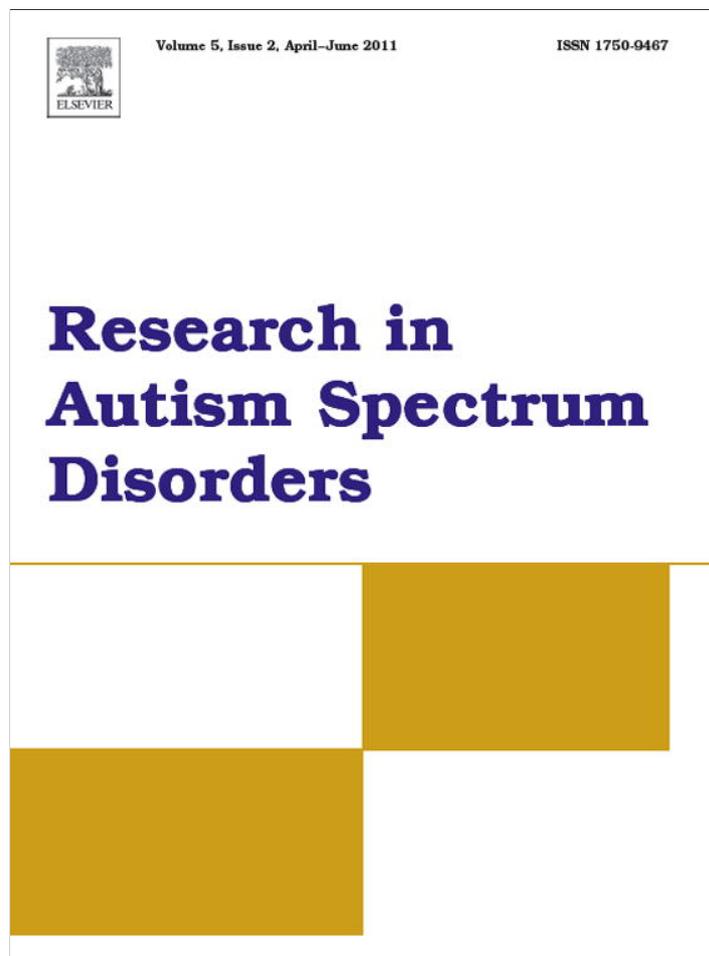


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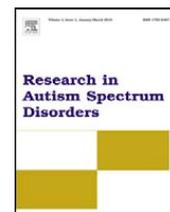
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Teaching adolescents with autism to describe a problem and request assistance during simulated vocational tasks

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ABSTRACT

Previous research suggests that vocational skills training for individuals with autism may increase the likelihood that they may be effectively employed. In the present study, a multiple-baseline-across-participants design was used to assess the effects of graduated guidance, scripts, and script fading to teach four adolescents with autism in a simulated vocational setting to approach an instructor, describe a work-related problem, and request assistance. Although none of the participants emitted these skills during baseline, the introduction of the teaching procedure resulted in all participants learning these skills. Generalization measures indicated that the participants also learned to emit the target skills in the presence of work-related materials not directly associated with training. In addition, pre- and post-treatment measures showed that the participants learned to emit the target skills in a different setting not associated with training.

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Individuals with autism and other developmental delays often display deficits in communication skills necessary to effectively interact with others (Chadsey-Rusch, 1992; Greenspan & Shoultz, 1981). In vocational settings, the failure to communicate effectively with co-workers and supervisors may make it difficult for such individuals to maintain employment, even when they demonstrate competency related to specific job tasks (Chadsey-Rusch, 1992; Greenspan & Shoultz, 1981). Communication skill deficits may also impede an individual's movement into less restrictive employment settings (Agran, Salzberg, & Stowitchok, 1987).

