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Use of Say-Do Correspondence Training to Increase Generalization of Social Interaction Skills at Recess for Children with Autism Spectrum Disorder

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Abstract: Research suggests that while social skills groups in school settings can be effective for students with Autism Spectrum Disorder (ASD), generalization of the skills and behaviors learned in these groups to other settings can be problematic. This study assessed the use of a say-do correspondence intervention to increase generalization at recess of social interactions skills previously learned in a social skills group for students with ASD. The participants were three first graders who had participated in intensive social skills instruction for over a year but who were not generalizing their acquired skills to recess. The say-do correspondence involved the participants identifying before recess who they were going to talk to at recess and then receiving access to reinforcers after recess if they had talked to the student they had identified. A multiple-baseline across participants design was used to assess the impact of the intervention on the number of social exchanges between the child with ASD and other children during recess. Results showed that the number of social exchanges increased for all participants. Implications for practice in public school settings are discussed.

As increasing numbers of children with Autism Spectrum Disorder (ASD) enter public schools, school staff are struggling to understand how to teach these children the social skills necessary to be successful in the classroom, playground, and beyond. The need for interventions is clear: problems in the social area are a core deficit of ASD and a part of the diagnostic criteria. But how to successfully target these deficits in the school environment with effective interventions that can be implemented by school personnel is less clear.

One approach to addressing these children's need for explicit social skills instruction in schools is to conduct social skills groups that meet on a regular basis and systematically address different aspects of social interaction. While numerous studies have demonstrated the efficacy of these groups in building social competency (e.g., Lopata, Thomeer, Volker, Nida, & Lee, 2008; Owens, Granader, Humphrey, & Baron-Cohen 2008; Yang, Schaller, Huang, Wang, & Tsai, 2003), several reviews have concluded that a major weakness of these groups appears to be generalization: participating children become adept at demonstrating the skills within the social skills group but do not demonstrate the skills in other school environments or settings (Bellini, Peters, Benner, & Hopf, 2007; White, Keonig, & Scahill, 2007). The research suggests that children may need to have at least some intervention directly within the generalization environments (that is, the environments in which the children actually need to demonstrate these skills) if the children are going to demonstrate the skills learned in social skills groups in these environments.

Recess can be both an ideal and a challenging time to work on social skills. Recess has been found to be important for physical, cog-

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nitive, and social development (Lang et al., 2011). It is ideal for social development in that it provides ample opportunities for natural, playful interactions with a wide variety of typical peers. It is also one of the few times during the school day that children can engage in child-directed activities, choosing where and what they want to play, and with whom they want to play. With in-class time increasingly focused on academics prescribed by a centralized curriculum, it can often be difficult to find appropriate opportunities for students with ASD to practice the social skills they need to acquire outside of designated social skills groups, and recess may be one of the few available times.

Recess, however, can be challenging both for students with ASD and for school staff. For the student with ASD, recess can be unstructured and chaotic, making it a difficult time for students who generally do best in structured, predictable situations. For school personnel, staffing issues at recess can be challenging (Koegel, Kuriakose, Singh, & Koegel, 2012). Many times, schools provide minimal staffing at recess, typically just enough staff to oversee student safety. Recess is often a time that staff takes breaks or utilizes planning time. Rarely is there enough staff to provide intensive 1:1 intervention for a student. In addition, some school personnel do not believe that recess time is instructional time. They believe that recess should be considered a break for students as well as for teaching staff and are thus reluctant to present what they perceive as intrusive demands during this time.

Research suggests that because of these factors and probably others, children with ASD are not being socially successful at recess. In a review of recess interventions, Lang et al. (2011) reported that baseline levels across studies showed that students with ASD tended to demonstrate high levels of stereotypy and low levels of social interactions at recess. Bauminger, Shulman, and Agam (2003) found that when compared to typical children, children with ASD interact with other children significantly less often at recess.

Even when adults are both available and willing to support students at recess, direct intervention to prompt and assist a child with ASD in social interactions in natural school environments such as recess can be problematic. The moment an adult intervenes in a natural child to child interaction, the nature of that interaction is affected (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Malmgren & Causton-Theoharis, 2006). It is likely that the behavior of all the children involved in the interaction, not just the behavior of the child with ASD, is influenced by the adult presence.

