

# ADULT-MEDIATED SOCIAL SKILLS INSTRUCTION

## CHARACTERISTICS OVERVIEW CHART

Verbal Skills	Grade Levels	Cognitive Level	Areas Addressed
<input checked="" type="checkbox"/> Nonverbal	<input checked="" type="checkbox"/> PK	<input checked="" type="checkbox"/> Classic	<input type="checkbox"/> (Pre)Academic/Cognitive/Academic
<input checked="" type="checkbox"/> Mixed	<input checked="" type="checkbox"/> Elementary	<input checked="" type="checkbox"/> High Functioning	<input checked="" type="checkbox"/> Adaptive Behavior/ Daily Living
<input checked="" type="checkbox"/> Verbal	<input checked="" type="checkbox"/> Middle/High		<input checked="" type="checkbox"/> Behavior <input checked="" type="checkbox"/> Communication/Speech <input checked="" type="checkbox"/> Social/Emotional

## BRIEF INTRODUCTION

One of the most pervasive characteristics of autism relates to age-appropriate social skills. Adult-mediated social skills interventions emphasize teaching students with autism social skills and spontaneous social behaviors through various social programs/curricula (White, Koenig, & Scahill, 2007).

## DESCRIPTION

Many underlying social rules are easily picked up by typically developing children, but are difficult for children with autism to automatically comprehend in a socially meaningful way. Therefore, it is crucial to teach those skills in a systematic and sequential manner. The most widely used approach to teaching social skills is direct instruction and modeling by teachers, related professionals, or other adults. In adult-mediated intervention, adults serve as mediators and reinforcement agents for initiating appropriate social behaviors. Before teaching social skills, adults first identify the child's needs and set specific goals. Second, they select a teaching method deemed effective for the child to acquire the skills. Examples include discrete trial teaching, direct teaching, or priming. Reinforcement is given to encourage social engagement. Ultimately, after learning specific social behaviors, generalization and application of learned skills are expected in the child's natural environment.

Considering that inclusive educational settings are preferable for most children with autism, a limitation of adult-mediated interventions is the intrusive and isolated nature of the social interaction involved. It increases the dependence of the child on adults and decreases the spontaneous flow of reciprocal interaction. Therefore, systematically fading prompts is recommended for the purpose of skills generalization. After acquisition of social skills, adults could introduce and train peers as social partners and reinforcement providers.

Examples of adult-mediated social skills interventions:

- Incidental teaching procedures
- Teaching play skills, such as pretend play, symbolic play, sociodramatic play
- Adult mediation in providing support and guidance in peer play
- Skill acquisition training
- Chaining
- Direct instruction
- Discrete trial teaching
- Self-management training

## **STEPS**

Jeff is a seventh-grade student who has strong interests in sports and playing games. He did not like losing games and sometimes had meltdowns when he lost. The teacher decided to teach Jeff the social skill of coping with winning or losing games. During social skill classes, the teacher played board games with Jeff and demonstrated appropriate behaviors when winning or losing. Whenever Jeff demonstrated the desired behavior, the teacher reinforced him immediately. The purpose of teaching board games was to model and teach Jeff how to be a good loser and a good winner as well as how to control his emotions of disappointment and elation.

## **TIPS FOR MODIFICATIONS**

To minimize the need for altering the social context, an alternative approach would be to use a prompting device to replace the adult's verbal prompts. For instance, a child could carry a small prompting device, such as a card with the word "hello" or a waving hand printed on it, as a

reminder to make initiations (Taylor & Levin, 1998). In this way, the social interaction would occur in a less intrusive way with greater chance for generalization.

## SUMMARY

Adult-mediated social skills intervention is commonly used to directly teach children with autism appropriate social skills. Specific goals and procedures are selected by adults, and teaching and learning take place mainly through adult-child interaction. The adults serve as mediators and reinforcement providers.