In vocational settings, most researchers have focused primarily on preparing individuals with disabilities to perform specific job skills (Greenspan & Shoultz, 1981; Hanley-Maxwell, Rusch, Chadsey-Rusch, & Renzaglia, 1986; Howarth, Mann, Zhou, McDermott, & Butkus, 2006; Martin, Rusch, Lagomarcino, & Chadsey-Rusch, 1986; McCuller, Salzberg, & Lignugaris, 1987; Salzberg, Agran, & Lignugaris, 1986). Given the importance of effective communication for employment, however, researchers have also investigated methods to increase communication skills by individuals with developmental delays in vocational settings. For example, two studies investigated the effectiveness of self-instruction to promote independent performance among individuals with severe mental retardation. In one, Agran et al. (1987) used self-instructions to facilitate the acquisition and generalization of two social behaviors in a work setting. They examined the effects of a training package on increasing initiations to a supervisor when employees exhausted their work materials and/or needed assistance. The self-instructions consisted of a statement that (a) described the problem (e.g., "I am out of _"), (b) indicated an action to resolve the problem (e.g., "I need to get more _"), and (c) provided self-instructions (e.g., "I'll ask for _"). Agran et al. (1987) indicated that although the participants in their study learned to seek assistance, they generally did not verbalize self-instructions in

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either the training or generalization setting. In addition, self-instruction statements failed to generalize to novel settings and tasks.

In another study, Hughes and Rusch (1989) provided feedback combined with self-instruction training to teach adult participants with severe mental retardation to identify work-related problems and report them to supervisors. Initially, the participants stopped working when materials could not be located, or continued working but ignored the consequences of a problem (e.g., leaking soap dispenser) when confronted with a work-related problem (e.g., task materials in the wrong place or equipment not working). When treatment was implemented, the participants successfully solved work-related problems and these skills generalized to untrained problems. These results are important because solving work-related problems likely increases the employability of individuals with developmental disabilities (Hughes & Rusch, 1989).

To most effectively develop interventions to increase work success for persons with developmental disabilities, it is important to identify skills that best promote workplace competencies. McCuller et al. (1987) identified “job initiative” as a skill that was ranked higher than other entry-level behaviors. Job initiative was defined as an employee identifying that a task needs to be completed and doing it even when the task is not an explicitly assigned responsibility. Job initiative might be regarded as a skill repertoire with many topographically different behaviors, such as putting things away, cleaning up, notifying a supervisor when a problem arises, and asking for assistance when necessary. In fact, Salzberg et al. (1986) identified asking for assistance when a problem arises as the most important task-related social behavior in the workplace for entry-level positions. Unfortunately, one of the major skill deficits of individuals with developmental disabilities is that they do not seek assistance with problem situations (Rusch & Hughes, 1989).

The purpose of the present study was to determine whether adolescents with autism could be taught to approach an instructor posing as a work supervisor, describe a problem, and request assistance when a work-related problem was encountered. Teaching these skills should result in increased worker productivity and ultimately lead to more highly valued employees. Simulated vocational tasks were used during training (Lattimore, Parsons, & Reid, 2006). Scripts and script fading were used to teach the target skills. These procedures have been shown to be effective strategies to teach numerous social interaction skills to individuals with autism, including initiating to peers and adults about activities (Krantz & McClannahan, 1993, 1998), commenting about items in the environment (Sarokoff, Taylor, & Poulson, 2001), and engaging in appropriate conversational skills (Brown, Krantz, McClannahan, & Poulson, 2008). Finally, multiple exemplars from different categories of work-related problems were used during teaching to promote generalization of skills to similar problems not associated with teaching (Reeve, Reeve, Townsend, & Poulson, 2007; Stokes & Baer, 1977).

1. Method

1.1. Participants

Four male adolescents diagnosed with autism participated. At the onset of the study, Jared was 12 years old, and David, Gavin, and John were 13 years old. All four were enrolled since age 3 in a private school for individuals with autism. Each received approximately 30 h of one-to-one applied behavior analytic instruction per week. The participants had extensive experience with activity schedules, discrete-trial teaching, incidental teaching, token economy exchanges, and reinforcer menus. Prior to the study, the daily instructors of the participants reported that the boys occasionally requested assistance by saying “I need help” or “help me” in a limited number of situations (e.g., when items were out of reach, too heavy, or were difficult to open, and when toys did not work), but the participants had never described a problem related to these situations. Prior to the study, the participants had all begun to prepare for future employment outside of the school by learning to complete a variety of vocational tasks with their instructors (e.g., filing documents, completing a laundry cycle, and preparing materials for mailing). None of the participants, however, had completed a task at an actual vocational site. The experimenter was a full-time instructor at the school who had taught all of the participants for approximately 4 years.

