesy:

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Note: Peer-PRT training procedure based on Koegel, Schreibman, Good, Cerniglia, Murphy & Koegel (1989). How to Teach Pivotal Behaviors to Children with Autism: A Training Manual.

WE WELCOME AND ENCOURAGE IMPROVEMENTS!! For example, we often augment the procedure with video modeling...have you found anything else that is helpful to enhance social behavior?

Please send suggestions for improvements to the manual to Karen Pierce at: kpierce@ucsd.edu

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ATTACHMENT: Manual for peer, sibling or other child trainers (8 pages)

INTRODUCTION

Teaching social interaction skills to children with autism is perhaps the most critical, and often most difficult, aspect of treatment programming. Because the development of sophisticated social skills relies on attention to subtle social cues, timing of social response, and maintenance of attention on the activities of others, abnormalities in basic attentional processes in most children with autism are among the first challenges that a social skills trainer often encounters. Pivotal Response Training (PRT), the teaching paradigm utilized in this manual, targets ameliorating attentional abnormalities as a mechanism to enhance normal social responsivity. Other strategies, such as enhancing motivation, modeling appropriate play behavior and reinforcement of appropriate play behavior are additional components of this approach.

There are also many strengths in the learning styles of children with autism that allow us to develop effective social skills interventions. Among them are success with predictability, visual instruction, and response to motivational techniques. Strategies such as peer implemented PRT, which target ameliorating deficits, while working with the learning strengths in autism afford teachers, practitioners, and parents with a mechanism for teaching this important skill.

The authors of this manual have spent the past decade researching how to most effectively teach language and social skills to children with autism (see (Laski et al 1988; Pierce and Schreibman 1995; Pierce and Schreibman 1997b; Sherer et al 2001; Stahmer 1995). Converging evidence from our laboratory as well as others suggests that using typical children (often called "peer trainers") as teachers is a highly efficacious treatment alternative. Typical children are in abundance in the home and school setting and provide developmentally appropriate examples of play and social behavior.

In essence, the social skills strategies described in this manual are derived from a naturalistic teaching strategy called Pivotal Response Training (PRT; see manual by (Koegel et al 1989). Pivotal Response Training is a group of behavioral teaching strategies designed to increase motivation such that the child with autism wants to engage in a particular task (e.g., language) while concomitantly orienting attention to relevant aspects of the environment.

The overall goal of the manual is to give teachers and parents treatment strategies that they, in turn, can teach normal children to use with their friends, classmates or siblings with autism and other pervasive developmental disorders. Throughout the manual the term "target child" will refer to the child with autism or other pervasive developmental disorder, and the term "peer" will refer to the typical child serving as a peer trainer. Although not necessary, it is often helpful if the adult in charge of the peer training is trained in PRT (or at least somewhat familiar with it).

The enclosed picture manual "How to be a Great Friend" is a visual guide that should be given to peers during their training. The peer trainer should also review this picture book prior to each play session. This will serve to remind them of the 8 specific play rules.

Before you begin, a few decisions should be made to ensure the success of your peer-PRT program including: **Determining child readiness**; **Selecting peer trainers**; **Choosing a location for training**; **Selecting appropriate toys**; **Deciding treatment frequency and duration**.

GETTING READY

Before beginning any social skills training program, several considerations should be addressed:

STEP 1: DETERMINING CHILD READINESS AND APPROPRIATE ACTIVITES

Peer mediated PRT interventions have been shown to be effective with children of all abilities (see (Pierce and Schreibman 1995; Pierce and Schreibman 1997a; Pierce and Schreibman 1997b), although research suggests that this procedure may be more effective with children who have *some* verbal ability (e.g., single words or speech approximations). The somewhat greater success of peer PRT approaches with children with some language ability might be a function of the level of reinforcement received by the peer trainer during interactions. That is, a peer trainer might feel more

comfortable, and his/her attempts at interaction might be reinforced more by the target child if the target child makes a communicative response to initiations than if the target child does not. Pre-verbal or non-verbal children with autism can also benefit from peer-implemented PRT, however, the procedure is implemented slightly differently for a child with little or no verbal skills. The adult in charge of the peer training should take this into consideration when instructing peer trainers on specific strategies. In short, the age and ability level of the target child should be taken into consideration when deciding what skills to emphasize during the training. There are several different types of social interaction activities that vary in the level of involvement between individuals, language and cognitive demands. Listed below are some of the main categories of play, ordered from simple to most complex:

<u>Physical play</u>. Outdoor games such as tag, catch, ring around the rosie, duck-duck-goose are usually successful social interaction activities for children of all abilities. These activities have few rules, rely on minimal language ability and are enjoyable for all participants. In large groups, however, some children with autism may still avoid physical play with others. Decreasing group size, to include only 2 or 3 typical children and one target child will usually facilitate successful physical play activities.

<u>Parallel play</u>. This type of play can be defined as any instance where the target child and peer are engaged in the same activity (e.g., building with blocks), but they are not interacting during this activity. Parallel play is typically the dominant form of peer play for typical children until the age of 4. Although interactive play is the ultimate goal, beginning with parallel play is often an ideal starting point for young or pre-verbal children. Encourage parallel play by having two sets of most activities, and placing them next to each other.

<u>Simple Interactive</u>. Simple interactive play can be defined as any play activity that does not rely on complex verbal interaction, but rather, on turn taking with toys. For example, pushing cars back and forth, rolling balls back and forth or taking turns with a push toy. This level of interaction is an excellent starting place for preverbal children along with physical and parallel play.

<u>Complex Interactive</u>. Complex interactive play is similar to interactive play, except that verbalizations may take place between play partners. Further, complex interactive play may make use of board games or other advanced forms of interactive play items. Even if a child is verbally competent, it is common to start at the level of simple interactive and progress towards complex interactive with successful interactions.

Symbolic Play. Symbolic play involves using objects for things other than what they were intended to be. For example, using a pen as car, or a baby's bottle as an airplane are both examples of symbolic play. Research suggests that this advanced type of play is correlated with language, in that children with more language are more likely to engage in this type of play. Given this, symbolic play is a great way to enhance creativity in children with autism who have some verbal ability.

<u>Verbal Play</u>. Verbal play is the most complex form of play because it relies predominantly on the participants' ability, and willingness, to verbally interact. This form of play may readily occur during sociodramatic type games. For example, children might discuss what types of shoes their mother has during a dress up, or what types of clothes they want to buy in the store, or what they want to be for Halloween next year. Verbal interactive play is the ultimate goal for a peer training intervention with verbal children, however, it is often common, and necessary, to progress through earlier stages of play before sophisticated verbal play can ensue.

STEP 2: DETERMINING WHO WILL BE THE BEST PEER TRAINER

Selecting an appropriate peer trainer is essential. While many young children have wonderful intentions, not every typical child will be a suitable peer trainer for every child with autism. There are several important factors to consider when choosing a peer trainer including: **age, personality, availability, and consistency**.

<u>Age</u>. The skill of a peer trainer increases with age, in that an eight-year-old child typically is a more proficient peer trainer than a five-year-old child. <u>It is important, however that the peer trainer and child with autism be of similar age</u> in order to maximize the potential for the development of friendships as well as provide developmentally appropriate exemplars of play.

<u>Personality</u>. The emotional disposition and social tone of the peer trainer is an important variable that affects treatment efficacy. Traits such as patience, maturity, and persistence are important, however, the best judge of personality compatibility will be the child with autism. Like adults, children's preferences for friends are difficult to target, therefore, the best test of personality compatibility is to observe the dyad playing together. Things to look for:

Does the peer trainer seem interested in the target child, or does he/she wait for your instruction?

Does the target child actively run away from the peer trainer?

Does the target child allow the peer trainer to remain in proximity?

Does the target child appear more anxious in the presence of the peer trainer?

<u>Availability/Consistency</u>. Children with autism typically thrive under conditions of consistency, therefore, it is important to choose peer trainers that are available on a regular basis.