## RESEARCH TABLE

Number of Studies	Ages (year)	Sample Size	Area(s) Addressed	Outcome
88*	3-22	704	Functional language use, behavior, theory of mind, social skills, question asking	+

Number includes studies in systematic review by Reichow, B. & Volkmar, F.R. (2010).

## STUDIES CITED IN RESEARCH TABLE

1. Banda, D.R., Hart, S.L. (2010). Increasing peer-to-peer social skills though direct instruction of two elementary school girls with autism. *Journal of Research in Special Education Needs*, 10(2), 124-132.  
Two elementary-school aged girls with ASD were each taught three social skills using direct instruction within a multiple-base-line-across-skills design. Both girls increased their initiation to each other and a typically developing peer following teaching, but only one showed increases in responses to another person's initiation, and neither showed an increase in sharing.
2. Banda, D.R., Hart, S.L., Liu-Gitz, L. (2010). Impact of training peers and children with autism on social skills during center time activities in inclusive classrooms. *Research in Autism Spectrum Disorders*, 4, 619-625.  
Two 6-yr-old boys with ASD were taught two social skills using direct instruction within a multiple-baseline across participants design. Both participants showed increased initiations to peers and responses to peers following the direct instruction.

3. Dotson, W.H., Leaf, J.B., Sheldon, J.B., and Sherman, J.A. (2010). Group Teaching of Conversational Skills to Adolescents on the Autism Spectrum. *Research in Autism Spectrum Disorders, 4*, 199-209.  
5 Participants (4 with ASD, 1 with ADHD) were taught conversational skills using a group-based teaching interaction procedure during an after-school social skills group meeting. The effectiveness of the procedure was evaluated using a multiple-probe-across-skills design. All 5 participants showed an increase in skills following teaching, with mixed results for generalization to unstructured interactions with their peers during group meetings.
4. Frankel, F., Myatt, R., Sugar, C., Whitham, C., Gorospe, C.M., Laugeson, E. (2010). A randomized controlled study of parent-assisted children's friendship training with children having autism spectrum disorders. *Journal of Autism and Developmental Disabilities, 40*, 827-842.  
The purpose of this study was to evaluate the effects of a parent-administered social skills program designed to improve the social outcomes of high-functioning adolescents with ASD. 76 adolescents (mean age 15 years) and their parents were assigned to either an intervention (40) or control (36) group and those in the treatment group received a 12-week program to follow. Parents, teachers, and the children completed questionnaires before, immediately after, and several months following treatment asking about the child's social functioning, friendships, and loneliness. All three groups reported positive outcomes as a result of participation in the social skills training program. While the results are promising, they must be interpreted with caution given the absence of any direct observational measures of parent facilitation or participant social behaviors before, during, or after intervention.
5. Gutman, S.A., Raphael, E.I., Ceder, L.M., Khan, A., Timp, K.M., Salvant, S. (2010). The effect of a motor-based, social skills intervention for adolescents with high-functioning autism: Two single-subject design cases. *Occupational Therapy International, 17(4)*, 188-197  
This study reports the effects of a 7-week social skills intervention on the social behavior of two 15-yr old boys with high-functioning ASD. The two participants met together with a therapist for an hour once a week. Intervention involved direct teaching of social skills, role-plays of emotions and social situations, reinforcement, and feedback on role-play performances. Following intervention both participants showed increased frequency of social behaviors including initiations to peers, eye contact, and appropriate body posture.
6. Leaf, J.B., Dotson, W. H., Oppenheim, M. L., Sheldon, J.B., & Sherman, J.A. (2010). The Effectiveness of Group Teaching Interactions for Young Children with Autism. *Research in Autism Spectrum Disorders, 4*, 186-198.  
The effectiveness of a group-teaching intervention to teach social skills to 5 young children with ASD between 3-7 yrs old was evaluated using a multiple-probe design. All participants

learned the three target skills and, with support, generalized them to naturalistic interactions.