1.2. Setting and apparatus

The study was conducted in a classroom containing desks, chairs, bookshelves, and a dry-erase board. Participants sat in a chair at a desk and the relevant stimulus materials were placed on the desk in front of the student. An activity schedule in the form of a photographic list was also placed on the participant's desk to serve as a discriminative stimulus for him to complete work scenarios. During experimental sessions, up to five other instructors and students who were not involved in the study worked at the other desks in the same room. All sessions were videotaped with a tripod-mounted camcorder set approximately 3 m away from the desk.

1.3. Target skills identification and social validity

To obtain socially relevant examples of the target behavior and to increase the social validity of the study, 13 staff members at the school were asked to complete a written survey to determine what they might say during 15 different situations in which a simulated vocational task was presented and a problem was encountered. For example, “Your task is to staple papers together but the stapler is not working. What would you say to a supervisor to identify the problem and obtain

Table 1

Problem scenarios used to teach participants to describe a problem and request assistance and typical scenarios used for discrimination trials.

Category	Task to complete	Typical scenario	Problem scenario	Verbal responses for problem scenarios
Missing material	Clean garbage	Bag present	Bag missing	“The _ is (are) missing. Do you know where I can get more _?”
	Erase board	Eraser present	Eraser missing	
	Clip papers Refill pen basket	Clips present Pens present	Clips missing Pens missing	
Broken material	Cut papers in half	Scissors intact	Scissors broken	“The _ is (are) broken. Do we have more _?”
	Staple papers	Stapler	Stapler broken	
	Highlight zeros on a page Rubber band pamphlets	Highlighter intact Rubber bands intact	Highlighter broken Rubber bands broken	
Mismatched material	Stuff envelopes	Envelopes correct size	Envelopes too small	“The _ is (are) too small. Do you know where I can find bigger _?”
	Add papers to binder	Binder correct size	Binder too small	
	File index cards in a box	Box correct size	Box too small	
	Bind papers together	Clips correct size	Clips too small	

the needed item?” The top three most frequently occurring responses were selected for use in the current study as components of the target responses. These are depicted in the last column of Table 1.

1.4. Dependent variable

The dependent variable was the percentage of trials in which each participant (a) approached an instructor, (b) described a problem, and (c) requested assistance. For a trial to be scored as correct, all three components were required to be emitted in that order. The first component, *approaching an instructor*, was defined as the participant walking towards an instructor who was sitting or standing approximately 2–3 m away from the participant within 3 s of encountering a work-related problem (e.g., the broken stapler is depressed and it does not close) and then standing within 1 m of the instructor with his body oriented towards the instructor. The second component, *describing a problem*, was defined as the participant emitting a full, grammatically correct verbal statement to indicate what required attention (e.g., “The stapler is broken”) within 3 s after standing near the instructor. The third component, *requesting assistance*, was defined as the participant emitting a full, grammatically correct verbal question asking the instructor for information critical to completing the task (e.g., “Do you know where I can get more staplers?”) within 3 s after the termination of describing the problem.

1.5. Stimulus materials

Two different types of scenarios were presented. *Problem scenarios* were situations in which the participant was unable to complete the simulated vocational task due to (a) missing materials, (b) broken materials, or (c) materials that were mismatched based on size. Within each of these 3 experimenter-defined stimulus categories, there were 4 problem scenarios for a total of 12. From each category, 3 of the 4 problem scenarios were selected as teaching stimuli for each participant and one problem scenario was selected for probe trials. The selection of scenarios used for probe trials was counterbalanced such that each participant was exposed to different probe scenarios. The problem scenarios used for teaching and probe trials are depicted in the fourth column of Table 1.

