

Promoting Social Behavior of Young Children in Group Settings: A Summary of Research

Glen Dunlap & Diane Powell
August 2009



www.challengingbehavior.org



ROADMAP TO EFFECTIVE INTERVENTION PRACTICES



The reproduction of this document is encouraged. Permission to copy is not required.

This publication was produced by the Technical Assistance Center on Social Emotional Intervention for Young Children funded by the Office of Special Education Programs, U. S. Department of Education (H326B070002). The views expressed in this document do not necessarily represent the positions or policies of the Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred.

Suggested Citation:

Dunlap, G., & Powell, D. (2009). Promoting Social Behavior of Young Children in Group Settings: A Summary of Research. *Roadmap to Effective Intervention Practices #3*. Tampa, Florida: University of South Florida, Technical Assistance Center on Social Emotional Intervention for Young Children.



Roadmap to Effective Intervention Practices

Promoting Social Behavior of Young Children in Group Settings: A Summary of Research

Glen Dunlap and Diane Powell, August 2009

This document is part of the *Roadmap to Effective Intervention Practices* series of syntheses, intended to provide summaries of existing evidence related to assessment and intervention for social-emotional challenges of young children. The purpose of the syntheses is to offer consumers (professionals, other practitioners, administrators, families, etc.) practical information in a useful, concise format and to provide references to more complete descriptions of validated assessment and intervention practices. The syntheses are produced and disseminated by the Office of Special Education Programs (OSEP) Technical Assistance Center on Social Emotional Intervention for Young Children (TACSEI).

INTRODUCTION

This brief synthesis provides a summary of intervention practices that are supported by empirical evidence for promoting adaptive social-emotional behavior of young children in group contexts (e.g., pre-K classrooms; child care settings). The focus of the synthesis is on toddlers and preschool children who are identified as having disabilities or who are at risk for disabilities, and who have identified problems with social-emotional behaviors. The summary does not include practices related to home or family-focused contexts, nor does it include multi-component curricula or intervention packages. These latter approaches are described in a separate TACSEI synthesis, “Evidence-based social-emotional curricula and intervention packages for children 0-5 years and their families” (Powell & Dunlap, June, 2009).

The practices described in the synthesis include those that are explicitly designed to increase the frequency or improve the quality of prosocial interactions, as well as those intended to improve emotional responding and reduce inappropriate and challenging behaviors.

The vast majority of evidence, and the strongest evidence, related to this topic are derived from analyses using single subject experimental designs. Strength of evidence is considered in terms outlined by Horner and colleagues (2005); however this summary does not categorize or rank intervention strategies on the basis of the number of studies or the magnitude of effects. Rather, strength of evidence is used as

a more global index, and is referred to in such terms when the practices are described.

Research-based practices are described in broad categories of intervention strategies. Where the level of procedural specificity and the quantity of research permits, the categories are divided into more specific types of interventions. The practices described in the synthesis include those that are explicitly designed to increase the frequency or improve the quality of prosocial interactions, as well as those intended to improve emotional responding and reduce inappropriate and challenging behaviors.

A number of existing summaries and literature reviews are available to describe intervention practices and the supporting evidence. For example, books edited by Brown, Odom, & McConnell (2008) and Odom, McConnell, & McEvoy (1992) and, in particular, the recent chapter by Brown, Odom, McConnell, and Rathel (2008) are summary resources that were instrumental in constructing this synthesis. At the end of the synthesis, we provide a reference section that denotes these reviews with asterisks, and we urge readers to access them directly. The specific citations we provide for intervention practices are examples and are not intended to be a comprehensive listing of supportive evidence.

INTERVENTIONS BASED ON PEER TRAINING

Considerable research has addressed intervention practices in which peers are given preparation to interact with focus children (e.g., children with or at risk for disabilities and difficulties with social-emotional behaviors) in such a way that the social behaviors of the focus children are increased and improved. The programmatic line of research on this topic has been carried out by numerous research teams for nearly 35 years and, as a whole, clearly meets the criteria for a strongly supported evidence-based practice. The general approach has been referred to as “teaching peers to be intervention agents,” “peer-mediated intervention,” and includes more specific terms such as “buddy skills training.”

Considerable research has addressed intervention practices in which peers are given preparation to interact with focus children...in such a way that the social behaviors of the focus children are increased and improved.