In summary, strategies for helping children with ASD to generalize social skills across settings and activities at school, and increase frequency of interactions with other children at recess are needed. These interventions, however, must take into account the fact that staffing is likely to be sparse at recess and that strategies that involve direct adult prompting or other direct intervention are likely to detract from the natural interactions between children and may feel inappropriate to some adults. Methods to promote the use of learned social skills in these natural environments without the necessity of direct adult intervention into the ongoing interactions are needed.

The use of a say-do correspondence intervention could be ideal in such situations. Say-do correspondence traditionally involves the modification of nonverbal behavior via changes in verbal behavior. In say-do correspondence (also called correspondence training), a person receives access to a reinforcer for demonstrating correspondence between "saying:" stating what he is going to do at some point in the future, and "doing:" actually doing what he said he was going to do. In other words, the behavior that is reinforced is making a plan and then implementing that plan. Research suggests that after a period of reinforcement of correspondence between saying and doing, change can be enacted in nonverbal behavior (the "do") via control of the verbal statement (the "say"). A substantial body of research has established the effectiveness of correspondence training for persons with and without disabilities and for both adults and children (for a review, see Bevill-Davis, Clees, & Gast (2004). In the first study of say-do correspondence, Risley and Hart (1968) increased the use of specific play materials by preschoolers, establishing correspondence between a stated intention by a child to play with specific materials and then actually playing with the specific play materials. In an example

of say-do correspondence with children with disabilities, Whitman, Scibak, Butler, Richter, and Johnson (1982) reported on three experiments using say-do correspondence to decrease out-of-seat behavior, increase appropriate sitting posture, and increase on-task behavior for children with intellectual disability. Their third experiment was unique in that it attempted to increase on-task behavior for three non-verbal students using a non-verbal "say" component, requiring the students to "show" the intended behavior rather than state it verbally. On-task behavior increased for all three students.

Similarly, it is worth noting that while traditionally, the "do" portion of say-do correspondence is defined as a nonverbal behavior; it does not actually have to be nonverbal. Rogers-Warren and Baer (1976), for example, used say-do correspondence to increase a verbal behavior: the amount of praise directed towards peers; similarly, Guevremont, Osnes, and Stokes (1986a) used correspondence training to increase peer-directed talk for a four-year-old child. Thus, the traditional definition of say-do correspondence as correspondence between a verbal and a non-verbal behavior is probably over specific; both the say and the do components can be either verbal or non-verbal behaviors.

Correspondence training has often been cited as being ideal in situations where an instructor has ready accessibility to the individual during the "say" component of the intervention but wishes the individual to demonstrate the nonverbal behavior in situations without direct monitoring or reinforcement (e.g., Guevremont, Osnes, Stokes, 1986a, b; Morrison, Sainato, Benchaaban, & Endo, 2002; Whitman et al., 1982). Thus, it may be ideal for social situations when an adult does not wish to disrupt ongoing social interactions between children. Ballard and Jenner (1981) attempted this with two elementary aged students who were demonstrating low levels of social behaviors during free play situations. The researchers targeted intervention during an unstructured time in the classroom when children had a choice of activities and were free to move around and talk as they pleased. During the "say" portion of the intervention, the children were asked the question, "What do we do to play with other children and be friends at school?" They were required to respond with the statements, "I go over to the other children," "I do what they are doing," and, "I smile." The children were then able to play in the unstructured setting. Social interactions, defined as a reciprocal interchange between two children involving a directed social stimulus by one child and an observable response to that stimulus by the other children, were measured. Both children showed an increase in social interactions following the introduction of correspondence training.

Recess seems like another natural fit for a say-do intervention. Teachers or other school staff are often available to easily and naturally talk to a student before recess but would then like to avoid direct intervention during recess, both so as to not interrupt the natural flow of student interaction and to avoid the need for intensive staffing at recess. If a student could state his or her intention to interact with other children during recess before the event and a correspondence between his "saying" and his "doing" is then seen, interactions at recess could be increased without adult intrusion into ongoing recess social exchanges.

