

Michigan Autism Training Video Treatment Manual

Social Skills Training

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Social Skills Training

TABLE OF CONTENTS

A. Brief Description of Social Skills Training.....3

B. Purpose and Appropriate Use of Social Skills Training.....4

C. Applicability.....5

D. Treatment Validity and Treatment Matching.....5

E. Recommended Personnel and the Role of Caregivers.....6

F. Challenges and Troubleshooting.....6

G. Task Analyses and Other Materials.....7

H. References.....20

Social Skills Training

A. Brief Description of Social Skills Training

Training in social skills is an essential part of a comprehensive intervention plan for individuals with autism. Applied behavior analysis (ABA) offers many successful strategies for teaching these skills. As with other skills taught in ABA, attention must be given to the assessment of the current skills repertoire, the ability to generalize these skills to natural contexts, and the breadth and depth of the skill set.

Applied behavior analysis is very successful in teaching social skills, but is often not seen as relevant. Common misconceptions include that ABA is better at teaching other skills, that students with social interest do not “need” ABA instruction, or that other interventions are more successful in teaching social skills.

In fact, ABA is highly effective in teaching social skills, and social skills are relevant targets of instruction for the entire ASD spectrum. Social skills are more complex than other skills; this may be why some see it as too complex to be taught via ABA. However, behavior analysis can utilize its’ reliance on operational definitions, systematic instruction, and data-based evaluation of progress to address this nuanced area of the curriculum.

Social skills do present an instructional challenge for learners on the spectrum. One of the main issues is the multi-element nature of many social skills. Indeed, a single skill (e.g., taking turns) might be comprised of ten or fifteen smaller skills (e.g., waiting, following instructions, moving game pieces appropriately, going when it is one’s turn, inhibiting going when it is not one’s turn, being a gracious loser, etc.). It can be overwhelming to think through how to teach such complex skills, and it may take several programs and months of instruction to do so.

Another complex element of the task is the social judgment involved in every social interaction. We interact with co-workers differently the first time we see them on a Monday morning vs. the fifth time we see them that same morning. We use different language speaking to friends, coworkers, and bosses. All of those adjustments are made automatically, and in response to the environmental context. Teaching such variability is not a simple task. It requires more complex planning in program development and in the assessment of generalization.

ABA is well suited to the teaching of social skills, and is quite successful at doing so. Targets have included communication and conversational speech (e.g., Buffington, Krantz, & McClannahan, 1998; Dotson, Leaf, Sheldon, & Sherman, 2010), peer interactions (e.g., Brown, 1989; Krantz & McClannahan, 1993, 1998; Taylor, 2001; Taylor & Japsper, 2001) peer modeling (e.g., Carr & Darcy, 1990; Charlop, Schreibman, & Tryon, 1983), and social comprehension (e.g., Leaf, Tsuji, Griggs, Edwards, Taubman, McEachin, Leaf, & Oppenheim-Leaf, 2012b). Procedures have included behavior skills training (Kornacki, Ringdahl, Sjostrom, & Nuernberger, 2013; Seiverling, Pantalides Ruiz, & Sterling, 2010), video modeling (e.g., Bellini, Akullian, & Hopf, 2007; Charlop & Milstein, 1989; Charlop-

Christy & Freeman, 2000; Sherer, Pierce, Parades, Lisacki, Ingersoll, & Schreibman, 2001), and the teaching interaction procedure (Kassardjian, Taubman, M., Rudrud, Leaf, Edwards, McEachin, Leaf, & Schulze, 2013; Leaf, Townley-Cochran, Cihon, Oppenheim-Leaf, Kassardjian, Leaf, McEachin, & Penz, 2015). Success has been demonstrated with children (e.g., Charlop & Milstein, 1989; Leaf, Dotson, Oppenheim, Sheldon, & Sherman, 2010) and with adults (e.g., Burke, Andersen, & Bowen, Howard, & Allen, 2010; Dotson, Leaf, Sheldon, Sherman, & Plotner, 2014; Dotson, Richman, Abby, Thompson, & Plotner, 2013), and has been extended to more elusive targets including the development of joint attention skills (e.g., Taylor & Hoch, 2008).

While these skills are difficult to define, behavior analysts excel at operationally defining terms and systematically teaching skills. However, more popular commercially available curricula are commonly implemented. Such curricula rarely have amassed supporting research on their effectiveness. One challenge to behavioral clinicians is how we approach social skills instruction. Do we utilize these popular approaches? Why or why not? If we do, how do we need to think about adopting them and staying true to the science of ABA?