The basic paradigm begins with the identification of a young child (focus child) who is delayed in social development, and at least one peer (classmate) who is typically developing and available to engage in frequent interactions with the focus child. The socially competent peer is then provided with specific training and ongoing support for interacting with the focus child. The teacher (or other classroom-based adult) delivers the initial preparation for the peer (e.g., how to initiate, what to say and how to say it), and also provides coaching and reinforcement for the peer in order to sustain the peer’s social interactions and engagement with the focus child. Dozens of studies with children described as withdrawn, behavior and conduct disordered, and autistic have demonstrated that this basic approach can be effective in increasing social responses by the focus children and also in promoting the focus children’s initiations (e.g., Odom et al., 1999; Ragland, Kerr, & Strain, 1978; Strain, Shores, & Timm, 1977; Strain, Schwartz, & Bovey, 2008).

Several variations of procedures involving peer-mediated interventions have been shown to be effective. An example is “buddy skills training” (e.g., English, Goldstein, Shafer, & Kaczmarek, 1997) which involves teaching socially competent children (peers) to interact and engage with children who have developmental challenges and difficulties with peer interactions. The preparation involves teaching the peers to stay in physical proximity to the focus children, say their names, and continue to attempt to play and talk with their “buddies.” Results from the buddy training studies have shown improvements in social-communicative interactions for all participants

(English et al., 1997; Goldstein, English, Shafer, & Kaczmarek, 1997).

Another variation that relies heavily on peer involvement – specifically as “peer models” – is a strategy that incorporates play scripts in the context of structured play activities (Schneider & Goldstein, 2008). This strategy is similar to the category of “social integration activities” described below, but also is related to peer-mediation in that focus children as well as typically-developing peers are guided to follow scripts that occasion peer interaction. Examples of studies documenting benefits of play scripts have been provided by Robertson and Weismer (1997) who showed improvements in various indices of speech use, and Goldstein and Cisar (1992) who found consistent improvements in peer social interactions.

ADULT-DIRECTED INTERVENTIONS

The practices included in this category involve specific manipulations of adults (e.g., teachers) designed to promote prosocial behaviors of focus children. Although peers are involved as interaction partners, this category differs from the previous category in that peers are not directly involved as intervention agents or confederates. Rather, it is adults who perform the actions necessary to implement the interventions.

- Direct instruction of social skills (e.g., LeBlanc & Matson, 1995). A common and well-established approach to developing and increasing social competence is for teachers to use instructional techniques to directly instruct young children to use identified social skills. The social skills targeted in such research include initiating and responding in the context of peer interactions, sharing, and use of speech. The instructional techniques include modeling, prompting, fading, rehearsal, feedback and positive reinforcement. Often the instruction is described as a multi-component social skills intervention package and is provided in the context of structured group (e.g., play) activities (e.g., Antia, Kreimeyer, & Eldredge, 1993; Chandler, Lubeck, & Fowler, 1992; Hundert & Houghton, 1992). It is important to appreciate that the operational techniques of instruction (e.g., prompting, reinforcement) are present in all of the other categories described in this summary.
- Social integration activities (e.g., DeKlyen & Odom, 1989). This practice involves having teachers design and structure play activities that enhance opportunities for positive peer interactions. The practice is defined as having four components: (1) selection of young children with problems in social interaction as well as peers who are socially competent, (2) implementation of play activities in specific play centers, (3)

selection of play activities that include opportunities for positive peer interactions, and (4) encouragement of social participation within the play themes (Brown, Odom, McConnell, & Rathel, 2008). A number of studies have shown this teacher-designed and teacher-implemented integration strategy as being effective in promoting positive peer interactions (DeKlyen & Odom, 1989; Frea, Craig-Unkefer, Odom, & Johnson, 1999; Jenkins, Odom, & Speltz, 1989; Odom, McConnell, McEvoy, Peterson, Ostrosky, Chandler et al., 1999).