This study investigated the use of a say-do correspondence intervention with three first graders with ASD who had received high quality intensive social skills instruction in social skills groups three times a week for over a year at school, but who were still not demonstrating the social communication skills learned in the social skills groups during recess. In this study, the students were asked before recess to state who they would talk to at recess and then were reinforced afterwards if they had talked to the friend they had stated. Specifically we were interested in addressing the following research question: Does the use of correspondence training increase the frequency of social interactions at recess by elementary school children with ASD who have previously learned social behaviors during systematic social skills instruction in a social skills group with typically developing children?

Method

Participants

Participants were three children, two boys and a girl, with ASD who were participating in a

TABLE 1

Descriptive Information

Participant	*Gender*	*Age at time of participation*	*Adaptive Behavior (VABS-2)*[a]	*Language (CELF-Expressive Vocab: Age Equivalent)*	*SRS Teacher*
Samuel	M	6 years 8 months	72	8:11	66 (mild-to-moderate)
Jonathan	M	7 years 4 months	71	6:0	64 (mild-to-moderate)
Fran	F	7 years 5 months	67	7:2	81 (severe)

Note. [a]Standard scores ($M = 100$, $SD = 15$)

larger study of social and literacy skills (Kamps et al., 2014). All three children had received diagnoses of Autism Spectrum Disorder by independent medical professionals. Descriptive information about the three children can be seen in Table 1.

The three children attended different public elementary schools in the Pacific Northwest. As part of the larger research project, all three children had participated in a social skills group three times per week through kindergarten and were currently participating in a social group in first grade. These social groups, called Peer Network social groups (Kamps et al., 2014), involved both the children with ASD and same-grade typically developing peers. For two of the children, Samuel and Jonathan, the groups involved three children on any given day: the target child and two typically developing peers. Different typically developing peers came on each of the three days of the week, resulting in six typically developing peers participating in Peer Network groups. The Peer Network social group for the third participant, Fran, involved four children on any given day: Fran, another student with ASD who also came three times per week, and two typically developing peers. As with the other groups, the typically developing peers came only once a week, resulting in six typically developing peers participating in Fran's Peer Network.

The Peer Networks social groups were run using a manualized intervention focusing on verbal social communication skills, including asking questions, sharing, commenting on one's play, commenting on a friend's play, and play organizing. The importance of responding when another child initiates was stressed throughout the different skills. The social skills groups occurred three days a week for 30 minutes at a location and time selected by school staff. The groups were run by school staff and included special education teachers, instructional assistants, and speech language pathologists. The groups for two of the children involved in this study, Samuel and Fran, were run by special ed teachers; the group for the third child, Jonathan, was run by an instructional assistant. Training and on-going coaching for the intervention were provided by research personnel.

These three children were chosen for this study because, despite both this intensive social intervention involving typical peers for at least a year and a documented increase in verbal social communication during their social groups, none of the three target children demonstrated generalized use of the social skills they were learning when they were out at recess.

Measures

Frequency of verbal exchanges. The dependent variable in this study was the frequency of verbal exchanges between the participant and other children at recess. An exchange could be initiated by either the target child or another child. An exchange continued until 3 s had elapsed without any child in the interaction talking. Behavior was collected by observers on the playgrounds using IPads or IPhones equipped with the Behavior Tracker Pro application. The frequency of verbal exchanges was coded for 15 minutes during recess on every observation day.

Reliability

Inter-observer reliability was obtained by having a second observer independently and simultaneously collecting frequency data on another IPad or IPhone, using the Behavior Tracker Pro software. Interobserver agreement was collected for 20%, 28.5%, and 14% of baseline sessions and 25%, 28.5%, and 36% of intervention sessions for Samuel, Jonathan, and Fran respectively. Interobserver agreement was calculated by dividing the number of agreements for each session by the total number of agreements and disagreements and then multiplying this number by 100. Interobserver agreement for Samuel averaged 96% (range, 88–100%), for Jonathan, 100%, and for Fran, 94% (range, 80–100%).