<u>Number of peer trainers</u>. There is little empirical evidence that systematically evaluates the impact of few versus many peer trainers. In theory, multiple peer trainers should serve to enhance generalization of treatment effects. Further, multiple peer trainers provide diverse examples of play for the target child.

By multiple peer trainers, we mean different peer trainers on different days (e.g., Peer Trainer 1 on Monday and Wed, Peer Trainer 2 on Tuesday and Thursday).

STEP 3: DETERMINING THE BEST PLACE FOR PEER-PRT TRAINING

During our typical program, training initially takes place in a location free of distractions. Gradually, the complexity of the environment increases. For example, during the first few weeks of training, the target child and peer trainer might play together inside a classroom a during recess period when other children are outside. After successful interactions of this type, more children should be introduced into the training environment to mimic naturalistic situations. It is important to note, that the concepts addressed in this manual (e.g., reward attempts at social behavior, model appropriate play, orient appropriate attention) should, and can, be implemented in ANY setting: during outdoor or indoor recess, at lunch time, class outings or even at the dinner table. Once peers are trained on the basic concepts of this approach, they should be instructed to attempt these strategies in any setting they feel comfortable.

STEP 4: SELECTION OF APPROPRIATE TOYS

It is important to choose toys that will enhance motivation of target child. Toys also should be rotated frequently to enhance motivation as well as provide new exemplars for learning. Further, toys should be chosen that facilitate interaction, such as board games or a ball while toys that are difficult to share, such as books, should be avoided.

<u>Note</u>: Some children have abnormal preoccupations with certain objects (e.g., letters). Under most situations, toys of this type should be eliminated from the training setting. Sometimes, however, toys that are preoccupations may be the most successful way to begin an interaction between the target child and peer trainer. For example, a child with autism that is preoccupied with dinosaurs may approach a peer trainer or allow a minimal interaction in order to gain access to those dinosaurs.

STEP 5: DECIDE THE FREQUENCY AND DURATION OF TRAINING

Social development is a cascade of events beginning in infancy and extending throughout adulthood therefore, training should begin as early as possible and as frequently as possible. As mentioned above, however, a specific time and place to implement a peer training strategy is not always necessary: once the peer trainer reaches a high proficiency level and has developed a positive relationship with the target child, training can take place at any time, anywhere.

OVERALL GUIDELINES FOR TRAINING PEERS

Research regarding this method [Pierce, 1995 #2833] suggests that most typical peers can learn the basics of this method in about 3 or 4 1/2 hours of didactic sessions. If multiple peer trainers will be used, it is usually best to train all of the children simultaneously. Training peers together will not only give them a sense that they are engaging in an activity similar to their peers, but also, they can practice the strategies they have learned on each other! The peer training sessions can be broken down as follows:

SESSION 1: EXPLANATION

Introduce the concept of "peer training", explain to the children that they will be helping a child with special needs to learn how to play and make friends. Next, give peer trainers a manual and tell them that they will be learning many different strategies for helping the target child. Begin explaining each strategy verbally, having children follow along in their manual. After you have explained each strategy, ask questions to each peer to see if they understand the concepts.

SESSION 2: ROLE PLAYING

Continue until you have finished explaining the 8th strategy (i.e., "Tell what you are doing"). Begin role playing.

<u>Role Playing.</u> With another adult, role play each strategy, using toys and other stimuli that will be available to the peers. Provide a both a *good* and *poor* example of implementing each strategy and ask the peer to comment after each. Providing both accurate and inaccurate implementations of each strategy will provide the typical children with many examples of what they should, as well as should not, be doing. Asking <u>lots of questions</u> after role playing each strategy will help the peer trainers understand the critical elements of each strategy.

An example of role playing 'Paying Attention' (strategy #1) where one adult acts as the target child and the other adult as a peer trainer might be as follows:

Poor Example of 'Paying Attention'

Adult 1 (acting as target child): Looks up at lights on the ceiling as he is repetitively moving an object.

Adult 2 (acting as peer trainer): Sits next to adult 1 and says "do you want to play ball?"

Questions to ask peer trainers: Was that a good or bad example of getting your friend's attention? Why or why not? What other things could you have done to get attention?