7. Lopata, C., Thomeer, M.L., Volker, M.A., Toomey, J.A., Nida, R.E., Lee, G.K., Smerbeck, A.M., Rodgers, J.D. (2010). RCT of a manualized social treatment for high-functioning autism spectrum disorders. *Journal of Autism and other Developmental Disabilities*, 40, 1297-1310. This study explored the effects of a manualized social skills curriculum on the social behaviors of high-functioning children with ASD. 18 participants in the experimental group received 25 brief treatment sessions across 5 weeks, while an 18-participant matched control group did not receive therapy. Across all 7 dependent measures (including teacher ratings, parent rating, and direct behavioral measures), the treatment group improved relative to the control group; differences were statistically significant for 5 of the 7 measures.
8. Reichow, B. & Volkmar, F.R. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. *Journal of Autism and other Developmental Disorders*, 40, 149-166. In a review of 66 studies published about interventions to improve social skills of people with ASD (513 participants), the authors report that interventions based on ABA, interventions involving peer training and support, interventions delivered in group settings, and video modeling interventions were the most effective types of procedures to teach social skills. The majority of studies targeted pre-school (35) and elementary-aged (28) children, with only three studies exploring interventions to improve the social skills of older people with ASD.
9. Walker, A.N., Barry, T.D., Bader, S.H. (2010). Therapist and parent ratings of changes in adaptive social skills following a summer treatment camp for children with autism spectrum disorders: A preliminary study. *Child Youth Care Forum*, 39, 305-322. This study reports the effects of a 4-week social skills camp for 60 children with ASD (ages 3-10) as measured by an experimenter designed survey. Both parents and therapists at the camp reported increased social skills as a result of attendance, but the survey instrument had no established validity or reliability and no direct behavioral observations were reported to support the assertion of positive treatment effects.
10. White, S.W., Koenig, K., Scahill, L. (2010). Group social skills instruction for adolescents with high-functioning autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 25(4), 209-219. This study reports the initial evaluation of a 16-wk group-based social skills intervention for 15 high-functioning adolescents with ASD (ages 11-13). Survey results completed by parents and teachers before and after the group indicated they were all happy with the treatment, and beneficial social results were reported for 9 of the participants. Gains were not uniform, however, and not all participants maintained reported gains during follow-up. Results should be interpreted with caution however, as no direct behavioral measures of social skills were gathered during the study.

11. Laushey, K. M., Heflin, L. J., Shippen, M., Alberto, P. A., & Fredrick, L., (2009). Concept mastery routines to teach social skills to elementary children with high functioning autism. *Journal of Autism Developmental Disorders, 29*(1), 1435-1448.  
A multiple baseline design was used to explore the effects of concept mastery routines (CMR), a strategy developed by the Center on Research and Learning on the social skills for four elementary-age boys with high functioning autism. Small group instruction with typical peers via the CMR was effective for increasing responses, initiations, and recognition of emotional states. The skills taught in small groups generalized when the visual strategy of the completed concept diagram was taken to another setting. Most importantly, the four boys experienced improved social status following intervention.
12. Feng, H., Lo, Y., Tsai, S., Cartledge, G. (2008). The effects of theory-of-mind and social skill training on the social competence of a sixth grade student with autism. *Journal of Positive Behavior Interventions, 10*(4), 228-242.  
A social skills training program was used to increased the social interactions and theory-of-mind of a boy with autism. Teachers, mother and peers responded positively to the boy's new skills.
13. Leaf, J. B., Taubman, M., Bloomfield, Palos-Rafuse, L., Leaf, R., McEaching, J., & Oppenheim, M. L. (2009). Increasing social skills and pro-social behavior through the use of a teaching package. *Research in Autism Spectrum Disorders, 3*, 275-289.  
Three children with AUTISM (ages 5-7) participated in a study that was designed to measure the effectiveness of a social skills package that consisted of direct instruction, reinforcement and priming). The package was effective in increasing targeted social skills.
14. Licciardello, C. C., Harchik, A., E., & Luiselli, J. L. (2008). Social skills intervention for children with autism during interactive play at a public elementary school. *Education and Treatment, 31*(1), 17-37.  
Four elementary-age children with AUTISM were taught interactive play skills by classroom assistants using preteaching, reinforcement, and prompting to increase social initiations with typical peers. Initiations and responses to peers increased.
15. Palmen, A., Didden, R., Arts, M. (2008). Improving question asking in high-functioning adolescents with autism spectrum disorders: Effectiveness in small-group training. *Autism, 12*(1), 83-98.  
Small group training consisting of feedback, role-play, and self-management was effective in improving question-asking skills during tutorial conversations in nine individuals with high-functioning autism.
16. Jones, C., & Schwartz, I. S. (2004). Siblings, peers, and adults: Differential effects of models for children with autism. *Topics in Early Childhood Special Education, 24*, 187-198.  
In addition to examining adult and peer modeling, this study extended previous modeling research by including a subset of peers/siblings. Three individuals participated in this study