Setting

All phases took place in the public elementary schools attended by the participants at their regularly occurring recess time on the school playgrounds. Data was collected for the entire recess, which lasted for 15 minutes for each of children. The adult interactions before and after recess took place directly outside the door used for entering and exiting the playground. No data were collected during these interactions. No changes to the equipment, scheduling, or supervision/staffing of recess were implemented as part of this intervention.

Procedure

A combined concurrent and non-concurrent multiple baseline design (Harvey, May, & Kennedy, 2004) was used to assess the efficacy of the intervention. Intervention for the first two students took place in a concurrent multiple-baseline fashion during their first grade year. The third student, who entered the larger study a year later than the first two participants, was added non-concurrently a year later, also when she was in first grade. Sessions took place 1–2 times a week for each of the children.

Baseline. The child participated in recess in his or her usual manner. No special directions, schedules or visual aides were provided to the student. The researcher collected data on the participant's frequency of social exchanges throughout the 15 minute recess. The researcher did not interact with the child or deliver any prompts. The researcher attempted to observe at a distance, making an effort to appear as if observing all children at play, not the focus child in particular.

Intervention. Immediately before the child went out to the playground, the researcher showed the child pictures of students who had participated in his or her social group and asked the child to name who he was going to talk to at recess. The child was allowed to either name a child or just point to a picture to identify who he wanted to talk to. The child was also allowed to name children not pictured (i.e., children not in his or her social group) although no child did. The child was then shown a collection of small, inexpensive toys and asked which one he would like to earn if he did what he said he would do. The researcher took this toy and kept it during recess.

The child then went out to recess to play. As in baseline, the researcher simply collected data on the frequency of social exchanges. Again no changes were made to the physical or social environment of the recess. The researcher also noted whether or not the child interacted with the student he had specified. As in baseline, the researcher did not interact with the child or deliver any prompts and again did her best to appear as if she was observing children in general, not the focus child in particular.

After recess the researcher debriefed with the child. The researcher asked the child if he had interacted with the child he had specified and the child received the reinforcer (the pre-selected toy and verbal praise) if he had. If he hadn't, he was told, "To earn your toy, you need to talk to who you said you would talk to. You can try again tomorrow."

Discontinuing pictures and tangible reinforcement. Once performance was stable, pictures and tangible reinforcement were discontinued. Before recess, the child was now simply asked to name a child that he would play with; no pictures were shown. During the debriefing at the end of recess, the child was praised if he talked to the person he had said he would talk to but no toy was given.

Results

As displayed in Figure 1, the frequency of social exchanges for the three students increased from baseline to intervention conditions.

Samuel (top panel) averaged 1.4 social exchanges during baseline. The frequency of his exchanges immediately increased to nine exchanges on the first day of the say-do intervention and remained variable but high for the rest of the intervention, averaging 15.4 exchanges over the next eight sessions. During the ninth session, pictures of peers to support his planning before the beginning of recess, and tangible reinforcement for implementing the plan that he made were discontinued. The correspondence intervention was continued, and verbal praise was provided for correct correspondence. Exchanges remained high, averaging 25.8 exchanges for the last four sessions.

Jonathan (middle panel) did not engage in any exchanges at all during baseline. His number of exchanges increased to three on the first day of intervention and climbed steadily to a peak of 15 exchanges before declining in the last two days of intervention before the end of the school year. Jonathan's frequency of exchanges averaged 6.3 during intervention. Because of the end of school, the researcher was not able to implement the discontinuation of pictures and tangible reinforcement.

Fran (bottom panel) had a low, steady rate of social exchanges during baseline, averaging 4.7 exchanges during the 15 minute recess. Her frequency of exchanges immediately climbed to 11 on the first day of intervention and stayed above baseline rates for the next six sessions, averaging 12.2 exchanges per session. At this point, pictures and tangible reinforcement were discontinued. Exchanges stayed high, averaging 11.6 exchanges over the final four sessions.