Typical scenarios consisted of situations in which the participant did not encounter a problem. These were presented to ensure participants would learn to discriminate between situations in which it was appropriate to describe a problem and ask for assistance from those in which it was not. The 12 typical scenarios consisted of the same materials as those found in the 12 problem scenarios except that the materials used to complete the task were not missing, broken, or mismatched. For example, one problem scenario contained a broken stapler while its typical scenario counterpart contained a working stapler. During each session, one typical scenario trial corresponding to each of the three problem scenario stimulus categories (i.e., missing, broken, and mismatched materials) was presented for a total of three trials. The typical scenarios used for discrimination trials are depicted in the third column of Table 1.

Opportunities in which it was appropriate to approach an instructor, describe a problem, and request assistance in the presence of a work-related problem constituted teaching or probe trials. Opportunities in which it was inappropriate to engage in these behaviors (i.e., during typical scenarios) constituted discrimination trials. Of the 15 trials presented during each session, 9 were teaching trials (3 from each problem scenario category), 3 were probe trials (1 from each problem scenario category), and 3 were typical scenario discrimination trials. During each session, the 15 trials were presented in random order with the proviso that no probe trials began or ended a session.

1.6. Pre-teaching

Prior to baseline, all participants were taught to follow the activity schedule and to complete all 12 of the typical scenarios that were presented during the study (e.g., stapling papers together). No problem scenarios (e.g., a broken stapler) were presented to the participants during pre-teaching.

1.7. Motivational systems

Points were awarded to participants via clicks on a golf counter following correct responses during teaching trials in intervention and for on-task behavior. At the end of each session the instructor reviewed the total number of points earned with the participant. At that time, the participant could exchange points for a preferred item through a hierarchy of reinforcers menu. Highly preferred items were reserved for the highest bracket of points earned (e.g., 19–27 points were exchangeable for a movie), moderately preferred items were reserved for the middle bracket of points earned (e.g., 8–17 points for access to music), and less preferred items were reserved for the lowest bracket of points earned (e.g., 0–7 points for a snack). All participants had experience with these systems prior to the start of the study.

1.8. Experimental design

A multiple-baseline, across-participants design was used to assess the effects of a treatment package consisting of graduated guidance, scripts, and script fading on approaching an instructor, describing a problem, and requesting assistance. In addition to baseline and treatment phases, maintenance and pre- and post-treatment sessions were also included.

1.9. Baseline

During sessions, the experimenter worked independently on a task such as reading, writing, or filing paperwork located approximately 3–4 m away from the participant. She also randomly varied her location in the classroom for each session. At the start of a session, the participant was seated at the desk and the activity schedule, in the form of a photographic list, was presented to him. The list included all of the scenarios that needed to be completed for that sessions (e.g., replacing a garbage bag, stapling a stack of papers, refilling a basket of pens). At the beginning of each trial, the instructor used graduated guidance to teach the participant to point to the activity schedule and to begin the scenario depicted (e.g., stapling papers). While a participant was engaged in a scenario, the experimenter returned to what she was doing prior to the start of the session (e.g., filing paperwork). Materials used to engage in each scenario were presented one at a time to the participant by the experimenter in the order depicted in the schedule. No prompts or feedback were provided for either correct or incorrect responses. If the participant approached the instructor and described a problem scenario (e.g., “The stapler is broken”), the instructor emitted a non-specific verbal response (e.g., “Oh, really?”) and returned to what she was doing prior to the participant’s response. If the participant only asked for assistance in the presence of a problem scenario (e.g., “Can you help me?”) but did not describe the problem, the instructor responded by saying “Sure.” The instructor then waited 3 s. If the participant did not make a full, grammatically correct statement about the problem (e.g., “The stapler is broken”), the instructor manually prompted the participant back to the activity schedule and returned to her activity (e.g., filing paperwork). If all response components were emitted correctly (approaching the instructor, describing the problem, and requesting assistance), the instructor handed the participant the requested item without orienting her body towards the participant or providing any additional feedback to the participant. If the participant moved away from the current scenario or returned to the activity schedule without completing the scenario (e.g., stapling papers together), the trial was scored a minus. If the participant sat in front of the problem scenario for more than 1 min in baseline, he was manually prompted to return to the activity schedule to obtain the next scenario. To maintain on-task behavior, defined as appropriately manipulating scenario materials, the participant was awarded one point for on-task behavior via a golf counter using a 30-s momentary time sampling procedure. A participant had the opportunity to earn a total of 20 points during each baseline session. At the end of a session, a participant could trade in his points for a preferred activity.