that engaged peers, siblings, and adults as models for teaching novel skills. Results showed that participants learned the target skills under all three modeling conditions.

17. Shabani, D. B., Katz, R. C., Wilder, D. A., Beauchamp, K., Taylor, C. R., & Fischer, K. J. (2002). Increasing social initiating in children with autism: Effects of a tactile prompt. *Journal of Applied Behavior Analysis, 35*, 79-83.  
Three children with autism participated in this study, which used a tactile prompting device. Specifically, a vibrating pager was used to provide a tactile prompt for initiating communication with adults. Results showed improvement in verbal initiation in all three children and increased responses to peers' initiation in two children.
  
18. Bellon, M. L., Ogletree, B. T., & Harn, W. (2000). Repeated storybook reading as a language intervention for children with autism: A case study on the application of scaffolding. *Focus on Autism and Other Developmental Disabilities, 15*, 52-58.  
A set of scaffolding techniques (e.g., questions, expansions, elaborations) and a storybook were used to teach a 3-year-old boy with AUTISM. Results indicated improvement in spontaneous language use.
  
19. Williams, G., Donley, C. R., & Keller, J. W. (2000). Teaching children with autism to ask questions about hidden objects. *Journal of Applied Behavior Analysis, 33*, 627-630.  
Two children with autism participated in this study designed to teach them to ask questions about hidden objects. The intervention included verbal modeling, prompting, and reinforcing. Results indicated that both children learned the skill.
  
20. Krantz, P. J., & McClannahan, L. E. (1998). Social interaction skills for children with autism: A script-fading procedure for beginning readers. *Journal of Applied Behavior Analysis, 31*, 191-202.  
Three children with autism participated in this study. The intervention included the use of textual cues (script), an adult language model, and a script-fading procedure. Results indicated improvement in both scripted and unscripted conditions.
  
21. Taylor, B. A., & Harris, S. L. (1995). Teaching children with autism to seek information: Acquisition of novel information and generalization of responding. *Journal of Applied Behavior Analysis, 28*, 3-14.  
Three children with autism participated in this study. A time-delay procedure was used to systematically fade prompts to improve skill generalization. Results showed that the participants could use questions to acquire new information.

22. Goldstein, H., & Cisar, C. L. (1992). Promoting interaction during sociodramatic play: Teaching scripts to typical preschoolers and classmates with disabilities. *Journal of Applied Behavior Analysis, 25*, 265-280.  
Two typically developing children and one child with autism participated in structured sociodramatic play using script training. Children demonstrated more theme-related social behaviors and improvement in communicative interaction as a result of training.
23. Ihrig, K., & Wolchik, S. A. (1988). Peer versus adult models and autistic children's learning: Acquisition, generalization, and maintenance. *Journal of Autism and Developmental Disorders, 18*, 67-79.  
This study compared the effectiveness of a peer and an adult model in teaching an expressive language task to four boys with autism. Results indicated that all children learned through observing the peer and adult models and that few consistent differences occurred across the two conditions. The degree of generalization and maintenance of responding was consistently high in both conditions.