In the above example, Adult 2 did not attempt to orient the target child's attention to any meaningful object and did not position his/her body in such a way as to elicit a response from the target child.

Good Example of 'Paying Attention'

Adult 1 (acting as target child): Looks up at lights on the ceiling as he is repetitively moving a car in the air.

Adult 2 (acting as peer trainer): Sits in front of target child and places a ball in front of the moving car. Once the target child either makes eye contact with adult 2, or looks at the new object (i.e., the ball), adult 2 then asks "do you want to play ball, or car?"

In this example, adult 2 gets the attention of the target child by moving to the front of the child and placing an object which blocks the target child's current focus of attention (the car). Once sure that the attention of the target child is either on the adult or the new object, adult 2 delivers the prompt "do you want to play ball or car?"

SESSION 3: MORE ROLE PLAYING

Continue role playing until you have provided good and poor examples of each strategy begun in session 2. Next, instruct the peer (s) to show you how to implement each of the strategies. That is, the peer trainers will be involved in the role playing. As the teacher, you will pretend to be the target child, and ask the peer trainer to show you how to implement each strategy (e.g., "show me how you would give choices."), providing good and poor examples of each. Usually the peer trainers will simply repeat the examples given to them in session 2. Initially this is acceptable, however, after the peer trainer has repeated things shown to them in session 2, request that they provide an original example.

SESSION 4: ROLE PLAYING AND QUESTIONS

Finish role playing each of the strategies above and follow through on any unanswered questions. Further, if training multiple peers, it is a good idea to have the peers role play and provide feedback to each other. The peer must be able to implement each strategy accurately before continuing in the program, this is imperative! If a peer trainer fails to reach over 75% accuracy during role playing and question answering periods, then he/she must redo the entire training procedure. Allowing a peer trainer to begin working with a target child before he/she is ready will only serve to frustrate both participants and should be avoided.

SESSION 5: Introduce the peer trainer to the child with autism (i.e., the target child) and tell the peer trainer to use the strategies he/she has learned. As the adult, you will provide feedback and suggestions to the peer when necessary. You do not directly intervene with the target child. All feedback goes directly to the peer trainer. Regardless of the level of success of the interaction, verbally praise the peer trainer for their attempts, providing tangible rewards (e.g., prizes) if necessary.

PEER PRT STRATEGIES

In essence, the social skills strategies described in this manual are derived from a naturalistic teaching strategy called Pivotal Response Training (PRT), developed by Koegel, Schreibman, Good, Cerniglia, Murphy and Koegel (1989). If possible, it is best to have the adult implementing the program be as familiar as possible with PRT. The following section will offer guidance regarding specific teaching strategies for each PRT component. The overall philosophy of peer implemented PRT revolves around altering two pivotal mechanisms: **Motivation and Attention**. In the context of social interaction, motivation can be described as a child's desire to want to interact or play with another child. Several strategies described in the following section were designed to enhance the motivation of the target child to engage in social activities including: **child's choice, turn taking, and reinforcement of appropriate social activities**. The other critical component of this treatment, altering attention, is targeted by the following strategies: **orient attention**, **use of developmentally appropriate language** and describe **play actions**.

Each of the following strategies is depicted in the peer training manual.

STRATEGY 1: ORIENT ATTENTION: Paying Attention

Children with autism are faced with myriad attention difficulties including abnormalities in shifting attention during joint attention (Dawson et al 2004) integrating multiple cues (Pierce et al 1997) and

orienting attention (Townsend et al 1996). Thus, teaching the peer trainer to correctly orient the attention of their playmate is usually the first, and perhaps the most important, strategy taught.

Think of a typical child sitting in front of the television watching his favorite show. If that child is asked a question from across the room, the probability is high that he will not answer you. However, if you walk across the room, and stand in front of the television, the child will more than likely answer you. You have, in essence, oriented the child's attention by blocking their current focus of attention. This is the concept that is addressed in this strategy.