- Incidental teaching (e.g., Brown, McEvoy, & Bishop, 1991). These strategies involve taking advantage of naturally occurring routines and using interests and initiations of focus children as opportunities to prompt and reinforce targeted social (e.g., peer interaction) behaviors. Incidental teaching was first established as an instructional option by Hart and Risley (1975) and has since been replicated and elaborated by numerous researchers and practitioners (e.g., McGee, Almeida, Sulzer-Azaroff, & Feldman, 1992). The procedure involves identifying a young child's interests and preferences and then using naturally occurring instances when these motivating factors (interests, preferences) are present to prompt and reinforce a targeted social behavior. For instance, if Harry is excited by a set of farm animals in a play center, Harry's teacher might briefly interrupt his approach to the animals and prompt him to ask a play partner, Joyce, to join him in the play activity. The elevated motivation helps establish the target behavior (the social invitation) while the fact that it all occurs in a natural context helps the process of generalization. Skilled teachers can design the day so that numerous opportunities for incidental teaching can occur for each focus child. Incidental teaching is a well-established intervention practice that has been demonstrated to be effective with many populations of children, including children with autism and severe disabilities.
- Pivotal response training (Koegel & Koegel, 2006). This practice has been developed specifically for children with autism spectrum disorder and involves a set of naturalistic interventions designed to tap children's existing motivation to enhance social, communicative interactions. Pivotal response training was created following a series of studies that showed the efficacy of individual intervention strategies for children with autism. For example, studies with nonverbal and nonsocial children with autism demonstrated that progress could occur if their early (albeit unsuccessful) attempts to communicate were reinforced (Koegel, O'Dell, & Dunlap, 1988), if their instruction included variation in stimuli and requests (e.g.,

Dunlap & Koegel, 1980), if they were given choices (e.g., Kern, Vorndran, Hilt, Ringdahl, Adelman, & Dunlap, 1998), if their teacher followed the initiations and interests of the child (Fredeen & Koegel, 2006; Koegel, O'Dell, & Koegel, 1987), and if they were given opportunities and instruction on self-regulation (e.g., Koegel, Harrower, & Koegel, 1999). When these and other elements are combined, research has shown that considerable social-communicative improvement is realized. The evidence in support of pivotal response training with children with autism spectrum disorders is very strong, has been replicated across several researchers, and demonstrates that the practice is appropriate for implementation in natural, inclusive settings (Masiello, 2007).

- Assessment-based interventions (e.g., Conroy, Brown, & Olive, 2008; Conroy, Dunlap, Clarke, & Alter, 2005). "Assessment-based interventions" refers to relatively intensive and individualized procedures that are usually based on the results of a functional behavioral assessment (FBA). The procedures are known as individualized positive behavior support (PBS) strategies, and are recommended for children with serious social and behavioral challenges such that individualized behavior plans are required. The plans involve a team process with teachers, parents (or other family members) and other program personnel contributing to the assessment and intervention activities. An FBA

Skilled teachers can design the day so that numerous opportunities for incidental teaching can occur for each focus child.

is administered in order to identify the environmental factors that contribute to the social-behavioral difficulties. The FBA then leads to an intervention plan that ordinarily includes instruction on desired behavior, antecedent (environmental) manipulations to help prevent unwanted behavior, and reinforcement to help strengthen and maintain proso-

cial responding. A large number of experimental and evaluation studies have proven that assessment-based interventions are effective (see Dunlap & Carr, 2007; Dunlap & Fox, 2009; Fox, Dunlap, & Powell, 2002; Sailor, Dunlap, Sugai, & Horner, 2009). Additional information on this general intervention strategy can be found under "positive behavior support" and individualized interventions for young children with the most severe behavioral challenges on the web site, www.challengingbehavior.org.

SUMMARY

This brief synthesis has focused on categories of intentional intervention practices that are supported by empirical evidence for improving young children's social-emotional behaviors. It should be noted that a number of additional interventions exist for improving social skills based on well-known intervention techniques such as modeling, prompting, and positive reinforcement. Vaughn and colleagues (2003) provided a detailed review of 14 peer-reviewed journal articles (as well as 10 dissertations and technical reports) that described group design studies of such interventions with preschoolers with disabilities. Several of the studies' interventions are based on specific procedures that have not been replicated sufficiently to be distinguished as evidence-based practices, and others are represented in the categories described in the current summary.

In addition, we wish to emphasize that the contextual circumstances that define classroom and other group settings may be the most important factor in determining the extent to which young children with or at risk for disabilities engage in prosocial behavior and display healthy social-emotional development. Although the available evidence is not comparable to the evidence for specific intervention practices, the logic and the associational evidence is compelling. That is, healthy peer interactions and social development are much more likely to occur in inclusive settings characterized by developmentally appropriate practice (Bredenkamp & Copple, 1997) and the pervasive adoption of recommended practices for children with disabilities (Sandall, Hemmeter, Smith, & McLean, 2005).

This synthesis has provided a brief listing and description of categories of evidence-based practices for improving peer interactions and social behavior of young children with or at risk for disabilities. Practices that include training and support for peers to serve as intervention agents (or peer mediators) have very strong evidence that has accumulated over 30 years. Practices that rely on adult interventions, divided in this summary into 5 categories, also claim substantial evidence to support their effectiveness.