B. Purpose and Appropriate Use of Social Skills Training

Social skills training is an essential component of intervention for individuals with autism. In fact, given the deficits in social skills that are characteristic of people with ASD, social skills are a crucially important area of curricular development. It is hard to imagine a learner with autism who would NOT need systematic instruction in social skills development.

The ways in which we target the deficits, however, are as variable as the individuals themselves. One way to think about social skills instruction is by age. We have different priorities for learners given their age. For young children, our initial focus is on requesting, imitation, and play skills. For elementary and middle school aged children, it is important to focus on the development of age relevant leisure skills and the development of functional communication/conversation skills. For older adolescents and adults, it is important to focus on safety and on social rules/etiquette. More individuals with ASD get into trouble in employment because of social skill deficits than because of skill deficits. It is imperative that we instruct older adolescents and adults in skills that will assist them in successfully integrating into community and employment settings.

How do we achieve these goals? ABA is well matched to this challenge because of the variety of systematic instructional approaches that comprise ABA. Many skills can be aptly taught through the systematic approach of discrete trial instruction. This structure can provide the clarity and number of learning opportunities that helps individuals with autism to learn quickly. While we often use more naturalistic approaches, especially to teach social skills, discrete trial instruction has a place in the social skills realm. It can be an efficient way to teach social responses, and to alert learners to situations requiring their attention/initiation.

In addition, the naturalistic procedures (e.g., incidental teaching, pivotal response training, mand training) all capitalize on intrinsic motivation that occurs in natural contexts. For

teaching requesting, behavior analysts rely on procedures such as incidental teaching and mand training to build robust skills that generalize well. Behavior analysis also has many other tools that are especially relevant in teaching social skills. Some clinicians have adopted some commercially available curricula and systematically taught skills contained within them (e.g., Baker, 2003 a, 2003b; Dunn, 2006; McGuiness & Goldstein, 1992; Richardson, 1996; Shure, 1992). In addition, other dimensions of social skills can be measured and provide an index of change that is socially significant. Systematically tracking the duration of social exchanges, the latency to respond to a social bid, and the percent of opportunities that a child responded in a social context are examples of ways progress can be objectively measured.

C. Applicability

All individuals with ASD need assistance in the realm of social skills. However, the instruction needed can vary widely across age, skill level, and other individual characteristics. However, the clinician should always be thinking about social skill instruction.

Even at the youngest ages of intervention, our initial skill foci are social in nature. What targets of instruction are initially identified? Often, the focus of instruction is on developing manding skills and an imitative repertoire. Soon, there is a focus on play. All of these targets are social goals. In manding, the individual learns to obtain desired items by asking another person for them. In imitation, children with autism learn to watch and do what others do. This is the foundation of much later learning and much more complex imitative behavior. Play skills are the bridge to socialization for young children, so they are important to include in programming for young children.

As children age, instruction needs to focus on effective communication skills and on the development of meaningful leisure skills. It is important to shift our curricular priorities as the child ages. In adulthood, the focus changes again. At this stage, we must be cognizant of the reduced availability of staff members. Level of independence is crucial for adults. In addition, social survival skills become immensely important. Does the individual possess the ability to stay safe and to avoid being victimized or bullied? Do they engage in behaviors that make others feel uncomfortable? If so, these tasks become the treatment priorities.

D. Treatment Validity and Treatment Matching

As noted above, ABA interventions have been highly successful in teaching a wide variety of socially relevant skills. Furthermore, in recent years, researchers have identified procedures to target fundamental social skill deficits (e.g., joint attention, perspective taking, problem solving). Challenges are abundant in the area of treatment validity.

A plethora of instructional procedures are available and more new intervention packages will continue to be developed over time. Some of the newer interventions in particular have caught the attention of clinicians. Social stories (Gray, 1993; 1994) are one such intervention that has not yielded robust findings when controlled research is conducted (e.g., Reynhout &

Carter, 20016; Thiemann & Goldstein, Leaf et al., 2012 a). Questions have been raised about the popular Social Thinking curriculum as well, as data do not yet exist that supports its' claims (Leaf, Kassardjian, Oppenheim-Leaf, Cihon, Taubman, Leaf, and McEachin, 2016). It is imperative that we stay close to the science in evaluating and in adopting these procedures. We are reminded to adhere to the seven dimensions of ABA (Baer, Wolf, & Risley, 1968; Cooper, Heron, & Heward, 2007) when evaluating and considering the use of new curricula and approaches.