Peer **DO's** for orienting attention of their friend with autism:

- 1. Orient body position so that they are directly in front of, and at eye level with target child.
- 2. Hold preferred toy near eyes, this will orient the target child's attention to the peer trainers' face.
 - 3. Tap lightly on the shoulder, this will alert the target child
 - 4. Say the name of the child, this will alert the target child
 - 5. If reasonable, holding a hand over the toy the child with autism is currently engaged with will also serve to orient attention.

Peer **Dont's**:

- 1. Try to get attention from behind the target child. Always address the child from the front.
 - 2. Ask a question or deliver a prompt from far away.
 - 3. Raise voice to excessive levels in an effort to get attention (although slight elevation may be necessary at times).

STRATEGY 2: USE DEVELOPMENTALLY APPROPRIATE LANGUAGE:

Easy Sentences

Attention will be oriented more readily and maintained for longer periods of time, if the child with autism can process the verbal statements made by the peer than if he/she can not.

Peer DO's:

1. Talk at a level that is most easily understood by the target child.

Peer **DONT'S**:

- 1. Talk in overly long sentences.
- 2. Talk rapidly.
- 3. Make abstract references in speech to things that are not present.

STRATEGY 3: ENHANCE MOTIVATION BY OFFERING CHOICES: Give Choices

The overall goal of this strategy is to enhance motivation to *want* to interact. Motivation is increased by allowing him/her to have a large role in choosing the game to be played or the topic of conversation. Just as any of us would be more motivated or interested in engaging in an activity that we enjoy than one that we do not. Whenever possible, the peer trainer should be taught to engage in whatever activity appears to be fun for the target child. The main components of enhancing motivation are: offering choices and following the lead of the target child. For example, assume that a child with autism is playing with a car. A peer trainer might then ask, do you want to play with cars, or blocks? In this example, the target child is likely to say "cars" because he is already motivated to engage in that activity. If the peer trainer instead said "do you want to play with blocks or dolls?", the target child is

likely to ignore this prompt because blocks or dolls may not be an obvious motivating activity for the target child.

When offering choices it is important that the peer trainer HOLD the OBJECT(S) in CLEAR VIEW for the target child to see. Having a visual representation of the choices is preferred over simply saying what the choices are. So, in the aforementioned example, the peer trainer would have held up blocks in one hand and a doll in the other.

Peer **DO's**:

- 1. Give 2 choices when the target child seems not to have any obvious interests. For example, "Do you want the blocks, or the doll?"
- 2. If the target child appears to already have an interest in a toy, one of the choices should be either what the target child is already playing with or a toy that he/she is looking at.

For example, if the target child is looking across the room at a book, the peer should pick up the book and prompt the target child for the item. In this case the peer does not need to give 2 choices because it is obvious what the target child wants.

Peer DON'TS

1. Choose a toy that he/she wants to play with. Explain to the peer that they will be able to help the target child better if they chose what he/she is interested in. That is, the peer should not give choices of things that the target child does not appear interested in.

STRATEGY 4: MODELING APPROPRIATE AND COMPLEX PLAY SKILLS:

Show Good Playing

This strategy was designed to provide repetitive examples of *how* to play with various toys as well as *when* to engage in various play actions. Instruct the peer that even though the toys seem easy to play with, they should briefly explain how to use each toy. There are really no "do's" or "don'ts" for this strategy, but rather, it is important that the peer remembers to model even what appears to be simple, common activities. For example, while playing with cars, the peer trainer could model how to get gas, drive to school, do a pop-a-wheely, or stop for a red light. While playing, the peer should both enact and describe his play actions.

STRATEGY 5: ENCOURAGING CONVERSATION: Ask Your Friend to Talk

Encouraging conversation is an important element to any social interaction. This strategy should be used, however, only when working with target children that have some speech approximations (e.g., sounds or single words).

Before teaching this strategy, tell the peer that it is very important that they try to facilitate speech. Essentially, they should try to get the target child to talk for any toy that they want to play with and once they get the toy, they should talk about aspects of the toy.

For example if the target child is looking at a toy truck, the peer trainer should give the target child the choice of having the truck or an additional item and require that the target child say "truck" before receiving the item.