REFERENCES (Asterisks indicate key summary resources)

- Antia, S.D., Kreimeyer, K.H., & Eldredge, N. (1993). Promoting social interactions between young children with hearing impairments and their peers. *Exceptional Children*, 60, 262-275.
- Bredenkamp, S., & Copple, C. (1997). *Developmentally appropriate practice in early childhood programs (Rev.)*. Washington, DC: National Association for the Education of Young Children.
- Brown, W.H., McEvoy, M.A., & Bishop, J.N. (1991). Incidental teaching of social behavior: A naturalistic approach to promoting young children's peer interactions. *Teaching Exceptional Children*, 24, 35-58.
- *Brown, W.H., Odom, S.L., & McConnell, S.R. (Eds.) (2008). *Social competence of young children: Risk, Disability, & Intervention*. Baltimore: Paul H. Brookes.
- *Brown, W.H., Odom, S.L., McConnell, S.R., & Rathel, J.M. (2008). Peer interaction intervention for preschool children with developmental disabilities. In W.H. Brown, S.L. Odom, S.R. McConnell (Eds.), *Social competence of young children: Risk, Disability, & Intervention* (pp. 141-163). Baltimore: Paul H. Brookes.
- Chandler, L.K., Lubek, R.C., & Fowler, S.A. (1992). Generalization and maintenance of preschool children's social skills: A critical review and analysis. *Journal of Applied Behavior Analysis*, 25, 415-428.
- Conroy, M.A., Brown, W.H., & Olive, M.L. (2008). Social competence interventions for young children with challenging behaviors. In W.H. Brown, S.L. Odom, S.R. McConnell (Eds.), *Social competence of young children: Risk, Disability, & Intervention* (pp. 205-232). Baltimore: Paul H. Brookes.
- Conroy, M.A., Dunlap, G., Clarke, S., & Alter, P.J. (2005). A descriptive analysis of positive behavioral intervention research with young children with challenging behavior. *Topics in Early Childhood Special Education*, 25, 157-166.
- DeKlyen, M., & Odom, S.L. (1989). Activity structure and social interactions with peers in developmentally integrated play groups. *Journal of Early Intervention*, 13, 342-352.
- Dunlap, G., & Carr, E.G. (2007). Positive behavior support and developmental disabilities: A summary and analysis of research. In S.L. Odom, R.H. Horner, M. Snell, & J. Blacher (Eds.), *Handbook of developmental disabilities* (pp. 469-482). New York: Guilford Publications.
- Dunlap, G., & Fox, L. (2009). Positive behavior support and early intervention. In W. Sailor, G. Dunlap, G. Sugai, & R.H. Horner (Eds.), *Handbook of positive behavior support* (pp. 49-71). New York: Springer.
- Dunlap, G., & Koegel, R. L. (1980). Motivating autistic children through stimulus variation. *Journal of Applied Behavior Analysis*, 13, 619-627.
- English, K., Goldstein, H., Shafer, K., & Kaczmarek, L. (1997). Promoting interactions among preschoolers with and without disabilities. *Exceptional Children*, 63, 229-243.
- Fox, L., Dunlap, G., & Powell, D. (2002). Young children and challenging behavior: Issues and considerations for behavior support. *Journal of Positive Behavior Interventions*, 4, 208-217.
- Frea, W., Craig-Unkefer, L., Odom, S.L., & Johnson, D. (1999). Differential effects of structured social integration and group friendship activities for promoting social interaction with peers. *Journal of Early Intervention*, 22, 230-242.
- Fredeen, R.M., & Koegel, R.L. (2006). The pivotal role of initiations in habilitation. In R.L. Koegel, & L.K. Koegel, *Pivotal response treatments for autism: Communication, social and academic development* (pp. 165-186). Baltimore: Paul H. Brookes.
- Goldstien, H., Cisar, C.L. (1992). Promoting interaction during sociodramatic play: Teaching scripts to preschoolers and classmates with disabilities. *Journal of Applied Behavior Analysis*, 25, 265-280.
- Goldstein, H., English, K., Shafer, K., & Kaczmarek, L. (1997). Interaction among preschoolers with and without disabilities: Effects of across-the-day peer intervention. *Journal of Speech and Hearing Research*, 40, 33-48.
- Hart, B., & Risley, T.R. (1975). Incidental teaching of language in the preschool. *Journal of Applied Behavior Analysis*, 8, 411-420.