1.10. Intervention

As in baseline, the activity schedule was presented to the participant and all materials to complete the scenarios were presented one at a time. If the participant approached the instructor, described the problem, and requested assistance during teaching trials, the instructor responded by saying something like, “I have one you can borrow,” and would hand the participant the item needed to complete the current scenario (e.g., a stapler). The participant was given one point for each individual correct response emitted during the teaching trials via a golf counter. Behavior-specific praise was also delivered contingent upon a correct response during teaching trials (e.g., “Great! You asked for help.”).

During teaching trials, a 0-s time delay procedure was used for prompting the correct response during the first session. Subsequently, a 3-s time delay was used for the remainder of the teaching trials. Graduated guidance was also used as needed to assist the participant in approaching the instructor, following the activity schedule, and completing scenarios. The instructor shadowed the participant’s movements closely, but did not touch the participant. She then increased the distance

of her hands from the participant by gradually changing the location of the physical prompt (Cooper, Heron, & Heward, 2007).

1.10.1. Scripts

After a participant approached the instructor, scripts were presented within 3 s (0 s during session 1) to teach the participant to describe the problem (e.g., “The stapler is broken.”) and request assistance (e.g., “Do we have more staplers?”). Written scripts were used for David, Gavin, and John because they were all fluent readers. Written scripts were presented until the participant verbalized the entire script. If the participant did not articulate the written script within 3 s, a verbal prompt was provided. Auditory scripts delivered via voice activators were used for Jared because he was not a skilled reader. If Jared did not repeat the auditory script within 3 s of its presentations, the auditory script was activated a second time. A verbal prompt was used if Jared did not articulate the script following its second presentation. The far right column in Table 1 depicts examples of the scripts.

Scripts were faded by removing words one at a time until all of the words were removed (Krantz & McClannahan, 1993, 1998). The script fading procedure consisted of four levels. The first level removed approximately one quarter of the script. The second level removed another quarter of the script and the third level removed another quarter of the script. The fourth level removed the remaining quarter. For example, the script “The bag is missing. Do you know where I can get more bags?” would be shortened to “The bag is missing. Do you know where . . .” during the first fading level. This would be followed by “The bag is missing.”, then “The bag . . .” then no script for the second, third, and fourth fading levels, respectively.

Scripts were faded individually. The first script fade occurred after a participant correctly responded to 100% of the trials for five consecutive sessions. This was to ensure that each participant received adequate exposure to the scripts to maintain high levels of responding. The second, third, and fourth script fades occurred after a participant responded correctly during 100% of the trials for two consecutive sessions at the prior fading level.

1.10.2. Across stimulus generalization

Generalization of responding from teaching trials to probe trials was assessed by the presentation of stimuli that were never associated with teaching or reinforcement. The stimuli presented were similar in form to those used during teaching trials (e.g., missing eraser). Each scenario presented during the generalization probe trials corresponded to one of the three stimulus categories of problem scenarios presented in the teaching condition (i.e., missing, broken, mismatched). Correct or incorrect responses from the participant resulted in the instructor responding as she did during baseline.

1.10.3. Typical scenario discrimination trials

Three typical scenario discrimination trials were interspersed throughout sessions. One scenario from each category (i.e., missing, broken, and mismatched materials) was randomly selected to serve as a discrimination trial. If the participant approached an instructor, described a problem, and requested assistance during a discrimination trial, he was manually prompted to complete the current scenario and to move on to the next scenario in the activity schedule. No reinforcers were provided during these trials.