Percentage of non-overlapping data. As another indication of intervention effectiveness, the percentage of non-overlapping data (PND; Kazdin, 1978, Scruggs, Mastropieri, & Castro, 1987) between baseline and intervention phases was computed for each student's frequency data. PND was computed by dividing the number of data points in intervention that did not overlap with data points in baseline by the total number of data points in the intervention phase. For all three students, PND was 100%, indicating a highly effective treatment (Scruggs, Mastropieri, Cook, & Escobar, 1986).

Discussion

This study investigated whether a relatively simple intervention: a say-do correspondence where a child was asked who he would talk to at recess and then received reinforcement for doing so, would increase frequency of interactions at recess for children who had acquired these social communication skills in a social group but who were not generalizing the skills to recess. All three participants showed an increase in their social exchanges at recess as a result of the intervention. This confirms prior research indicating the effectiveness of the say-do correspondence procedure with children with autism (e.g., Morrison et al., 2002). The results also contribute to the growing literature showing positive interventions for recess settings for children with ASD (Lang et al., 2011).

This intervention seems ideal for a school recess environment. First, it fits well with the common staffing arrangements at school, where a teacher typically delivers her students to the playground before recess and greets them on their way in, but where staff on the playground is often minimal. It would be relatively simple for a teacher to interact briefly with a child before the child goes out to recess and then interact with him briefly again on the way in. Staff attendants on the playground need only observe whether the student has interacted with another specified student and briefly communicate this to the teacher at the end of recess. Even this level of recess time observation can presumably be discontinued once say-do correspondence is established. Second, this intervention also may be ideal in that it does not require prompting, intervening, or reinforcement while the social interactions between children are going on during recess, allowing the natural flow of child interactions to happen without interruption.

It is important to note, however, that in this study, we were not teaching the students new skills. Koegel, Vernon, Koegel, Koegel, and