- Horner, R.H., Carr, E.G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single subject research to identify evidence-based practice in special education. *Exceptional Children*, 71, 165-179.
- Hundert, J., & Houghton, A. (1992). Promoting social interaction of children with disabilities in integrated preschools: A failure to generalize. *Exceptional Children*, 58, 311-320.
- Jenkins, J.R., Odom, S.L., & Speltz, M.L. (1989). Effects of social integration of preschool children with handicaps. *Exceptional Children*, 55, 420-428.
- Kern, L., Vorndran, C.M., Hilt, A., Ringdahl, J.E., Adelman, B.E., & Dunlap, G. (1998). Choice as an intervention to improve behavior: A review of the literature. *Journal of Behavioral Education*, 8, 151-169.
- Koegel, L.K., Harrower, J.K., & Koegel, R.L. (1999). Support for children with developmental disabilities in full inclusion classrooms through self-management. *Journal of Positive Behavior Interventions*, 1, 26-34.
- Koegel, R.L., & Koegel, L.K. (2006). *Pivotal response treatments for autism: Communication, social and academic development*. Baltimore: Paul H. Brookes.
- Koegel, R.L., O'Dell, M.C., & Koegel, L.K. (1987). A natural language paradigm for teaching nonverbal autistic children. *Journal of Autism and Developmental Disorders*, 17, 187-199.
- LeBlanc, L.A., & Matson, J.L. (1995). A social skills program for preschoolers with developmental delays: Generalization and social validity. *Behavior Modification*, 19, 234-246.
- Masiello, T.L. (2007). Effectiveness of pivotal response training as a behavioral intervention for young children with autism spectrum disorders. *Winterberry Research Syntheses*, 1(14), 1-11.
- McGee, G.G., Almeida, M.C., Sulzer-Azaroff, B., & Feldman, R.S. (1992). Promoting reciprocal interactions via peer incidental teaching. *Journal of Applied Behavior Analysis*, 25, 117-126.
- *Odom, S.L., McConnell, S.R., McEvoy, M.A. (Eds.) (1992). *Social competence of young children with disabilities: Issues and strategies for intervention*. Baltimore: Paul H. Brookes.
- Odom, S.L., McConnell, S.R., McEvoy, M.A., Peterson, C., Ostrosky, M., Chandler, L.K., Spicuzza, R.J., Skellenger, A., Creighton, M., & Favazza, P.C. (1999). Relative effects of interventions supporting the social competence of young children with disabilities. *Topics in Early Childhood Special Education*, 19, 75-91.
- Ragland, E.U., Kerr, M.M., & Strain, P.S. (1978). Effects of peer social initiations on the behavior of withdrawn autistic children. *Behavior Modification*, 2, 565-578.
- Robertson, S.B., & Wiesmer, S.E. (1997). The influence of peer models on the play scripts of children with specific language impairment. *Journal of Speech, Language, and Hearing Research*, 40, 49-61.
- Sailor, W., Dunlap, G., Sugai, G., & Horner, R. (2009) (Eds.). *Handbook of positive behavior support*. New York: Springer.
- Sandall, S., Hemmeter, M., Smith, B., & McLean, M. (Eds.) (2005). *DEC Recommended Practices: A Comprehensive Guide for Practical Application*. Longmont, CO: Sopris West Publishing.
- Schneider, N., & Goldstein, H. (2008). Peer-related social competence interventions for young children with communication and language disorders. In W.H. Brown, S.L. Odom, S.R. McConnell (Eds.), *Social competence of young children: Risk, Disability, & Intervention* (pp. 233-252). Baltimore: Paul H. Brookes.
- Strain, P.S., Schwartz, I.S., & Bovey, E.H. (2008). Social competence interventions for young children with autism. In W.H. Brown, S.L. Odom, S.R. McConnell (Eds.), *Social competence of young children: Risk, Disability, & Intervention* (pp. 253-272). Baltimore: Paul H. Brookes.
- Strain, P.S., Shores, R.E., & Timm, M.A. (1977). Effects of peer initiations on the social behavior of withdrawn preschoolers. *Journal of Applied Behavior Analysis*, 10, 289-298.
- Vaughn, S., Kim, A-H, Sloan, C.V.M., Hughes, M.T., Elbaun, B., & Sridhar, D. (2003). *Remedial and Special Education*, 24, 2-15.