1.10.4. Additional training for Gavin

Because Gavin displayed low levels of generalized responding during probe trials once treatment was implemented, one probe trial was subsequently converted to a teaching trial to increase the number of teaching exemplars. This occurred seven sessions after all his scripts were faded. When this was implemented, teaching trial data for Gavin were calculated using one additional teaching trial while probe trial data were calculated using one fewer probe trial.

1.11. Pre- and post-treatment tests

Pre- and post-treatment generalization measures were conducted to assess whether the target behavior generalized to a room not used in teaching. The pre-test was conducted during one session prior to the beginning of baseline and the post-test was conducted during one session immediately after the criterion level of performance was reached for each participant. During the pre- and post-tests, the same 15 trials used during a randomly selected baseline session were presented in an office in the school that differed from the classroom used during regular sessions. When correct or incorrect responses occurred, the experimenter responded as she did in baseline.

1.12. Maintenance

A follow-up measure was collected one month after criterion level of performance was obtained for each participant. During this condition, tasks were presented in the same classroom and conditions were the same as during baseline.

1.13. Interobserver agreement and procedural integrity

The experimenter and another staff member collected interobserver agreement data on the occurrence and nonoccurrence of target responses for all phases of the study for each participant using video recordings of the sessions.

The secondary observer was trained extensively in data collection procedures and independently scored responses. Interobserver agreement was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by 100. The observers scored 33% of the sessions for each participant and 100% of the pre- and post-treatment sessions. Across all sessions, the mean agreement for correct responses for Gavin was 98% (range 96–100%), John was 100% (range, 100%), Jared was 99% (range, 96–100%), and David was 95% (range, 94–100%).

Procedural integrity data assessed whether the experimenter accurately delivered the components of the treatment procedure (i.e., graduated guidance, scripts, script fading, and reinforcement). Using video recordings of sessions, the experimenter and a second observer scored a plus (+) if the instructor correctly implemented the procedures or a minus (–) if the procedures were not implemented correctly. A percentage was calculated by dividing the number of correctly implemented procedural components by the total number of components implemented. Across all conditions, the accurate presentation of graduated guidance and scripts was 99% (range, 98–100%). The mean agreement for the accurate delivery of reinforcement was 96% (range 94–100%). To obtain interobserver agreement for procedural integrity, the total number of agreements was divided by the total number of agreements plus disagreements and multiplied by 100. IOA for procedural integrity was 100%.

2. Results

Fig. 1 shows the percentage of trials in which each participant independently completed all 3 components of the target skill: approaching an instructor, describing a problem, and requesting assistance. During baseline, no correct responses were emitted by any of the participants during any of the trials. With the successive implementation of the treatment procedure, there were systematic increases in correct responding during teaching trials across participants. Correct responding during probe trials systematically increased for three of the four participants (i.e., John, Jared, and David). Gavin's correct responding during probe trials, however, did not increase after one probe was mastered. Therefore, a randomly selected non-mastered second probe was converted to a teaching trial six sessions after the scripts were completely faded. As a result of this additional training, Gavin's correct responding during probe trials systematically increased to a mastery criterion level of performance. Thus, all participants learned to approach an instructor, describe a problem, and request assistance when encountered with a work-related problem in a simulated-vocational setting in the presence of both trained and non-trained stimuli.

A follow-up measure similar to a baseline session was conducted one month after criterion level of performance was obtained for each participant. All four participants maintained the target skills at criterion levels during probe trials and three of four maintained the target skills during teaching trials. Jared's percentage of trials during which he displayed the target skills, however, dropped below criterion levels during the teaching trials.

Discrimination trials showed the extent to which the participants discriminated when assistance should be sought and a problem described from when they should not. Gavin and John occasionally approached an instructor during these trials in baseline. Shortly after treatment was introduced, however, both participants learned the discrimination. Jared and David never approached an instructor during discrimination trials, which demonstrates that they were able to discriminate trials that set the occasion for describing a problem and asking for assistance from the trials that did not set the occasion.