Peer **DO's**:

1. Encourage conversation as frequently as possible. Usually a good time to ask your friend to talk is during a turn taking activity. When the peer trainer has finished his/her turn, he/she can ask the target child for the toy back so that they may take their turn. Therefore, it is important that the peer encourage language after every turn is taken.

2. Expect that the target child will emit a verbalization when offered a choice. For example, if the peer trainer asks "do you want to play Chutes and Ladders or Colorforms?", he/she should expect the target child to emit some verbal response before giving him/her the toy.

Peer **Don'ts**

- 1. If the target child appears frustrated with frequent requests for verbalizations, the peer trainer should decrease his/her prompts. Once the target child is more successful and is not emitting signs of frustration, then the number of requests for language can be increased.
- 2. Accidentally reinforce poor or no language by giving the target child a preferred activity after the target child has behaved inappropriately or ignored the peer's request. For example, if a peer trainer had just asked Johhny, a child with autism, "do you want to play with Play-Doh or cars?, and Johnny does not answer but simply tries to grab the car, the peer trainer should not relinquish the car to Johnny without his attempt at appropriate communication.

STRATEGY 6: TEACHING TURN TAKING: Take Turns

Taking turns is an important play milestone that every child must learn. Both typical children and children with autism will more than likely have difficulty with this skill at some point early in development. Given the importance of this skill, peer trainers are taught to emphasize turn taking during play. Turn taking is also beneficial because it provides the peer trainer an opportunity to model appropriate play.

Finally, turn taking is a key component to enhancing the motivation of the target child to continue interactions: if child is motivated for a particular toy, he/she will want his turn back and will usually observe the peer trainer in an effort to receive the coveted article. In so doing, the target child is exposed to multitude of examples of appropriate play and social skills displayed by the peer trainer.

When teaching the peers about turn taking, make sure to convey the following points:

- 1. Taking turns is important because it gives them a chance to show the child with autism how to play, talk etc.
- 2. It is also important to teach sharing.
- 3. Finally, it is important because it gives the target child another opportunity to talk for his/her turn back.

Peer DON'TS

1. Allow the target child to play with a toy exclusively by him or herself without allowing the peer trainer to have a turn.

STRATEGY 7: REINFORCING APPROPRIATE SOCIAL BEHAVIOR Good, Nice Try

This strategy was designed to not only to encourage the peer trainer to verbally reinforce the target child for a job well done, but also to maintain high levels of positive affect during the training. Quite often peer trainers are so preoccupied with doing a good job that they forget to have fun themselves. This strategy was designed to ensure enjoyment for *both* participants.

When teaching peer trainers strategy #7, simply remind them to have fun, use lots of positive language and remember to laugh! Further, whenever they see the target child having fun or engaging in appropriate social behavior, they should tell their friend that they are doing an excellent job.

STRATEGY 8 - INCREASING OBSERVATIONAL LEARNING: Tell What You are Doing

Quite often, children with autism may fail to learn from their environment, simply because they may be orienting their attention to the wrong place (e.g., the ceiling) at the wrong time (e.g., during play interactions) and thus miss important opportunities for social learning. This strategy was designed to increase observational learning in autistic children by <u>orienting their attention to critical play skills</u>. During this strategy, the peer trainer is required to verbally describe what they are doing.

For example:

"I am driving the car to the gas station"

" The cake is going in the oven"

Peer Do's:

 Describe most play actions with short sentences. Not every play action, however, needs to be narrated. An overabundance of narrations may only serve to confuse or frustrate the target child. As with all mentioned strategies, the speed and complexity of the peer trainers narrations should progress according to the needs and developmental level of the target child.

Peer Don'ts:

1. Do not forget to narrate play. It is common for peers to play for several minutes at a time without describing their activities. Failures to narrate play will result in many missed learning opportunities for the target child.

ADDITIONAL SOCIAL SKILLS STRATEGIES: A Word on Video Modeling

Autism is a heterogeneous disorder, with each child having their own special profile of needs, strengths, abilities and weaknesses. Given this, peer PRT in isolation may not be the most effective way to increase social skills for every child. It is often necessary to introduce other social skills training alternatives *in addition* to peer PRT training. An additional strategy that we have found quite helpful has been video modeling.

