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TRAINING STAFF TO CONDUCT A PAIRED-STIMULUS PREFERENCE ASSESSMENT

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Three staff members were trained to conduct stimulus preference assessments using a paired-stimulus format with 8 children with autism. Staff were trained to mastery level using brief instruction, a video model, and rehearsal with verbal feedback. Training took about 80 min per staff member. Results demonstrated that staff rapidly learned to correctly perform paired-stimulus preference assessments with children.

DESCRIPTORS: assessment, stimulus preference assessment, staff training

Recent research has demonstrated that some aspects of behavioral technology can be taught rapidly to nonspecialist staff. For example, Iwata et al. (2000) trained undergraduate students to accurately implement analogue baselines. Training consisted of written materials, videotaped instructions, a written quiz, performance, and feedback. One important aspect of behavioral technology is identifying stimuli that reinforce client behavior. Researchers have demonstrated that stimulus preference assessments can often identify reinforcers for persons with developmental disabilities (Carr, Nicolson, & Higbee, 2000; DeLeon et al., 2001; Fisher et al., 1992). We were unable to identify any previous research that trained staff to correctly implement stimulus preference assessments. In this paper we extend Iwata et al.'s work by evaluating a staff training procedure to teach staff who work with children with autism spectrum disorders to correctly conduct paired-stimulus preference assessments (Fisher et al., 1992).

METHOD

Participants and Setting

Three assistant teachers and 8 children, aged 3 to 5 years, with autism spectrum disorders participated in this study. The study was conducted in a specialist school for children with autism. Staff reported that they had difficulties identifying stimuli that functioned as reinforcers for these children. All sessions were conducted in a classroom with no other children present.

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Procedure

During baseline, staff members were given a piece of paper and a pen to take data. A child was also present in the room. The stimuli to be assessed were available on a table. Staff identified stimuli to be assessed. The selection of the stimuli was based on availability, ease of presentation, reports given by staff about potential reinforcers, and on dietary and health restrictions for the children. The stimuli evaluated were candies, cookies, potato chips, juice, a toy car, a book, and a puppet that vibrated and made sounds. No other instructions were given to staff.

After baseline sessions, staff were trained to conduct the paired-stimulus preference assessment (Fisher et al., 1992). The skills taught were task analyzed as follows: (a) Put two stimuli on the table in front of the child (0.7 m from one another and 0.7 m from the child) and wait for 5 s. (b) If the child touches a stimulus, remove the nonchosen stimulus immediately. (c) Let the child interact with the chosen stimulus for 5 s. If

the child samples the stimulus at the first opportunity move on to Step i. (d) If the child approaches both stimuli, block him or her by holding the two stimuli down on the table. (e) If the child does not approach both stimuli after 5 s, prompt him or her to sample each stimulus for 5 s. For an edible stimulus put the stimulus in front of the child's mouth. For a toy, let the child hold the stimulus for 5 s. (f) After the child samples both stimuli, present the two stimuli again. (Note that this still constitutes the same trial.) (g) Repeat Steps b through d. (h) If the child does not approach both stimuli, again remove the stimuli. (i) Record the data for each trial by writing the results on the score sheet provided. In each stimulus preference assessment session, each stimulus was paired once with every other stimulus. There were a total of 21 trials in each session.

The staff training procedure consisted of seven steps (Reid & Parsons, 1995). Two 30- to 40-min training sessions were conducted with each staff person. First, the skills were briefly described. Second, the staff member was given a checklist describing the skills. Third, the staff trainer verbally described the skills on the checklist. Fourth, the skills were demonstrated using a videotape model. Fifth, the staff member was observed practicing the skills while he or she worked with a child. Sixth, the staff trainer provided corrective or approving feedback based on the staff member's demonstration of the target skills. Seventh, Steps 4, 5, and 6 were repeated until 85% of the steps were performed correctly for two consecutive sessions.