We also need to highlight the effectiveness of social skills interventions, to combat the false impression that ABA is not successful at teaching social skills. ABA has a public relations gap, as the impressiveness of our results is often not adequately shared or understood. It is important to disseminate information about the impact of ABA, especially in the realm of social skills interventions. Families waste precious time and money on procedures with little or no empirical validation in lieu of effective ABA intervention.

An additional concern in ABA intervention is matching learner characteristics to treatment intervention. This is an area for future research. Are there certain learners who respond best to certain instructional methods? How can we determine which vantage point in video modeling might be most salient for an individual learner? Are there certain components of packaged interventions that are essential for success? How can we assist non-vocal learners in the acquisition of communication? What is the best way to train peers to effectively interact with non-vocal learners? How can we assist adults in learning crucial social rules for the workplace and community?

E. Recommended Personnel and the Role of Caregivers

Training is essential in this realm of curricular programming. Direct care staff must be trained in how to teach such skills, and in how to capitalize on instruction and on generalization training in the natural environment. Board Certified Behavior Analysts (BCBAs) can direct the treatment, design the intervention, and train staff to implement programs. Caregivers should be included in the training, as so many instructional opportunities arise at home and in the community.

The most challenging aspect of training caregivers in social skills instruction is that, more than any other area of the curriculum, it is a moving target. New intervention targets arrive when novel social demands appear that require intervention. Teams must be vigilant about monitoring social integration and interactional challenges, so that programming continues to reflect the most critical needs.

F. Challenges and Troubleshooting

Challenges within social skill training include: inadequate assessment, improper goal selection, and failure to plan for generalization as well as failure to train to ensure integrity.

F. 1. Inadequate Assessment

At every stage of instruction, it is important to assess for the match between the learner's current abilities and the potential target goals. It is imperative that social skills deficits be assessed for every learner, and that social skills goals are always included in the instructional plan. Assessment can be challenging, as many commonly used tools are simply checklists that rely on subjective assessment. There are several assessments that are commonly used and that provide detailed progressions of skills in the area of social skills. These include the ABLLS-R (Sundberg & Partington, 1998; Partington, 2006) and the VB-MAPP (Sundberg, 2008), which both require assessment of the child in the natural environment.

F. 2. Improper Goal Selection

Another challenge involves amending goals as the child ages. At times, goals continue well beyond their age relevance. For example, it is not appropriate to work on pretend play with an upper elementary school or middle school child. Their age peers are no longer engaging in pretend play. It would be more fruitful to focus on the development of age-relevant conversation skills and age appropriate leisure skills. Failure to amend goals can lead to increased stigmatization, as the gap between the individual with autism and their age peers widens.

F. 3. Poor Treatment Planning and Implementation

Social skills are a particular challenge when it comes to treatment planning. While many skills are taught in analog fashion and then extended to the natural environment, careful planning must be done to transfer socially relevant skills to natural contexts. Attending to the myriad variables that an individual is likely to encounter, combined with the social judgment needed in implementing social skills, makes programming for use and generalization very complex. It is in fact impossible to prepare learners for all of the contexts and situations they are likely to encounter. Skilled assessment can identify the situations most necessary to use in training, and generalization should be routinely evaluated. Generalization checks should extend across people, settings, contexts, stimuli, and responses.

These tasks are formidable, and staff training is not easily accomplished. It is often the case that more experienced staff members are better at implementing social skills instructional programs and at capitalizing on naturally occurring opportunities for instruction. An ongoing assessment of the integrity of social skills instruction is imperative, as it is easy for staff members to drift from the initial emphasis.

G. Task Analyses and Other Materials

- Appendix A: Mand Training/Incidental Observation Checklist
- Appendix B: Progression of Mands
- Appendix C: Assessment of Special Considerations
- Appendix D: Components of effective social skills instruction
- Appendix E: Examples of Definitions

- Appendix F: Procedural Decision-Making Checklist
- Appendix G: Generalization Assessment
- Appendix H: Data to collect in the natural environment
- Appendix I : Teaching Interaction Procedure

APPENDIX A**MAND TRAINING/INCIDENTAL OBSERVATION CHECKLIST**

PROCEDURE: Use the checklist below to identify pertinent information regarding both the instructor and mander prior to mand training.