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## RESOURCES AND MATERIALS

- Baker, J. E. (2003). *Social skills training: For children and adolescents with Asperger Syndrome and social-communication problems*. Shawnee Mission, KS: Autism Asperger Publishing Company.  
Baker describes how to use adult-mediated strategies in social skills groups.
- Bellini, S. (2006). *Building social relationships: A systematic approach to teaching social interaction skills to children and adolescents with autism spectrum disorders and other social difficulties*. Shawnee Mission, KS: Autism Asperger Publishing Company.  
This books overviews evidence based adult-mediated social skills interventions.
- Bellini, S. (2009). Making (and keeping) friends: A model for social skills instruction. IRCA article. <http://www.iidc.indiana.edu/index.php?pageId=488>  
The present article addresses social skill deficits in young children with ASD by providing a systematic five-step model for social skills instruction, with particular emphasis placed on an emerging intervention strategy, video self-modeling (VSM).
- Dunn, M. (2006). S.O.S. social skills in our schools. A social skills program for children with pervasive developmental disorders, including high-functioning autism, and Asperger Syndrome and their typical peers. Shawnee Mission, KS: Autism-Asperger Publishing Company.  
This comprehensive social skills curriculum has the dual purpose of developing appropriate social skills in children with pervasive developmental disorders while at the same time fostering understanding and tolerance among typical peers and school staff.

- Harrower, J. K., & Dunlap, G. (2001). Including children with autism in general education classrooms: A review of effective strategies. *Behavior Modification*, 25(5), 762-784. This article provides a review of adult-mediated social skills instruction and other strategies that can be used in a general education classroom.

## GENERAL RESOURCES

- Autism Internet Modules (AIM) [www.autisminternetmodules.org](http://www.autisminternetmodules.org). The Autism Internet Modules were developed with one aim in mind: to make comprehensive, up-to-date, and usable information on autism accessible and applicable to educators, other professionals, and families who support individuals with autism spectrum disorders (ASD). Written by experts from across the U.S., all online modules are free, and are designed to promote understanding of, respect for, and equality of persons with ASD.
- The Autism Web Course: [http://cdd.unm.edu/swan/autism\\_course/about/index.htm](http://cdd.unm.edu/swan/autism_course/about/index.htm). This web course was developed out of materials from the Interactive Collaborative Autism Network (ICAN). The Autism Programs at the University of New Mexico has updated and added information to this web course.
  - Characteristics
  - Assessment
  - Academic Interventions
  - Behavioral Interventions
  - Communication Interventions
  - Environmental Interventions
  - Social Interventions
  - Family Support Suggestions
- Indiana Resource Center for Autism (IRCA) <http://www.iidc.indiana.edu/irca/fmain1.html>. The Indiana Resource Center for Autism staff's efforts are focused on providing communities, organizations, agencies, and families with the knowledge and skills to support children and adults in typical early intervention, school, community, work, and home settings.
  - IRCA Articles: <http://www.iidc.indiana.edu/index.php?pageId=273>
- Texas Statewide Leadership for Autism [www.txautism.net](http://www.txautism.net). The Texas Statewide Leadership for Autism in conjunction with the network of Texas Education Service center with a grant from the Texas Education Agency has developed a series of free online courses in autism. Please check the training page, [www.txautism.net/training.html](http://www.txautism.net/training.html), for update lists of courses, course numbers and registration information. Current courses include the following:
  - Asperger Syndrome 101
  - Augmentative and Alternative Communication and the Autism Spectrum
  - Autism for the General Education Teacher
  - Autism 101: Top Ten Pieces to the Puzzle
  - Classroom Organization: The Power of Structure for Individuals with ASD

**TARGET: TEXAS GUIDE FOR EFFECTIVE TEACHING  
ADULT-MEDIATED SOCIAL SKILLS INSTRUCTION**

- Communication: The Power of Communication for Individuals with ASD
- Futures Planning for Students with Autism Spectrum Disorder
- Navigating the Social Maze: Supports and Interventions for Individuals with ASD
- Solving the Behavior Puzzle: Making Connections for Individuals with ASD