Dependent Variable, Experimental Design, and Interobserver Agreement

The dependent variable was the number of correctly performed steps divided by all possible steps and multiplied by 100%. Staff behavior was scored on a data sheet designed for that purpose. A plus was given when staff performed all aspects of a step of the task analysis correctly. A minus was given if any element of a step was incorrectly performed. "Not applicable" was given when the step was not relevant to a trial (e.g., a child did not approach both stimuli so the staff member did not have the opportunity block).

A multiple baseline design across 3 staff members was used to demonstrate experimental control. Each staff member conducted eight stimulus preference assessments, one with each of 8 children. An observer collected data during each session by direct observation. Each session lasted 20 to 30 min. A second observer collected data independently on an average of 50% of the sessions. These were distributed between baseline and intervention and across all staff members. Interobserver agreement was calculated by dividing the total number of agreements for each session by the total number of agreements plus disagreements and multiplying by 100%. The average agreement was 98.5% (range, 93% to 100%).

RESULTS AND DISCUSSION

Staff performance is presented in Figure 1. During baseline, none of the staff conducted stimulus preference assessments correctly. Following training, all 3 staff showed a very large improvement in their performance. The mean baseline scores for Amanda, Orin, and Debbie were 16%, 23%, and 20%, respectively. Mean intervention scores were 98% (Amanda), 100% (Orin), and 100% (Debbie).

This study demonstrated that staff can be taught to conduct paired-stimulus preference assessments in about 80 min. This finding replicates and extends Iwata et al.'s (2000) study, which demonstrated that undergraduates can be taught to implement analogue baselines with only 2 hr of training. Future research should extend these findings by fur-

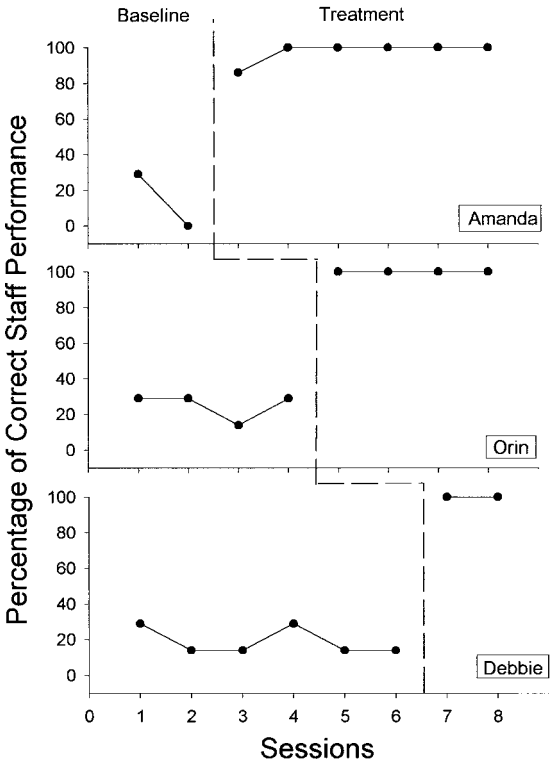

Figure 1. Mean percentage of correctly performed steps during baseline and intervention for Amanda (top panel), Orin (middle panel), and Debbie (bottom panel).

ther evaluating these rapid methods of staff training with other key skills. Two important limitations to this study are identified. First, in conducting baseline sessions for staff training, the question of identifying a "fair" comparison baseline is important. It could be argued that the instructions given to staff in this study were so general that it was unlikely that they could perform well during the baseline condition. Iwata et al. addressed this problem by having participants read a description of the procedure prior to baseline conditions; however, in that study baseline skill levels were high and rising. Thus, that approach may elevate the baseline data and obscure intervention effects. A second limitation is that we trained staff to implement only some circumscribed elements of the procedures involved in stimulus preference assessments. This study did not teach staff to interpret and use the data to translate the results of the assessment procedure into effective interventions.

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