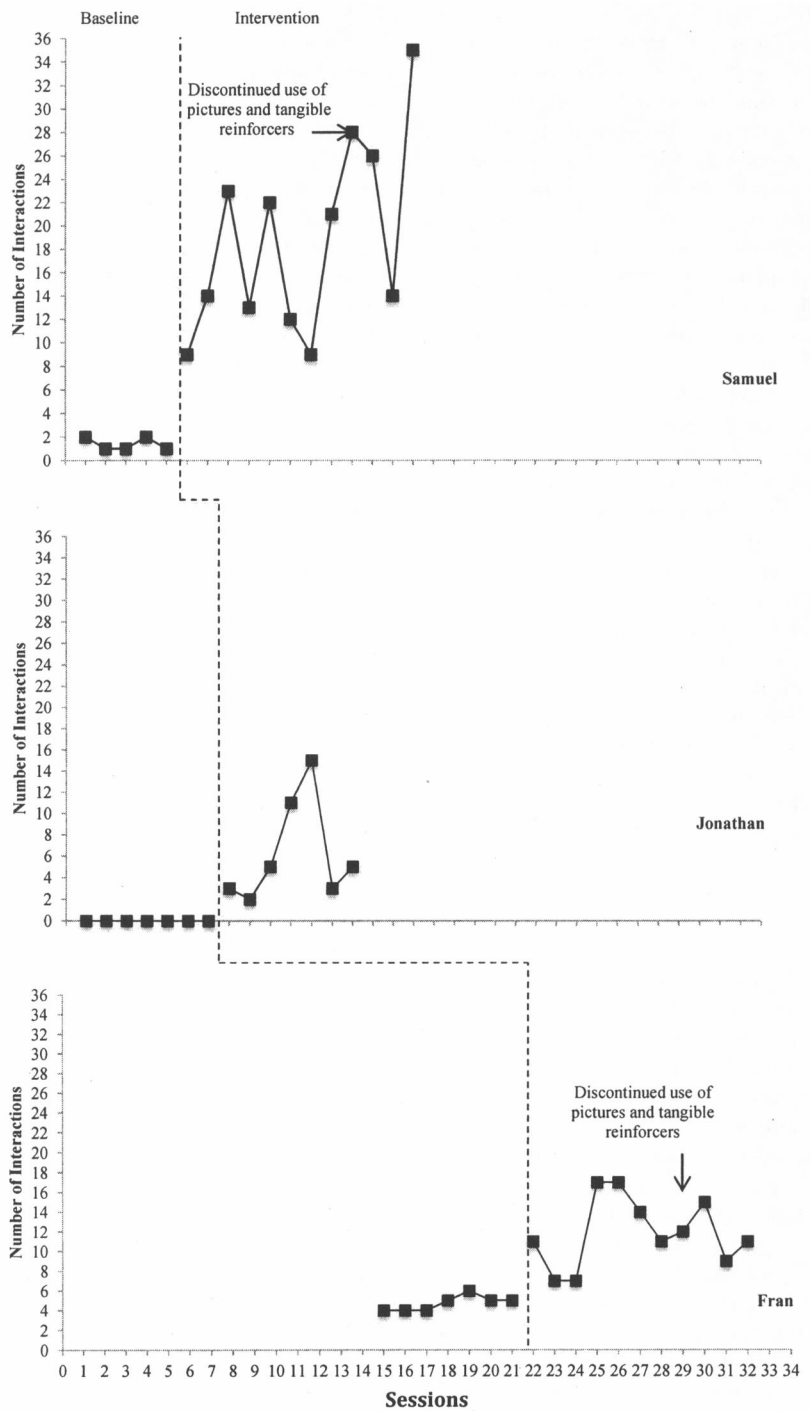

Figure 1. Frequency of social exchanges before and during intervention.

Paullin (2010) make the important distinction between skill and performance deficits and note that different approaches are needed for each. In this study, we were only trying to get the children to generalize skills that they had practiced intensively and for a long period of time (over a year in all cases) in their social groups; we were not trying to promote the acquisition of new skills. It seems unlikely that this low intensity intervention would have worked if the children did not have the skills of social interacting already in their repertoires.

It is also important to note that during the first phase of intervention, the focus child was shown pictures of students who were participating in his or her social groups when asked who her or she wanted to talk to, increasing the likelihood that these peers would be the focus of the child's initial attempts at social exchanges. Thus, the focus child's fledgling initiations at recess were to children who had received intensive practice at interacting with the child with ASD, potentially increasing the likelihood that the exchanges would be successful. It is unclear whether the same favorable outcomes would have been observed if the child with ASD had been encouraged to seek out just any child as their conversational target.

Limitations

Primary limitations of the study include the small sample size (only three participants), and the limited number of data points particularly for Jonathan. Monitoring of the intervention and maintenance over an extended period of time and for a larger number of participants would provide additional documentation of the intervention effects. Another potential limitation of this study is that it was conducted by researchers and we did not transfer implementation of the intervention over to school staff. Thus, we do not know for sure that the intervention would have been successful if school staff had been implementing it, nor do we know for sure that the school staff would agree on what we see as the feasibility of the intervention. Implementation of the intervention by researchers was appropriate for this study as we were establishing the effectiveness of the intervention in this setting. As our interest turns from evaluating effectiveness to evaluating questions of sustainability and ecological validity, however, it will be essential for school staff to implement the intervention that is being evaluated. Future research should involve using school staff to implement the intervention to answer these questions.

The presence of the researcher observing at recess may have been a contributing factor to the students' performance. We do not know if the significant increases we saw in frequency of social exchanges would have continued if someone was not observing at recess and confirming correspondence with the child afterwards. Although tangible reinforcement was discontinued in this study, the researcher continued to observe the student at recess and gave the student verbal praise for talking to the targeted recipient. While the significant body of research on say-do correspondence suggests that the behavior increases would be sustained after the reinforcement for confirmed say-do correspondence ended, we did not establish this continuity in this study. Future research should establish correspondence methods similar to those used in this study and then fade out the observer at recess, confirming that increases are maintained in the absence of this confirmation of correspondence. This research should also investigate both if the intervention can be implemented intermittently and still be effective, and if the intervention continues to be effective when children are asked to make a plan every day, but teachers only debrief with them and provide feedback about their behavior intermittently.