Assessment of Instructor	
Was an MO present?	
Did the learner initiate the interaction?	
Did the instructor fail to deliver a vocal SD?	
Was reinforcement delivered immediately on request?	
Was a correspondence check done?	

Assessment of Mander	
Was scrolling present?	
Did learner request things that were then clearly not desired?	
Was manding perseverative?	
Were mands limited in number/quality/variety?	
Was learner manding spontaneously?	

APPENDIX B

PROGRESSION OF MANDS

Readers are encouraged to seek more information in several resources, especially the ABLLS-R, the VB-MAPP, and Crafting Connections.

1. Specific Mands for Desired Items (regardless of modality)
 - a. Increasing length of utterance/complexity of non-vocal mand
 - b. Moving to pure mands (removing question or presence of item)
 - c. Increasing the complexity of mands using adjectives, adverbs, quantity, and other aspects of stimuli and experiences
2. Manding for Actions
3. Manding for Escape
4. Manding for Attention
5. Manding for Assistance
6. Manding for Information

APPENDIX C

ASSESSMENT OF SPECIAL CONSIDERATIONS

PROCEDURE: Utilize the following questions to assess special considerations when choosing social skills to address.

Social Responsiveness

- Does individual have ability to vocalize?
- If not, is there an alternative/augmentative system in place?
- Does learner respond to questions?
- Does learner respond to statements?
- Does learner initiate questions or statements?
- Are there long latencies to respond to adults?
- Are there long latencies to respond to peers?
- Are responses sometimes unrelated in content?
- Are social responses accompanied by eye contact and other indicators of attentiveness?
- Are social responses sometimes paired with stereotypy?

Play

- Is solitary play appropriate?
- Is solitary play variable?
- Does learner notice presence of others in play?
- Can learner share materials?
- Is there rigidity or repetition in play?
- Is play age appropriate?
- Does learner have leisure interests? If yes, please list

Initiation

- Are initiations about areas of special interest?
- Are initiations paired with unusual actions (e.g., sniffing)?
- Are initiations understood by others?
- Are initiations paired with stereotypy?

Conversation

- Does individual have ability to vocalize?
- If not, is there an alternative or augmentative system in place?
- Does learner respond to questions?
- Does learner respond to statements?
- Does learner initiate questions or statements?
- Are there long latencies to respond to adults?
- Are there long latencies to respond to peers?
- Are responses sometimes unrelated in content?
- Are social responses accompanied by eye contact and other indicators of attentiveness?
- Are social responses sometimes paired with stereotypy?
- For individuals with some conversation, is there variability across topics?
- How many exchanges are common without assistance?

Social Comprehension

- Does learner have perspective taking ability?
- Can learner engage in systematic problem solving?
- Does learner understand rules of situations? (hidden curriculum)
- Does learner understand non-literal language (expressions, metaphors)?

-Does learner understand humor?

Vulnerability

-Does learner understand bullying?

-Is learner overly eager to please?

-Can learner identify behavior that is not genuine?

-Does learner behave differently depending on how well he or she knows someone?

Social Motivation

-Does learner have interest in others?

-Does learner accept feedback?

-Does learner desire to fit in?

-Does learner desire friends?

-Does learner demonstrate responses to joint attention?

-Does learner engage in joint attention initiations/attempt to share experience?

APPENDIX D

COMPONENTS OF EFFECTIVE SOCIAL SKILLS INSTRUCTION

NOTE: These procedures overlap with the Teaching Interaction Procedure used by Autism Partnership. Readers are advised to explore resources on teaching interactions as well as other published behavior analysis literature.

1. Define
 - a. Defining components and provide the rationale
Define the target behavior, including component skills (e.g., paying attention includes looking, listening, and following directions)
Provide rationale for why the skills is important
 - b. Examples
Demonstrate the component behaviors correctly. Have the learner identify/choose whether this scenario demonstrates or does not demonstrate the appropriate behavior.
 - c. Non-examples
Demonstrate the component behaviors incorrectly. Have the learner identify/choose whether this scenario demonstrates or does not demonstrate the appropriate behavior.
2. Role Play – Identification and Labeling
Reinforce correct labeling of role-play scenarios, whether they are correct or incorrect. Take data on the % of opportunities in which the skill was appropriately labeled.
 - a. Examples
 - b. Non-examples
3. Practice with feedback- Behavioral Rehearsal
Have the learner engage in the behavior in analog situations. Take data on % of opportunities in which the behavior was appropriately demonstrated.
 - a. Examples
 - b. Reinforcement
4. Generalization
 - a. Contrived situations- take data on percent of opportunities in which the behavior was correctly demonstrated.
 - b. Natural situations- take data on percent of opportunities in which the behavior was correctly demonstrated.