Video Modeling

In a recent paper by Sherer, M., Pierce, K., Schreibman, L., Paredes, S. & Kisackey, K. (2001), we investigated the efficacy of video-modeling for enhancing the social behavior in children with autism by comparing a self modeling strategy (wherein participants viewed themselves on video) to a "other" strategy (wherein participants viewed a child actor on video) and found several things: 1. There is no apparent difference between self or other as a model; 2. Some participants learned a variety of conversations in a short amount of time.

Research by other laboratories has also demonstrated the rapid acquisition of certain skills by the use of vide modeling. Myriad of behaviors can be taught using video, including: toy play, conversations, interactive play, and initiations to name a few. Most children enjoy watching videos and can therefore be taught a large amount of relevant information using this medium in a relatively short amount of time.

Video modeling is a preferred addition to most social skills training packages because it allows for the rapid acquisition of rudimentary play skills for children with autism for later use with their friends. For example, imagine a young, pre-verbal child with autism who, when in group play situations, lines up available toys while ignoring the functional use of objects. Demonstrating the functional use of various toys (e.g., blocks, board games) on video, will afford the target child with alternative uses of those toys when in a free play situation. Once the target child plays appropriately with the toys, other children will be more likely to join in.

Guidelines for making an instructive videotape:

Making an instructive videotape is relatively simple, once you have acquired the necessary equipment (i.e., video camera and blank video tape).

- a. Film ONLY what you want the target child to learn, in as simplistic of a manner as possible. For example, when making a video on how to play the board game CandyLand, film 2 participants, talking and moving the pieces slowly. Make sure there is no background noise in the video.
- b. Film as close up as possible, while still retaining a natural visual image. In the above example of Candy Land, the video might begin with showing two people, followed by a close up of the pieces as they move to the next spot on the playing board. Next, the video might pan back to include the two players again. The video, should not be filmed from far away. This, of course, will make it difficult for the child to learn what components of playing Candy Land are important.
- c. Make initial videos short, and build in length as the child becomes successful at learning from videos. Most videos range in length from 15 seconds to 2 minutes, and the viewers typically watch the video multiple times per session.

References

- Dawson G, Toth K, Abbott R, Osterling J, Munson J, Estes A, Liaw J (2004): Early social attention impairments in autism: social orienting, joint attention, and attention to distress. *Dev Psychol* 40:271-283.
- Koegel RL, Schreibman L, Good A, Cerniglia L, Murphy C, Koegel LK (1989): *How to teach pivotal behaviors to children with autism: A training manual.* Santa Barbara: University of California, Santa Barbara.
- Laski KE, Charlop MH, Schreibman L (1988): Training parents to use the natural language paradigm to increase their autistic children's speech. *J Appl Behav Anal* 21:391-400.
- Pierce K, Glad KS, Schreibman L (1997): Social perception in children with autism: an attentional deficit? *J Autism Dev Disord* 27:265-282.
- Pierce K, Schreibman L (1995): Increasing complex social behaviors in children with autism: effects of peer-implemented pivotal response training. *J Appl Behav Anal* 28:285-295.
- Pierce K, Schreibman L (1997a): Multiple peer use of pivotal response training to increase social behaviors of classmates with autism: results from trained and untrained peers. *J Appl Behav Anal* 30:157-160.
- Pierce K, Schreibman L (1997b): Using peer trainers to promote social behavior in autism: Are they effective at enhancing multiple social modalities? *Focus on Autism and Other Developmental Disabilities* 12:207-218.
- Sherer M, Pierce KL, Paredes S, Kisacky KL, Ingersoll B, Schreibman L (2001): Enhancing conversation skills in children with autism via video technology. Which is better, "self" or "other" as a model? *Behav Modif* 25:140-158.
- Stahmer AC (1995): Teaching symbolic play skills to children with autism using pivotal response training. *J Autism Dev Disord* 25:123-141.
- Townsend J, Harris NS, Courchesne E (1996): Visual attention abnormalities in autism: delayed orienting to location. *Journal of the International Neuropsychological Society* 2:541-550.