To further increase the likely feasibility of this intervention in school environments, an interesting avenue for future research would be to assess whether adult time allocated to this intervention could be reduced even further through the use of self-management. Self-management has been shown to be an effective strategy for students on the autism spectrum (Lee, Simpson, & Shoran, 2007) and has been identified as an evidence-based practice for children and youth with ASD (National Professional Development Center on Autism Spectrum Disorders, n.d.). The say-do intervention investigated here required a brief interaction with an adult before and after re-

cess to first establish the goal and then confirm the "doing" of the stated goal. Perhaps once the intervention has been started and say-do correspondence has been established, a self-management system could be implemented, whereby the student shifts to using a computer (or other visual) to document before recess who they want to talk to (perhaps by choosing a picture or written name from an array or, if the student can write, typing a name) and then confirming via computer (or self-recording on a checklist) after recess whether or not he or she did what they had stated. Earned reinforcement could be delivered either immediately by the computer (perhaps via a fun animation) or the teacher could review the student's performance later that day or even after several days and reinforce the student appropriately based on the correspondence between their initial choice and their self-reported actions at recess.

Use of the say-do correspondence procedure with children with ASD with more limited verbal skills might be another productive area of intervention research. Children in this study were highly verbal. Given that say-do correspondence has been effective using nonverbal "say" components (Whitman et al., 1982), the procedure might also be effective for lower functioning or less verbal children with ASD at recess.

Conclusions

This research has important implications for children with ASD and related disorders. The research is clear that using behavioral strategies, children with ASD can learn many skills across all developmental domains. The problem, however, is that these children often fail to demonstrate these newly acquired skills and behaviors in natural settings in which the skills would be most useful; that is, in the settings in which these skills and behaviors would have a true impact on the quality of life for these children with ASD and their families. Correspondence training is a relatively easy to use intervention that may be extremely effective in helping children with ASD learn to generalize newly acquired skills and behaviors across settings, activities, and people. As we learn more about how much correspondence training may be needed to promote and maintain generalized behavior, this school-friendly intervention may become a staple in the intervention history for every child with ASD or related disorders that have challenges in the area of generalization.

In summary, the data reported here suggest that correspondence training is an effective and sustainable strategy that can be used to enhance the social behavior of young children with ASD. Correspondence training may be a simple strategy to help students learn to demonstrate their newly acquired skills across settings. This type of instruction may be especially important for children with ASD, who have well documented difficulties with generalization, and may be an effective strategy to help classroom teachers enhance their students' abilities across settings and staff.

References

Ballard, K. D., & Jenner, J. (1981). Establishing correspondence between saying and doing as a procedure for increasing the social behaviours of two elementary school children. The Exceptional Child, *28,* 55–63.

Bauminger, N., Shulman, C., & Agam, G. (2003). Peer interaction and loneliness in high-functioning children with autism. *Journal of Autism and Developmental Disorders, 33,* 489–507

Bellini, S., Peters, J.K., Benner, L., & Hopf, A. (2007). A meta-analysis of schoolbased social skills interventions for children with autism spectrum disorders. *Remedial and Special Education, 28,* 153–162.

Bevill-Davis, A., Clees, T. J., & Gast, D. L. (2004). Correspondence training: A review of the literature. *Journal of Early and Intensive Behavior Intervention, 1,* 13–26.

Giangreco, M. F., Edelman, S., Luiselli, T. E., & MacFarland, S. Z. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children, 64,* 7–18.

Guevremont, D. C., Osnes, P. G., & Stokes, T. F. (1986a). Programming maintenance after correspondence training interventions with children. *Journal of Applied Behavior Analysis, 19,* 215–219.

Guevremont, D. C., Osnes, P. G., & Stokes, T. F. (1986b). Preparation for effective self-regulation: the development of generalized verbal control. *Journal of Applied Behavior Analysis, 19,* 99–104.

Harvey, M., May, M., & Kennedy, C. (2004). Nonconcurrent multiple baseline designs and the evaluation of educational systems. *Journal of Behavioral Education, 13,* 267–276.