APPENDIX E

DEFINITIONS OF TARGET BEHAVIORS

CONVERSATION

Ellen will converse with a variety of peers and adults (i.e., at least 2 peers and 3 adults) on a wide variety of greetings/social questions (i.e., 30 common items) for 6 exchanges. (Data collected on number of exchanges. Mastery defined as 100% success with new conversational partners and random questions over 5 days.)

Peter will follow scripts for 5 topical conversations, adapting to variations in input.

IDENTIFYING AND FOLLOWING SOCIAL RULES

Jay will identify whether a demonstrated action is “cool” or “not cool”, will explain why it is cool or not cool, and will identify a replacement skill for the uncool examples, (Data collected on all three targets. Mastery defined as 100% mastery across 5 days of at least 2 novel presentations per day.)

Joey will identify role-played behaviors as bullying or non bullying, will engage in problem solving sequence to generate solutions, and will identify the best course of action. (Data collected on percent on components on each role-play; Mastery is 100% across 5 days of at least novel content presentations per day.)

PLAYING A GAME

Jessica will engage in a turn taking game by waiting her turn, going when it is her turn, and manipulating the game pieces appropriately as the progress of the game indicates for 15 minutes with no additional intervention/prompts from the instructor.

Kasey will follow the rules of kickball in actual games – going when it is her turn, fielding as appropriate, and engaging in appropriate team behavior with a maximum number of prompts and/or reinforcers of 3 per 30-minute game. (Data collected on number of prompts and % of targeted behaviors completed correctly. Mastery defined as meeting definition on 100% of occasions for 4 weeks of games.)

APPENDIX F**PROCEDURAL DECISION-MAKING CHECKLIST**

PROCEDURE: Utilize the questions below to ask prior to using interventions that are not yet empirically evaluated.

1. Am I using direct instruction/behavior analytic procedures in addition to the proposed intervention?
 - a. List (e.g., discrete trial instruction, prompting, reinforcement, behavioral rehearsal)

 - b. Specify use

2. Am I collecting data on how to assess the impact of the proposed intervention?
 - a. How?

 - b. Define targeted behavior expected to change

 - c. Define how you will assess the impact of the proposed intervention. Focus on whether a functional relationship will be identifiable.

3. If I am using a multi-component intervention,
 - a. What are the components? (List)

 - b. How will I assess the impact of each component?

4. Meet as a team and assess how this proposed intervention meets the dimensions of ABA and how you will ensure that your use of it will.
 - a. Applied
 - b. Behavioral
 - c. Analytic
 - d. Conceptually Systematic
 - e. Technological
 - f. Effective
 - g. Generality

APPENDIX G**GENERALIZATION ASSESSMENT**

PROCEDURE: Utilize the checklist below to identify conditions for generalization.

Across Materials	
Across People	
Across Contexts	
In the absence of reinforcement	
In the absence of additional instructions/prompts	
In the absence of instructor proximity	

APPENDIX H**DATA TO COLLECT IN THE NATURAL ENVIRONMENT**

1. Percent of opportunities in naturally occurring context
2. Latency to responding to teacher direction or peer initiation
3. Duration of parallel and cooperative play or shared leisure activity
4. Assistance provided from teacher (e.g., log all prompts provided at recess)
5. Aberrant behavior occurrence in social contexts
6. Percent of success in initiating/joining
7. Number of conversational exchanges

APPENDIX I**COMPONENTS OF A TEACHING INTERACTION PROCEDURE**

The Teaching Interaction procedure is very similar to Behavioral Skills Training, and uses efficacious strategies in instruction including behavioral rehearsal, live coaching, and feedback. It adds the component of providing a rationale.

Step 1 Label the skill

Step 2 Describe and Demonstrate

Step 3 Explain Rationale

Step 4 Practice

Step 5 Feedback

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