3. Discussion

A treatment procedure consisting of graduated guidance, scripts, and script fading, was effective in teaching four adolescent boys with autism to independently approach an instructor, describe a problem, and request assistance when a work-related problem arose in a simulated-vocational setting. The target behavior was displayed during teaching trials, as well as during probe trials, demonstrating that the target behavior generalized to non-trained stimuli. A comparison of pre- and post-treatment data also demonstrated that the target behavior generalized to a setting not used during teaching. The target skills were also present during a follow-up session conducted one month after criterion had been met. Unlike prior studies in which researchers have focused primarily on preparing individuals with disabilities to perform specific job skills (Greenspan & Shoultz, 1981; Hanley-Maxwell et al., 1986; Howarth et al., 2006; Martin et al., 1986; McCuller et al., 1987; Salzberg et al., 1986), the present study is the first to demonstrate effective assistance seeking during problem situations by adolescents with autism. Because individuals with autism often lack social skills that are relevant for obtaining and maintaining successful employment (Chadsey-Rusch, 1992; Greenspan & Shoultz, 1981; McCuller et al., 1987; Salzberg et al., 1986), the findings of the present study are important because they may provide procedures to help such individuals acquire these skills.

Scripts and script fading were used to teach the target skills in the present study. This extends the existing script fading literature by demonstrating that these procedures can be used to teach effective interactions regarding work-related problems in addition to skills already found in published studies such as initiating to peers and adults about activities (Krantz & McClannahan, 1993, 1998), commenting about objects (Sarokoff et al., 2001), and engaging in a conversation (Brown et al., 2008), among other skills. Although the participants in the current study all displayed the target behavior, they rarely varied their language from the scripts. Future research should focus on the use of multiple scripts to promote greater response variability during work-related scenarios.