Kamps, D., Thiemann-Bourque, K., Heitzman-Powell, L., Schwartz, I., Rosenberg, N., Mason, R., & Cox, S. (2014). A comprehensive peer network intervention to improve social communication of children with Autism Spectrum Disorders: A randomized trial in kindergarten and first grade. *Journal of Autism and Developmental Disorders, 44,* 1–16.

Kazdin, A. E. (1978). Methodological and interpretive problems of single-case experimental designs. *Journal of Consulting and Clinical Psychology, 46,* 629–642.

Koegel, L. K., Kuriakose, S., Singh, A. K., & Koegel, R. L. (2012). Improving generalization of peer socialization in inclusive school settings using initiations training. *Behavior Modification, 36,* 361–377.

Koegel, L. K., Vernon, T. W., Koegel, R. L., Koegel, B. L., & Paullin (2012). Improving social engagement and initiations between children with autism spectrum disorder and their peers in inclusive settings. *Journal of Positive Behavior Interventions, 14,* 220–227.

Lang, R., Kuriakose, S., Lyons, G., Mulloy, A., Boutot, A., Britt, C., . . . Lancioni, G. (2011). Use of school recess time in the education and treatment of children with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders, 5,* 1296–1305.

Lee, S., Simpson, R., & Shoran, K. (2007). Effects and implications of self-management for students with autism: A meta-analysis. *Focus on Autism & Other Developmental Disabilities, 22,* 2–13.

Lopata, C., Thomeer, M. L., Volker, M. A., Nida, R. E., & Lee, G. K. (2008). Effectiveness of a manualized summer social treatment program for high-functioning children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 38,* 890–904.

Malmgren, K. W., & Causton-Theoharis, J. N. (2006). Boy in the bubble: Effects of paraprofessional proximity and other pedagogical decisions on the interactions of a student with behavioral disorders. *Journal of Research in Childhood Education, 20,* 301–312.

Morrison, R. S., Sainato, D. M., Benchaaban, D., & Endo, S. (2002). Increasing play skills of children with autism using activity schedules and correspondence training. *Journal of Early Intervention, 25,* 58–72.

National Professional Development Center on Autism Spectrum Disorders. (n.d.). *Evidence-based practices.* Retrieved from http://autismpdc.fpg.unc.edu/content/evidence-based-practices.

Owens, G., Granader, Y., Humphrey, A., & Baron-Cohen, S. (2008). LEGO therapy and the social use of language programme: An evaluation of two social skills interventions for children with high functioning autism and Asperger syndrome. *Journal of Autism and Developmental Disorders, 38,* 1944–1957.

Risley, T. R., & Hart, B. (1968). Developing correspondence between the nonverbal and verbal behavior of preschool children. *Journal of Applied Behavior Analysis, 1,* 267–281.

Rogers-Warren, A., & Baer, D. M. (1976). Correspondence between saying and doing: teaching children to share and praise. *Journal of Applied Behavior Analysis, 9,* 335–354.

Scruggs, T., Mastropieri, M. A., & Castro, G. (1987). The quantitative synthesis of single subject research: Methodology and validation. *Remedial and Special Education, 8,* 24–33.

Scruggs, T. E., Mastropieri, M. A., Cook, S. B., & Escobar, C. (1986). Early intervention for children with conduct disorders: A quantitative synthesis of single student research. *Behavior Disorders, 11,* 260–271.

Whitman, T. L., Scibak, J. W., Butler, K. M., Richter, R., & Johnson, M. R. (1982). Improving classroom behavior in mentally retarded children through correspondence training. *Journal of Applied Behavior Analysis, 15,* 545–564.

White, S. W., Keonig, K., & Scahill, L. (2007). Social skills development in children with autism spectrum disorders: A review of the intervention research. *Journal of Autism and Developmental Disorders, 37,* 1858–1868.

Yang, N. K., Schaller, J. L., Huang, T., Wang, M. H., & Tsai, S. (2003). Enhancing appropriate social behaviors for children with autism in general education classrooms: An analysis of six cases. *Education and Training in Developmental Disabilities, 38,* 405–416.

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