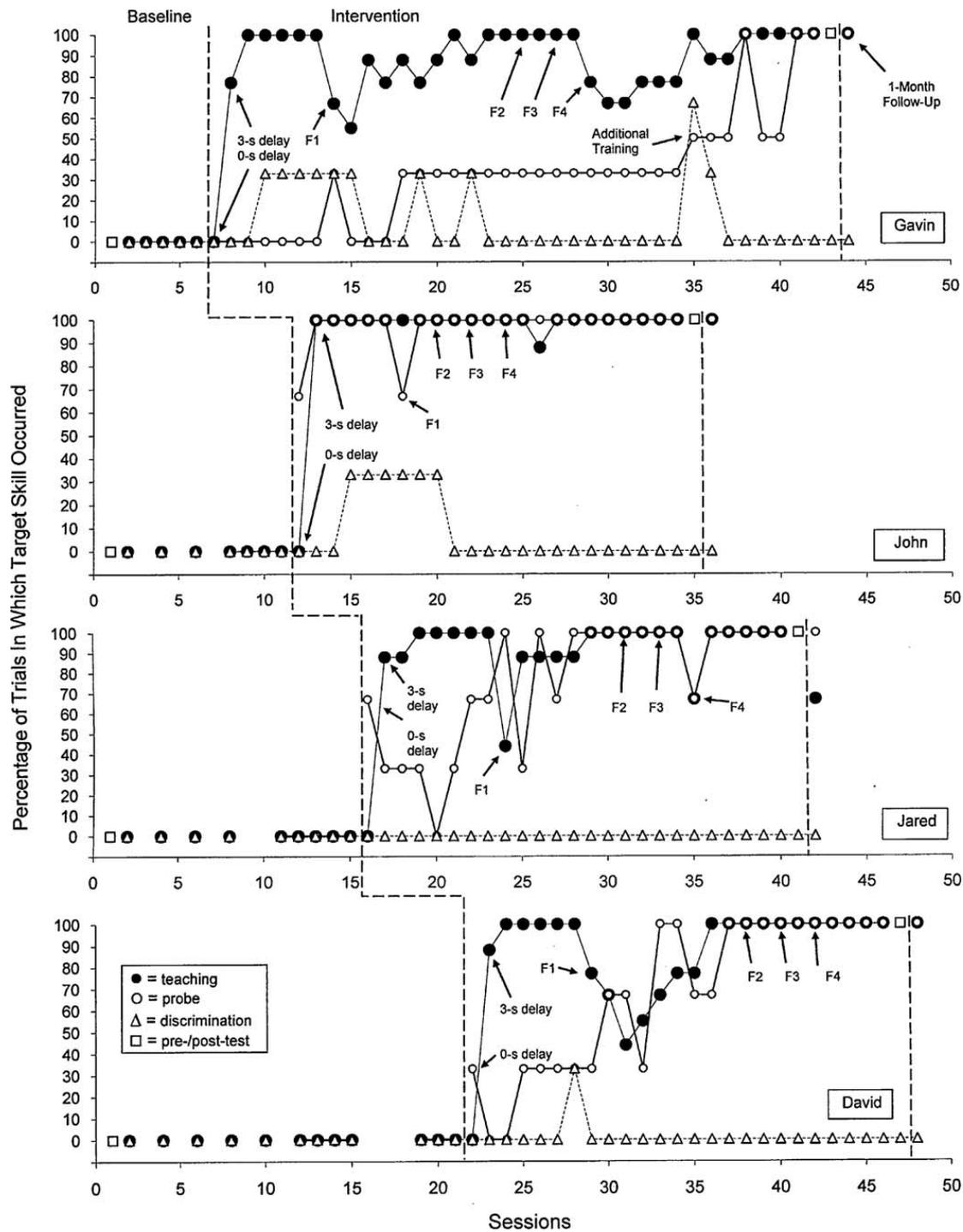


Fig. 1. Percentage of teaching, probe, discrimination, maintenance, and pre- and post-intervention trials during which Gavin, John, Jared, and David, independently emitted the 3 components of the target skill: approaching an instructor, describing a problem, and requesting assistance.

To increase the likelihood that the scenarios used during teaching trials generalized to problem scenarios not directly taught, multiple exemplar training was used (Reeve et al., 2007; Stokes & Baer, 1977). The exemplars drawn from each problem scenario category involved solving a functionally similar problem across several different stimuli. For example, all the missing material activities involved responses needed to acquire the materials to complete the task. The material that required locating, however, varied within that category. Because material was missing during the probe trial drawn from the missing material category, this similarity to reinforced missing material trials used during teaching should have resulted in the emission of the target skills. Such responding did, in fact, rapidly generalize to non-reinforced problem scenario probe trials in the present study for three of the four participants. For Gavin, one of his non-mastered probe trials was converted to a teaching trial to increase the number of training exemplars. When this occurred, his responding during the remaining probe trials systematically increased. Thus, it may be that different participants require additional training exemplars before responding generalizes to other related scenarios not associated with teaching.

In the present study, a simulated vocational setting was used to teach the target skills (Lattimore et al., 2006). Although the target skills did generalize to another room not used during teaching, it is unknown, however, whether the training procedures would promote generalization of the target skills from the simulated setting to an actual work setting. It is also unknown whether the training procedures could be effective when used directly in a community work setting. Future studies should be conducted to evaluate the potential utility of the current teaching procedures for these purposes.

To determine whether each child discriminated stimuli that set the occasion for asking for assistance from stimuli that did not, typical scenario trials were also presented during experimental sessions. During intervention, the number of trials during which asking for assistance occurred when it should not have decreased to zero for all participants. These data suggest that adolescents with autism can effectively learn to discriminate when it is appropriate to ask for assistance and when it is not. In the present study, the stimulus differences between these two types of scenarios were made more salient by using activities in which the materials used to depict typical scenarios from problem scenarios were analogous (e.g., stapling papers with either a broken or intact stapler). Future studies might address the likelihood of such discriminations when problem scenarios and typical scenarios differ in less salient ways, as is more likely to be found in real-world vocational settings.

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